# **Explicet Basic Tutorial**

"Explicet" is from the Latin: unfold, extend, set forth, display, exhibit, explain, disentangle

A brief introduction to program capabilities and functions for new users of the Explicet software.

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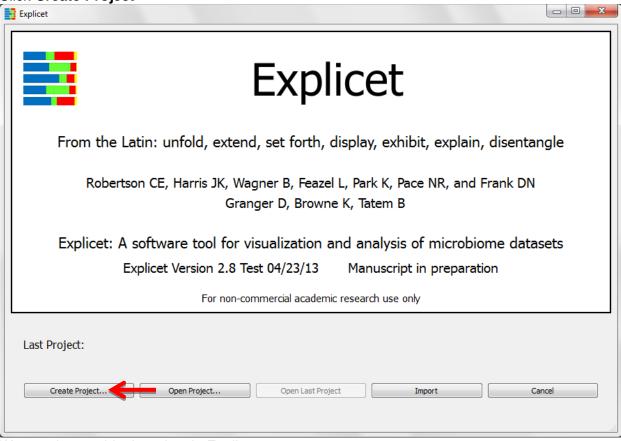
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## I. Begin a New Project

Projects typically contain data from one dataset. Later, we will discuss more data management tools that allow you to explore and modify subsets of the dataset without disrupting the larger project.

### A. Create a New Project

Open Explicet A pop-up window will open with several different options Click **Create Project** 



We now have a blank project in Explicet.

### B. Name the Project

Edit → Project Settings

A pop-up window will open

Enter desired project name in the **Project Name** box at the top of the window Click **Apply** 

| Project Settings    |                                 |  |                                     |   |        |
|---------------------|---------------------------------|--|-------------------------------------|---|--------|
| Project Settings    |                                 |  |                                     |   | Apply  |
| Project Name:       | Tutorial_HSM                    |  |                                     |   | Cancel |
| Project Version:    | 1.0                             |  |                                     |   |        |
| Filename:           |                                 |  |                                     |   |        |
| Author:             |                                 |  |                                     |   |        |
| Comments:           |                                 |  |                                     |   |        |
|                     |                                 |  |                                     |   |        |
| Do not import Libr  | aries whose total count is zero | Append "_Explicit_Project" to Filename | # of Decimal Places for Percents: 2 |   |        |
|                     | whose total count is zero       | E the Carter's the states              | Column delimiter for Export: ta     |   |        |
| Project Information |                                 |  |                                     |   |        |
|                     | 04/24/2013 11:36:08             |  |                                     |   |        |
| Last Saved At:      |                                 |  |                                     |   |        |
| 1 Workspaces        | Workspace 1                     |  |                                     | • |        |
| 0 Filters           |                                 |  |                                     | • |        |
| 0 Figures           |                                 |  |                                     | • |        |
| 0 Metadata          |                                 |  |                                     | • |        |
| 0 Libraries         |                                 |  |                                     |   |        |
|                     |                                 |  |                                     |   |        |
|                     |                                 |  |                                     |   |        |
|                     |                                 |  |                                     |   |        |
|                     |                                 |  |                                     |   |        |
| 0 Imports           |                                 |  |                                     |   |        |
|                     |                                 |  |                                     |   |        |

The name of the current project is displayed in the upper left corner of the main window.

| Explicet:                            |             |              |                |                  |                  |                    |                 |
|--------------------------------------|-------------|--------------|----------------|------------------|------------------|--------------------|-----------------|
| File Edit Data Group Tools View Help |             |              |                |                  |                  |                    |                 |
| Project: Tutorial_HSM                | O Hierarchy | Ounts        | OTU Start: 1   | Hierarchy Level: | Show Libraries   | All Libraries      | Figures         |
|                                      | 💿 ОТИ       | % of Library | OTU Width: all | 3 🌲              | Show Sorted Libs | Selected Libraries | Clone Workspace |
| Current Filter:                      | Both        | 🔘 % of Total | OTU Show Last  |                  | Show Lib Groups  | 0 Libs             | Save            |
|                                      |             |              |                |                  |                  |                    | Close Project   |
| Hierarchy                            | Total       |              |                |                  |                  |                    |                 |
| root                                 | 0           | 0            |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
| 4                                    | <           |              |                |                  |                  |                    | Þ               |
| OTU Rule Set:                        | Total       |              |                |                  |                  |                    |                 |
| root                                 | 0           | 0            |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
|                                      |             |              |                |                  |                  |                    |                 |
| 4                                    | 4 1         |              |                |                  |                  |                    | Þ               |
|                                      |             |              |                |                  |                  |                    |                 |

Note: The **Project Settings** window is helpful for both adding comments about the project and viewing a simplified inventory of all the project components.

### II. Import Data

Next, we need to import the data that will belong to the new project. Once data are imported to a project, they are permanently associated with the project. Additional data can be imported to the same project. Thus, the Explicet project file can grow as a project evolves.

### A. Import the OTU Data

 $\begin{array}{l} \mbox{File} \rightarrow \mbox{Import} \rightarrow \mbox{File} \rightarrow \mbox{OTU Table Counts} \\ \mbox{Select "Tutorial} \mbox{HSM}_OTU_2 \mbox{Explicet"} \\ \mbox{Click Open} \\ \mbox{A pop-up window will open} \\ \mbox{Click Import} \end{array}$ 

| I  | mport OTU Table Counts   |                            | X  |
|----|--|----------------------------|----|
|    | this character as the column delimiter: tab Use this character as the OTU Name delimiter: / use set the column type to the action you want performed on the column during import | Import                     |    |
|    | Column Name  | Column Type                |    |
| 1  | Taxonomy   | OTU Name   Resca           | an |
| 2  | Total  | Do not import this column  |    |
| 3  | HV1-1-BaCSc  | Library Name and Count     |    |
| 4  | HV10-BaCSc   | Library Name and Count     |    |
| 5  | HV2-1-BaCSc  | Library Name and Count     |    |
| 6  | HV3-1-BaCSc  | Library Name and Count     |    |
| 7  | HV4-1-BaCSc  | Library Name and Count     |    |
| 8  | HV5-BaCSc  | Library Name and Count     |    |
| 9  | HV6-1-BaCSc  | Library Name and Count 🔹   |    |
| 10 | HV7-BaCSc  | Library Name and Count 🔹   |    |
| 11 | HV8-BaCSc  | Library Name and Count     |    |
| 12 | HV9-BaCSc  | Library Name and Count     |    |
| 13 | HV1-1-UmCSw  | Library Name and Count     |    |
| 14 | HV10-UmCSw   | Library Name and Count     |    |
| 15 | HV2-1-UmCSw  | Library Name and Count 🔹 🗸 |    |

The OTU data now appear in the main Explicet window.

| le Edit Data Group Tools View Help  |   |   |  |   |  |   |   |   |        |
|---|---|---|--|---|--|---|---|---|--------|
| Project: Tutorial_HSM   | Hierarch  | y   O  Counts   | OTU Start: 1   | Hierarchy   | Level: () Show Lib   | raries 💿 All  | Libraries   | Figure  | s      |
|   | ο οτυ   | % of Library  | OTU Width: al  | I 3   | Show Sor   | ted Libs 💿 Se   | ected Libraries   | Clone Work  | kspace |
|   | Both  | % of Total  | OTU Show Last  |   | Show Lib   | Groups 30 Lib   | e   | Save  |        |
| Current Filter:   | 0 0001  | 0 Xorioda   |  |   |  | 0.0000  | -<br>-  | Close Pro   | oject  |
| Hierarchy   | Total   | HV1-1-BaCSc   | HV1-1-UmCSw  | HV10-BaCSc  | HV10-UmCSw   | HV2-1-AcRSc   | HV2-1-AcRSw   | HV2-1-AIRSc   | HV2-1- |
| 4 root  | 9710  | 305   | 303  | 289   | 313  | 304   | 303   | 304   |        |
| ▲ Bacteria  | 9710  | 305   | 303  | 289   | 313  | 304   | 303   | 304   |        |
| Acidobacteria   | 2   | 0   | 0  | 0   | 0  | 0   | 0   | 0   |        |
| Actinobacteria  | 5001  | 295   | 24   | 235   | 303  | 32  | 37  | 255   |        |
| Bacteroidetes   | 1056  | 0   | 47   | 4   | 0  | 110   | 86  | 4   |        |
| Candidate-division-TM7 Chloroflexi  | 2   | 0   | 0  | 0   | 0  | 0   | 0   | 0   |        |
| <ul> <li>Chiorofiexi</li> <li>Cyanobacteria</li> </ul>  | 29  | 0   | 0  | 0   | 0  | 4   | 0   | 1   |        |
| Firmicutes  | 1484  | 10  | 209  | 7   | 10   | 7   | 48  | 28  |        |
| Fusobacteria  | 34  | 0   | 14   | 0   | 0  | 0   | 0   | 0   |        |
| Gemmatimonadetes  | 3   | 0   | 0  | 0   | 0  | 0   | 0   | 0   |        |
| Nitrospirae   | 5   | 0   | 0  | 0   | 0  | 0   | 0   | 0   |        |
| Nicrospirae   |   |   |  |   | 0  | 0   |   | 0   |        |
| <ul> <li>Planctomycetes</li> </ul>  | 7   | 0   | 0  | 0   |  |   | 0   | -   |        |
| <ul> <li>Planctomycetes</li> <li>Proteobacteria</li> </ul>  | 2079  | 0   | 6  | 43  | 0  | 151   | 132   | 16  |        |
| <ul> <li>Planctomycetes</li> <li>Proteobacteria</li> <li>Synergistetes</li> <li>Verrucomicrobia</li> </ul>  | 2079<br>3<br>2  | 0<br>0  | 6<br>3<br>0  |   |  |   |   | -   |        |
| <ul> <li>Planctomycetes</li> <li>Proteobacteria</li> <li>Synergistetes</li> <li>Verrucomicrobia</li> </ul>  | 2079<br>3<br>2<br>2   | 0000  | 6<br>3<br>0  | 43<br>0<br>0  | 0<br>0<br>0  | 151<br>0<br>0   | 132<br>0<br>0   | 16<br>0<br>0  | ,      |
| Planctomycetes     Proteobacteria     Synergistetes     Verrucomicrobia   | 2079<br>3<br>2<br>2<br>4  | 0<br>0<br>0<br>⊀<br>HV1-1-BaCSc   | 6<br>3<br>0<br>!''<br>HV1-1-UmCSw  | 43<br>0<br>0<br>HV10-BaCSc  | 0<br>0<br>0<br>HV10-UmCSw  | 151<br>0<br>0<br>HV2-1-AcRSc  | 132<br>0<br>0   | 16<br>0<br>0<br>HV2-1-AIRSc   | HV2-:  |
| Planctomycetes     Proteobacteria     Syneyristetes     Verrucomicrobia      OTU Rule Set:     root   | 2079<br>3<br>2<br>2<br>4<br>*   | 0<br>0<br>0<br>4<br>HV1-1-BaCSc<br>305  | 6<br>3<br>0<br>""<br>HV1-1-UmCSw<br>303  | 43<br>0<br>0<br>HV10-BaCSc<br>289   | 0<br>0<br>0<br>HV10-UmCSw<br>313   | 151<br>0<br>0<br>HV2-1-AcRSc<br>304   | 132<br>0<br>0<br>HV2-1-AcRSw<br>303   | 16<br>0<br>0<br>HV2-1-AIRSc<br>304  | HV2-:  |
| Planctomycetes     Proteobacteria     Syneyistes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Acidobacteria/Candida   | 2079<br>3<br>2<br>2<br>4<br>*   | 0<br>0<br>0<br>+ VI-1-BaCSc<br>305<br>0   | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0   | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0  | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0  | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0  | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0  | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0   | HV2-:  |
| Planctomycetes     Proteobacteria     Synegistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Acidobacteria/Acidobacteria/Candida     Bacteria/Actinobacteria/Acidimicrobiia/Acidim   | 2079<br>3<br>2<br>2<br>3<br>3<br>2<br>2<br>7<br>1<br>7<br>1<br>1  | 0<br>0<br>0<br>4<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0   | 6<br>3<br>0<br>1111111111111111111111111111111111  | 43<br>0<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0   | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0   | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0   | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0   | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0  | HV2-:  |
| Planctomycetes     Proteobacteria     Syneysitetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Acidobacteria/Candida     Bacteria/Acidobacteria/Candida     Bacteria/Acidobacteria/Candida   | 2009<br>3<br>2<br>2<br>3<br>7<br>2<br>3<br>7<br>7<br>1<br>3<br>3  | 0<br>0<br>0<br>4<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0   | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0  | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0  | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0  | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0   | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0   | HV2-:  |
| Planctomycetes     Proteobacteria     Syneyistes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Actimobacteria/Actimicrobia/Actim     Bacteria/Actimobacteria/Actimicrobia/Actim     Bacteria/Actimobacteria/Actimicrobia/Actim   | <ul> <li>2009</li> <li>3</li> <li>2</li> <li>Total</li> <li>9710</li> <li>2</li> <li>1</li> <li>3</li> <li>3</li> </ul>   | 0<br>0<br>0<br>4<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0   | 6<br>3<br>0<br>1111111111111111111111111111111111  | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0   | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0   | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0   | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>0<br>1   | HV2-:  |
| Planctomycetes     Proteobacteria     Syneyistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Acidobacteria/Candida     Bacteria/Acitinobacteria/Acidimicrobiia/Acidim     Bacteria/Actinobacteria/Actinobacteria     Bacteria/Actinobacteria/Actinobacteria     Bacteria/Actinobacteria/Actinobacteria     Bacteria/Actinobacteria/Actinobacteria  | 2079<br>3<br>2<br>2<br>3<br>7<br>7<br>7<br>1<br>3<br>3<br>3<br>5  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0   | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | HV2-:  |
| Planciomycetes     Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     GTU Rule Set:     root     Bacteria/Actinobacteria/Candida     Bacteria/Actinobacteria/Candida     Bacteria/Actinobacteria/Actino     | 2009<br>3<br>2<br>2<br>Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27   | 0<br>0<br>0<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0  | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0   | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0   | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>0<br>1   | HV2-:  |
| Planctomycetes     Proteobacteria     Syneyristetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Actinobacteria/Acti | 2079<br>3<br>2<br>2<br>3<br>7<br>7<br>7<br>1<br>3<br>3<br>3<br>5  | ● 0<br>● 0<br>● 1<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 6<br>3<br>0<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1  | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>1   | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>1  | HV2-:  |
| Planctomycetes     Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set     root     Bacteria/Actinobacteria/Actinobia/Actimi     Bacteria/Actinobacteria/Actinobia/Actimi     Bacteria/Actinobacteria/Actin | 2079<br>3<br>2<br>3<br>2<br>3<br>3<br>5<br>3<br>3<br>5<br>27<br>7<br>2  | 0<br>0<br>0<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>0<br>0  | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0       | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-:  |
| Planciomycetes     Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     OTU Rule Set:     root     Bacteria/Actinobacteria/Act     | 2079<br>3<br>2<br>3<br>2<br>3<br>3<br>5<br>7710<br>2<br>1<br>3<br>3<br>5<br>2<br>7<br>7<br>2<br>2<br>2<br>2   | 0<br>0<br>0<br>4<br>HV1-1-BaCSc<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1   | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-:  |
| P Planctomycetes     Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      root     Bacteria/Actinobacteria/A | 2079<br>3<br>2<br>2<br>Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>47   | HVI-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 6<br>3<br>0<br>HVI-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>3<br>3  | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-:  |
| Planctomycetes     Proteobacteria     Synegistetes     Verucomicrobia      OTU Rule Set:      root     Bacteria/Actinobacteria/Actinobia/Catinia     Bacteria/Actinobacteria/Actinobia/Catinia     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Actino     Bacteria/Actinobacteria/Actinobacteria/Coryne  | 2079<br>3<br>2<br>7<br>7<br>7<br>7<br>1<br>3<br>3<br>3<br>3<br>5<br>2<br>7<br>7<br>2<br>2<br>2<br>2<br>2<br>2<br>2<br>4<br>7<br>7<br>1772   | 0<br>0<br>0<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 43<br>0<br>0<br>HV10-BaCSc<br>2389<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>1313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                             | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>9<br>9                | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>2<br>6                               | HV2-:  |
| Planctomycetes     Proteobacteria     Synergistetes     Verrucomicrobia     Verrucomicrobia      OTU Rule Set:     root     Gott Rule Set:     root     Bacteria/Actinobacteria/Actinobacteria/Candida     Bacteria/Actinobacteria/Actino     | 2079<br>3<br>2<br>7<br>7<br>7<br>7<br>1<br>3<br>3<br>3<br>5<br>5<br>27<br>7<br>2<br>2<br>4<br>7<br>1772<br>2<br>4<br>7<br>1772<br>2<br>4<br>4   | 0<br>0<br>0<br>1<br>1<br>1<br>1<br>1<br>8<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>3<br>16<br>0<br>0<br>0  | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>HV10-UmCSw<br>313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-:  |
| P Planciomycetes     Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Rateria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Cor | 2079<br>3<br>2<br>2<br>3<br>3<br>2<br>4<br>4<br>4<br>4<br>4<br>1  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 6<br>3<br>0<br>1<br>1<br>1<br>3<br>3<br>3<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 43<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                 | 0<br>0<br>0<br>10<br>10<br>10<br>10<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                 | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-:  |
| Planctomycetes     Proteobacteria     Syneyistetes     Verrucomicrobia      OTU Rule Set:     root     Sacteria/Actinobacteria/Actinobacteria/Candida     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria | 2079<br>3<br>2<br>7<br>7<br>7<br>7<br>7<br>2<br>1<br>3<br>3<br>5<br>27<br>7<br>2<br>2<br>47<br>1772<br>2<br>2<br>47<br>1772<br>2<br>4<br>1<br>4<br>2<br>2<br>4<br>7<br>1<br>1776<br>2<br>2<br>2<br>4<br>7<br>1<br>1776<br>2<br>2<br>2<br>2<br>4<br>7<br>1<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>2<br>4<br>7<br>1<br>1<br>2<br>2<br>2<br>2<br>4<br>7<br>1<br>1<br>2<br>2<br>2<br>4<br>7<br>1<br>1<br>2<br>2<br>2<br>4<br>7<br>1<br>1<br>2<br>2<br>2<br>4<br>7<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>2<br>2<br>4<br>1<br>1<br>1<br>2<br>2<br>2<br>2<br>4<br>1<br>1<br>1<br>2<br>2<br>2<br>4<br>1<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>2<br>2<br>2<br>4<br>4<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>2<br>2<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1<br>1 | <ul> <li>0</li> </ul> | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>1<br>3<br>3<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                | 151<br>0<br>0<br>HV2-1-AcRSc<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-   |
| P Planciomycetes     Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Rateria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Coryne     Bacteria/Actinobacteria/Cor | 2079<br>3<br>2<br>Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>4<br>7<br>1772<br>4<br>1<br>4<br>4  | 0<br>0<br>0<br>4<br>HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 6<br>3<br>0<br>HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>1<br>3<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                | 43<br>0<br>0<br>HV10-BaCSc<br>289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                | 151<br>0<br>0<br>HV2-1-AcRSC<br>304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 132<br>0<br>0<br>HV2-1-AcRSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 16<br>0<br>0<br>HV2-1-AIRSc<br>304<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV2-   |

Explicet can import taxonomy data in numerous formats as detailed in the Explicet Handbook.

This data comes from an analysis of 16*S* ribosomal RNA gene sequences obtained from many distinct skin sites of healthy humans (Grice EA, *et al.* (2009) Topographical and Temporal Diversity of the Human Skin Microbiome. *Science* 324(5931): 1190–1192). To produce a concise tutorial, the data have been reduced from the original dataset and may not represent the findings of the original study.

### III. Import Metadata

Now we will import the metadata associated with the OTU data. Metadata refers to information about the sequence data - in this case, a description of the samples and subjects from which the sequence data were generated. In our nomenclature, a "library" represents all of the sequences generated from a single sample (multiple libraries may be generated from a given sample, for example through multiple PCR reactions, but for this tutorial we will assume a one-to-one relationship between libraries and samples). In this study, the metadata for each library includes the anatomical position, microenvironment description, sample acquisition method, and side of the body associated with each skin sample. Just like the OTU data, metadata need be imported only once (unless you choose to add more metadata) - imported metadata are also incorporated into the Explicet project file. For detailed information on how to format metadata files, please see the Explicet Handbook. In short, the metadata file is a tab-separated or comma-separated file organized by columns, generally prepared with a spreadsheet package like Microsoft Excel. The first column contains the names of the libraries in the dataset; all subsequent columns are metadata items and their values associated with each library.

### A. Import the Metadata

File  $\rightarrow$  Import  $\rightarrow$  Metadata Select "Tutorial\_HSM\_Metadata" Click Open

A pop-up window will open

Make sure that the column containing the library name is selected

• Explicet searches all of the columns in the metadata file looking for the library names that were found when the taxonomy data were imported. In all but rare cases, (e.g., when only a small portion of the sample names are present in the imported taxonomy data), Explicet will find the library column automatically.

### Click Import

|                                |   |                  | -   | Libraries foun     |                               |  |        |
|--------------------------------|---|------------------|---|--------------------|-------------------------------|--|--------|
|                                | ains the Library name from 5 columns                    |                  | 0 Libraries not found in the<br>All Libraries found         | project for column | n Lib                         |  | Import |
| Column                         |   | Sample Data      | All Libraries found   |                    |                               |  | Cancel |
| Lib                            | HV2-1-AcRSc   |                  |   |                    |                               |  | Cancer |
| Anatomy                        | antecubital fossa                                       | 4                |   |                    |                               |  |        |
| Symmetry                       | Right   |                  | -   |                    |                               |  |        |
| SampleType<br>Microenvironment | Scrape<br>Moist   |                  | -   |                    |                               |  |        |
|                                |   |                  |   |                    |                               |  |        |
|                                |   |                  | Add missing libraries to                                    | the project        |                               |  | 1      |
| adata which does not mat       | tch the Metadata in the project                         |                  | Add missing libraries to                                    | the project        |                               | Oheck All O Clear All                    | ]      |
|                                | tch the Metadata in the project<br>Current Metadef Type | New Metadef Type | Add missing libraries to<br>First<br>Illegal Value<br>Bound |                    | First New<br>Enumerated Value | Check All Clear All<br>Change to new Def | ]      |

A new pop-up window will open which displays the imported metadata Click **Done** 

| ) All Librarie |                               | 30 Total Libraries | Assigned Metada | ata                         |               |               |          | Export Done   |
|----------------|-------------------------------|--------------------|-----------------|-----------------------------|---------------|---------------|----------|---|
| Used           | Name                          |                    |                 | ry Name Anatomy             | Aicroenvironm | en SampleType | Symmetry |   |
| L 30           | Anatomy                       |                    | 1 HV1-1-BaC     | Sc back                     | Sebaceous     | Scrape        | Center   |   |
| 2 30           | Microenvironment              |                    | 2 HV1-1-Um      | CSw umbilicus               | Moist         | Swab          | Center   |   |
| 3 30           | SampleType                    |                    | 3 HV10-BaCS     | c back                      | Sebaceous     | Scrape        | Center   |   |
| 4 30           | Symmetry                      |                    | 4 HV10-UmC      | Sw umbilicus                | Moist         | Swab          | Center   |   |
|                |                               |                    | 5 HV2-1-AcR     | Sc antecubital foss         | a Moist       | Scrape        | Right    |   |
|                |                               |                    | 6 HV2-1-AcR     | Sw antecubital foss         | a Moist       | Swab          | Right    |   |
|                |                               | Add ->             | 7 HV2-1-AIRS    | Sc alar crease              | Sebaceous     | Scrape        | Right    |   |
|                |                               | <- Remove          | 8 HV2-1-BaC     | Sc back                     | Sebaceous     | Scrape        | Center   |   |
|                |                               |                    | 9 HV2-1-GcC     | Sc gluteal crease           | Moist         | Scrape        | Center   |   |
|                |                               |                    | 10 HV2-1-Um     | CSw umbilicus               | Moist         | Swab          | Center   |   |
|                |                               |                    | 11 HV3-1-BaC    | Sc back                     | Sebaceous     | Scrape        | Center   |   |
|                |                               |                    | 12 HV3-1-RaR    | Sw retroauricular c         | Sebaceous     | Swab          | Right    |   |
|                |                               |                    | 13 HV3-1-Um     | CSw umbilicus               | Moist         | Swab          | Center   |   |
|                |                               |                    | 14 HV4-1-BaC    | Sc back                     | Sebaceous     | Scrape        | Center   |   |
|                |                               |                    | 15 HV4-1-Um0    | CSw umbilicus               | Moist         | Swab          | Center   |   |
|                |                               |                    | 16 HV5-BaCSc    | back                        | Sebaceous     | Scrape        | Center   |   |
|                |                               |                    | 17 HV5-UmCS     | w umbilicus                 | Moist         | Swab          | Center   |   |
|                |                               |                    | 18 HV6-1-BaC    | Sc back                     | Sebaceous     | Scrape        | Center   |   |
|                |                               |                    | 19 HV6-1-Um     | CSw umbilicus               | Moist         | Swab          | Center   |   |
| Metadata D     | Definition                    |                    |                 | Enumerated Values: Optional |               | Сору          | Paste    | Note: Number of rows/columns to paste to must matr<br>the number of rows/columns copied. One cell may<br>be copied then pasted to multiple cells. |
|                | Name:                         |                    |                 |                             |               | Add Value     | Add      |   |
|                |                               |                    |                 |                             |               |               | Replace  |   |
|                | Type: String that may be more | than 8 characters  | •               | Values                      |               |               |          |   |
| Linner         | Bound:                        | Optional           |                 | <new></new>                 |               | Delete Value  | Delete   |   |
| opper          |                               |                    |                 |                             |               |               | Clear    |   |
|                | Bound:                        | Optional           |                 |                             |               | Clear Values  |          |   |

For our example dataset, all of the library names were found in the metadata file, as indicated in the left-hand pane: i.e., the number under **Used** (**30**) matches the total number of libraries shown above the two panes (**30 Total Libraries**).

## **IV. Save the Project**

Now that all of the data associated with the project are imported, the file should be saved. Explicet does not auto-save, so remember to save your project frequently!

### A. Save the Project

Click the Save button in upper right corner of the window

| Project: Tutorial_HSM  | 🔘 Hierarch  | y () Counts  | OTU Start: 1   | Hierarchy  | Level: 💿 Show Libr   | aries 💿 All  | Libraries   | Figures  |              |
|--|---|--|--|--|--|--|---|--|--------------|
|  | ο στυ   | % of Library   | OTU Width: all   | 3  | Show Sor   | ted Libs 💿 Se  | lected Libraries  | Clone Works  | pace         |
| Workspace: Workspace 1   | O Both  | % of Total   | V OTU Show Last  |  | Show Lib   | Groups 30 Lib  |   | Save   |              |
| Current Filter:  | C Dour  |  | CTO SHOW Ease  |  | O SHOW ED  | 0.0005 00 00   | 2   | Close Proj   | ect          |
| Hierarchy  | Total   | HV1-1-BaCSc  | HV1-1-UmCSw  | HV10-BaCSc   | HV10-UmCSw   | HV2-1-AcRSc  | HV2-1-AcRSw   | HV2-1-AIRSc  | HV2-1-E      |
| 4 root   | 9710  | 305  | 303  | 289  | 313  | 304  | 303   | 304  |              |
| ▲ Bacteria   | 9710  | 305  | 303  | 289  | 313  | 304  | 303   | 304  |              |
| Acidobacteria  | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |              |
| Actinobacteria   | 5001  | 295  | 24   | 235  | 303  | 32   | 37  | 255  |              |
| Bacteroidetes  | 1056  | 0  | 47   | 4  | 0  | 110  | 86  | 4  |              |
| Candidate-division-TM7   | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |              |
| <ul> <li>Chloroflexi</li> <li>Cyanobacteria</li> </ul>   | 29  | 0  | 0  | 0  | 0  | 4  | 0   | 1  |              |
| Cyanobacteria     Firmicutes   | 1484  | 10   | 209  | 7  | 10   | 4  | 48  | 28   |              |
| <ul> <li>Firmicules</li> <li>Fusobacteria</li> </ul>   | 34  | 0  | 209  | 0  | 0  | 0  | 40  | 0  |              |
| Gemmatimonadetes   | 3   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |              |
| Nitrospirae  | 5   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |              |
| Planctomycetes   | 7   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |              |
| Proteobacteria   | 2079  | 0  | 6  | 43   | 0  | 151  | 132   | 16   |              |
| Synergistetes  | 3   | 0  | 3  | 0  | 0  | 0  | 0   | 0  |              |
| Verrucomicrobia  | 2   | 0  | 0  | 0  | 0  | 0  | 0   | 0  |              |
|  |   |  |  |  |  |  |   |  |              |
| <  |   |  |  |  |  |  |   |  | •            |
| OTU Rule Set:  | Total   | HV1-1-BaCSc  | HV1-1-UmCSw  | HV10-BaCSc   | HV10-UmCSw   | HV2-1-AcRSc  | HV2-1-AcRSw   | HV2-1-AIRSc  | ►<br>HV2-: ^ |
| OTU Rule Set: root   | Total<br>9710   | HV1-1-BaCSc<br>305   | HV1-1-UmCSw<br>303   | 289  | 313  | 304  | 303   | 304  | HV2-: ^      |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Candida  | Total<br>9710<br>2  | HV1-1-BaCSc<br>305<br>0  | HV1-1-UmCSw<br>303<br>0  | 289<br>0   | 313<br>0   | 304<br>0   | 303<br>0  | 304<br>0   |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Candida<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim   | Total<br>9710<br>2<br>1   | HV1-1-BaCSc<br>305<br>0<br>0   | HV1-1-UmCSw<br>303<br>0<br>0   | 289<br>0<br>0  | 313<br>0<br>0  | 304<br>0<br>0  | 303<br>0<br>0   | 304<br>0<br>0  |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Candida<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim  | Total<br>9710<br>2<br>1<br>3  | HV1-1-BaCSc<br>305<br>0<br>0<br>0  | HV1-1-UmCSw<br>303<br>0<br>0<br>0  | 289<br>0<br>0  | 313<br>0<br>0<br>0   | 304<br>0<br>0<br>0   | 303<br>0<br>0   | 304<br>0<br>0<br>0   |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Candida<br>Bacteria/Acitinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidinobacteria  | Total<br>9710<br>2<br>1<br>3<br>3<br>3  | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0  | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0  | 289<br>0<br>0<br>0<br>0  | 313<br>0<br>0<br>0<br>0  | 304<br>0<br>0<br>0<br>0  | 303<br>0<br>0<br>0<br>0   | 304<br>0<br>0<br>0<br>1  |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Candida<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Actinobiateria<br>Bacteria/Actinobacteria/Actinobacteria<br>Bacteria/Actinobacteria/Actinobacteria/Actino  | Total<br>9710<br>2<br>1<br>3<br>3<br>3<br>5   | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 289<br>0<br>0<br>0<br>0<br>0   | 313<br>0<br>0<br>0<br>0<br>0<br>0  | 304<br>0<br>0<br>0<br>0<br>0<br>0  | 303<br>0<br>0<br>0<br>0<br>0<br>0   | 304<br>0<br>0<br>0<br>1<br>1<br>0  |              |
| OTU         Rule Set:           root         Bacteria/Acidobacteria/Acidobacteria/Candida           Bacteria/Actinobacteria/Acidimicrobiia/Acidimi         Bacteria/Actinobacteria/Acidimicrobiia/Acidimi           Bacteria/Actinobacteria/Acidinotrobia/Acidimi         Bacteria/Actinobacteria/Actinobacteria/Acidinotrobia/Acidimi           Bacteria/Actinobacteria/Act                                    | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27  | HVI-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>4   | 289<br>0<br>0<br>0<br>0<br>0<br>0  | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 303<br>0<br>0<br>0<br>0<br>0<br>1   | 304<br>0<br>0<br>0<br>1<br>0<br>1  |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Canida<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino   | Total<br>9710<br>2<br>1<br>3<br>3<br>3<br>5<br>27<br>27<br>2  | HVI-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0  | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0  | 303<br>0<br>0<br>0<br>0<br>0<br>1<br>0  | 304<br>0<br>0<br>1<br>0<br>1<br>0<br>1<br>0  |              |
| OTU         Rule Set:           root         Bacteria/Acidobacteria/Acidobacteria/Candida           Bacteria/Actinobacteria/Acidimicrobiia/Acidimi         Bacteria/Actinobacteria/Acidimicrobiia/Acidimi           Bacteria/Actinobacteri | Total<br>9710<br>2<br>1<br>3<br>3<br>3<br>5<br>27<br>27<br>2<br>2<br>2<br>2   | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                          | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1   | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                 | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 303<br>0<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0  | 304<br>0<br>0<br>1<br>0<br>1<br>0<br>0<br>0<br>0   |              |
| OTU Rule Set:<br>root<br>Bacteria/Actidobacteria/Actidobacteria/Candida<br>Bacteria/Actinobacteria/Actidimicrobia/Actidim<br>Bacteria/Actinobacteria/Actidimicrobia/Actidim<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Corpre  | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>2<br>2<br>2<br>2<br>47  | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>1<br>3   | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                       | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 303<br>0<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0                               | 304<br>0<br>0<br>1<br>1<br>0<br>1<br>0<br>0<br>0<br>0<br>0   |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Canidia<br>Bacteria/Acinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidobacteria/Acidim<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Coryne  | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>2<br>2<br>2<br>47<br>1772   | HVI-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>3<br>3                     | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>1<br>3<br>3<br>16  | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303                          | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>8                                    | 303<br>0<br>0<br>0<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>9                               | 304<br>0<br>0<br>1<br>1<br>0<br>1<br>0<br>0<br>0<br>0<br>25  |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Candida<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>1 Bacteria/Actinobacteria/Actinobacteria/Coryne   | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>2<br>2<br>47<br>1772<br>4   | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>1<br>3<br>16<br>0<br>0  | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                     | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303<br>303<br>0                   | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0<br>0                          | 303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>9<br>9<br>0                          | 304<br>0<br>0<br>1<br>1<br>0<br>1<br>0<br>0<br>0<br>0<br>26<br>0<br>0  |              |
| OTU Rule Set:           root           Bacteria/Acidobacteria/Acidobacteria/Candida           Bacteria/Actinobacteria/Acidimicrobiia/Acidimi           Bacteria/Actinobacteria/Acidimicrobiia/Acidimi           Bacteria/Actinobacteria/Actinobacteria/Actino           Bacteria/Actinobacteria/Actinobacteria/Actino           Bacteria/Actinobacteria/Actinobacteria/Actino           Bacteria/Actinobacteria/Actinobacteria/Actino           Bacteria/Actinobacteria/Actinobacteria/Actino           Bacteria/Actinobacteria/Actinobacteria/Actino           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne           Bacteria/Actinobacteria/Actinobacteria/Corryne  | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>2<br>2<br>2<br>47<br>1772<br>2<br>4<br>4<br>1                             | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>1<br>3<br>3<br>16<br>0<br>0<br>0   | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 303<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>9<br>9<br>0<br>0                     | 304<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>26<br>0<br>0<br>0   |              |
| OTU Rule Set:<br>root<br>Bacteria/Acidobacteria/Acidobacteria/Canidia<br>Bacteria/Acinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Acidimicrobiia/Acidim<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne  | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>2<br>2<br>4<br>7<br>1772<br>4<br>1772<br>4<br>1<br>1<br>4                 | HVI-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>3<br>3<br>16<br>0<br>0<br>0<br>0<br>0<br>0   | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0           | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>8<br>0<br>0<br>0<br>0<br>0                | 303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>9<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 304<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>26<br>0<br>0<br>0<br>0<br>0<br>0                                    |              |
| OTU Rule Set:<br>root<br>Bacteria/Actinobacteria/Actinobia/Actina<br>Bacteria/Actinobacteria/Actinobia/Actina<br>Bacteria/Actinobacteria/Actinobia/Actina<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Actino<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne<br>Bacteria/Actinobacteria/Actinobacteria/Coryne   | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>5<br>27<br>2<br>2<br>2<br>2<br>2<br>2<br>47<br>1772<br>4<br>1772<br>4<br>1<br>4<br>2<br>2 | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>1<br>3<br>3<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 303<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |              |
| OTU         Rule Set:           root         Racteria/Actinobacteria/Acidiobacteria/Candida           Bacteria/Actinobacteria/Acidimicrobiia/Acidim         Bacteria/Actinobacteria/Acidimicrobiia/Acidim           Bacteria/Actinobacteria/Coryne           12         Bacteria/Actinobacteria/Actinobacteria/Coryne         Bacteria/Actinobacteria/Actinobacteria/Coryne   | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>27<br>2<br>2<br>2<br>4<br>47<br>1772<br>4<br>1<br>1772<br>4<br>1<br>1<br>2<br>1<br>1      | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>1<br>3<br>3<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>8<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 303<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>26<br>0<br>0<br>0<br>0<br>0<br>0<br>2<br>2                               |              |
| OTU         Rule Set:           root         Bacteria/Acidobacteria/Candida           Bacteria/Actinobacteria/Acidimicrobiia/Acidim         Bacteria/Actinobacteria/Acidimicrobiia/Acidim           Bacteria/Actinobacteria/Acidimicrobiia/Acidim         Bacteria/Actinobacteria/Coryne           Bacteria/Actinobacteria/Actinobacteria/Coryne         Bacteria/Actinobacteria/Actinobacteria/Coryne           Bacteria/Actinobacteria/Actinobacteria/Coryne         Bacteria/Actinobacteria/Actinobacteria/Coryne           Bacteria/Actinobacteria/Actinobacteria/Coryne         Bacteria/Actinobacteria/Actinobacteria/Coryne           Bacteria/Actinobacteria/Actinobacteria/Coryne         Bacteria/Actinobacteria/Actinobacteria/Coryne  | Total<br>9710<br>2<br>1<br>3<br>3<br>5<br>5<br>27<br>2<br>2<br>2<br>2<br>2<br>2<br>47<br>1772<br>4<br>1772<br>4<br>1<br>4<br>2<br>2 | HV1-1-BaCSc<br>305<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | HV1-1-UmCSw<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>4<br>4<br>0<br>1<br>1<br>3<br>3<br>16<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                               | 289<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 313<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>303<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0      | 303<br>0<br>0<br>0<br>0<br>1<br>1<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 304<br>0<br>0<br>1<br>0<br>0<br>0<br>0<br>0<br>26<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 |              |

Enter desired project name and location when prompted

• The default file name is the project name with an "\_Explicet\_Project" extension.

### Click Save

All of the imported information is now saved within the project file.

## V. Adjust the Display

Now we will adjust the project window display for ease of use (detailed demonstration on next page).

| Project:        | Tutorial_HSM | 🔘 Hierarchy | Ounts        | OTU Start: 1    | Hierarchy Level: | Show Libraries   | All Libraries      |
|-----------------|--------------|-------------|--------------|-----------------|------------------|------------------|--------------------|
| Workspace:      | Workspace 1  | ⊚ οτυ       | % of Library | OTU Width: all  | 3 💂              | Show Sorted Libs | Selected Libraries |
| Current Filter: |              | Ø Both      | 🔘 % of Total | 📝 OTU Show Last |                  | Show Lib Groups  | 30 Libraries       |
|                 |              | Α           | В            | С               | D                |                  |                    |

### A. Hierarchy, OTU, or Both

### Both is the default

This option creates two panes on workspace screen; the upper pane shows the Hierarchy, and the lower pane shows the OTUs.

### B. Counts, % of Library, % of Total

### Select % of Library (Counts is the default)

While Counts is the default (raw sequence data counts in integers), % of Library tends to be more useful. % of Library is relative abundance, which is important since the total number of Counts received from any library is beyond our control. Using the relative abundance, or % of Library, allows us to fairly compare libraries. Otherwise, the libraries that have a very large number of counts will skew conclusions.

### C. OTU displays

These options control the manner in which the taxonomy lines are displayed on the OTU pane.

### **OTU Start**: 1 is the default

This is the position (counting from one) of the first taxonomic category that the user desires to be displayed. In our tutorial example, the taxonomy lines in the OTU pane display will start with Bacteria (Bacteria is the "1"st lineage level).

### Set OTU Width to 2 ("all" is the default)

This is the number of positions on the line to be displayed. To save space on the screen, now only 2 taxonomic levels will be displayed in the OTU taxonomy line.

### OTU Show Last on is the default

This option appends the last item in the taxonomic line onto a truncated OTU lineage.

### D. Hierarchy Level

Hierarchy Level: 3 is the default

This controls the number of taxonomic categories that will be opened on the hierarchy pane.

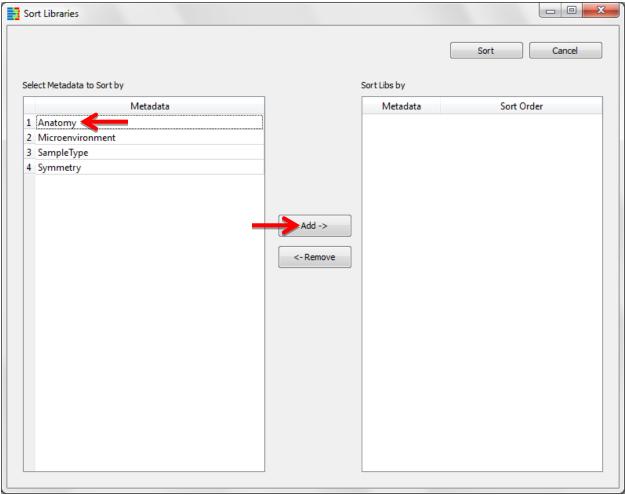
|  | Edit Data Group Tools View Help   |  |   |  |  |  |  |  |  |         |
|--|---|--|---|--|--|--|--|--|--|---------|
|  | an the state  | Hierarchy  | Counts  | OTU Start: 1   | Hierarchy  | Level:    Show Libr  | aries 💿 All  | Libraries  | Figures  | s       |
|  | ect: Tutorial_HSM   | © OTU  | % of Library  | OTU Width: 2   | 3  | Show Sor   | ted Libs 💿 Se  | ected Libraries  | Clone Works  | space   |
| Wo   | kspace: Workspace 1   | Both   | % of Total  | OTU Show Last  |  | Show Lib   | Groups 30 Lib  |  | Save   |         |
| Cu   | rent Filter:  | o Both   | 6 % of lotal  | UTU Show Last  |  | Show Lib   | Groups 30 Lib  | 5  | Close Proj   | ject    |
| Hie  | archy   | Total  | HV1-1-BaCSc   | HV1-1-UmCSw  | HV10-BaCSc   | HV10-UmCSw   | HV2-1-AcRSc  | HV2-1-AcRSw  | HV2-1-AIRSc  | HV2-1-  |
|  | oot   | 100%   | 100%  | 100%   | 100%   | 100%   | 100%   | 100%   | 100%   |         |
|  | A Bacteria  | 100%   | 100%  | 100%   | 100%   | 100%   | 100%   | 100%   | 100%   |         |
|  | Acidobacteria   | 0.02%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |         |
|  | Actinobacteria  | 51.50%   | 96.72%  | 7.92%  | 81.31%   | 96.81%   | 10.53%   | 12.21%   | 83.88%   |         |
|  | Bacteroidetes   | 10.88%   | 0%  | 15.51%   | 1.38%  | 0%   | 36.18%   | 28.38%   | 1.32%  |         |
|  | Candidate-division-TM7  | 0.02%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |         |
|  | Chloroflexi   | 0.03%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |         |
|  | Cyanobacteria   | 0.30%  | 0%  | 0%   | 0%   | 0%   | 1.32%  | 0%   | 0.33%  |         |
|  | Firmicutes  | 15.28%   | 3.28%   | 68.98%   | 2.42%  | 3.19%  | 2.30%  | 15.84%   | 9.21%  |         |
|  | Fusobacteria  | 0.35%  | 0%  | 4.62%  | 0%   | 0%   | 0%   | 0%   | 0%   |         |
|  | Gemmatimonadetes  | 0.03%  | 0%  | 0%   | 0%<br>0%   | 0%<br>0%   | 0%   | 0%<br>0%   | 0%<br>0%   |         |
|  | Nitrospirae   | 0.05%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |         |
|  | Planctomycetes  | 21.41%   | 0%  | 1.98%  | 14.88%   | 0%   | 49.67%   | 43.56%   | 5.26%  |         |
|  | Proteobacteria  | 0.03%  | 0%  | 0.99%  | 14.00 %  | 0%   | 49.07%   | 45.30%   | 0%   |         |
|  | Synergistetes   |  |   |  | 0 /6   | 0 /6   | 0 /6   | 0 /0   | 0 /0   |         |
|  | Verrucomicrobia append last   | 0.02%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%   | 0%   |         |
| *  | append last   |  |   |  |  |  |  |  |  | 100-1   |
| ~  | append last   | < P  | HV1-1-BaCSc   | III<br>HV1-1-UmCSw   | HV10-BaCSc   | HV10-UmCSw   | HV2-1-AcRSc  | HV2-1-AcRSw  | HV2-1-AIRSc  | HV2-:   |
| •  | oTU ule Set:  | Total<br>100%  | HV1-1-BaCSc<br>100%   | '''<br>HV1-1-UmCSw<br>100%   | HV10-BaCSc<br>100%   | HV10-UmCSw<br>100%   | HV2-1-AcRSc<br>100%  | HV2-1-AcRSw<br>100%  | HV2-1-AIRSc<br>100%  | HV2-: ▲ |
| 4  | oruule Set:<br>root<br>Bacteria/Acidobacteria//Sunidatus-Chloraci   | Total<br>100%<br>0.02%   | HV1-1-BaCSc<br>100%<br>0%   | III<br>HV1-1-UmCSw<br>100%<br>0%   | HV10-BaCSc<br>100%<br>0%   | HV10-UmCSw<br>100%<br>0%   | HV2-1-AcRSc<br>100%<br>0%  | HV2-1-AcRSw<br>100%<br>0%  | HV2-1-AIRSc<br>100%<br>0%  |         |
| 2  | OTU ule Set:<br>Toot<br>Bacteria/Acidobacteria//Curidatus-Chloraci<br>Bacteria/Actinopacteria//Acidimicrobiales   | Total<br>100%<br>0.02%<br>0.01%  | HV1-1-BaCSc<br>100%<br>0%<br>0%   | ""<br>HV1-1-UmCSw<br>100%<br>0%<br>0%  | HV10-BaCSc<br>100%<br>0%   | HV10-UmCSw<br>100%<br>0%   | HV2-1-AcRSc<br>100%<br>0%  | HV2-1-AcRSw<br>100%<br>0%  | HV2-1-AIRSc<br>100%<br>0%  |         |
| 2<br>3   | ortuule Set<br>root<br>Bacteria/Acidobacteria//Scudiatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Borria/Actinotecteria//Acidimicrobiaceae  | Total<br>100%<br>0.02%<br>0.01%<br>0.03%   | HV1-1-BaCSc<br>100%<br>0%<br>0%   | "'<br>HV1-1-UmCSw<br>100%<br>0%<br>0%  | HV10-BaCSc<br>100%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%  | HV2-1-AIRSc<br>100%<br>0%<br>0%  |         |
| 2<br>3<br>4  | oTU ule Set:<br>Toot<br>Bacteria/Acidobacteria//Courdatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Barria/Actinobacteria//Acidimicrobiaceae<br>Lega/Actinobacteria//Acidimicrobiaceae   | Total<br>100%<br>0.02%<br>0.01%<br>0.03%<br>0.03%  | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%   | III<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%  | HV2-1-AJRSc<br>100%<br>0%<br>0%<br>0.33%   |         |
| 2<br>3<br>4  | ortuule Set<br>root<br>Bacteria/Acidobacteria//Scudiatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Borria/Actinotecteria//Acidimicrobiaceae  | Total           100%           0.02%           0.03%           0.03%           0.05%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | m<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%   |         |
| 2<br>3   | oTU ule Set:<br>Toot<br>Bacteria/Acidobacteria//Courdatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Barria/Actinobacteria//Acidimicrobiaceae<br>Lega/Actinobacteria//Acidimicrobiaceae   | Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.05%<br>0.05%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | "'<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>1.32%                                       | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%   | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%  |         |
| 2<br>3<br>4<br>5   | OTU ule Set:<br>Toot<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bio tria/Actin the tetria//Acidimicrobiales<br>Bio tria/Actin the atteria//Acidimicrobiaceae<br>of ap/Actin to atteria//Acidimicrobiaceae<br>and and atteria//Actinomycetaceae   | Total           100%           0.02%           0.03%           0.03%           0.05%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | m<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%   |         |
| 2<br>3<br>4<br>5   | append last<br>oru<br>ble Set:<br>root<br>Bacteria/Acidobacteria//Conidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria<br>Ba eria/Actino acteria/Actinobacteria<br>Ba eria/Actino acteria//Actinomycetaceae<br>Ba eria/Actino acteria//Actinomycetaceae  | Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.05%<br>0.05%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | "'<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>1.32%                                       | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%   | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%  |         |
| 2<br>3<br>4<br>5<br>6<br>7   | TU le Set<br>TOU le Set<br>Toot<br>Bacteria/Acidobacteria//Codidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Ba eria/Actino acteria//Acidimonycetaceae<br>Ba eria/Actino acteria//Acidimonycetaceae<br>Ba eria/Actino acteria//Acidimonycetaceae<br>Ba eria/Actino acteria//Mobiluncus  | Total<br>100%<br>0.02%<br>0.01%<br>0.03%<br>0.03%<br>0.03%<br>0.05%<br>0.28%<br>0.02%  | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%   | ""<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>1.32%<br>0%                                 | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%                                     | HV2-1-AIRSc<br>100%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0%   |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9                                     | ortu<br>DIU<br>Je Set:<br>root<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Bacteria/Actino acteria//Acidimicrobiales<br>Ba eria/Actino acteria//Acidimicrobiacteria<br>Ba eria/Actino acteria//Actinomyces<br>Ba eria/Actino acteria//Actinomyces   | Total           Total           100%           0.02%           0.03%           0.03%           0.05%           0.05%           0.02%           0.02%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | "'<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0.33%                              | HVI0-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%                               | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%   |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10                               | OTU ule Set:<br>OTU ule Set:<br>root<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Biolinia/Actinobacteria//Acidimicrobiales<br>Biolinia/Actinobacteria//Acidimicrobiales<br>Biolinia/Actino acteria//Actinomycetaceae<br>Bia eria/Actino acteria//Actinomyces<br>Bia eria/Actino acteria//Actinomyces<br>Bia eria/Actino acteria//Aobiluncus<br>PAgo pria//Varibaculum  | Total           Total           100%           0.02%           0.01%           0.03%           0.03%           0.03%           0.03%           0.03%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%   | HVI-1-8aCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               | "<br>HVI-1-UmCSw<br>0%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0.33%<br>0.99%                        | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%                               | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%<br>0.3%%0.3%%<br>0.3%%<br>0.3%%<br>0.3%%0.3%%<br>0.3%%<br>0.3%%0.3%%<br>0.3%%<br>0.3%%0.3%%<br>0.3%%0.3%%<br>0.3%%0.3%%<br>0.3%%0.3%%<br>0.3%%%<br>0.3%%%0.3%%%<br>0.3%%%0.3%%%<br>0.3%%%0.3%%%<br>0.3%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%  |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11                         | CTU ule Set:<br>Tori<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Biorria/Actino acteria//Acidimicrobiales<br>Biorria/Actino acteria//Actinomycetaceae<br>Bia eria/Actino acteria//Actinomycetaceae<br>Bia eria/Actino acteria//Actinomyces<br>Bia eria/Actino acteria//Actinomyces<br>Bia eria/Actino acteria//Nobiluncus<br>Di aria/Actino acteria//Nobiluncus<br>Di aria/Actinobacteria//Actinomyces<br>Bia eria/Actinobacteria//Actinomyces<br>Bia eria/Actinobacteria//Actinomyces<br>Bia eria/Actinobacteria//Actinomyces<br>Bia eria/Actinobacteria//Actinomyces<br>Bia eria/Actinobacteria//Actinomyces<br>Bia eria/Actinobacteria//Dietzia  | Total           Total           100%           0.02%           0.03%           0.03%           0.03%           0.03%           0.03%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.48%           18.25%  | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | **************************************   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                      | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.2.97%  | HV2-1-AIRSc<br>100%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.85%   |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12                   | oru<br>DU<br>Je Set:<br>Toot<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Barria/Actino acteria//Acidimicrobiaceae<br>Barria/Actino acteria//Acidimicrobiaceae<br>Barria/Actino acteria//Actinomycetaceae<br>Barria/Actino acteria//Actinomycetaceae<br>Barria/Actino acteria//Actinomyces<br>Barria/Actino acteria//Actinomyces<br>Barria/Actino acteria//Actinomyces<br>Barria/Actino acteria//Actinomyces<br>Barria/Actino acteria//Actinomyces<br>Barria/Actinobacteria//Corynebacteriaum<br>Bacteria/Actinobacteria//Oyceta   | Total           Total           100%           0.02%           0.01%           0.03%           0.03%           0.03%           0.05%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.04% | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | " HV1-1-UmCSw 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0.33% 0.99% 5.28% 0%                         | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>96.81%<br>0%                     | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%                         | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.97%<br>0%                   | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>8.55%<br>0%  |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13             | append last<br>or<br>or<br>Bacteria/Acidobacteria//Curidatus-Chloraci<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Bacteria/Actino tetria//Acidimicrobiales<br>Ba eria/Actino tetria//Acidimicrobiaceae<br>Die a/Actino tetria//Acidimicrobiaceae<br>Die a/Actino tetria//Acidimicrobiaceae<br>Ba eria/Actino tetria//Actinomyces<br>Ba eria/Actino tetria//Actinomyces<br>Ba eria/Actino tetria//Actinomyces<br>Ba eria/Actino tetria//Actinomyces<br>Ba eria/Actino tetria//Mobiluncus<br>Di/Acrraia//Corynebacteriaceaee<br>Bacteria/Actinobacteria//Corynebacteriaum<br>Bacteria/Actinobacteria//Nocabacteria/Bacteria/Actinobacteria//Nocabacteria/  | Total           Total           100%           0.02%           0.01%           0.03%           0.03%           0.03%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.04%           0.01%                 | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | " HV1-1-UmCSw 100% 0% 0% 0% 0% 1.32% 0% 0.33% 0.99% 5.28% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%<br>0%             | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>2.97%<br>0%<br>0%    | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.3%0.3%<br>0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%0.3%<br>0.3%<br>0.3%%0.3%%0.3%%0.3%%0.3%%0.3%% |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14       | append last<br>OTU_ule Set:<br>Toot<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Barteria/Actinobacteria//Acidimicrobiales<br>Barteria/Actinobacteria//Acidimicrobiales<br>Barteria/Actino acteria//Actinomycetaceae<br>Bareria/Actino acteria//Actinomycetaceae<br>Bareria/Actino acteria//Actinomycetaceae<br>Bareria/Actino acteria//Mobiluncus<br>Daria/Actinobacteria//Artinomyces<br>Barteria/Actinobacteria//Nocimacteriaum<br>Bacteria/Actinobacteria//Dietzia<br>Bacteria/Actinobacteria//Nocoardiaceae<br>Bacteria/Actinobacteria//Nocardiaceae   | Total           Total           100%           0.02%           0.03%           0.03%           0.03%           0.03%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.04%           0.04%           0.02%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | **************************************   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%<br>0%<br>0%       | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%          | HV2-1-AIRSC<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15 | OTU le Set:<br>Tort<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Barria/Acting acteria//Acidimicrobiales<br>Barria/Acting acteria//Acidimicrobiales<br>Barria/Acting acteria//Actinomycetaceae<br>Barria/Acting acteria//Actinomyces<br>Barria/Acting acteria//Actinomyces<br>Barria/Acting acteria//Actinomyces<br>Barria/Acting acteria//Actinomyces<br>Barria/Actino acteria//Actinomyces<br>Barria/Actinobacteria//Corynebacterium<br>Bacteria/Actinobacteria//Mycobacterium<br>Bacteria/Actinobacteria//Mycobacterium<br>Bacteria/Actinobacteria//Mycobacterium<br>Bacteria/Actinobacteria//Kocardiaceae<br>Bacteria/Actinobacteria//Rodadocccus | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.28%</li> <li>0.02%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.01%</li> <li>0.04%</li> <li>0.01%</li> <li>0.02%</li> <li>0.11%</li> </ul>                  | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | " HV1-1-UmCSw 100% 0% 0% 0% 0% 0% 0% 0% 033% 0.99% 5.28% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%  | HVI0-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.97%<br>0%<br>0%<br>0%<br>0%<br>0% | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.55%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   |         |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14       | append last<br>OTU_ule Set:<br>Toot<br>Bacteria/Acidobacteria//Acidimicrobiales<br>Barteria/Actinobacteria//Acidimicrobiales<br>Barteria/Actinobacteria//Acidimicrobiales<br>Barteria/Actino acteria//Actinomycetaceae<br>Bareria/Actino acteria//Actinomycetaceae<br>Bareria/Actino acteria//Actinomycetaceae<br>Bareria/Actino acteria//Mobiluncus<br>Daria/Actinobacteria//Artinomyces<br>Barteria/Actinobacteria//Nocimacteriaum<br>Bacteria/Actinobacteria//Dietzia<br>Bacteria/Actinobacteria//Nocoardiaceae<br>Bacteria/Actinobacteria//Nocardiaceae   | Total           Total           100%           0.02%           0.03%           0.03%           0.03%           0.03%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.02%           0.04%           0.04%           0.02%   | HVI-1-8aCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | **************************************   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%<br>0%<br>0%       | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%          | HV2-1-AIRSC<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   |         |

Since libraries are often cryptically named, it's nice to add a readable metadata tag in the view so that we have some context for the libraries we are viewing. To do this, we will sort the libraries in the view based on anatomical position.

### E. Sort Libraries Based on a Metadata Tag (Anatomical Position)

### $\textbf{View} \rightarrow \textbf{Sort Libraries}$

A pop-up window will open In left panel, select **Anatomy** Click **Add** button between panels



Name of metadata descriptor will appear in the right panel Click **Sort** 

| Sort Libraries            |                     | _          | Sort Cancel |
|---------------------------|---------------------|------------|-------------|
| elect Metadata to Sort by | So                  | rt Libs by |             |
| Metadata                  |                     | Metadata   | Sort Order  |
| 1 Microenvironment        | 1                   | Anatomy    | ascending   |
| 2 SampleType              | -                   |            |             |
| 3 Symmetry                | Add -><br><- Remove |            |             |

Pop-up window will disappear On the main project window, select **Show Sorted Libs** 

|  | plicet:<br>Edit Data Group Tools View Help  |  |  |   |  |  |  |   |  |       |
|--|---|--|--|---|--|--|--|---|--|-------|
|  |   | () Hierarch  | y 🔘 Counts   | OTU Start: 1  | Hierarchy  | Level: () Show Lib   | raries 💿 All   | Libraries   | Figures  | ;     |
|  | ject: Tutorial_HSM  |  | % of Library   | OTU Width: 2  |  | Show Sor   | ted Libs 🔘 Se  | lected Libraries  | Clone Works  | space |
| Wo   | rkspace: Workspace 1  | 0  | · ·  | -   |  |  |  |   | Save   |       |
| Cu   | rent Filter:  | Both   | % of Total   | OTU Show Last   |  | Show Lib   | Groups 30 Lib  | s   | Close Proj   | ject  |
| Hie  | archy   | Total  | HV1-1-BaCSc  | HV1-1-UmCSw   | HV10-BaCSc   | HV10-UmCSw   | HV2-1-AcRSc  | HV2-1-AcRSw   | HV2-1-AIRSc  | HV2-1 |
| 4  | root  | 100%   | 100%   | 100%  | 100%   | 100%   | 100%   | 100%  | 100%   |       |
|  | ▲ Bacteria  | 100%   | 100%   | 100%  | 100%   | 100%   | 100%   | 100%  | 100%   |       |
|  | Acidobacteria   | 0.02%  | 0%   | 0%  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  | Actinobacteria  | 51.50%   | 96.72%   | 7.92%   | 81.31%   | 96.81%   | 10.53%   | 12.21%  | 83.88%   |       |
|  | Bacteroidetes   | 10.88%   | 0%   | 15.51%  | 1.38%  | 0%   | 36.18%   | 28.38%  | 1.32%  |       |
|  | Candidate-division-TM7  | 0.02%  | 0%   | 0%  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  | Chloroflexi   | 0.03%  | 0%   | 0%  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  | Cyanobacteria   | 0.30%  | 0%<br>3.28%  | 0%<br>68.98%  | 0%   | 0%<br>3.19%  | 1.32%<br>2.30%   | 0%<br>15.84%  | 0.33%<br>9.21%   |       |
|  | <ul> <li>Firmicutes</li> <li>Eusobacteria</li> </ul>  | 0.35%  | 3.28%  | 4.62%   | 2.42%  | 3.19%  | 2.30%  | 15.84%  | 9.21%  |       |
|  | <ul> <li>Fusopacteria</li> <li>Gemmatimonadetes</li> </ul>  | 0.03%  | 0%   | 4.02 %  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  | <ul> <li>Nitrospirae</li> </ul>   | 0.05%  | 0%   | 0%  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  | <ul> <li>Planctomycetes</li> </ul>  | 0.07%  | 0%   | 0%  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  | Proteobacteria  | 21.41%   | 0%   | 1.98%   | 14.88%   | 0%   | 49.67%   | 43.56%  | 5.26%  |       |
|  | Synergistetes   | 0.03%  | 0%   | 0.99%   | 0%   | 0%   | 0%   | 0%  | 0%   |       |
|  |   |  |  |   |  |  |  |   |  |       |
|  | Verrucomicrobia   | 0.02%  | 0%   | 0%  | 0%   | 0%   | 0%   | 0%  | 0%   |       |
| <  | 4   | 4  | • [  | III ]   |  |  |  |   |  |       |
| <  | • OTU Rule Set:   | < ► ►<br>Total   | <<br>HV1-1-BaCSc   | III<br>HV1-1-UmCSw  | HV10-BaCSc   | HV10-UmCSw   | HV2-1-AcRSc  | HV2-1-AcRSw   | HV2-1-AIRSc  |       |
| *  | ►<br>OTU Rule Set:<br>root  | < ►<br>Total<br>100%   | < HV1-1-BaCSc<br>100%  | "'<br>HV1-1-UmCSw<br>100%   | HV10-BaCSc<br>100%   | HV10-UmCSw<br>100%   | HV2-1-AcRSc<br>100%  | HV2-1-AcRSw<br>100%   | HV2-1-AIRSc<br>100%  |       |
|  | ►<br>OTU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci   | ▲ ►       Total       100%       0.02%   | < HV1-1-BaCSc<br>100%<br>0%  | III<br>HV1-1-UmCSw<br>100%<br>0%  | HV10-BaCSc<br>100%<br>0%   | HV10-UmCSw<br>100%<br>0%   | HV2-1-AcRSc<br>100%<br>0%  | HV2-1-AcRSw<br>100%<br>0%   | HV2-1-AIRSc<br>100%<br>0%  |       |
| 2  | TU Rule Set: root Bacteria/Actidobacteria//Candidatus-Chloraci Bacteria/Actidobacteria//Acidimicrobiales  | ▲ ▶       Total       100%       0.02%       0.01%   | < HV1-1-BaCSc<br>100%<br>0%<br>0%  | m<br>HV1-1-UmCSw<br>100%<br>0%  | HV10-BaCSc<br>100%<br>0%   | HV10-UmCSw<br>100%<br>0%   | HV2-1-AcRSc<br>100%<br>0%  | HV2-1-AcRSw<br>100%<br>0%   | HV2-1-AIRSc<br>100%<br>0%  |       |
| 2<br>3   | TU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiaceae  | ▲ ►       Total       100%       0.02%       0.01%       0.03%   | HV1-1-BaCSc<br>100%<br>0%<br>0%  | "<br>HV1-1-UmCSw<br>100%<br>0%<br>0%  | HV10-BaCSc<br>100%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%   | HV2-1-AIRSc<br>100%<br>0%<br>0%  |       |
| 2<br>3<br>4  | TU Rule Set: root Bacteria/Actidobacteria//Candidatus-Chloraci Bacteria/Actidobacteria//Acidimicrobiales  | ▲ ►           Total           100%         0.02%           0.01%         0.03%           0.03%         0.03%   | HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%  | m<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%  | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%   | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%   | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%   |       |
| 2<br>3<br>4  | TU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiaceae  | ▲ ▶           Total           100%           0.02%           0.01%           0.03%           0.03%           0.05%   | HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%  | ***<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%  | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%                                     | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%   | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%   |       |
| 2<br>3<br>4<br>5<br>6  | CTU Rule Set:<br>root<br>Bacteria/Actidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobialese<br>Bacteria/Actinobacteria//Acidimicrobiacese<br>Bacteria/Actinobacteria/Actinobacteria   | Total<br>100%<br>0.02%<br>0.01%<br>0.03%<br>0.03%<br>0.05%<br>0.28%  | < HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%  | ***<br>HV1-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>1.32%   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%                               | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%                                   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.33%                                  | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%   |       |
| 2<br>3<br>4<br>5<br>6  | OTU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiaceae<br>Bacteria/Actinobacteria//Acidimicrobiaceae<br>Bacteria/Actinobacteria//Acidimicrobiaceae   | Total     100%     0.02%     0.03%     0.03%     0.03%     0.23%     0.28%     0.02%   | HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | "'<br>HVI-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>1.32%<br>0%                                    | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%                               | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                             | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%                                  | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0.33%  |       |
| 2<br>3<br>4<br>5<br>6<br>7   | TU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiaceae<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomyces   | Total<br>100%<br>0.02%<br>0.01%<br>0.03%<br>0.03%<br>0.05%<br>0.28%  | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>0%</li> </ul>  | m<br>HVI-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0.33%                            | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                             | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%                            | HV2-1-AIRSc<br>100%<br>0%<br>033%<br>0.33%<br>0%<br>0.33%<br>0%  |       |
| 2<br>3<br>4<br>5<br>6<br>7<br>8                                    | TU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiaceae<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces   | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.28%</li> <li>0.02%</li> <li>0.02%</li> <li>0.48%</li> </ul>   | HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | "'<br>HVI-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0.33%<br>0.99%                        | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                       | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%                            | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%   |       |
| 2<br>4<br>5<br>6<br>7<br>8<br>9                                    | OTU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiacles<br>Bacteria/Actinobacteria//Acidimicrobiacea<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Yaribaculum   | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.28%</li> <li>0.02%</li> </ul>  | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>0%</li> </ul>  | m<br>HVI-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0.33%                            | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                             | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                  | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%                            | HV2-1-AIRSc<br>100%<br>0%<br>033%<br>0.33%<br>0%<br>0.33%<br>0%  |       |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10                         | TU Rule Set:<br>root<br>Bacteria/Actidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiatese<br>Bacteria/Actinobacteria//Acidimicrobiatese<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Avinonyvces<br>Bacteria/Actinobacteria//Avinonyvces<br>Bacteria/Actinobacteria//Avinouvus<br>Bacteria/Actinobacteria//Corynebacteriaceae  | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.02%</li> <li>0</li></ul> | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> </ul>  | m<br>HVI-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0%<br>0.33%<br>0.99%<br>5.28%<br>0%    | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>96.81%<br>96.81%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%             | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.97%<br>0%                | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>8.55%<br>0%<br>0%   |       |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11                   | TU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiaceae<br>Bacteria/Actinobacteria//Acidimicrobiaceae<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Aribaculum<br>Bacteria/Actinobacteria//Corynebacteriaceae<br>Bacteria/Actinobacteria//Corynebacteriaceae  | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.48%</li> <li>18.25%</li> </ul>  | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>0%</li> <li>0%<td>" HV1-1-UmCSw 100% 0% 0% 0% 0% 1.32% 0% 0.33% 0.99% 5.28%</td><td>HV10-BaCSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>HV10-UmCSw<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>9%<br/>8%<br/>0%</td><td>HV2-1-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>2.63%</td><td>HV2-1-AcRSw<br/>100%<br/>0%<br/>0%<br/>0%<br/>0.33%<br/>0%<br/>0%<br/>2.27%</td><td>HV2-1-AIRSc<br/>100%<br/>0%<br/>03%<br/>0.33%<br/>0.33%<br/>0.33%<br/>0.33%<br/>0.33%<br/>0.9%<br/>0.35%</td><td></td></li></ul> | " HV1-1-UmCSw 100% 0% 0% 0% 0% 1.32% 0% 0.33% 0.99% 5.28%   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>9%<br>8%<br>0%     | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%       | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%<br>2.27%                         | HV2-1-AIRSc<br>100%<br>0%<br>03%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.9%<br>0.35%   |       |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12             | OTU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Mobiluncus<br>Bacteria/Actinobacteria//Yoripbacteriacese<br>Bacteria/Actinobacteria//Corynebactericese<br>Bacteria/Actinobacteria//Dietzia   | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.02%</li> <li>0</li></ul> | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> <li>0.9%</li> </ul>  | m<br>HVI-1-UmCSw<br>100%<br>0%<br>0%<br>0%<br>1.32%<br>0%<br>0%<br>0.33%<br>0.99%<br>5.28%<br>0%    | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>96.81%<br>96.81%   | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%             | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.97%<br>0%                | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>8.55%<br>0%<br>0%   |       |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13       | CTU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Acidobacteria//Acidimicrobiatesa<br>Bacteria/Actinobacteria//Acidimicrobiatesa<br>Bacteria/Actinobacteria//Acidimicrobiatesa<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Yohibaculum<br>Bacteria/Actinobacteria//Yorynebacterium<br>Bacteria/Actinobacteria//Yorynebacterium<br>Bacteria/Actinobacteria//Yorynebacterium<br>Bacteria/Actinobacteria//Dietzia  | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.28%</li> <li>0.02%</li> <li>0.02%</li> <li>0.48%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.01%</li> </ul>   | <ul> <li>HVI-1-BaCSc</li> <li>HVI-1-BaCSc</li> <li>100%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>098%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> </ul>   | " HVI-1-UmCSw 100% 0% 0% 0% 0% 1.32% 0% 0.33% 0.99% 5.28% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%    | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%     | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%<br>0%<br>0% | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>2.97%<br>0%<br>0% | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.35%<br>0%   |       |
| 2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14 | TU Rule Set:<br>root<br>Bacteria/Actinobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Yolatia<br>Bacteria/Actinobacteria//Yorynebacteriaceae<br>Bacteria/Actinobacteria//Yorynebacteriaum<br>Bacteria/Actinobacteria//Vietzia<br>Bacteria/Actinobacteria//Vietzia<br>Bacteria/Actinobacteria//Nocardiaceae               | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>0.04%</li> </ul>   | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0%</li> <li>0.98%</li> <li>0.98%</li> <li>0.98%</li> <li>0.96%</li> <li>0%</li> </ul>  | " HV1-1-UmCSw 100% 0% 0% 0% 0% 0% 0% 0% 0% 0.33% 0.99% 5.28% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>96.81%<br>0%<br>0%<br>0% | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%       | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.97%<br>0%<br>0%<br>0%<br>0%    | HV2-1-AIRSc<br>100%<br>0%<br>03%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.9%<br>0.35%<br>0.9%   |       |
| 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16                             | OTU Rule Set:<br>root<br>Bacteria/Acidobacteria//Candidatus-Chloraci<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Acidimicrobiales<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Actinomyces<br>Bacteria/Actinobacteria//Vabiluncus<br>Bacteria/Actinobacteria//Vabiluncus<br>Bacteria/Actinobacteria//Vorpebacteriaces<br>Bacteria/Actinobacteria//Joietzia<br>Bacteria/Actinobacteria//Joietzia<br>Bacteria/Actinobacteria//Joietzia<br>Bacteria/Actinobacteria//Joietzia<br>Bacteria/Actinobacteria//Joietzia<br>Bacteria/Actinobacteria//Joietzia | <ul> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.28%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.02%</li> <li>0.04%</li> <li>0.02%</li> <li>0.11%</li> </ul>   | <ul> <li>HV1-1-BaCSc</li> <li>100%</li> <li>00%</li> <li>00%</li> <li>00%</li> <li>00%</li> <li>09%</li> <li>0%</li> </ul>   | " HV1-1-UmCSw 100% 0% 0% 0% 0% 0% 0% 0% 0.33% 0.33% 0.99% 5.28% 0% 0% 0% 0% 0% 0%                   | HV10-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | HV10-UmCSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>96.81%<br>0%<br>0%       | HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>2.63%<br>0%<br>0%<br>0%<br>0% | HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.35%<br>0.35%<br>0.55%<br>0.855%<br>0.855%<br>0.9% | HV2-  |

Both the hierarchy and OTU tables are now sorted by anatomical position.

| Project: Tutorial HSM  | Hierarch  | ny 🔘 Counts OTU S   | tart: <u>1</u> Hierarchy Level:   | <ul> <li>Show Libraries</li> <li>All Lib</li> </ul>   | braries Fig   | ures     |
|--|---|---|---|---|---|----------|
|  | © <b>о</b> т∪   | % of Library OTU \  | Vidth: 2 3  | Show Sorted Libs O Select   | cted Libraries  | orkspace |
| Workspace: Workspace 1   | Both  | % of Total   Ø  O   | TU Show Last  | Show Lib Groups 30 Libs   | Sa  | ave      |
| Current Filter:  | C bour  |   | IS SHOW LAST  | Show Lib Groups 30 Libs   | Close   | Project  |
| Hierarchy  | Total   | alar crease:HV2-1-AIRSe   | antecubital fossa:HV2-1-AcRSc   | antecubital fossa:HV2-1-AcRSw   | antecubital fossa:HV8-AcRSc   | back:HV1 |
| 4 root   | 100%  | 100%  | 100%  | 100%  | 100%  |          |
| ▲ Bacteria   | 100%  | 100%  | 100%  | 100%  | 100%  |          |
| Acidobacteria  | 0.02%   | 0%  | 0%  | 0%  | 0%  |          |
| Actinobacteria   | 51.50%  | 83.88%  | 10.53%  | 12.21%  | 12.87%  |          |
| Bacteroidetes  | 10.88%  | 1.32%   | 36.18%  | 28.38%  | 24.75%  |          |
| Candidate-division-TM7   | 0.02%   | 0%  | 0%  | 0%  | 0%  |          |
| Chloroflexi  | 0.03%   | 0%  | 0%  | 0%  | 0%  |          |
| Cyanobacteria  | 0.30%   | 0.33%   | 1.32%   | 0%  | 0%  |          |
| Firmicutes   | 15.28%  | 9.21%   | 2.30%   | 15.84%  | 1.32%   |          |
| <ul> <li>Fusobacteria</li> <li>Germmatimonadates</li> </ul>  | 0.35%   | 0%  | 0%  | 0%  | 0%  |          |
| p ochimatinona deces   | 0.05%   | 0%  | 0%  | 0%  | 0%  |          |
| Nitrospirae  | 0.05%   | 0%  | 0%  | 0%  | 0%  |          |
| <ul> <li>Planctomycetes</li> <li>Proteobacteria</li> </ul>   | 21.41%  | 5.26%   | 49.67%  | 43.56%  | 61.06%  |          |
|  | 21.41/0   |   |   |   |   |          |
|  | 0.03%   | 0%  | 0%  | 0%  | 0%  |          |
| ▷ Synergistetes<br>▷ Verrucomicrobia   | 0.03%   | 0%  | 0%<br>0%  | 0%<br>0%  | 0%<br>0%  |          |
| <ul> <li>Synergistetes</li> <li>Verrucomicrobia</li> </ul>   | 0.02%   | 0%  | 0%  | 0%  | 0%  |          |
| Synergistetes     Verrucomicrobia  | 0.02%   | < III<br>Silar crease:HV2-1-AIRSc   | 0%<br>antecubital fossa:HV2-1-AcRSc   | 0%<br>antecubital fossa:HV2-1-AcRSw   | 0%<br>antecubital fossa:HV8-AcRSc   | back:HV  |
| Synergistetes     Verrucomicrobia      OTU Rule Set:      root   | 0.02%   | < III<br>Glar crease:HV2-1-AIRSC<br>100%  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%   | back:HV  |
| Synergistetes     Verrucomicrobia      OTU Rule Set: root     Bacteria/Acidobacteria//Candidatus-Chloraci  | 0.02%   | < m<br>elar crease:HV2-1-AIRSc<br>100%<br>0%  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set: root     Bacteria/Acidobacteria//Candidatus-Chloraci Bacteria/Acidobacteria//Acidimicrobiales   | 0.02%   | 0%<br>III<br>Olar crease:HV2-1-AIRSC<br>100%<br>0%<br>0%  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:      root     Bacteria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Acidimicrobiales     Bacteria/Actinobacteria//Acidimicrobiales  | <ul> <li>0.02%</li> <li>▲</li> <li>▶</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> </ul>   |   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Acidobacteria//Acidimicrobiales     Bacteria/Actinobacteria//Acidimicrobialese     Bacteria/Actinobacteria//Acidimicrobialese     Bacteria/Actinobacteria//Acidimicrobialese     Bacteria/Actinobacteria//Acidimicrobialese   | <ul> <li></li> <li></li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> </ul>   | <ul> <li></li> <li><!--</td--><td>0%<br/>antecubital fossa:HV2-1-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV2-1-AcRSw<br/>100%<br/>0%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV8-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%</td><td></td></li></ul>  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     OTU Rule Set:     root     Bacteria/Actinobacteria//Acidimicrobiales     Bacteria/Actinobacteria//Acidimicrobiaceae     Bacteria/Actinobacteria//Acidimicrobiaceae     Bacteria/Actinobacteria//Acidimicrobiaceae     Bacteria/Actinobacteria//Acidimicrobiaceae   | <ul> <li>0.02%</li> <li>✓</li> <li>✓</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> </ul>   | <ul> <li>0%</li> <li></li> <li></li></ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Actinomycetaceae     Bacteria/Actinobacteria//Actinomycetaceae     Bacteria/Actinobacteria//Actinomycetaceae     Bacteria/Actinobacteria//Actinomycetaceae   | <ul> <li>0.02%</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.28%</li> </ul>   | <ul> <li>III</li> <li>IIII</li> <li>III</li> <li>IIII</li> <li>IIII</li> <li>IIII</li> <li>III</li> <li>IIII</li> <li>IIII</li> <li>IIII</li> <li>IIII</li> <li>IIII</li> <li>IIII</li> <li></li></ul>  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.33%  |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     GTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Actiomicrobialese     Bacteria/Actinobacteria//Actiomycetaceee     Bacteria/Actinobacteria//Actiomycetaceee     Bacteria/Actinobacteria//Actiomycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Mobiluncus  | <ul> <li>0.02%</li> <li>▲</li> <li>▶</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.28%</li> <li>0.02%</li> </ul>  | <ul> <li>0%</li> <li>0%</li> <li>01ar crease:HV2-1-AIRSC</li> <li>00%</li> <li>0%</li> <li>0%</li> <li>0.33%</li> <li>0%</li> <li>0%</li> <li>0%</li> </ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>03%<br>0.33%<br>0%<br>0%   |          |
| Synergistetes     Verrucomicrobia     Verrucomicrobia     OTU Rule Set:     root     GTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiaceae     Bacteria/Actinobacteria//Actinomycetaceae     Bacteria/Actinobacteria//Actinomyces     Bacteria/Actinobacteria//Actinomyces     Bacteria/Actinobacteria//Actinomyces     Bacteria/Actinobacteria//Actinomyces     Bacteria/Actinobacteria//Actinomyces     Bacteria/Actinobacteria//Actinomyces  | <ul> <li></li> <li>Total         100%         0.02%         0.01%         0.03%         0.03%         0.03%         0.02%</li></ul> | <ul> <li></li> <li><!--</td--><td>0%<br/>antecubital fossa:HV2-1-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV2-1-AcRSw<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0.33%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV8-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>033%<br/>0%<br/>0%</td><td></td></li></ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%  | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>033%<br>0%<br>0%   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     GTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Actiomicrobialese     Bacteria/Actinobacteria//Actiomycetaceee     Bacteria/Actinobacteria//Actiomycetaceee     Bacteria/Actinobacteria//Actiomycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Actionmycetaceee     Bacteria/Actinobacteria//Mobiluncus  |   | <ul> <li>III</li> <li>IIII</li> <li>III</li> <li>IIII</li> <li>IIII<!--</td--><td>0%<br/>antecubital fossa:HV2-1-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV2-1-AcRSw<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0.33%<br/>0%<br/>0.33%<br/>0%</td><td>0%<br/>antecubital fossa:HV8-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td></td></li></ul> | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                   |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Gateria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Actidimicrobiales     Bacteria/Actinobacteria//Actinomycetacese     Bacteria/Actinobacteria//Actinomycetacese | <ul> <li></li> <li></li> <li>Total</li> <li>0.02%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.28%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.48%</li> <li>18.25%</li> </ul>  | <ul> <li>m</li> <li>flar crease/HV2-1-AIRSC</li> <li>00%</li> <li>0%</li> <li>0%</li> <li>0.33%</li> <li>0.33%</li> <li>0.33%</li> <li>0.33%</li> <li>0.33%</li> <li>0.33%</li> <li>0.33%</li> <li>0.35%</li> </ul>   | 0%<br>antecubital fossai-HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%      | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0.33%<br>0%                          |          |
| Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Gateria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Actidimicrobiales     Bacteria/Actinobacteria//Actinomycetacese     Bacteria/Actinobacteria//Actinomycetacese | <ul> <li>0.02%</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.05%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li></li></ul>                          | <ul> <li></li> <li><!--</td--><td>0%<br/>antecubital fossa:HV2-1-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV2-1-AcRSw<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>antecubital fossa:HV8-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0.33%<br/>0.33%<br/>0%<br/>0.39%<br/>0.95%<br/>0.99%<br/>0.99%</td><td></td></li></ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0.33%<br>0%<br>0.39%<br>0.95%<br>0.99%<br>0.99%                 |          |
| Synergistetes     Verrucomicrobia     Verrucomicrobia     OTU Rule Set:     root     GATU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Actinomycetaceae Bacteria/Actinobacteria//Mobiluncus Basteria/Actinobacteria//Vanbaculum Bacteria/Actinobacteria//Corynebacteriaceae ID Bacteria/Actinobacteria//Ditaia   | <ul> <li>0.02%</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>18.25%</li> <li>0.04%</li> <li>0.01%</li> </ul>   | <ul> <li>III</li> <li>III</li> <li>Ilar crease:HV2-1-AIRSO</li> <li>100%</li> <li>0%</li> <li>0%</li> <li>033%</li> <li>033%</li> <li>033%</li> <li>033%</li> <li>033%</li> <li>033%</li> <li>033%</li> <li>03%</li> </ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.35%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.3% | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0.33%<br>0.33%<br>0.03%<br>0.03%<br>0.09%<br>0.09%        |          |
| Synergistetes     Verrucomicrobia     Verrucomicrobia     OTU Rule Set     root     Bacteria/Actinobacteria//Candidatus-Chloraci     Bacteria/Actinobacteria//Acidimicrobiales     Bacteria/Actinobacteria//Orynebacteriaceae     Bacteria/Actinobacteria//Orynebacterium     Bacteria/Actinobacteria//Mycobacterium   | <ul> <li></li> <li></li> <li>Total</li> <li>0.02%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.28%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.48%</li> <li>0.25%</li> <li>0.44%</li> <li>0.44%</li> <li>0.04%</li> <li>0.04%</li> </ul>   | <ul> <li>U</li> <li>U</li></ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                    |          |
| <ul> <li>Synergistetes</li> <li>Verrucomicrobia</li> <li>OTU Rule Set:</li> <li>root</li> <li>Bacteria/Actinobacteria//Candidatus-Chloraci</li> <li>Bacteria/Actinobacteria//Acidimicrobiales</li> <li>Bacteria/Actinobacteria//Acidimicrobiales</li> <li>Bacteria/Actinobacteria//Actionmycetaceae</li> <li>Bacteria/Actinobacteria//Actinomyces</li> <li>Bacteria/Actinobacteria//Notinbacuteria</li> <li>Bacteria/Actinobacteria//Notinbacuteria</li> <li>Bacteria/Actinobacteria//Notinbacuteria</li> <li>Bacteria/Actinobacteria//Orynebacteriaceae</li> <li>Bacteria/Actinobacteria//Corynebacterium</li> <li>Bacteria/Actinobacteria//Otetzia</li> <li>Bacteria/Actinobacteria//Mycbacterium</li> </ul>   | <ul> <li>0.02%</li> <li>Total</li> <li>100%</li> <li>0.02%</li> <li>0.01%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>18.25%</li> <li>0.04%</li> <li>0.01%</li> </ul>   | <ul> <li></li> <li>✓ III</li> <li>Flar crease:HV2-1-AIRSC</li> <li>00%</li> <li>00%</li> <li>00%</li> <li>033%</li> <li>03%</li> <li>04%</li> <li>05%</li> <li>05%</li> </ul>   | 0% antecubital fossa:HV2-1-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | 0% antecubital fossa:HV2-1-AcRSw 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>03%<br>0.33%<br>0%<br>0.99%<br>0.99%<br>0.99%<br>0.99%<br>0.99%<br>0.99% |          |
| <ul> <li>Synergistetes</li> <li>Verrucomicrobia</li> <li>Verrucomicrobia</li> <li>OTU Rule Set:</li> <li>root</li> <li>Bacteria/Actinobacteria//Candidatus-Chloraci</li> <li>Bacteria/Actinobacteria//Acidimicrobiales</li> <li>Bacteria/Actinobacteria//Acidimicrobiales</li> <li>Bacteria/Actinobacteria//Acidimicrobiaceae</li> <li>Bacteria/Actinobacteria//Acidimicrobiaceae</li> <li>Bacteria/Actinobacteria//Acidimonycetaceae</li> <li>Bacteria/Actinobacteria//Actinomycetaceae</li> <li>Bacteria/Actinobacteria//Mobiluncus</li> <li>Bacteria/Actinobacteria//Orynebacteriaceae</li> <li>Bacteria/Actinobacteria//Dictaia</li> <li>Bacteria/Actinobacteria//Dictaia</li> <li>Bacteria/Actinobacteria//Mycobacterium</li> <li>Bacteria/Actinobacteria//Mycobacterium</li> <li>Bacteria/Actinobacteria//Mycobacterium</li> <li>Bacteria/Actinobacteria//Mycobacterium</li> <li>Bacteria/Actinobacteria//Mycobacterium</li> <li>Bacteria/Actinobacteria//Mycobacterium</li> </ul>   | <ul> <li></li> <li></li> <li>Total</li> <li>0.02%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.28%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.48%</li> <li>0.25%</li> <li>0.44%</li> <li>0.44%</li> <li>0.04%</li> <li>0.04%</li> </ul>   | <ul> <li>U</li> <li>U</li></ul>   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                    |          |
| <ul> <li>Synergistetes</li> <li>Verrucomicrobia</li> <li>Verrucomicrobia</li> <li>OTU Rule Set:</li> <li>root</li> <li>Bacteria/Actinobacteria//Candidatus-Chloraci</li> <li>Bacteria/Actinobacteria//Acidimicrobiales</li> <li>Bacteria/Actinobacteria//Acidimicrobiales</li> <li>Bacteria/Actinobacteria//Acidimicrobiacee</li> <li>Bacteria/Actinobacteria//Acidimicrobiacee</li> <li>Bacteria/Actinobacteria//Acidimicrobiacee</li> <li>Bacteria/Actinobacteria//Acidimicrobiacee</li> <li>Bacteria/Actinobacteria//Actinomycetaceae</li> <li>Bacteria/Actinobacteria//Corynebacteriacee</li> <li>Bacteria/Actinobacteria//Dietzia</li> <li>Bacteria/Actinobacteria//Nocardiaceae</li> <li>Bacteria/Actinobacteria//Nocardiaceae</li> <li>Bacteria/Actinobacteria//Gordonia</li> </ul>   | <ul> <li>0.02%</li> <li>✓</li> <li>Total</li> <li>0.02%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.02%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>0.04%</li> <li>0.04%</li> <li>0.02%</li> <li>0.04%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>0.02%</li> <li>0.02%</li> <li>0.04%</li> <li>0.02%</li> <li>0.0</li></ul>                          | <ul> <li></li> <li>✓ III</li> <li>Flar crease:HV2-1-AIRSC</li> <li>00%</li> <li>00%</li> <li>00%</li> <li>033%</li> <li>03%</li> <li>04%</li> <li>05%</li> </ul>  | 0% antecubital fossa:HV2-1-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | 0% antecubital fossa:HV2-1-AcRSw 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>03%<br>0.33%<br>0%<br>0.99%<br>0.99%<br>0.99%<br>0.99%<br>0.99%<br>0.99% |          |

## VI. Make an OTU Stacked Bar Chart

Before diving into a detailed analysis, generating an overview of the dominant organisms that exist in the dataset can be useful. One way to do this is through an OTU stacked bar chart.

## A. Create an OTU Stacked Bar Chart of the Top 10 Most Prevalent Taxa Tools $\rightarrow$ Plot $\rightarrow$ OTU Stacked Bar

A new window will appear with the OTU data available in the workspace Click the **Total** column header to re-sort the OTUs by decreasing abundance

|       |                                      | OTU Stacked Bar in | Workspace Workspace 1   |                                     |                               |                        | Do        |
|-------|--------------------------------------|--------------------|---|-------------------------------------|-------------------------------|------------------------|-----------|
|       | Counts OT                            | U Start: 1         | Show Libraries  | <ul> <li>All Libraries</li> </ul>   |                               |                        | Unso      |
|       | % of Library OTL                     | J Width: 2         | Show Sorted Libs  | Selected Libraries                  |                               |                        |           |
|       | % of Total                           | OTU Show Last      | Show Lib Groups   | 30 Libs                             |                               |                        |           |
|       | Figures: No figure se                | lected 💌           | <ul> <li>Use Workspace Filter</li> <li>Use Figure Filter</li> </ul> | Workspace Filter:<br>Figure Filter: |                               |                        |           |
|       | Include items betwee                 | in:                | and 0 Rows Sele   | cted of 152 Rows Sele               | ct Range Clear Selection      |                        |           |
| 01    | TU Rule Set:                         | Total              | alar crease:HV2-1-AIRSc   | antecubital fossa:HV2-1-AcRSc       | antecubital fossa:HV2-1-AcRSw | antecubital fossa:HV8- |           |
| ro    | ot                                   | 100%               | 100%  | 100%                                | 100%                          | =                      |           |
| 1 Ba  | cteria/Acidobacteria//Candidatus-C   | 0.02%              | 0%  | 0%                                  | 0%                            | =                      |           |
| 2 Ba  | cteria/Actinobacteria//Acidimicrobi  | 0.01%              | 0%  | 0%                                  | 0%                            |                        |           |
| 3 Ba  | cteria/Actinobacteria//Acidimicrobi  | 0.03%              | 0%  | 0%                                  | 0%                            |                        |           |
| 4 Ba  | cteria/Actinobacteria/Actinobacteria | 0.03%              | 0.33%   | 0%                                  | 0%                            |                        |           |
| 5 Ba  | cteria/Actinobacteria//Actinomycet   | 0.05%              | 0%  | 0%                                  | 0%                            |                        |           |
| 6 Ba  | cteria/Actinobacteria//Actinomyces   | 0.28%              | 0.33%   | 0%                                  | 0.33%                         |                        |           |
| 7 Ba  | cteria/Actinobacteria//Mobiluncus    | 0.02%              | 0%  | 0%                                  | 0%                            |                        |           |
| 8 Ba  | cteria/Actinobacteria//Varibaculum   | 0.02%              | 0%  | 0%                                  | 0%                            |                        |           |
| 9 Ba  | cteria/Actinobacteria//Corynebacte   | 0.48%              | 0%  | 0%                                  | 0%                            |                        |           |
| 10 Ba | cteria/Actinobacteria//Corynebacte   | 18.25%             | 8.55%   | 2.63%                               | 2.97%                         |                        |           |
| 11 Ba | cteria/Actinobacteria//Dietzia       | 0.04%              | 0%  | 0%                                  | 0%                            |                        |           |
| 12 Ba | cteria/Actinobacteria//Mycobacteri   | 0.01%              | 0%  | 0%                                  | 0%                            |                        |           |
| 13 Ba | cteria/Actinobacteria//Nocardiacea   | 0.04%              | 0%  | 0%                                  | 0%                            |                        |           |
| 14 Ba | cteria/Actinobacteria//Gordonia      | 0.02%              | 0%  | 0%                                  | 0%                            |                        |           |
| 15 Ba | cteria/Actinobacteria//Rhodococcu    | 0.11%              | 0.66%   | 0%                                  | 0%                            |                        |           |
| 16 Ba | cteria/Actinobacteria//Geodermato    | 0.01%              | 0%  | 0%                                  | 0%                            |                        |           |
| 17 Ba | cteria/Actinobacteria//Blastococcus  | 0.04%              | 0%  | 0%                                  | 0%                            |                        | Plo       |
| 18 Ba | cteria/Actinobacteria//Micrococcale  | 0.01%              | 0%  | 0%                                  | 0%                            |                        | Expo      |
| 19 Ba | cteria/Actinobacteria//Brevibacteriu | 0.04%              | 0%  | 0%                                  | 0%                            | -                      | Exp       |
| 4     |                                      | 4 b                | < III   |                                     |                               |                        | Save As I |

To display only the top 10 taxa in the project, note that the **Total** value of the 1<sup>st</sup> OTU in the column is 31.35 Note that the **Total** value of the 10<sup>th</sup> OTU in the column is 1.41

In the **Include items between** field, enter "1.41" into the first box (the lower bounding limit) In the **Include items between** field, enter "31.35" into the second box (the upper bounding limit) Click **Select Range** 

|    |  | OTU Stacked Bar in | Workspace Workspace 1    |                               |                               |                          | Done       |
|----|--|--------------------|--------------------------|-------------------------------|-------------------------------|--------------------------|------------|
|    | Curata (III)                           | J Start: 1         | Show Libraries           | @ 4841 ·                      |                               |                          | Unsort OTL |
|    | Counts                                 |                    | 0                        | All Libraries                 |                               |                          | Unsort Ort |
|    | % of Library OTU                       | Width: 2           | Show Sorted Libs         | Selected Libraries            |                               |                          |            |
|    | 💿 % of Total 🔍 🔍                       | OTU Show Last      | Show Lib Groups          | 30 Libs                       |                               |                          |            |
|    |  |                    | Ose Workspace Filter     | Workspace Filter:             |                               |                          |            |
|    | Figures: No figure sele                | ected 🔻            | O Use Figure Filter      | Figure Filter:                |                               |                          |            |
|    | Include items between                  | n: 1.40999         | and 31.35000 0 Rows Sele | cted of 152 Rows Sele         | ct Range                      |                          |            |
|    | OTU Rule Set:                          | Total              | alar crease:HV2-1-AIRSc  | antecubital fossa:HV2-1-AcRSc | antecubital fossa:HV2-1-AcRSw | antecubital fossa:HV8- 🔺 |            |
|    | root                                   | 100%               | 100%                     | 100%                          | 100%                          | -                        |            |
|    | Bacteria/Actinobacteria//Propionibact  | 31.35%             | 74.01%                   | 7.89%                         | 8.25%                         | =                        |            |
|    | Bacteria/Actinobacteria//Corynebacte   | 18.25%             | 8.55%                    | 2.63%                         | 2.97%                         |                          |            |
| 3  | Bacteria/Bacteroidetes//Cloacibacteriu | 9.06%              | 1.32%                    | 35.86%                        | 27.06%                        |                          |            |
| Ļ. | Bacteria/Proteobacteria//Aquabacteriu  | 7.68%              | 0%                       | 4.93%                         | 0%                            |                          |            |
| 5  | Bacteria/Proteobacteria//Diaphorobac   | 6.52%              | 3.95%                    | 26.32%                        | 33%                           |                          |            |
| 5  | Bacteria/Firmicutes//Staphylococcus    | 6.06%              | 8.88%                    | 1.97%                         | 6.93%                         |                          |            |
|    | Bacteria/Firmicutes//Streptococcus     | 3.30%              | 0%                       | 0%                            | 6.93%                         |                          |            |
|    | Bacteria/Proteobacteria//Comamonac     | 1.54%              | 0.66%                    | 7.24%                         | 3.30%                         |                          |            |
|    | Bacteria/Proteobacteria//Acidovorax    | 1.54%              | 0.33%                    | 4.28%                         | 2.31%                         |                          |            |
| 0  | Bacteria/Firmicutes//Anaerococcus      | 1.41%              | 0%                       | 0%                            | 0.99%                         |                          |            |
| 1  | Bacteria/Firmicutes//Finegoldia        | 1.32%              | 0%                       | 0%                            | 0%                            |                          |            |
| 2  | Bacteria/Bacteroidetes//Prevotella     | 0.66%              | 0%                       | 0%                            | 0.66%                         |                          |            |
| 3  | Bacteria/Firmicutes//Family-XI-Incerta | 0.66%              | 0%                       | 0%                            | 0%                            |                          |            |
| 4  | Bacteria/Firmicutes//Peptoniphilus     | 0.63%              | 0%                       | 0%                            | 0%                            |                          |            |
| 5  | Bacteria/Actinobacteria//Corynebacte   | 0.48%              | 0%                       | 0%                            | 0%                            |                          |            |
| 6  | Bacteria/Proteobacteria//Zoogloea      | 0.47%              | 0%                       | 0%                            | 0%                            |                          |            |
| .7 | Bacteria/Proteobacteria//Sphingomor    | 0.46%              | 0%                       | 3.95%                         | 2.64%                         |                          | Plot       |
|    | Bacteria/Firmicutes//Dialister         | 0.36%              | 0%                       | 0%<br>0%                      | 0%<br>0%                      |                          | Export     |
| 8  |  | 0.35%              | 0%                       |                               |                               |                          |            |

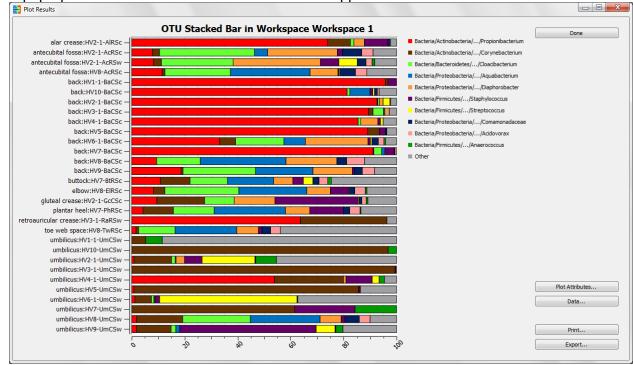
## The top 10 OTUs are now highlighted.

| TU Stacked Bar in Workspace Workspace : | l                  |                           |                               |                               |                          |                |
|---|--------------------|---------------------------|-------------------------------|-------------------------------|--------------------------|----------------|
|   | OTU Stacked Bar in | n Workspace Workspace 1   |                               |                               |                          | Done           |
| Counts                                  | DTU Start: 1       | Show Libraries            | All Libraries                 |                               |                          | Unsort OTU     |
| % of Library                            | TU Width: 2        | Show Sorted Libs          | Selected Libraries            |                               |                          |                |
|   | OTU Show Last      | Show Lib Groups           | 30 Libs                       |                               |                          |                |
| 0                                       |                    |                           |                               |                               |                          |                |
| Figures: No figure                      | selected 🔹         | O Use Workspace Filter    | Workspace Filter:             |                               |                          |                |
|   |                    | O Use Figure Filter       | Figure Filter:                |                               |                          |                |
| Include items betv                      | een: 1.40999       | and 31.35000 + 10 Rows Se | lected of 152 Rows Sel        | ect Range Clear Selection     |                          |                |
|   |                    |                           |                               | Cicli Sciccion                |                          |                |
| OTU Rule Set:                           | Total              | alar crease:HV2-1-AIRSc   | antecubital fossa:HV2-1-AcRSc | antecubital fossa:HV2-1-AcRSw | antecubital fossa:HV8- ^ |                |
| root                                    | 100%               | 100%                      | 100%                          | 100%                          |                          |                |
| Bacteria/Actinobacteria//Propioniba     | ct 31.35%          | 74.01%                    | 7.89%                         | 8.25%                         | E                        |                |
| Bacteria/Actinobacteria//Corynebac      | te 18.25%          | 8.55%                     | 2.63%                         | 2.97%                         |                          |                |
| Bacteria/Bacteroidetes//Cloacibacter    |                    | 1.32%                     | 35.86%                        | 27.06%                        |                          |                |
| Bacteria/Proteobacteria//Aquabacte      | ii 7.68%           | 0%                        | 4.93%                         | 0%                            |                          |                |
| Bacteria/Proteobacteria//Diaphorob      | 6.52%              | 3.95%                     | 26.32%                        | 33%                           |                          |                |
| Bacteria/Firmicutes//Staphylococcu      |                    | 8.88%                     | 1.97%                         | 6.93%                         |                          |                |
| Bacteria/Firmicutes//Streptococcus      | 3.30%              | 0%                        | 0%                            | 6.93%                         |                          |                |
| Bacteria/Proteobacteria//Comamon        |                    | 0.66%                     | 7.24%                         | 3.30%                         |                          |                |
| Bacteria/Proteobacteria//Acidovorax     | 1.54%              | 0.33%                     | 4.28%                         | 2.31%                         |                          |                |
| 0 Bacteria/Firmicutes//Anaerococcus     | 1.41%              | 0%                        | 0%                            | 0.99%                         |                          |                |
| 1 Bacteria/Firmicutes//Finegoldia       | 1.32%              | 0%                        | 0%                            | 0%                            |                          |                |
| 2 Bacteria/Bacteroidetes//Prevotella    | 0.66%              | 0%                        | 0%                            | 0.66%                         |                          |                |
| 3 Bacteria/Firmicutes//Family-XI-Incer  |                    | 0%                        | 0%                            | 0%                            |                          |                |
| 4 Bacteria/Firmicutes//Peptoniphilus    | 0.63%              | 0%                        | 0%                            | 0%                            |                          |                |
| 5 Bacteria/Actinobacteria//Corynebac    |                    | 0%                        | 0%                            | 0%                            |                          |                |
| 6 Bacteria/Proteobacteria//Zoogloea     | 0.47%              | 0%                        | 0%                            | 0%                            |                          |                |
| 7 Bacteria/Proteobacteria//Sphingomo    |                    | 0%                        | 3.95%                         | 2.64%                         |                          | Plot           |
| 8 Bacteria/Firmicutes//Dialister        | 0.36%              | 0%                        | 0%                            | 0%                            |                          | Export         |
| 9 Bacteria/Proteobacteria//Acinetobac   | te 0.35%           | 0%                        | 0%                            | 0%                            | -                        |                |
| III                                     |                    | < III                     |                               |                               | 4                        | Save As Figure |

A new window will appear containing stacked bar display options To create a stacked bar chart which displays a big picture of the project components, select % of Total Click OK

| Stacked Bar Mode                  |   | ОК     |
|-----------------------------------|---|--------|
| % of Selected                     |   |        |
| % of Total                        |   | Cancel |
| 4                                 |   |        |
| Counts                            |   |        |
| ibraries:                         |   |        |
| back:HV8-BaCSc                    | * |        |
| back:HV9-BaCSc                    |   |        |
| buttock:HV7-BtRSc                 |   |        |
| elbow:HV8-EIRSc                   |   |        |
| gluteal crease:HV2-1-GcCSc        |   |        |
| plantar heel:HV7-PhRSc            |   |        |
| retroauricular crease:HV3-1-RaRSw |   |        |
| toe web space:HV8-TwRSc           |   |        |
| umbilicus:HV1-1-UmCSw             |   |        |
| umbilicus:HV10-UmCSw              |   |        |
| umbilicus:HV2-1-UmCSw             |   |        |
| umbilicus:HV3-1-UmCSw             |   |        |
| umbilicus:HV4-1-UmCSw             | E |        |
| umbilicus:HV5-UmCSw               |   |        |
| umbilicus:HV6-1-UmCSw             |   |        |
| umbilicus:HV7-UmCSw               |   |        |
| umbilicus:HV8-UmCSw               |   |        |
| umbilicus:HV9-UmCSw               |   |        |

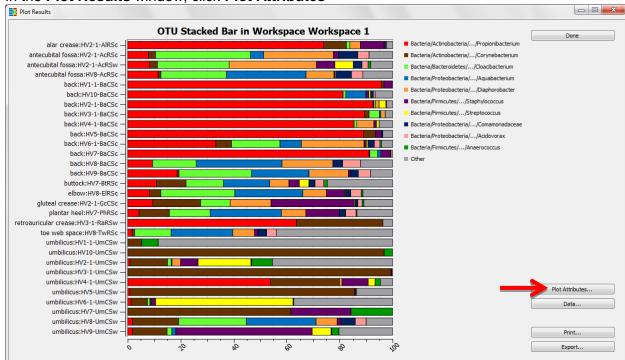
### A pop-up window with the OTU stacked bar chart appears.



We will now change the default title of the stacked bar chart and add axis labels.

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#### B. Change the Title and Label the Axes In the Plot Results window, click Plot Attributes



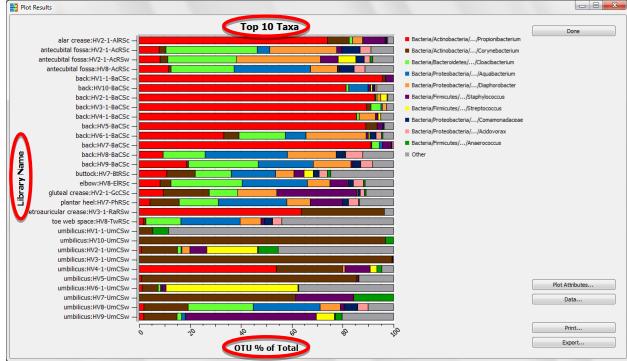
### A pop-up window will appear.

| Plot Attributes                                |                             |      |
|--|-----------------------------|------|
| Titles/Axes Grid Colors Stacked Bar Size       |                             | Save |
| Plot: OTU Stacked Bar in Workspace Workspace 1 |                             |      |
| X Axis :                                       |                             |      |
| Y Axis:  |                             |      |
| ☑ Show Library Name                            |                             |      |
| X Axis   | Y Axis                      |      |
| V Autoscale Min Value: 0                       |                             |      |
| Max Value: 100                                 | Label Rotation: 0 -90 to 90 |      |
| Step Size: 0                                   |                             |      |
| Label Rotation: -45 -90 to 90                  |                             |      |
|  |                             |      |

On the **Titles/Axes** tab, enter "Top 10 Taxa" into the **Plot** field Enter "OTU % of Total" into the **X Axis** field Enter "Library Name" into the **Y Axis** field Click **Save** 

| Plot Attributes                          |                             |        |
|--|-----------------------------|--------|
| Titles/Axes Grid Colors Stacked Bar Size |                             | Save   |
| lites                                    |                             | Cancel |
| Plot: Top 10 Taxa                        |                             |        |
| X Axis: OTU % of Total                   |                             |        |
| Y Axis: Library Name                     |                             |        |
| V Show Library Name                      |                             |        |
| X Axis                                   | Y Axis                      |        |
| I Autoscale                              |                             |        |
| Min Value: 0                             |                             |        |
| Max Value: 100                           | Label Rotation: 0 -90 to 90 |        |
| Step Size: 0                             |                             |        |
| Label Rotation: -45 -90 to 90            |                             |        |
|  |                             |        |

Plot Attributes window will disappear; labels appear on the plot.

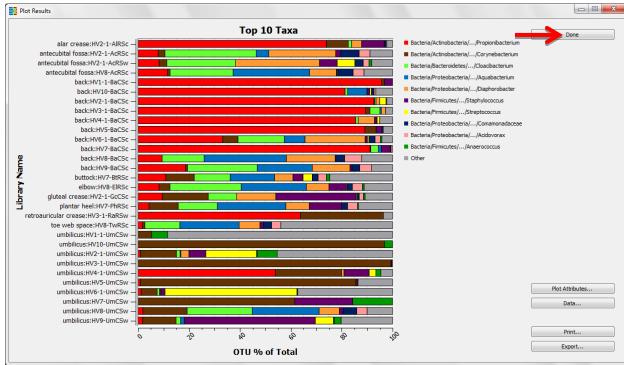


Red and brown appear to be dominant colors in this plot. According to the legend, these colors belong to the "Actinobacteria" phylum. This information may be useful in guiding us toward a hypothesis involving the dominant taxa.

Saving figures in Explicet is easy and convenient. Figures are saved within the larger project, so they stay linked to the data from which they were created and do not create additional files on your computer.

### C. Save the OTU Stacked Bar Chart as a Figure

Click Done in the stacked bar chart Plot Results window



## The **OTU Stacked Bar** setup window is back on the screen Click **Save as Figure**

|  | OTU Stacked Bar in | n Workspace Workspace 1   |                               |                               |                          | Don    |
|--|--------------------|---|-------------------------------|-------------------------------|--------------------------|--------|
| Counts O                               | TU Start: 1        | Show Libraries  | All Libraries                 |                               |                          | Unsort |
| % of Library  OT                       | U Width: 2         | Show Sorted Libs  | Selected Libraries            |                               |                          |        |
| 🔿 % of Total                           | OTU Show Last      | Show Lib Groups   | 30 Libs                       |                               |                          |        |
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| Figures: No figure s                   | elected 🔻          | <ul> <li>Use Workspace Filter</li> <li>Use Figure Filter</li> </ul> | Figure Filter:                |                               |                          |        |
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| Include items betwe                    | en: 1.40999 🗘      | and 31.35000 + 10 Rows Se   | lected of 152 Rows Sele       | Clear Selection               |                          |        |
| OTU Rule Set:                          | Total              | alar crease:HV2-1-AIRSc   | antecubital fossa:HV2-1-AcRSc | antecubital fossa:HV2-1-AcRSw | antecubital fossa:HV8- ^ |        |
| root                                   | 100%               | 100%  | 100%                          | 100%                          |                          |        |
| Bacteria/Actinobacteria//Propionibact  | 31.35%             | 74.01%  | 7.89%                         | 8.25%                         | E                        |        |
| Bacteria/Actinobacteria//Corynebacte   | 18.25%             | 8.55%   | 2.63%                         | 2.97%                         |                          |        |
| Bacteria/Bacteroidetes//Cloacibacteriu | 9.06%              | 1.32%   | 35.86%                        | 27.06%                        |                          |        |
| Bacteria/Proteobacteria//Aquabacteri   | 7.68%              | 0%  | 4.93%                         | 0%                            |                          |        |
| Bacteria/Proteobacteria//Diaphorobac   | 6.52%              | 3.95%   | 26.32%                        | 33%                           |                          |        |
| Bacteria/Firmicutes//Staphylococcus    | 6.06%              | 8.88%   | 1.97%                         | 6.93%                         |                          |        |
| Bacteria/Firmicutes//Streptococcus     | 3.30%              | 0%  | 0%                            | 6.93%                         |                          |        |
| Bacteria/Proteobacteria//Comamonad     | 1.54%              | 0.66%   | 7.24%                         | 3.30%                         |                          |        |
| Bacteria/Proteobacteria//Acidovorax    | 1.54%              | 0.33%   | 4.28%                         | 2.31%                         |                          |        |
| Bacteria/Firmicutes//Anaerococcus      | 1.41%              | 0%  | 0%                            | 0.99%                         |                          |        |
| 1 Bacteria/Firmicutes//Finegoldia      | 1.32%              | 0%  | 0%                            | 0%                            |                          |        |
| 2 Bacteria/Bacteroidetes//Prevotella   | 0.66%              | 0%  | 0%                            | 0.66%                         |                          |        |
| Bacteria/Firmicutes//Family-XI-Incerta |                    | 0%  | 0%                            | 0%                            |                          |        |
| 4 Bacteria/Firmicutes//Peptoniphilus   | 0.63%              | 0%  | 0%                            | 0%                            |                          |        |
| 5 Bacteria/Actinobacteria//Corynebacte |                    | 0%  | 0%                            | 0%                            |                          |        |
| 6 Bacteria/Proteobacteria//Zoogloea    | 0.47%              | 0%  | 0%                            | 0%                            |                          |        |
| 7 Bacteria/Proteobacteria//Sphingomor  |                    | 0%  | 3.95%                         | 2.64%                         |                          | Plot.  |
| / Bacteria/Proteobacteria// Sphingomor | 0.36%              | 0%  | 0%                            | 0%                            |                          | Expor  |
| Bacteria/Firmicutes//Dialister         | 0.30%              | 0%  | 0%                            | 0%                            |                          |        |

Enter stacked bar chart name in pop-up window Click **OK** 

| Figure name:  |   |  |  |   |                          |            |
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| % of Library  | OTU Width: 2  | Show Sorted Libs   | <ul> <li>Selected Libraries</li> </ul>   |   |                          |            |
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| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Actinobacteria//Cloacibar<br>Bacteria/Racteroidetes//Cloacibar<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Firmicutes//Staphylococ   | tween: 1.40999 €<br>Total<br>100%<br>bact 31.35%<br>acte 18.25%<br>terin 9.06%<br>7.68%<br>oba 6.52%<br>cus 6.06%   | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSc<br>100%<br>74.01%<br>8.855%<br>1.32%<br>0%<br>3.95%<br>8.88%  | Figure Filter:<br>lected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>35.86%<br>4.93%<br>26.32%<br>1.97%   | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2.97%<br>27.06%<br>0%<br>33%<br>6.93%   | antecubital fossa:HV8. * |            |
| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Actinobacteria//Cloacibat<br>Bacteria/Actinobacteria//Aquaba<br>Bacteria/Proteobacteria//Aquaba<br>Bacteria/Proteobacteria//Staphylococ<br>Bacteria/Firmicutes//Stephylococc   | etween: 1.40999 ★<br>Total<br>100%<br>bact 31.35%<br>acte 18.25%<br>9.06%<br>teriu 9.06%<br>16.25%<br>0.58%<br>0.58%<br>0.58%<br>0.66%<br>13.30%  | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSC<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0%<br>3.95%<br>8.88%<br>0%   | Figure Filter:<br>lected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.632%<br>35.86%<br>4.93%<br>26.32%<br>1.97%<br>0%  | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>27.06%<br>0%<br>33%<br>6.93%<br>6.93%   | antecubital fossa:HV8: * |            |
| Indude items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Corynet<br>Bacteria/Bacteroidets//Coatynet<br>Bacteria/Proteobacteria//Qauba<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Firmicutes//Staphylococ<br>Bacteria/Firmicutes//Steptococcc<br>Bacteria/Proteobacteria//Omam   | tween: 1.40999<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>9.06%<br>teriu<br>9.68%<br>6.52%<br>6.52%<br>6.06%<br>15.45%<br>15.45%   | Use Figure Filter<br>and 31.35000 → 10 Rows Set<br>alar crease:HV2-1-AIRSC<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0.%<br>3.95%<br>8.88%<br>0.%<br>0.66%  | Figure Filter:<br>lected of 152 Rows Selected<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>3.5.86%<br>4.93%<br>2.632%<br>1.97%<br>0.0%<br>7.24%   | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2.97%<br>27.06%<br>0%<br>33%<br>6.93%<br>6.93%<br>6.93%<br>3.30%  | antecubital fossa:HV8. A |            |
| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Actinobacteria//Corynel<br>Bacteria/Proteobacteria//Cloaciba<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam   | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>terin<br>7.68%<br>0.6%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.30%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35% 18.35%<br>18.35%<br>18.35%<br>18.35% 18.35%<br>18.35% 18.35%<br>18.    | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSc<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0%<br>8.88%<br>0.66%<br>0.33%  | Figure Filter:<br>ected of 152 Rows Sele<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>35.86%<br>4.93%<br>26.32%<br>1.97%<br>0%<br>7.24%<br>4.28%  | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2706%<br>0%<br>33%<br>6.93%<br>6.93%<br>3.30%<br>2.31%  | antecubital fossa:HV8 A  |            |
| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Corynet<br>Bacteria/Actinobacteria//Corynet<br>Bacteria/Proteobacteria//Colaoibar<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Firmicutes//Staphylococ<br>Bacteria/Firmicutes//Staphylococ<br>Bacteria/Firmicutes//Steptococcc<br>Bacteria/Firmicutes//Steptococcc<br>Bacteria/Firmicutes//Steptococcc<br>Bacteria/Firmicutes//Comam<br>Bacteria/Proteobacteria//Anderococcc  | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>terin<br>7.68%<br>0.6%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.30%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35%<br>18.35% 18.35%<br>18.35%<br>18.35%<br>18.35% 18.35%<br>18.35% 18.35%<br>18.    | Use Figure Filter<br>and 31.35000 → 10 Rows Set<br>alar crease:HV2-1-AIRSC<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0.%<br>3.95%<br>8.88%<br>0.%<br>0.66%  | Figure Filter:<br>lected of 152 Rows Selected<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>3.5.86%<br>4.93%<br>2.632%<br>1.97%<br>0.0%<br>7.24%   | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2.97%<br>27.06%<br>0%<br>33%<br>6.93%<br>6.93%<br>6.93%<br>3.30%  | antecubital fossa:HV8. * |            |
| Indude items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Bacteroidetes//Coryme<br>Bacteria/Proteobacteria//Quaba<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Firmicutes//Snaerococcol<br>Bacteria/Firmicutes//Finegoldia   | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>9.06%<br>18.25%<br>9.06%<br>0.52%<br>0.05%<br>0.52%<br>0.05%<br>0.53%<br>0.54%<br>1.54%<br>1.54%<br>1.32%   | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSC<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0%<br>3.95%<br>8.88%<br>0%<br>0.66%<br>0.33%<br>0.05%  | Figure Filter:<br>lected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>35.86%<br>4.93%<br>26.32%<br>0%<br>7.24%<br>4.28%<br>0%  | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>27.06%<br>0%<br>333%<br>6.93%<br>6.93%<br>3.30%<br>2.31%<br>0.99%   | antecubital fossa:HV8.   |            |
| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Actinobacteria//Corynet<br>Bacteria/Roteobacteria//Cloaciba<br>Bacteria/Proteobacteria//Aquaba<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Anaerococc<br>Bacteria/Proteobacteria//Finegoldia<br>2 Bacteria/Bacteroidets//Finegoldia  | etween: 1.40999<br>Total 100% 31.35% acte 18.25% 18.25% terit 9.06% terit 9.06% 15 3.30% s 3.30% s 1.41% 1.32% 1.41% 1.32% 1.42%  | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>laar crease:HV2-1-AIRSC<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0%<br>3.95%<br>8.88%<br>0%<br>0.66%<br>0.33%<br>0.66%<br>0.03%<br>0%   | Figure Filter:<br>lected of 152 Rows Sele<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>35.86%<br>4.93%<br>26.32%<br>1.97%<br>0%<br>7.24%<br>4.28%<br>0%   | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2.70%<br>27.06%<br>0%<br>33%<br>6.93%<br>6.93%<br>3.30%<br>2.31%<br>0.99%<br>0%   | antecubital fossa:HV8 ^  |            |
| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Actinobacteria//Corymet<br>Bacteria/Roteobacteria//Cloaciba<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Primicutes//Staphylococ<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Primicutes//Snapetococcc<br>Bacteria/Primicutes//Prevotelli<br>Bacteria/Primicutes//Prevotelli<br>Bacteria/Firmicutes//Prevotelli<br>Bacteria/Firmicutes//Prevotelli<br>Bacteria/Firmicutes//Prevotelli<br>Bacteria/Firmicutes//Family-XI-In   | etween: 1.40999<br>Total 100% 31.35% bact 31.35% terit 9.06% terit 7.68% terit 6.52% cus 6.06% ss 3.30% ss 1.54% ts 1.41% 1.32% terit 0.66% terit 0.66%   | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSc<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0%<br>8.88%<br>0.66%<br>0.33%<br>0.66%<br>0.33%<br>0%<br>0%  | Figure Filter:<br>ected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>35.86%<br>4.93%<br>2.632%<br>1.97%<br>0%<br>7.24%<br>4.28%<br>0%<br>0%<br>0%                                  | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2.97%<br>27.06%<br>0%<br>6.93%<br>6.93%<br>6.93%<br>0.63%<br>0.33%<br>0.93%<br>0.93%<br>0.99%<br>0.66%  | antecubital fossa:HV8    |            |
| Indude items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Bacteroidetes//Corynet<br>Bacteria/Proteobacteria//Quaba-<br>Bacteria/Proteobacteria//Quaba-<br>Bacteria/Proteobacteria//Quaba-<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Acidovo<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell<br>Bacteria/Firmicutes//Prevotell   | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>9.06%<br>0.66%<br>0.66%<br>1.41%<br>1.32%<br>0.66%<br>1.41%<br>1.32%<br>0.66%<br>5 0.63%  | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSc<br>100%<br>74.01%<br>8.855%<br>1.32%<br>0.%<br>3.95%<br>8.88%<br>0.%<br>0.66%<br>0.033%<br>0.03%<br>0.03%<br>0.03%  | Figure Filter:<br>lected of 152 Rows Sele<br>antecubital fossa:HV2-1-AcRSc<br>100%,<br>7.89%<br>26.32%<br>35.86%<br>4.93%<br>26.32%<br>0%<br>7.24%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>27.06%<br>0%<br>6.33%<br>6.93%<br>6.93%<br>0.33%<br>0.93%<br>0.93%<br>0.99%<br>0.066%<br>0.066%   | antecubital fossa:HV8. * |            |
| Indude items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Bacteroidetes//Corynet<br>Bacteria/Proteobacteria//Quaba-<br>Bacteria/Proteobacteria//Quaba-<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Firmicutes//Finegoldia<br>Bacteria/Firmicutes//Finegoldia<br>Bacteria/Firmicutes//Finegoldia<br>Bacteria/Firmicutes//Ferotolla   | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>9.06%<br>6.52%<br>cus<br>6.06%<br>6.52%<br>cus<br>6.06%<br>1.54%<br>1.32%<br>1.41%<br>1.32%<br>0.66%<br>certa<br>0.66%<br>0.66%<br>0.66%<br>0.66%<br>0.63%<br>acte<br>0.63%<br>0.63%<br>0.63%   | Use Figure Filter<br>and 31.35000 → 10 Rows Sel<br>alar crease:HV2-1-AIRSC<br>100%<br>74.01%<br>8.55%<br>1.32%<br>0%<br>3.95%<br>8.88%<br>0%<br>0.66%<br>0.33%<br>0.66%<br>0.33%<br>0%<br>0.66%<br>0.33%<br>0%<br>0.66%<br>0.33%<br>0%<br>0.66%<br>0.33%<br>0.66%<br>0.03%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0.05%<br>0   | Figure Filter:<br>lected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.632%<br>35.86%<br>4.93%<br>26.32%<br>0%<br>7.24%<br>4.28%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                       | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>27.06%<br>0%<br>33%<br>6.93%<br>6.93%<br>6.93%<br>2.31%<br>0.99%<br>0.66%<br>0%   | antecubital fossa:HV8.   |            |
| Indude items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Corynet<br>Bacteria/Actinobacteria//Corynet<br>Bacteria/Proteobacteria//Cloaciba<br>Bacteria/Proteobacteria//Cloaciba<br>Bacteria/Proteobacteria//Caphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Staphylococc<br>Bacteria/Proteobacteria//Alaebac<br>Bacteria/Proteobacteria//Acadow<br>Bacteria/Proteobacteria//Anegodia<br>2 Bacteria/Firmicutes//Finegodia<br>3 Bacteria/Firmicutes//Prevotelli<br>3 Bacteria/Firmicutes//Perpotelli<br>5 Bacteria/Actinobacteria//Corynet | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25% 18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25% | Use Figure Filter<br>and 31.3500 → 10 Rows Set<br>100%<br>74.01%<br>8.55%<br>3.35%<br>8.88%<br>0.065%<br>0.33%<br>0.065%<br>0.33%<br>0.065%<br>0.33%<br>0.05%<br>0.05%<br>0.05%<br>0.05%   | Figure Filter:<br>ected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>2.63%<br>35.86%<br>4.93%<br>2.632%<br>1.97%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0                 | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>2.97%<br>27.06%<br>0.33%<br>6.93%<br>6.93%<br>6.93%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.33%<br>0.63%<br>0.65%<br>0.66%<br>0.66%<br>0.0% | antecubital fossa:HV8 A  | Plot       |
| Include items b<br>OTU Rule Set:<br>root<br>Bacteria/Actinobacteria//Propion<br>Bacteria/Actinobacteria//Corynel<br>Bacteria/Roteobacteria//Cloaciba<br>Bacteria/Proteobacteria//Diaphor<br>Bacteria/Primicutes//Staphylococ<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Proteobacteria//Comam<br>Bacteria/Firmicutes//Anaerococc<br>Dacteria/Firmicutes//Finegoldia<br>Bacteria/Bacteroidets//Preytolll<br>Bacteria/Bacteroidets//Preytolll<br>Bacteria/Firmicutes//Preytoilli<br>Bacteria/Actinobacteria//Corynel<br>6 Bacteria/Proteobacteria//Corgonel  | etween: 1.40999 €<br>Total<br>100%<br>31.35%<br>acte<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25%<br>18.25% 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| Figure Filter:<br>ected of 152 Rows Self<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>7.89%<br>26.32%<br>35.86%<br>4.93%<br>26.32%<br>1.97%<br>0%<br>7.24%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0 | antecubital fossa:HV2-1-AcRSw<br>100%<br>8.25%<br>227%<br>27.06%<br>0%<br>6.93%<br>6.93%<br>6.93%<br>0.33%<br>0.99%<br>0.33%<br>0.99%<br>0.066%<br>0.066%<br>0.0%<br>0.066%<br>0.0%                     | antecubital fossa:HV8    | Plot       |

Once saved, the stacked bar chart and associated figure data can be recalled at any point by clicking the **Figures** button on the main project window. This provides a convenient mechanism for editing figures during manuscript preparation. Figures can also be exported in a format suitable for further modification in dedicated drawing software.

| Ex | olicet: C:/Users/kirstin/Desktop                           | p/Tutorial | LHSM_Explice | et_Project.otu   |   |   |             |                                 |   |  |  |
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| 13 | Figures  |            |              |  |   |   |             |                                 |   |  |  |
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|    | ratonal_ropio_oro_otackii                                  |            | Stacked Ba   |  | Chart   | Tronspacer                                | 03/07/2011  | 03/07/2011                      | Anatomy   |  | Open in Different Workspace                                  |
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|    |  |            |              |  |   |   |             |                                 |   |  |  |
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|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  |            |              |  |   |   |             |                                 |   |  |  |
|    |  | _          |              |  |   |   |             |                                 |   | _  |  |
|    | III  |            | F 4          | - F  | ٠ III   |   |             | _                               |   |  | •  |

## **VII. Make a Pie Chart**

Another useful way to generate an overview of the organisms that exist in the dataset is through a pie chart, which displays the distribution of OTUs in the project.

### A. Create a Pie Chart of the Project Components

### $\textbf{Tools} \rightarrow \textbf{Plot} \rightarrow \textbf{Pie Chart}$

A new window will appear with the hierarchical data available in the workspace Shift-click all of the phyla in the list

### Click Add to Pie

| OTU Start: 1<br>OTU Width: 2<br>Ø OTU Show Last | <ul> <li>% of Library</li> <li>% of Total</li> </ul>  |   | Libraries     Orted Libs     Corted Libs     Corted Libraries     Lib Groups     Solution  | 5   |  | Remove from Pie  |
|---|---|---|--|---|--|--|
| OTU Show Last                                   | _   |   | 0  | 5   |  |  |
|   | % of Total  | Show  | Lib Groups 30 Libs   |   |  |  |
| Figures: No figure s                            |   |   |  |   |  | Add to Other   |
| Figures: No figure s                            |   | Ouse Workspace Filter   | Workspace Filter:  |   |  |  |
| inguica.  | elected 🔻   | O Use Figure Filter   | Figure Filter:   |   |  |  |
|   | Total   | alar crease:HV2-1-AIRSc   | antecubital fossa:HV2-1-AcRSc  | antecubital fossa:HV2-1-AcRSw   | antecubital fos  |  |
|   | 100%  | 100%  | 100%   | 100%  |  |  |
|   | 100%  | 100%  | 100%   | 100%  |  |  |
| bacteria  | 0.02%   | 0%  | 0%   | 0%  |  |  |
| obacteria                                       | 51.50%  | 83.88%  | 10.53%   | 12.21%  |  |  |
| roidetes  | 10.88%  | 1.32%   | 36.18%   | 28.38%  |  |  |
| date-division-TM7                               | 0.02%   | 0%  | 0%   | 0%  |  |  |
| oflexi  | 0.03%   | 0%  | 0%   | 0%  |  |  |
| obacteria                                       | 0.30%   | 0.33%   | 1.32%  | 0%  |  |  |
| tutes   |   | 9.21%   | 2.30%  | 15.84%  |  |  |
| acteria   |   | 0%  | 0%   | 0%  |  |  |
| natimonadetes                                   |   |   |  |   |  |  |
| pirae   |   |   |  |   |  |  |
| tomycetes                                       |   |   |  |   |  |  |
| obacteria                                       |   |   |  |   |  |  |
| gistetes  |   |   |  |   |  |  |
| comicrobia                                      | 0.02%   | 0%  | 0%   | 0%  |  |  |
|   | bacteria<br>oidetes<br>late-division-TM7<br>flexi<br>bacteria<br>utes<br>cteria<br>atimonadetes<br>oirae<br>oirae<br>borgetes<br>bacteria | 100%           0.02%           bacteria         0.02%           bacteria         51.50%           idetes         10.88%           late-division-TM7         0.02%           flexi         0.33%           bacteria         0.30%           ites         15.28%           scteria         0.35%           origine         0.03%           prige         0.03%           stimonadetes         0.03%           parteria         2.141%           bacteria         21.41% | 100%         100%           100%         100%           002%         0%           bacteria         51.50%         83.88%           14te-division-TM7         0.02%         0%           date-division-TM7         0.02%         0%           bacteria         0.33%         0%           bacteria         0.33%         0%           otes         15.28%         9.21%           steria         0.35%         0%           orine         0.03%         0%           orine         0.05%         0%           bacteria         0.33%         0%           stimonadetes         0.03%         0%           omycetes         0.07%         0%           bacteria         21.41%         5.26% | 100%         100%         100%           100%         100%         100%           0.02%         0%         0%           bacteria         51.50%         83.88%         10.53%           late-division-TM7         0.02%         0%         0%           flexi         0.03%         0%         0%           bacteria         0.30%         0.33%         1.32%           sters         15.28%         9.21%         2.30%           steria         0.35%         0%         0%           sinee         0.03%         0%         0%           omycets         0.07%         0%         0%           bacteria         21.41%         5.26%         49.67%           stetes         0.3%         0%         0% | 100%         100%         100%         100%           introphysical         introphysical         introphysical         introphysical           bacteria         51.50%         83.88%         introphysical         introphysical           bidtets         introphysical         introphysical         introphysical         introphysical           bidtets         introphysical         introphysical         introphysical         introphysical           bidtets         introphysical         introphysical         introphysical         introphysical           bidtets         0.03%         0%         0%         0%           bacteria         0.30%         0.33%         introphysical         0%           bacteria         0.35%         0%         0%         0%           bites         0.03%         0%         0%         0% | 100%         100%         100%           100%         100%         100%           0.02%         0%         0.0%           bacteria         51.50%         83.88%         10.53%           bidetes         10.88%         1.3.2%         36.18%           late-division-TM7         0.02%         0%         0%           date-division-TM7         0.03%         0%         0%           date-division-TM7         0.03%         0%         0%           date-division-TM7         0.03%         0%         0%           date-division-TM7         0.03%         0%         0%           dates         0.33%         1.32%         0%           dates         15.28%         9.21%         2.30%           sters         15.28%         9.21%         2.30%           steria         0.35%         0%         0%           organization         0%         0%         0% |

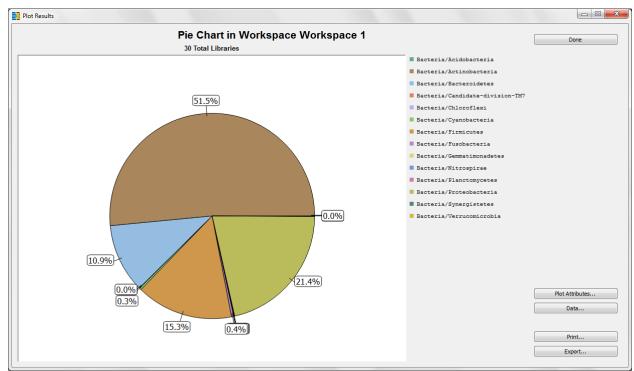
The selected phyla which were added to the pie are now bold Click **Plot** 

| Format for Plot Names                                      | Counts        | Hierarchy Level: 🔘 Show               | Libraries    All Libraries        |                               |                 | Done<br>Add to Pie |
|--|---------------|---------------------------------------|-----------------------------------|-------------------------------|-----------------|--------------------|
| OTU Start: 1   |               |                                       | <ul> <li>All Libraries</li> </ul> |                               |                 | Add to the         |
| OTU Width: 2   | % of Library  | 3 🗘 💿 Show                            | Sorted Libs 💿 Selected Libraries  |                               |                 | Remove from Pie    |
| OTU Show Last  | % of Total    | Show                                  | Lib Groups 30 Libs                |                               |                 | Add to Other       |
|  |               | ④ Use Workspace Filter                | Workspace Filter:                 |                               |                 |                    |
| Figures: No figures:                                       | re selected 🔹 | <ul> <li>Use Figure Filter</li> </ul> | Figure Filter:                    |                               |                 |                    |
| lierarchy  | Total         | alar crease:HV2-1-AIRSc               | antecubital fossa:HV2-1-AcRSc     | antecubital fossa:HV2-1-AcRSw | antecubital fos |                    |
| root   | 100%          | 100%                                  | 100%                              | 100%                          |                 |                    |
| ▲ Bacteria   | 100%          | 100%                                  | 100%                              | 100%                          |                 |                    |
| Acidobacteria  | 0.02%         | 0%                                    | 0%                                | 0%                            |                 |                    |
| Actinobacteria   | 51.50%        | 83.88%                                | 10.53%                            | 12.21%                        |                 |                    |
| Bacteroidetes  | 10.88%        | 1.32%                                 | 36.18%                            | 28.38%                        |                 |                    |
| Candidate-division-TM7                                     | 0.02%         | 0%                                    | 0%                                | 0%                            |                 |                    |
| Chloroflexi  | 0.03%         | 0%                                    | 0%                                | 0%                            |                 |                    |
| Cyanobacteria  | 0.30%         | 0.33%                                 | 1.32%                             | 0%                            |                 |                    |
| Firmicutes   | 15.28%        | 9.21%                                 | 2.30%                             | 15.84%                        |                 |                    |
| Fusobacteria   | 0.35%         | 0%                                    | 0%                                | 0%                            |                 |                    |
| Gemmatimonadetes   | 0.03%         | 0%                                    | 0%                                | 0%                            |                 |                    |
| Nitrospirae  | 0.05%         | 0%                                    | 0%<br>0%                          | 0%<br>0%                      |                 |                    |
| <ul> <li>Planctomycetes</li> <li>Proteobacteria</li> </ul> | 21.41%        | 5.26%                                 | 49.67%                            | 43.56%                        |                 |                    |
| <ul> <li>Proteobacteria</li> <li>Synergistetes</li> </ul>  | 0.03%         | 0%                                    | 49.67%                            | 43.30%                        |                 |                    |
| <ul> <li>Synergistetes</li> <li>Verrucomicrobia</li> </ul> | 0.02%         | 0%                                    | 0%                                | 0%                            |                 |                    |
|  |               |                                       |                                   |                               | _               | Plot<br>Export     |

A new window will appear containing pie chart display options To create only a single pie chart displaying the combined libraries' data, select **30 Total Libraries** Click **OK** 

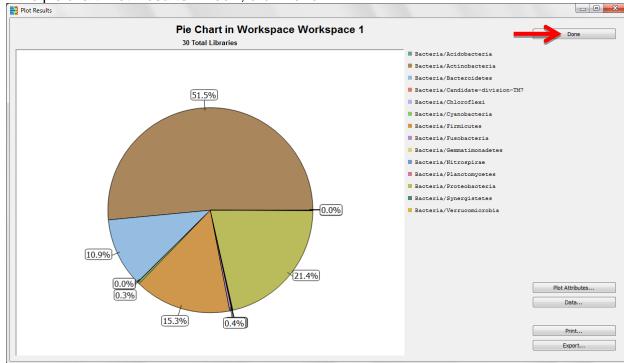
| Select Pie Chart Data               |                        |     |          |
|-------------------------------------|------------------------|-----|----------|
| ,                                   | Number of pie charts:  | 0   |          |
|                                     | vaniber of pie enares. |     | ОК       |
|                                     | Rows:                  | 1 🌩 | Cancel   |
|                                     | Columns:               | 1   |          |
| Include Charts for Totals           |                        |     |          |
|                                     |                        |     |          |
| Total of Plot                       |                        |     |          |
| 30 Total Libraries                  |                        |     |          |
|                                     |                        |     |          |
|                                     |                        |     |          |
| Pick up to 16 Libraries for 1 plot: |                        |     |          |
| alar crease:HV2-1-AIRSc             |                        |     | *        |
| antecubital fossa:HV2-1-AcRSc       |                        |     |          |
| antecubital fossa:HV2-1-AcRSw       |                        |     |          |
| antecubital fossa:HV8-AcRSc         |                        |     |          |
| back:HV1-1-BaCSc                    |                        |     |          |
| back:HV10-BaCSc                     |                        |     |          |
| back:HV2-1-BaCSc                    |                        |     |          |
| back:HV3-1-BaCSc                    |                        |     | E        |
| back:HV4-1-BaCSc                    |                        |     | -        |
| back:HV5-BaCSc                      |                        |     |          |
| back:HV6-1-BaCSc                    |                        |     |          |
| back:HV7-BaCSc                      |                        |     |          |
| back:HV8-BaCSc                      |                        |     |          |
| back:HV9-BaCSc                      |                        |     |          |
| buttock:HV7-BtRSc                   |                        |     |          |
| elbow:HV8-EIRSc                     |                        |     |          |
| gluteal crease:HV2-1-GcCSc          |                        |     |          |
| plantar heel:HV7-PhRSc              |                        |     |          |
| retroauricular crease:HV3-1-RaRS    | w                      |     |          |
| toe web space:HV8-TwRSc             |                        |     |          |
| umbilicus:HV1-1-UmCSw               |                        |     |          |
| LTC LINNA LL CC                     |                        |     | <b>T</b> |

A pop-up window with the pie chart appears.



By looking at the pie chart of the phyla, it is clear that the brown wedge, Actinobacteria, is the most prevalent phylum in the data.

Additionally, we can see that the green wedge, Proteobacteria, makes up the second largest portion of the total. To visualize the classes present within the Proteobacteria phylum, we can create pie chart sub-wedges.



### B. Make a Pie Chart with Sub-Wedges

In the pie chart Plot Results window, click Done

The **Taxonomy Pie Chart** setup window is back on the screen Use the drop down arrow to the left of "Proteobacteria" to find the classes within the phylum Shift-click all of the classes in the list

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### Click Add to Pie

| e Chart in Workspace Workspace 1                           |              |                         |                                  |                               |                 |                 |
|--|--------------|-------------------------|----------------------------------|-------------------------------|-----------------|-----------------|
| Format for Plot Names                                      |              |                         |                                  |                               |                 | Done            |
| OTU Start: 1   | Counts       | Hierarchy Level: 💿 Show | Libraries                        |                               |                 | Add to Pie      |
| OTU Width: 2   | % of Library | 3 🗘 💿 Show              | Sorted Libs 💿 Selected Libraries |                               |                 | Remove from Pie |
| -  | % of Total   |                         |                                  |                               |                 | Remove from Pie |
| OTU Show Last  | 6 % of lotal | ⊖ Snow                  | Lib Groups 30 Libs               |                               |                 | Add to Other    |
|  |              | Our Workspace Filter    | Workspace Filter:                |                               |                 |                 |
| Figures: No figure   | e selected 🔹 | 🔘 Use Figure Filter     | Figure Filter:                   |                               |                 |                 |
| ierarchy   | Total        | alar crease:HV2-1-AIRSc | antecubital fossa:HV2-1-AcRSc    | antecubital fossa:HV2-1-AcRSw | antecubital fos |                 |
| root   | 100%         | 100%                    | 100%                             | 100%                          |                 |                 |
| ▲ Bacteria   | 100%         | 100%                    | 100%                             | 100%                          |                 |                 |
| Acidobacteria  | 0.02%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Actinobacteria   | 51.50%       | 83.88%                  | 10.53%                           | 12.21%                        |                 |                 |
| Bacteroidetes  | 10.88%       | 1.32%                   | 36.18%                           | 28.38%                        |                 |                 |
| Candidate-division-TM7                                     | 0.02%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Chloroflexi  | 0.03%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Cyanobacteria  | 0.30%        | 0.33%                   | 1.32%                            | 0%                            |                 |                 |
| Firmicutes   | 15.28%       | 9.21%                   | 2.30%                            | 15.84%                        |                 |                 |
| Fusobacteria   | 0.35%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Gemmatimonadetes   | 0.03%        | 0%<br>0%                | 0%<br>0%                         | 0%<br>0%                      |                 |                 |
| Nitrospirae  | 0.05%        | 0%                      | 0%                               | 0%                            |                 |                 |
| <ul> <li>Planctomycetes</li> <li>Proteobacteria</li> </ul> | 21.41%       | 5.26%                   | 49.67%                           | 43.56%                        |                 |                 |
| Alphaproteobacteria  | 1.47%        | 5.20%                   | 49.07%                           | 45.36%                        |                 |                 |
| Betaproteobacteria   | 18.89%       | 5.26%                   | 43.75%                           | 38.94%                        |                 |                 |
| Deltaproteobacteria  | 0.02%        | 0%                      |                                  | 0%                            |                 |                 |
| Epsilonproteobacteria                                      | 0.08%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Gammaproteobacteria  | 0.95%        | 0%                      | 0%                               | 0.33%                         |                 |                 |
| > Synergistetes  | 0.03%        | 0%                      | 0%                               | 0%                            |                 |                 |
| <ul> <li>Verrucomicrobia</li> </ul>                        | 0.02%        | 0%                      | 0%                               | 0%                            |                 |                 |
|  |              |                         |                                  |                               |                 | Plot<br>Export  |
| +  | 4 F          | <                       |                                  |                               | +               | Save As Figure  |

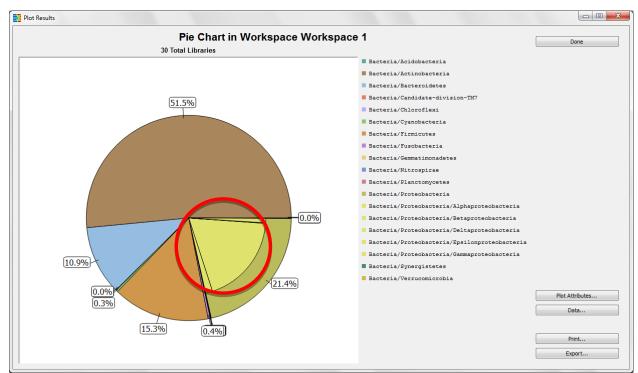
## The selected classes that were added to the pie are now bold Click **Plot**

| ie Chart in Workspace Workspace 1 |              |                         |                                  |                               |                 |                 |
|-----------------------------------|--------------|-------------------------|----------------------------------|-------------------------------|-----------------|-----------------|
| Format for Plot Names             |              |                         |                                  |                               |                 | Done            |
| OTU Start: 1                      | Counts       | Hierarchy Level: 💿 Show | Libraries                        |                               |                 | Add to Pie      |
| OTU Width: 2                      | % of Library | 3 🚊 💿 Show              | Sorted Libs 💿 Selected Libraries |                               |                 | Remove from Pie |
| V OTU Show Last                   | % of Total   | Show                    | Lib Groups 30 Libs               |                               |                 | Add to Other    |
|                                   |              | Ose Workspace Filter    | Workspace Filter:                |                               |                 |                 |
| Figures: No figure                | selected 🔻   | O Use Figure Filter     | Figure Filter:                   |                               |                 |                 |
| Hierarchy                         | Total        | alar crease:HV2-1-AIRSc | antecubital fossa:HV2-1-AcRSc    | antecubital fossa:HV2-1-AcRSw | antecubital fos |                 |
| 4 root                            | 100%         | 100%                    | 100%                             | 100%                          |                 |                 |
| ▲ Bacteria                        | 100%         | 100%                    | 100%                             | 100%                          |                 |                 |
| Acidobacteria                     | 0.02%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Actinobacteria                    | 51.50%       | 83.88%                  | 10.53%                           | 12.21%                        |                 |                 |
| Bacteroidetes                     | 10.88%       | 1.32%                   | 36.18%                           | 28.38%                        |                 |                 |
| Candidate-division-TM7            | 0.02%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Chloroflexi                       | 0.03%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Cyanobacteria                     | 0.30%        | 0.33%                   | 1.32%                            | 0%                            |                 |                 |
| Firmicutes                        | 15.28%       | 9.21%                   | 2.30%                            | 15.84%                        |                 |                 |
| Fusobacteria                      | 0.35%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Gemmatimonadetes                  | 0.03%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Nitrospirae                       | 0.05%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Planctomycetes                    | 0.07%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Proteobacteria                    | 21.41%       | 5.26%                   | 49.67%                           | 43.56%                        |                 |                 |
| Alphaproteobacteria               | 1.47%        | 0%                      | 5.92%                            | 4.29%                         |                 |                 |
| Betaproteobacteria                | 18.89%       | 5.26%                   | 43.75%                           | 38.94%                        |                 |                 |
| Deltaproteobacteria               | 0.02%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Epsilonproteobacteria             | 0.08%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Gammaproteobacteria               | 0.95%        | 0%                      | 0%                               | 0.33%                         |                 |                 |
| Synergistetes                     | 0.03%        | 0%                      | 0%                               | 0%                            |                 |                 |
| Verrucomicrobia                   | 0.02%        | 0%                      | 0%                               | 0%                            | _               | Plot            |
|                                   |              |                         |                                  |                               |                 | Export          |
| <                                 | ( ) k        | < III.                  |                                  |                               | - F             | Save As Figure  |

A new window will appear containing pie chart display options Again, we will create only a single pie chart displaying the combined libraries' data, so click **OK** 

| Select Pie Chart Data   |                       |     |        |
|---|-----------------------|-----|--------|
|   |                       |     |        |
|   | Number of pie charts: | 1   | ОК     |
|   | Rows:                 | 1 ≑ | Cancel |
|   | Columns:              | 1   | Cancer |
|   | Columns.              | 1 👻 |        |
| Include Charts for Totals   |                       |     |        |
| 0 Libraries on Plot   |                       |     |        |
| 30 Total Libraries  |                       |     |        |
|   |                       |     |        |
|   |                       |     |        |
| Pick up to 15 Libraries for 1 plot  |                       |     |        |
| alar crease:HV2-1-AIRSc   |                       |     | *      |
| antecubital fossa:HV2-1-AcRSc   |                       |     |        |
| antecubital fossa:HV2-1-AcRSw   |                       |     |        |
| antecubital fossa:HV8-AcRSc   |                       |     |        |
| back:HV1-1-BaCSc  |                       |     |        |
| back:HV10-BaCSc   |                       |     |        |
| back:HV2-1-BaCSc  |                       |     |        |
| back:HV3-1-BaCSc  |                       |     | =      |
| hashellW4_1_DacCC-  |                       |     |        |
| back:HV4-1-BaCSc  |                       |     |        |
| back:HV4-1-BaCSc<br>back:HV5-BaCSc  |                       |     |        |
|   |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc  |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc  |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc  |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc<br>buttock:HV7-BtRSc   |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc<br>buttock:HV7-BtRSc<br>elbow:HV8-EIRSc  |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc<br>buttock:HV9-BaCSc<br>buttock:HV7-BtRSc<br>elbow:HV8-EIRSc<br>gluteal crease:HV2-1-GcCSc   |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc<br>buttock:HV7-BtRSc<br>elbow:HV8-EIRSc<br>gluteal crease:HV2-1-GcCSc<br>plantar heel:HV7-PhRSc                                    |                       |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc<br>buttock:HV7-BtRSc<br>elbow:HV8-EIRSc<br>gluteal crease:HV2-1-GcCSc<br>plantar heel:HV7-PhRSc<br>retroauricular crease:HV3-1-RaR | Sw                    |     |        |
| back:HV5-BaCSc<br>back:HV6-1-BaCSc<br>back:HV7-BaCSc<br>back:HV8-BaCSc<br>back:HV9-BaCSc<br>buttock:HV7-BtRSc<br>elbow:HV8-EIRSc<br>gluteal crease:HV2-1-GcCSc<br>plantar heel:HV7-PhRSc                                    | Sw                    |     |        |

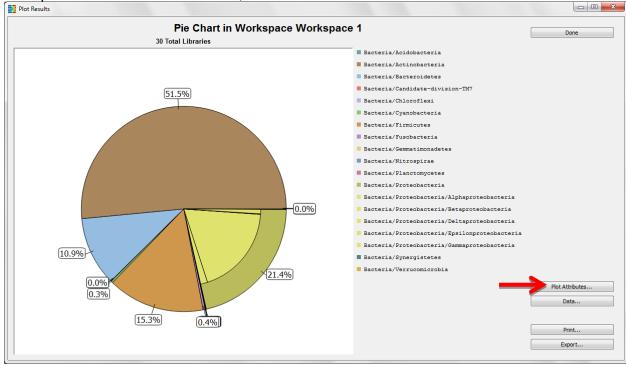
A pop-up window with the pie chart appears. We now see the classes within Proteobacteria represented as sub-wedges.



In order to better differentiate between the different classes, we can change the color of the sub-wedges.

### C. Change Wedge Colors in the Pie Chart





#### A pop-up window will appear Click on the **Colors** tab

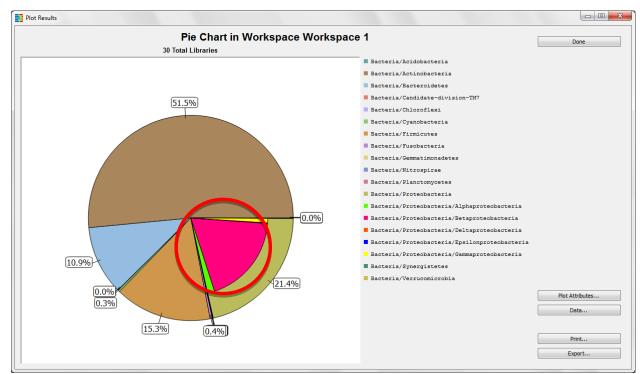
To pick a different wedge color, click on the color, and select a new color from the pop-up display

| Plot Attributes  |      |
|--|------|
| Titles/Axes Colors Size Background Color:  | Save |
| Wedge Colors:  |      |
| Bacteria/Acidobacteria   |      |
| Bacteria/Actinobacteria  |      |
| Bacteria/Bacteroidetes   |      |
| Bacteria/Candidate-division-TM7  |      |
| Bacteria/Chloroflexi   |      |
| Bacteria/Cyanobacteria   |      |
| Bacteria/Firmicutes  |      |
| Bacteria/Fusobacteria  |      |
| Bacteria/Gemmatimonadetes  |      |
| Bacteria/Nitrospirae   |      |
| Bacteria/Planctomycetes  |      |
| Bacteria/Proteobacteria  |      |
| Bacteria/Proteobacteria/Alphaproteobacteria  |      |
| Bacteria/Proteobacteria/Betaproteobacteria   |      |
| Bacteria/Proteobacteria/Deltaproteobacteria  |      |
| Bacteria/Proteobacteria/Alphaproteobacteria<br>Bacteria/Proteobacteria/Betaproteobacteria<br>Bacteria/Proteobacteria/Deltaproteobacteria<br>Bacteria/Proteobacteria/Epsilonproteobacteria<br>Bacteria/Proteobacteria/Epsilonproteobacteria |      |
| Bactena/Proteobactena/Gammaproteobactena   |      |
| Bacteria/Synergistetes   |      |
|  |      |

When finished, click **Save** in upper right corner of window

| tes/Axes Colors Pie Chart Size                |   | Save   |
|---|---|--------|
| Background Color:                             |   | Cancel |
|   |   |        |
| Wedge Colors:                                 |   |        |
| Bacteria/Acidobacteria                        | × |        |
| Bacteria/Actinobacteria                       |   |        |
| Bacteria/Bacteroidetes                        |   |        |
| Bacteria/Candidate-division-TM7               |   |        |
| Bacteria/Chloroflexi                          |   |        |
| Bacteria/Cyanobacteria                        |   |        |
| Bacteria/Firmicutes                           |   |        |
| Bacteria/Fusobacteria                         |   |        |
| Bacteria/Gemmatimonadetes                     | = |        |
| Bacteria/Nitrospirae                          |   |        |
| Bacteria/Planctomycetes                       |   |        |
| Bacteria/Proteobacteria                       |   |        |
| Bacteria/Proteobacteria/Alphaproteobacteria   |   |        |
| Bacteria/Proteobacteria/Betaproteobacteria    |   |        |
| Bacteria/Proteobacteria/Deltaproteobacteria   |   |        |
| Bacteria/Proteobacteria/Epsilonproteobacteria |   |        |
| Bacteria/Proteobacteria/Gammaproteobacteria   |   |        |
| Bacteria/Synergistetes                        |   |        |

Plot Attributes window will disappear; changes will be shown on the plot.



You may choose to save the pie chart as a figure. To do so, continue as shown earlier in the stacked bar chart example; close the graphics window, and select **Save As Figure** in the **Pie Chart** window.

## VIII. Create a Workspace

A workspace is a way for users to make experiments on copies or subsets of their entire data set, while keeping the original data fully intact.

Although the skin is a single organ, it harbors microbial communities that live in a range of physiologically and topographically distinct niches. The back is typically a sebaceous region, whereas the umbilicus is often a moist region of the body. Therefore, these two niches may have different taxa present. We will create a workspace for a mini-experiment to compare data from only these two anatomical positions.

### A. Create a New Workspace

### $\textbf{File} \rightarrow \textbf{New} \rightarrow \textbf{Workspace from Current Workspace}$

• "from Current Workspace" allows us to copy all of the display changes we've already made to the new workspace.

Enter desired workspace name in the pop-up window

Click OK to create the new workspace



The name of the current workspace is displayed in the upper left corner of the window.

|   | : Data Group Tools View Help   |  |  |   |   |   |          |
|---|--|--|--|---|---|---|----------|
|   |  |  |  |   |   |   |          |
| Project:  | Tutorial_HSM   | O Hierarch   | ny 🔘 Counts OTU  | Start: 1 Hierarchy Level:   | <ul> <li>Show Libraries</li> <li>All Libraries</li> </ul>   |   |          |
| Workspa   | ce: Back+Umbilicus   | © OTU  | % of Library OTU   | Width: 2 3 💂  | Show Sorted Libs  | Clone Wo  | orkspace |
|   |  | Both   | 🔿 % of Total 🛛 📝 C   | TU Show Last  | Show Lib Groups 30 Libs   | Sav   | ve       |
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| Hierarchy   | /  | Total  | alar crease:HV2-1-AIRSc  | antecubital fossa:HV2-1-AcRSc   | antecubital fossa:HV2-1-AcRSw   | antecubital fossa:HV8-AcRSc   | back:HV1 |
| ⊿ root  |  | 100%   | 100%   | 100%  | 100%  | 100%  |          |
|   | acteria  | 100%   | 100%   | 100%  | 100%  | 100%  |          |
| Þ   | Acidobacteria  | 0.02%  | 0%   | 0%  | 0%  | 0%  |          |
| Þ   | > Actinobacteria   | 51.50%   | 83.88%   | 10.53%  | 12.21%  | 12.87%  |          |
| Þ   | > Bacteroidetes  | 10.88%   | 1.32%  | 36.18%  | 28.38%  | 24.75%  |          |
|   | Candidate-division-TM7   | 0.02%  | 0%   | 0%  | 0%  | 0%  |          |
| Þ   | > Chloroflexi  | 0.03%  | 0%   | 0%  | 0%  | 0%  |          |
| Þ   | > Cyanobacteria  | 0.30%  | 0.33%  | 1.32%   | 0%  | 0%  |          |
| Þ   | Firmicutes   | 15.28%   | 9.21%  | 2.30%   | 15.84%  | 1.32%   |          |
| Þ   | > Fusobacteria   | 0.35%  | 0%   | 0%  | 0%  | 0%  |          |
| D   | Gemmatimonadetes   | 0.03%  | 0%   | 0%  | 0%  | 0%  |          |
| D   | > Nitrospirae  | 0.05%  | 0%   | 0%  | 0%  | 0%  |          |
| Þ   | Planctomycetes   | 0.07%  | 0%   | 0%  | 0%  | 0%  |          |
| Þ   | Proteobacteria   | 21.41%   | 5.26%  | 49.67%  | 43.56%  | 61.06%  |          |
|   |  |  |  |   |   |   |          |
|   | <ul> <li>&gt; Synergistetes</li> <li>&gt; Verrucomicrobia</li> </ul>   | 0.03%  | 0%   | 0%<br>0%  | 0%<br>0%  | 0%<br>0%  |          |
| 0   | <ul> <li>Verrucomicrobia</li> </ul>  | 0.02%  | 0%   | 0%  | 0%  | 0%  |          |
| OTL   | <ul> <li>Verrucomicrobia</li> <li>J Rule Set:</li> </ul>   | 0.02%  | <ul> <li>0%</li> <li>Image: alar crease:HV2-1-AIRSc</li> </ul>   | 0% antecubital fossa:HV2-1-AcRSc  | 0%<br>antecubital fossa:HV2-1-AcRSw   | 0%<br>antecubital fossa:HV8-AcRSc   |          |
| OTL<br>root   | <ul> <li>Verrucomicrobia</li> <li>J Rule Set:</li> </ul>   | 0.02%  | < III<br>alar crease:HV2-1-AIRSc<br>100%   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%   |          |
| OTL<br>root<br>Bact   | <ul> <li>Verrucomicrobia</li> <li>J Rule Set:</li> <li>teria/Acidobacteria//Candidatus-Chloraci</li> </ul>   | 0.02%  | < m<br>alar crease:HV2-1-AIRSc<br>100%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%   |          |
| OTL<br>root<br>Bact   | <ul> <li>Verrucomicrobia</li> <li>J Rule Set:</li> <li>t</li> <li>teria/Actidobacteria//Candidatus-Chloraci</li> <li>teria/Actinobacteria//Acidimicrobiales</li> </ul>   | 0.02%  | 0%   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%   |          |
| OTL<br>root<br>Bact   | <ul> <li>Verrucomicrobia</li> <li>J Rule Set:</li> <li>teria/Acidobacteria//Candidatus-Chloraci</li> </ul>   | 0.02%  | 0%<br>« ""<br>alar crease:HV2-1-AIRSc<br>100%<br>0%<br>0%  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%   |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact   | <ul> <li>Verrucomicrobia</li> <li>J Rule Set:</li> <li>t</li> <li>teria/Actidobacteria//Candidatus-Chloraci</li> <li>teria/Actinobacteria//Acidimicrobiales</li> </ul>   | 0.02%<br>▲ →<br>Total<br>100%<br>0.02%<br>0.01%<br>0.03%<br>0.03%  | * m<br>alar crease:HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0%<br>0.33%  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%   |          |
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| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bac  | » Verrucomicrobia<br>J Rule Set:<br>teria/Actiobacteria//Candidatus-Chloraci<br>teria/Actinobacteria//Acidimicrobialese<br>teria/Actinobacteria//Acidimicrobialese<br>teria/Actinobacteria//Actinomycetaceae<br>teria/Actinobacteria//Actinomycetaceae<br>teria/Actinobacteria//Mobiluncus<br>teria/Actinobacteria//Mobiluncus<br>teria/Actinobacteria//Mobiluncus   | 0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.05%<br>0.02%<br>0.02%  | € m<br>alar crease.HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%           |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bac  | Verrucomicrobia J Rule Set: teria/Actiobacteria//Candidatus-Chloraci teria/Actiobacteria//Acidimicrobiales teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Corynebacteriaceae teria/Actinobacteria//Corynebacteriaceae teria/Actinobacteria//Corynebacteriaceae   | 0.02%<br>Total<br>0.02%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.48%<br>0.48%<br>18.25%   | * III<br>alar crease:HV2-1-AIRSc<br>100%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%   | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                 |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>1 Bact   | Verrucomicrobia Verrucomicrobia J Rule Set: teria/Actinobacteria//Candidatus-Chloraci teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Corynebacteriaceae teria/Actinobacteria//Corynebacteria teria/Actinobacteria//Corynebacteria  | 0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.03%<br>0.02%<br>0.03%<br>0.02%<br>0.03%<br>0.02%<br>0.03%<br>0.02%<br>0.03%<br>0.02%<br>0.03%<br>0.02%<br>0.03%<br>0.02%<br>0.02%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.0 |  | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%     |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>1 Bact<br>1 Bact<br>2 Bact   | » Verrucomicrobia » Verrucomicrobia » Verrucomicrobia » J. Rule Set: tetria/Actiobacteria//Candidatus-Chloraciteria/Actinobacteria//Acidimicrobialese teria/Actinobacteria//Acidimicrobialese teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Mobiluncus teria/Actinobacteria//Corynebacteriaceae teria/Actinobacteria//Corynebacterium teria/Actinobacteria//Corynebacterium teria/Actinobacteria//Corynebacterium teria/Actinobacteria//Corynebacterium teria/Actinobacteria//Corynebacterium teria/Actinobacteria//Corynebacterium  | 0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02% 0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.0    | 0%           alar creaseHV2-1-AIRSc           100%           0%           03%            | 0% antecubital fossa:HV2-1-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%                         | antecubital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%           |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bac  | Verrucomicrobia Verrucomicrobia J Rule Set: teria/Actiobacteria//Candidatus-Chloraci teria/Actiobacteria//Acidimicrobiales teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Actiomyces teria/Actinobacteria//Actiomyces teria/Actinobacteria//Actiomyces teria/Actinobacteria//Actiomyces teria/Actinobacteria//Varibaculum teria/Actinobacteria//Varibaculum teria/Actinobacteria//Oiptizia teria/Actinobacteria//Dietzia teria/Actinobacteria//Nocardiaceae  | <ul> <li>0.02%</li> <li>0.02%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.03%</li> <li>0.28%</li> <li>0.02%</li> <li>0.48%</li> <li>0.02%</li> <li>0.48%</li> <li>0.02%</li> <li>0.48%</li> <li>0.04%</li> <li< td=""><td>0%           alar crease:HV2-1-AIRSc           100%           0%</td><td>0%<br/>antecubital fossa:HV2-1-AcRSc<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>0%<br/>antecubital fossa:HV2-1-AcRSw<br/>100%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0%<br/>0.33%<br/>0%<br/>0.33%<br/>0%<br/>0.33%<br/>0%<br/>0%<br/>0%<br/>0%</td><td>0% antecubital fossa:HV8-AcRSc 100% 0% 0% 0% 0% 0% 0% 033% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%</td><td></td></li<></ul>  | 0%           alar crease:HV2-1-AIRSc           100%           0% | 0%<br>antecubital fossa:HV2-1-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%                      | 0% antecubital fossa:HV8-AcRSc 100% 0% 0% 0% 0% 0% 0% 033% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%                     |          |
| OTL     root     Bact     Bact | Verrucomicrobia Verrucomicrobia J Rule Set: teria/Actinobacteria//Candidatus-Chloraci teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Orynebacteriame teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opicacia teria/Actinobacteria//Nycobacterium teria/Actinobacteria//Nycobacterium teria/Actinobacteria//Nycordiaceae teria/Actinobacteria//Orordonia | 0.02%<br>Total<br>0.02%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.02%   | * m<br>alar crease:HV2-1-AIRSc<br>100%<br>0%<br>0%<br>033%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0   | 0% antecubital fossa:HV2-1-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0% antecubital fossa:HV8-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bac  | Verrucomicrobia Verrucomicrobia J Rule Set: teria/Actinobacteria//Candidatus-Chloraci teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Mobiluncus teria/Actinobacteria//Mobiluncus teria/Actinobacteria//Orynebacteriaceae teria/Actinobacteria//Orynebacterium teria/Actinobacteria//Nocradiaceae teria/Actinobacteria//Nocradiaceae teria/Actinobacteria//Nocradiaceae teria/Actinobacteria//Rodococcus  | 0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.02%  | 0%           alar creaseHV2-1-AIRSc           100%           0%           03%            | 0% antecubital fossa:HV2-1-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.33%<br>0.33%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0% antecubital fossa:HV8-AcRSc 100% 0% 0% 0% 0% 0% 0% 033% 0% 033% 0% 0% 0.39% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% |          |
| OTL<br>root<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bact<br>Bac  | Verrucomicrobia Verrucomicrobia J Rule Set: teria/Actinobacteria//Candidatus-Chloraci teria/Actinobacteria//Acidimicrobiales teria/Actinobacteria//Actinomycetaceae teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Actinomyces teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Orynebacteriame teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opibluncus teria/Actinobacteria//Opicacia teria/Actinobacteria//Nycobacterium teria/Actinobacteria//Nycobacterium teria/Actinobacteria//Nycordiaceae teria/Actinobacteria//Orordonia | 0.02%<br>Total<br>0.02%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.02%   | * m<br>alar crease:HV2-1-AIRSc<br>100%<br>0%<br>0%<br>033%<br>0%<br>0.33%<br>0%<br>0.33%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0  | 0% antecubital fossa:HV2-1-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | 0%<br>antecubital fossa:HV2-1-AcRSw<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0% antecubital fossa:HV8-AcRSc 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%   | back:HV  |

## IX. Apply a Filter

To compare data from only the back and umbilicus, we need to separate these libraries from the other body parts. This is done in Explicet via "filters".

### A. Create a Filter

### $\textbf{Data} \rightarrow \textbf{Select Libraries}$

New pop-up window appears for creation of filters Click **New** on far right side of window

| Select  |                    |                       |             |
|---|--------------------|-----------------------|-------------|
| Filters: No filter assigned   | is Filter          |                       | Done Select |
| Metadata Selection Criteria   |                    | Delete/Group/Move     |             |
| And/Or Metadata   | Operator Value     | Clear All Add         | New         |
| To assign a filter to this workspace, create a new filter or pick an existing filter,<br>then dick Save. To create a filter, dick New |                    | Delete                | Save Filter |
|   |                    | Add Parentheses       | Save As     |
|   |                    | Remove Parentheses    | Rename      |
|   |                    | Move Up               | Delete      |
|   |                    | Move Down             |             |
| Taxonomy Selection Criteria   |                    |                       |             |
|   |                    | Delete/Group/Move Add |             |
| And/Or Metadata   | Operator Value     | Clear All Delete      |             |
|   |                    | Add Parentheses       |             |
|   |                    | E Remove Parentheses  |             |
|   |                    | Move Up               |             |
|   |                    | - Move Down           |             |
|   |                    |                       |             |
| Libraries Selected  |                    |                       |             |
| Library   | Total Member Count | OTU Matched Count     |             |
|   |                    |                       |             |
|   |                    |                       |             |
|   |                    |                       |             |
|   |                    |                       |             |
|   |                    |                       |             |
|   |                    |                       |             |

## Enter desired filter name in the pop-up window Click **OK**

| New Filter     |   | 9   | ×   |
|----------------|---|-----|-----|
| Filter name:   |   |     |     |
| Back+Umbilicu: | s |     |     |
| ОК             |   | Can | cel |

The filter name will appear in upper left corner of window.

| Item:       Next/File:       Delete/Group/More       Add       Mere         March/Or       Metadata       Operator       Value       Clear All       Mere         To add a new oriteria for Metadata, dick Add       Clear All       Mere   | Select  |                    |                    |     |
|--|---|--------------------|--------------------|-----|
| And/Or       Metadata       Operator       Value       Clear AI       Add       New         Image: Clear AI       Image: Clear A   | Filters: Back+Umblicus   Next Filt                      | er Previous Filter |                    |     |
| And/Or       Metadata       Operator       Value       Clear Al       Add       New         To add a new criteria for Metadata, click Add       Image: Clear Al  | Metadata Selection Criteria                             |                    | Delata (Craup Mayo |     |
| To add a new oriteria for Metadata, click Add       Image: Comparison of the com | And/Or Metadata   | Operator Value     |                    | New |
| To add a new criteria for Metadata, dick Add   To add a new criteria for Metadata, dick Add     And Parentheses     Move Up   Move Down     Taxonomy Selection Criteria     And/Or   Metadata   Operator   Value   Clear All   Delete     Add Parentheses   Rename   Delete     And/Or   Metadata   Operator   Value   Clear All   Delete   Add Parentheses   Remove Parentheses   Add Parentheses   Remove Parentheses   Move Up   Add Parentheses   Remove Parentheses   Move Up   Move Up   Move Up   Move Down           Ubraries Selected   |   |                    | Delete             |     |
| Remove Parentheses       Remame         Move Up       Delete         Move Down       Move Down         Taxonomy Selection Criteria       Delete/Group/Move         And/Or       Metadata         Operator       Value         Clear Al       Delete         And Parentheses       Add         To add a new selection criteria for Taxonomy, click Add       Image: Move Up         Move Up       Move Up         Move Up       Move Up         Move Up       Move Up         Move Up       Move Up         Ubraries Selected       Lubraries Selected  | To add a new criteria for Metadata, click Add           |                    | Add Parentheses    |     |
| Image: Selected       Move Up       Delete         Move Down       Move Down       Delete         And/Or       Metadata       Operator       Value       Clear Al         Delete       Add       Delete       Add         To add a new selection criteria for Taxonomy, click Add       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add         Image: Clear Al       Image: Clear Al       Image: Clear Al       Image: Clear Al       Delete       Add   |   |                    | Remove Parentheses |     |
| Taxonomy Selection Criteria       Move Down         And/Or       Metadata         Operator       Value         Clear All       Delete         Add Parentheses       Add Parentheses         To add a new selection criteria for Taxonomy, dick Add       Image: Clear All Clear  |   |                    | Move Up            |     |
| Delete/Group/Move     Add       And/Or     Metadata     Operator     Value     Clear All     Delete       To add a new selection criteria for Taxonomy, dick Add     Image: Comparison of the selected     Add Parentheses     Add Parentheses   |   |                    | Move Down          |     |
| Delete/Group/Move     Add       And/Or     Metadata     Operator     Value     Clear All     Delete       To add a new selection criteria for Taxonomy, dick Add     Image: Comparison of the selected     Add Parentheses     Add Parentheses   |   |                    | *                  |     |
| And/Or     Metadata     Operator     Value     Clear Al       To add a new selection criteria for Taxonomy, dick Add     Image: Clear Al     Image: Clear Al     Image: Clear Al       To add a new selection criteria for Taxonomy, dick Add     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al       Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear Al     Image: Clear   | Taxonomy Selection Criteria                             |                    | Delete/Group/Move  |     |
| To add a new selection criteria for Taxonomy, dick Add  Add Parentheses  Remove Parentheses  Move Up  Move Down  Libraries Selected  | And/Or Metadata   | Operator Value     | Clear All          |     |
| Libraries Selected   |   |                    | ^                  |     |
| Libraries Selected   | To add a new selection criteria for Taxonomy, click Add |                    |                    |     |
| Lbraries Selected  |   |                    |                    |     |
| Libraries Selected   |   |                    |                    |     |
|  |   |                    | - Move Down        |     |
|  | Libraries Selected                                      |                    |                    |     |
|  |   | Total Member Count | OTU Matched Count  |     |
|  |   |                    |                    |     |
|  |   |                    |                    |     |
|  |   |                    |                    |     |
|  |   |                    |                    |     |
|  |   |                    |                    |     |
|  |   |                    |                    |     |
|  |   |                    |                    |     |

Now that we have created a new filter, we need to set up the parameters to filter by. We will select for all libraries that were sampled from the "back" or "umbilicus" anatomical sites.

B. Set Up the Filter Parameters Click Add in the Metadata Criteria pane

| Select   |                   |                   |                        | - • ×                  |
|--|-------------------|-------------------|------------------------|------------------------|
| Filters: Back+Umbilicus    Next Filte  Metadata Selection Criteria | r Previous Filter | Delete/Group/Move |                        | Done<br>Select         |
| And/Or Metadata  | Operator Va       | lue Clear All     | Add                    | New                    |
| To add a new criteria for Metadata, click Add                      |                   | *                 | Delete Add Parentheses | Save Filter<br>Save As |
|  |                   |                   | Remove Parentheses     | Rename                 |
|  |                   |                   | Move Up                | Delete                 |
|  |                   | -                 | Move Down              |                        |
| Taxonomy Selection Criteria  |                   | Delete/Group/Move | Add                    |                        |
| And/Or Metadata  | Operator Va       | lue Clear All     | Delete                 |                        |
| To add a new selection criteria for Taxonomy, click Add            |                   |                   | Add Parentheses        |                        |
|  |                   | =                 | Remove Parentheses     |                        |
|  |                   |                   | Move Up                |                        |
|  |                   |                   | Move Down              |                        |
| Libraries Selected   |                   |                   |                        |                        |
| Library  | Total Me          | mber Count OTI    | J Matched Count        |                        |
|  |                   |                   |                        |                        |
|  |                   |                   |                        |                        |
|  |                   |                   |                        |                        |
|  |                   |                   |                        |                        |
|  |                   |                   |                        |                        |
|  |                   |                   |                        |                        |

Use the first pull-down menu to select "Anatomy" (**Metadata** to filter by) Use the second pull-down menu to select "contains" (filter **Operator**) Enter "back" into **Value** 

| Select   |                    |  |   |
|--|--------------------|--|---|
| Filters: Back+Umbilicus    Next Filter  Metadata Selection Criteria  And/Or Metadata Operat  Library     |                    | Delete/Group/Move Clear All Clear Al Delete Add Parentheses Remove Parentheses Move Up Move Down                           | Done<br>Select<br>New<br>Save Filter<br>Save As<br>Rename<br>Delete |
| Taxonomy Selection Criteria<br>And/Or Metadata<br>To add a new selection criteria for Taxonomy, dick Add | Operator Value     | Delete/Group/Move<br>Clear All<br>Delete<br>Add<br>Delete<br>Add Parentheses<br>Remove Parentheses<br>Move Up<br>Move Down |   |
| Libraries Selected   | Total Member Count | OTU Matched Count  |   |

Click Add in the Metadata Criteria pane

| Select                  |                                     |                        |                    |                     |                    |             |
|-------------------------|-------------------------------------|------------------------|--------------------|---------------------|--------------------|-------------|
| Filters: Back+Umbilic   | cus 🔻 Next                          | Filter Previous Filter |                    |                     |                    | Done Select |
| Metadata Selection Crit | teria                               |                        |                    | Delete/Group/Move _ |                    |             |
| And/Or                  | Metadata                            | Operator               | Value              | Clear All           | Add                | New         |
|                         | Anatomy                             | contains -             | back               |                     | Delete             | Save Filter |
|                         |                                     |                        |                    |                     | Add Parentheses    | Save As     |
|                         |                                     |                        |                    |                     | Remove Parentheses | Rename      |
|                         |                                     |                        |                    |                     | Move Up            | Delete      |
|                         |                                     |                        |                    | -                   | Move Down          |             |
| Taxonomy Selection Cri  | iteria                              |                        |                    |                     |                    |             |
|                         |                                     |                        |                    | Delete/Group/Move   | Add                |             |
| And/Or                  | Metadata                            | Operator               | Value              |                     | Delete             |             |
| To add a new selection  | on criteria for Taxonomy, click Add |                        |                    |                     | Add Parentheses    |             |
|                         |                                     |                        |                    | =                   | Remove Parentheses |             |
|                         |                                     |                        |                    |                     | Move Up            |             |
|                         |                                     |                        |                    | -                   | Move Down          |             |
| Libraries Selected      |                                     |                        |                    |                     |                    |             |
|                         | Library                             |                        | Total Member Count | OTU M               | atched Count       |             |
|                         |                                     |                        |                    |                     |                    |             |
|                         |                                     |                        |                    |                     |                    |             |
|                         |                                     |                        |                    |                     |                    |             |
|                         |                                     |                        |                    |                     |                    |             |
|                         |                                     |                        |                    |                     |                    |             |
|                         |                                     |                        |                    |                     |                    |             |
|                         |                                     |                        |                    |                     |                    |             |

Use the first pull-down menu to select "Or" Use the second pull-down menu to select "Anatomy" (**Metadata** to filter by) Use the third pull-down menu to select "contains" (filter **Operator**) Enter "umbilicus" into **Value** 

| Select                                      |                         |                    |                   |                    |             |
|---|-------------------------|--------------------|-------------------|--------------------|-------------|
| Filters: Back+Umbilicus                     | Next Filter     Previou | s Filter           |                   |                    | Done Select |
| Metadata Selection Criteria                 |                         |                    | Delete/Group/Move |                    |             |
| And/Or Metadata                             | Operator                | Value              | Clear All         | Add                | New         |
| Anatomy                                     |                         | ▼ back             |                   | Delete             | Save Filter |
|   |                         |                    |                   | Add Parentheses    | Save As     |
| or  | ▼ equals                | <b>▼</b>           |                   | Remove Parentheses | Rename      |
|   |                         |                    |                   | Move Up            | Delete      |
|   |                         |                    |                   | Move Down          | beea        |
|   |                         |                    | Ŧ                 |                    |             |
| Taxonomy Selection Criteria                 |                         |                    |                   |                    |             |
| And/Or Metadata                             |                         | Operator Value     | Delete/Group/Move | Add                |             |
|   |                         |                    |                   | Delete             |             |
| To add a new selection criteria for Taxonor | ny, click Add           |                    |                   | Add Parentheses    |             |
|   |                         |                    | =                 | Remove Parentheses |             |
|   |                         |                    |                   | Move Up            |             |
|   |                         |                    | -                 | Move Down          |             |
|   |                         |                    |                   |                    |             |
| Libraries Selected                          |                         |                    |                   |                    |             |
| Libra                                       | ry                      | Total Member Count | OTU Matc          | hed Count          |             |
|   |                         |                    |                   |                    |             |
|   |                         |                    |                   |                    |             |
|   |                         |                    |                   |                    |             |
|   |                         |                    |                   |                    |             |
|   |                         |                    |                   |                    |             |
|   |                         |                    |                   |                    |             |
|   |                         |                    |                   |                    |             |

To apply filter, click **Select** in upper right corner of window Click **Save Filter** on far right side of window to keep the filter

| Select                        |   |                 |                   |                                |   |             |
|-------------------------------|---|-----------------|-------------------|--------------------------------|---|-------------|
| Filters: Back+Umbili          | icus 🔻  | Next Filter Pre | evious Filter     |                                |   | Done Select |
| Metadata Selection Cri        | iteria  |                 |                   | Delete/Group/Move              |   |             |
| And/Or                        | Metadata  | Operator        | Value             | Clear All                      | Add   | New         |
|                               | Anatomy   | ▼ contains      | ▼ back            |                                | Delete  | Save Filter |
|                               |   |                 |                   |                                | Add Parentheses   | Save As     |
| or 🔻                          | Anatomy   | ▼ contains      | ▼ umbilicus       |                                | Remove Parentheses  | Rename      |
|                               |   |                 |                   |                                | Move Up   | Delete      |
|                               |   |                 |                   |                                | Move Down   |             |
| And/Or<br>To add a new select | Metadata<br>ion criteria for Taxonomy, click Ac | ld              | Operator Value    | Delete/Group/Move<br>Clear All | Add Delete Add Parentheses Remove Parentheses Move Up Move Down |             |
| raries Selected               | Library   |                 | Total Member Cour | nt OTU                         | Matched Count   | 1           |
|                               |   |                 |                   |                                |   |             |

Click **Done** in upper right corner of window

| Select  |                                       |                                  |  |                   |  |             |
|---|---------------------------------------|----------------------------------|--|-------------------|--|-------------|
| Filters: Back+Umbil   | licus                                 | Filter Previous Fi               | lter   |                   |  | Done        |
| letadata Selection Cr   | iteria                                |                                  |  |                   |  |             |
|   | Metadata                              |                                  | Value  | Delete/Group/Move | Add  |             |
| And/Or  | Metadata                              | Operator                         | value  |                   | Delete                                     | New         |
|   | Anatomy                               | contains                         | ▼ back                                       |                   |  | Save Filter |
|   | Anatomy                               |                                  | -  |                   | Add Parentheses                            | Save As     |
| or 🔻  | Anatomy                               | contains                         | ▼ umbilicus                                  |                   | Remove Parentheses                         | Rename      |
|   |                                       |                                  |  |                   | Move Up                                    |             |
|   |                                       |                                  |  |                   | Move Down                                  | Delete      |
|   |                                       |                                  |  |                   | Move Down                                  |             |
| To add a new select   | tion criteria for Taxonomy, click Add |                                  |  | =                 | Add Parentheses Remove Parentheses Move Up |             |
| Librarian Salartard   | 10 Total Libraries                    |                                  |  | <b>•</b>          | Move Down                                  |             |
| Libraries Selected 3  |                                       |                                  | Total Member Count                           |                   |  |             |
|   | 30 Total Libraries<br>Library         | 3                                | Total Member Count                           |                   |  | 1           |
| V1-1-BaCSc  |                                       | 30                               | 05   |                   |  |             |
| V1-1-BaCSc<br>V10-BaCSc   |                                       |                                  | 05<br>39                                     |                   | ched Count                                 |             |
| V1-1-BaCSc<br>V10-BaCSc<br>V2-1-BaCSc   |                                       | 28                               | 05<br>39<br>54                               |                   | ched Count                                 |             |
| IV1-1-BaCSc<br>IV10-BaCSc<br>IV2-1-BaCSc<br>IV3-1-BaCSc<br>IV4-1-BaCSc  |                                       | 28<br>35<br>18<br>29             | 15<br>39<br>54<br>30<br>36                   |                   | ched Count                                 |             |
| IVI-1-BaCSc<br>IVI0-BaCSc<br>IV2-1-BaCSc<br>IV3-1-BaCSc<br>IV4-1-BaCSc<br>IV5-BaCSc   |                                       | 28<br>31<br>18<br>29<br>54       | 15<br>39<br>54<br>30<br>36<br>41             |                   | ched Count                                 |             |
| IVI-1-BaCSc<br>IVI0-BaCSc<br>IVI2-1-BaCSc<br>IV3-1-BaCSc<br>IV4-1-BaCSc<br>IV5-BaCSc<br>IV5-BaCSc   |                                       | 25<br>33<br>18<br>29<br>54<br>33 | 15<br>39<br>54<br>30<br>96<br>41<br>34       |                   | ched Count                                 |             |
| Ubraries Selected 3<br>4V1-1-BaCSc<br>4V10-BaCSc<br>4V2-1-BaCSc<br>4V3-1-BaCSc<br>4V4-1-BaCSc<br>4V4-1-BaCSc<br>4V5-BaCSc<br>4V6-1-BaCSc<br>4V7-BaCSc |                                       | 28<br>31<br>18<br>29<br>54       | 05<br>39<br>54<br>30<br>66<br>11<br>34<br>38 |                   | ched Count                                 |             |

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| 4 root   | 100%  | 100   | 6  | 100%   |                              | 100%  | 100%  |          |
| ▲ Bacteria   | 100%  | 100   |  | 100%   |                              | 100%  | 100%  |          |
| Acidobacteria  | 0.02%   | 0'  |  | 0%   |                              | 0%  | 0%  |          |
| Actinobacteria   | 51.50%  | 83.88   |  | 10.53%   |                              | 2.21%   | 12.87%  |          |
| Bacteroidetes  | 10.88%  | 1.32  |  | 36.18%   | 28                           | 3.38%   | 24.75%  |          |
| Candidate-division-TM7   | 0.02%   | 0'  |  | 0%   |                              | 0%  | 0%  |          |
| Chloroflexi  | 0.03%   | 0.33  |  | 1.32%  |                              | 0%  | 0%  |          |
| <ul> <li>Cyanobacteria</li> <li>Firmicutes</li> </ul>  | 15.28%  | 9.21  |  | 2.30%  | 10                           | 0%  | 1.32%   |          |
| <ul> <li>Firmicutes</li> <li>Fusobacteria</li> </ul>   | 0.35%   | 9.21  |  | 2.50 %   | 1.                           | 0%  | 0%  |          |
| <ul> <li>Genmatimonadetes</li> </ul>   | 0.03%   | 0'  |  | 0%   |                              | 0%  | 0%  |          |
| <ul> <li>Nitrospirae</li> </ul>  | 0.05%   | 0'  |  | 0%   |                              | 0%  | 0%  |          |
| Planctomycetes   | 0.07%   | 0'  | 6  | 0%   |                              | 0%  | 0%  |          |
|  |   |   |  |  |                              |   | 61.06%  |          |
| Proteobacteria   | 21.41%  | 5.26  | 6  | 49.67%   | 4:                           | 3.56%   |   |          |
| <ul> <li>Proteobacteria</li> <li>Synergistetes</li> </ul>  | 0.03%   | 0'  | %  | 0%   | 4:                           | 0%  | 0%  |          |
| Proteobacteria   |   |   | %  |  | 4:                           |   |   |          |
| <ul> <li>Proteobacteria</li> <li>Synergistetes</li> <li>Verrucomicrobia</li> </ul>   | 0.03%<br>0.02%  | 0'<br>0'  | %  | 0%<br>0%   |                              | 0%<br>0%  | 0%<br>0%  |          |
| Proteobacteria     Synergistetes     Verrucomicrobia  OTU Rule Set:  | 0.03%<br>0.02%<br>< >   | 0'<br>0'<br>< III<br>alar crease:HV2-1-AIRSc  | %<br>%<br>antecubital fo   | 0%<br>0%   | antecubital fossa:HV2-1-AcRS | 0%<br>0%  | 0%<br>0%<br>bital fossa:HV8-AcRSc   | back:HV  |
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| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Acidobacteria//Candidatus-Chloraci   | 0.03%<br>0.02%<br>Total<br>100%<br>0.02%  | 0'<br>0'<br>(   | antecubital fc   | 0%<br>0%<br>0%<br>0%   | antecubital fossa:HV2-1-AcRS | 0%<br>0%<br>0%<br>antecut<br>100%<br>0%   | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%   |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      OTU Rule Set:      Toot Bacteria/Acidobacteria//Candidatus-Chloraci Bacteria/Acidobacteria//Acidimicrobiales  | 0.03%<br>0.02%<br>∢ ► ►<br>Total<br>100%<br>0.02%<br>0.01%  | < m<br>alar crease:HV2-1-AIRSc<br>100'<br>0'  | antecubital fo   | 0%<br>0%<br>0%<br>0%   | antecubital fossa:HV2-1-AcRS | 0%<br>0%<br>antecut<br>100%<br>0%   | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%   |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      Toot Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales   | 0.03%<br>0.02%<br>▲ ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ►   | 0<br>0<br>0<br>4<br>alar crease:HV2-1-AIRSc<br>100<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0   | antecubital fo   | 0%<br>0%<br>0%<br>0%<br>100%<br>0%<br>0%   | antecubital fossa:HV2-1-AcRS | 0%<br>0%<br>antecut<br>00%<br>0%<br>0%  | 0%<br>0%<br>bital fossaiHV8-AcRSc<br>100%<br>0%<br>0%   |          |
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| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      OTU Rule Set:      OTU Rule Set:      OTU Rule Set:      Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Actinomycetaceae Bacteria/Actinobacteria//Actinomycetaceae Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Actinomyces Bacteria/Actinobacteria//Nobiluncus Bacteria/Actinobacteria/.                       | 0.03%<br>0.02%<br>Total<br>100%<br>0.02%<br>0.01%<br>0.03%<br>0.03%<br>0.05%<br>0.02%<br>0.02%  | < m<br>alar crease:HV2-1-AIRSc<br>100'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'  | 6<br>antecubital fc<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6                               | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | antecubital fossa:HV2-1-AcR3 | 0%<br>0%<br>0%<br>antecut<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      Sacteria/Actinobacteria//Actinomyces      Bacteria/Actinobacteria//Oripebacteriaceae      Bacteria/Actinobacteria//Corynebacteriaceae      Sacteria/Actinobacteria//Corynebacteriaceae      Sacteria/Actinobacteria//Corynebacteriaceae      Sacteria/Actinobacteria//Corynebacteriaceae      Sacteria/Actinobacteria//Corynebacteriaceae      Sacteria/Actinobacteria//Corynebacteriaceae      Sacteria/Actinobacteria//Corynebacteriaceae  | 0.03%<br>0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%   | < m<br>alar crease:HV2-1-AIRSc<br>100'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'  | 6<br>antecubital fo<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                     | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               |          |
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| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetacee Bacteria/Actinobacteria//Actinomycetaceee Bacteria/Actinobacteria//Actinomycetaceee Bacteria/Actinobacteria//Actinomycetaceeee Bacteria/Actinobacteria//Actinomycetaceeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeeee   | 0.03%<br>0.02%<br>Total<br>100%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.05%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%   | < III<br>alar crease:HV2-1-AIRSc<br>100'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'  | 6 antecubital fc<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6                               | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:      Racteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Actinomycetacese Bacteria/Actinobacteria//Actinobacteria//Actinomycetacese Bacteria/Actinobacteria//Actinomycetacese Bacteria/Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria//Actinobacteria/                                 | 0.03%<br>0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.04%<br>0.02%   | < m<br>alar crease:HV2-1-AIRSc<br>100'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'  | 6<br>antecubital fc<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>10%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                          |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Arbibaculum Bacteria/Actinobacteria//Corynebacteriaceae B Bacteria/Actinobacteria//Orbibacteria/ Bacteria/Actinobacteria//Orbibacteria/ Bacteria/Actinobacteria//Orbibacteria/ Bacteria/Actinobacteria//Corynebacterium Bacteria/Actinobacteria//Mycobacterium  | 0.03%<br>0.02%<br>Total<br>100%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.05%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.02%   | < III<br>alar crease:HV2-1-AIRSc<br>100'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'  | 6<br>antecubital fc<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6<br>6 | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set     root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Acidimicrobiaceae Bacteria/Actinobacteria//Corynebacteriaceae Bacteria/Actinobacteria//Oribetia Bacteria/Actinobacteria//Oribetia  | 0.03%<br>0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.02%<br>0.02%<br>0.02%<br>0.04%<br>0.02%   | < m<br>alar crease:HV2-1-AIRSc<br>100'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'<br>0'  | 6<br>6<br>7<br>8<br>8<br>6<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8<br>8                   | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>0%<br>10%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                 |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Corynebacteriaceae Bacteria/Actinobacteria//Dietzia Bacteria/Actinobacteria//Dietzia Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Gorgenia  | 0.03%     0.02%     √     Total     100%     0.03%     0.03%     0.03%     0.03%     0.03%     0.03%     0.03%     0.02%     0.02%     0.02%     0.02%     0.48%     18.25%     0.04%     0.01%     0.04% | < * **********************************  | 6 antecubital fc<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6                               | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 0%<br>0%<br>bital fossa:HV8-AcRSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         |          |
| Proteobacteria     Synergistetes     Verrucomicrobia      OTU Rule Set:     root     Bacteria/Actinobacteria//Candidatus-Chloraci Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Acidimicrobiales Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Actiomycetaceae Bacteria/Actinobacteria//Corynebacteriaceae Bacteria/Actinobacteria//Dietzia Bacteria/Actinobacteria//Dietzia Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Mycobacterium Bacteria/Actinobacteria//Gorgenia  | 0.03%<br>0.02%<br>Total<br>100%<br>0.02%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.03%<br>0.02%<br>0.04%<br>0.04%<br>0.04%<br>0.04%<br>0.01%                                    | < * **********************************  | 6 antecubital fo<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6 6<br>6                               | 0%<br>0%<br>0%<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | antecubital fossa:HV2-1-AcR  | 0%<br>0%<br>0%<br>antecut<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%   | 0%<br>0%<br>0%<br>10%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                 |          |

The name of the current filter is displayed in the upper left corner of the window. The workspace window now only displays libraries from the 20 back and umbilicus samples.

| iile Edit Data Group Tools View Help  |  |   |  |  |  |  |   |
|---|--|---|--|--|--|--|---|
|   | Hierarchy  | y 🔘 Counts  | OTU Start: 1                                   | Hierarchy Level: 🔘 S   | Show Libraries   | All Libraries  | Figures   |
| Project: Tutorial_HSM   | 💿 оти  | % of Library  | OTU Width: 2                                   | 3 🌲 💿 S  | Show Sorted Libs   | Selected Libraries   | Clone Workspace   |
| Workspace: Back+Umbilicus   | Both   | % of Total  | V OTU Show Last                                |  | Show Lib Groups  | of 30 Libs   | Save  |
| Current Filter: Back+Umbilicus  | <b>B</b> our   |   | CTO SHOW East                                  | 0.   |  | or so clos   | Close Project   |
| Hierarchy   | Total  | back:HV1-1-BaCSc  | back:HV10-BaCSc                                | back:HV2-1-BaCSc   | back:HV3-1-BaCSc   | back:HV4-1-BaCSc   | back:HV5-BaCSc  |
| 4 root  | 100%   | 100%  | 100%   | 100%   | 100%   | 100%   | 100%  |
| ▲ Bacteria  | 100%   | 100%  | 100%   | 100%   | 100%   | 100%   | 100%  |
| Actinobacteria  | 60.40%   | 96.72%  | 81.31%   | 93.50%   | 91.67%   | 85.81%   | 95.01%  |
| Bacteroidetes   | 7.69%  | 0%  | 1.38%  | 1.69%  | 3.89%  | 2.70%  | 0.18%   |
| Candidate-division-TM7  | 0.03%  | 0%<br>0%  | 0%   | 0%   | 0.56%  | 0%<br>0%   | 0%  |
| <ul> <li>Cyanobacteria</li> <li>Firmicutes</li> </ul>   | 0.15%  | 0%  | 2.42%  | 0%<br>2.82%  | 0%   | 2.36%  | 0%  |
| <ul> <li>Firmicutes</li> <li>Fusobacteria</li> </ul>  | 0.40%  | 5.28%   | 2.42%  | 2.82%  | 0.36%  | 2.30%  | 5.14%   |
| Proteobacteria  | 13.88%   | 0%  | 14.88%   | 1.98%  | 3.33%  | 9.12%  | 1.66%   |
| <ul> <li>Synergistetes</li> </ul>   | 0.04%  | 0%  | 0%   | 0%   | 0%   | 0%   | 0%  |
|   |  |   |  |  |  |  |   |
| <u>د کې </u>  | 4 >>   | < [   |  |  |  |  |   |
| OTU Rule Set:   | Total  | back:HV1-1-BaCSc  | back:HV10-BaCSc                                | back:HV2-1-BaCSc   | back:HV3-1-BaCSc   | back:HV4-1-BaCSc   | back:HV5-BaCSc  |
| OTU Rule Set:   | Total<br>100%  | back:HV1-1-BaCSc<br>100%  | 100%   | 100%   | 100%   | 100%   | 100%  |
| OTU Rule Set:<br>root<br>Bacteria/Actinobacteria/Actinobacteria   | Total<br>100%<br>0.03%   | back:HV1-1-BaCSc<br>100%<br>0%  | 100%<br>0%                                     | 100%<br>0%   | 100%<br>0%   | 100%<br>0%   | 100%  |
| OTU Rule Set:<br>root<br>Bacteria/Actinobacteria/Actinobacteria<br>Bacteria/Actinobacteria//Actinomycetaceae  | Total<br>100%<br>0.03%<br>0.07%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%  | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%   | 100%<br>0%<br>0%   | 100%<br>0%<br>0%   | 100%<br>0%<br>0%  |
| OTU Rule Set:<br>root<br>L Bacteria/Actinobacteria/Actinobacteria<br>2 Bacteria/Actinobacteria//Actinomycetaceae<br>B Bacteria/Actinobacteria//Actinomyces  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%  |
| OTU     Rule Set:       root     I       Bacteria/Actinobacteria/Actinobacteria       2     Bacteria/Actinobacteria//Actinomycetaceae       3     Bacteria/Actinobacteria//Actinomyces       4     Bacteria/Actinobacteria//Actinobacteria//Actinomyces   | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%                         | 100%<br>0%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%<br>0%  |
| OTU     Rule Set:       root     I       Bacteria/Actinobacteria/Actinobacteria       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomyceta       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Varibaculum       Bacteria/Actinobacteria//Varibaculum  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.30%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%<br>0%                                     | 100%<br>0%<br>0%<br>0%<br>0%  |
| OTU Rule Set:<br>root<br>Bacteria/Actinobacteria/Actinobacteria<br>Bacteria/Actinobacteria//Actinomycetaceae<br>Bacteria/Actinobacteria//Aribaculum<br>Bacteria/Actinobacteria//Corynebacteriaceae<br>Bacteria/Actinobacteria//Corynebacterium  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.30%<br>22.29%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>0%   | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%                                  | 100%<br>0%<br>0%<br>0%<br>0%<br>0%                               | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%   |
| OTU     Rule Set:       root     Interial Actinobacteria/Actinobacteria       Bacteria/Actinobacteria//Actinomycetaceae     Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces     Bacteria/Actinobacteria//Varibaculum       Bacteria/Actinobacteria//Corynebacteriaceae     Bacteria/Actinobacteria//Corynebacteriam       Bacteria/Actinobacteria//Corynebacteriam     Bacteria/Actinobacteria//Corynebacteriam   | Total<br>100%<br>0.03%<br>0.24%<br>0.33%<br>0.30%<br>22.29%<br>0.06%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.98%<br>0%   | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0.28%<br>0%                                  | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%                            | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                         | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%   |
| OTU     Rule Set:       root     I       Bacteria/Actinobacteria/.Actinobacteria       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Corynebacteriaceae       Bacteria/Actinobacteria//Corynebacteria       Bacteria/Actinobacteria//Dictaia       Bacteria/Actinobacteria//Mycobacteriam   | Total<br>100%<br>0.03%<br>0.24%<br>0.30%<br>0.30%<br>22.29%<br>0.06%<br>0.01%  | back:HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.98%<br>0.98%<br>0.98%   | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>0%<br>0.28%<br>0%<br>0%                            | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%                      | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%                                     |
| OTU Rule Set:       root       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Aribaculum       Bacteria/Actinobacteria//Corynebacteriaceae       Bacteria/Actinobacteria//Corynebacterium       Bacteria/Actinobacteria//Opietzia       Bacteria/Actinobacteria//Mycobacterium       Bacteria/Actinobacteria//Nycobacterium       Bacteria/Actinobacteria//Nycobacterium  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.22.29%<br>0.06%<br>0.01%<br>0.06%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.08%<br>0.08%<br>0.08%<br>0.08%<br>0%  | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>0%<br>0.28%<br>0%<br>0%                            | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%                      | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%                               |
| OTU     Rule Set:       root        L     Bacteria/Actinobacteria/Actinobacteria       2     Bacteria/Actinobacteria//Actinomycetaceae       3     Bacteria/Actinobacteria//Actinomyces       4     Bacteria/Actinobacteria//Varibaculum       5     Bacteria/Actinobacteria//Yorpbacteriaceae       6     Bacteria/Actinobacteria//Corynebacteriaum       7     Bacteria/Actinobacteria//Corynebacterium       9     Bacteria/Actinobacteria//Nocobactrium       0     Bacteria/Actinobacteria//Mocobacterium  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.30%<br>22.29%<br>0.06%<br>0.01%   | back:HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                               | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%<br>0%                | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%                               |
| OTU Rule Set:       root       1     Bacteria/Actinobacteria/Actinobacteria       2     Bacteria/Actinobacteria//Actinomycetaceae       3     Bacteria/Actinobacteria//Actinomycetaceae       4     Bacteria/Actinobacteria//Actinomyces       4     Bacteria/Actinobacteria//Actinomyces       5     Bacteria/Actinobacteria//Corynebacteriaceae       6     Bacteria/Actinobacteria//Corynebacteria       7     Bacteria/Actinobacteria//Nocotacteria       9     Bacteria/Actinobacteria//Nocotacteria       10     Bacteria/Actinobacteria//Nocotacteria       11     Bacteria/Actinobacteria//Rhodococcus  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.23%<br>22.29%<br>0.06%<br>0.01%<br>0.06%<br>0.01%                           | back:HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.98%<br>0%<br>0%<br>0%<br>0%   | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0.2%<br>0%<br>0%<br>0%<br>0%                 | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%<br>0%<br>0%          | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>4.4%<br>0%<br>0%<br>0%<br>0%                          |
| OTU Rule Set:       root       Bacteria/Actinobacteria/Actinobacteria       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Corynebacteriaceae       Bacteria/Actinobacteria//Corynebacteria       Bacteria/Actinobacteria//Ortynebacteria       Bacteria/Actinobacteria//Mocondiaceae       ID Bacteria/Actinobacteria//Rodococcus       ID Bacteria/Actinobacteria//Rodococcus       ID Bacteria/Actinobacteria//Gordonia       Bacteria/Actinobacteria//Rodococcus       ID Bacteria/Actinobacteria//Gordonia   | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.22.9%<br>0.06%<br>0.01%<br>0.06%<br>0.01%                                   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.96%<br>0.96%                   | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0.28%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%    | 100% 0% 0% 0% 0% 1.67% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%          | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 100%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0.74%<br>0%                                  |
| OTU Rule Set:       root       1     Bacteria/Actinobacteria/Actinobacteria       2     Bacteria/Actinobacteria//Actinomycetaceae       3     Bacteria/Actinobacteria//Actinomyces       4     Bacteria/Actinobacteria//Actinomyces       5     Bacteria/Actinobacteria//Yaribaculum       5     Bacteria/Actinobacteria//Yoribacterium       7     Bacteria/Actinobacteria//Corynebacterium       9     Bacteria/Actinobacteria//Nocobacterium       9     Bacteria/Actinobacteria//Nocobacterium       10     Bacteria/Actinobacteria//Rodococcus       11     Bacteria/Actinobacteria//Rodococcus       12     Bacteria/Actinobacteria//Revibacterium       13     Bacteria/Actinobacteria//Rodococcus       14     Bacteria/Actinobacteria//Rodococcus       15     Bacteria/Actinobacteria//Revibacterium  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>2.229%<br>0.06%<br>0.06%<br>0.06%<br>0.01%<br>0.06%<br>0.01%<br>0.01%         | back:HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0.28%<br>0%<br>0%<br>0%<br>0%<br>0%          | 100%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%<br>0.56%<br>0.56%<br>0%    | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             |
| OTU Rule Set:       root       1 Bacteria/Actinobacteria/Actinobacteria       2 Bacteria/Actinobacteria//Actinomycetaceae       3 Bacteria/Actinobacteria//Actinomyces       4 Bacteria/Actinobacteria//Actinomyces       5 Bacteria/Actinobacteria//Corynebacteriaceae       5 Bacteria/Actinobacteria//Corynebacteriam       7 Bacteria/Actinobacteria//Corynebacteriam       8 Bacteria/Actinobacteria//Dobacteriam       9 Bacteria/Actinobacteria//Mycobacteriam       9 Bacteria/Actinobacteria//Mocoardiaceae       10 Bacteria/Actinobacteria//Gordonia       11 Bacteria/Actinobacteria//Gerodermatophilace       12 Bacteria/Actinobacteria//Gerodermatophilace       13 Bacteria/Actinobacteria//Gerodermatophilace       14 Bacteria/Actinobacteria//Derombacteriam   | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.2229%<br>0.06%<br>0.01%<br>0.06%<br>0.01%<br>0.01%<br>0.01%<br>0.01%<br>0.013%       | back:HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             |
| OTU Rule Set:       root       1 Bacteria/Actinobacteria/Actinobacteria       2 Bacteria/Actinobacteria//Actinomycetaceae       3 Bacteria/Actinobacteria//Actinomycetaceae       4 Bacteria/Actinobacteria//Actinomycetaceae       5 Bacteria/Actinobacteria//Actinomycetaceae       6 Bacteria/Actinobacteria//Corynebacteriaceae       5 Bacteria/Actinobacteria//Corynebacteria       7 Bacteria/Actinobacteria//Ocorynebacteria       9 Bacteria/Actinobacteria//Nocodacteria       10 Bacteria/Actinobacteria//Nocodacteria       11 Bacteria/Actinobacteria//Rodococcus       12 Bacteria/Actinobacteria//Geodermatophilace       13 Bacteria/Actinobacteria//Dermabacteraceae       15 Bacteria/Actinobacteria//Dermabacteraceae       16 Bacteria/Actinobacteria//Microbacteria  | Total<br>100%<br>0.03%<br>0.24%<br>0.30%<br>22.29%<br>0.06%<br>0.01%<br>0.06%<br>0.01%<br>0.07%<br>0.01%<br>0.01%<br>0.01%         | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.98%<br>0.96%<br>0.96%<br>0.96%<br>0.96% | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100% 0% 0% 0% 0% 1.67% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%          | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%                         | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% |
| OTU     Rule Set:       root     I       Bacteria/Actinobacteria//Actinomycetaceae       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Actinomyces       Bacteria/Actinobacteria//Yaribaculum       Sacteria/Actinobacteria//Corynebacteriaum       Bacteria/Actinobacteria//Corynebacterium       Bacteria/Actinobacteria//Ocordneaterium       Bacteria/Actinobacteria//Nocodacterium       Bacteria/Actinobacteria//Mocobacterium       Bacteria/Actinobacteria//Mocobacterium       Bacteria/Actinobacteria//Gordonia       IIB Bacteria/Actinobacteria//Geodematophilace       IIB Bacteria/Actinobacteria//Merobacterium       Bacteria/Actinobacteria//Merobacterium       Bacteria/Actinobacteria//Merobacterium       Bacteria/Actinobacteria//Merobacterium       Bacteria/Actinobacteria//Merobacterium       Bacteria/Actinobacteria//Microbacterium       Bacteria/Actinobacteria//Microbacterium       Bacteria/Actinobacteria//Microbacterium | Total<br>100%<br>0.03%<br>0.24%<br>0.30%<br>2.22%<br>0.06%<br>0.01%<br>0.01%<br>0.01%<br>0.01%<br>0.01%<br>0.01%<br>0.01%<br>0.03% | back:HVI-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%             |

# X. Beta Diversity (Morisita-Horn)

By viewing our libraries in a Morisita-Horn heatmap, we can estimate the similarity of the microbial communities present in the samples at these two anatomical positions.

## A. Create a Morisita-Horn Heatmap

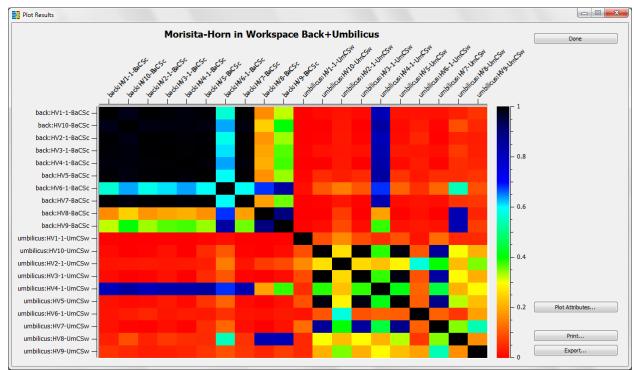
 $\textbf{Tools} \rightarrow \textbf{Analyze} \rightarrow \textbf{Beta Diversity} \rightarrow \textbf{Morisita-Horn}$ 

A new window will appear with a table of the sequence variant counts Click **Plot** 

|                       | Mor                  | isita-Horn in Workspace Back+U | Imbilicus        |                        |                  |   | Done   |
|-----------------------|----------------------|--------------------------------|------------------|------------------------|------------------|---|--------|
| 0                     | All Libraries        | Show Libraries                 | Alphabe          | etical by Library Name |                  |   |        |
|                       | Selected Libraries   | Show Sorted Libs               | Descen           | ding by Value          |                  |   |        |
| 2                     | 0 of 30 Libs         | Show Lib Groups                | Ascend           | ing by Value           |                  |   |        |
| Figures:              | No figure selected 🔹 | Ose Workspace Filter           | Workspace F      | Filter: Back+Umbilicus |                  |   |        |
|                       |                      | Use Figure Filter              | Figure I         | filter:                |                  |   |        |
|                       | back:HV1-1-BaCSc     | back:HV10-BaCSc                | back:HV2-1-BaCSc | back:HV3-1-BaCSc       | back:HV4-1-BaCSc | - |        |
| back:HV1-1-BaCSc      | 1.000                | 0.982                          | 0.998            | 0.996                  | 0.990            |   |        |
| back:HV10-BaCSc       | 0.982                | 1.000                          | 0.986            | 0.990                  | 0.990            |   |        |
| back:HV2-1-BaCSc      | 0.998                | 0.986                          | 1.000            | 0.998                  | 0.995            |   |        |
| back:HV3-1-BaCSc      | 0.996                | 0.990                          | 0.998            | 1.000                  | 0.996            | = |        |
| back:HV4-1-BaCSc      | 0.990                | 0.990                          | 0.995            | 0.996                  | 1.000            |   |        |
| back:HV5-BaCSc        | 0.997                | 0.989                          | 0.997            | 0.998                  | 0.995            |   |        |
| back:HV6-1-BaCSc      | 0.565                | 0.634                          | 0.584            | 0.611                  | 0.636            |   |        |
| back:HV7-BaCSc        | 0.998                | 0.989                          | 0.998            | 0.999                  | 0.994            |   |        |
| back:HV8-BaCSc        | 0.164                | 0.243                          | 0.175            | 0.194                  | 0.206            |   |        |
| back:HV9-BaCSc        | 0.325                | 0.403                          | 0.339            | 0.368                  | 0.374            |   |        |
| umbilicus:HV1-1-UmCSv | v 0.001              | 0.000                          | 0.000            | 0.002                  | 0.000            |   | Plot   |
| umbilicus:HV10-UmCSw  | 0.010                | 0.000                          | 0.003            | 0.018                  | 0.000            |   | Export |
| umbilicus:HV2-1-UmCSv | 0.022                | 0.024                          | 0.029            | 0.025                  | 0.029            |   | Export |

A new window will appear containing the heatmap of Morisita-Horn sequence variant counts

Note: In our workspace, we have **Selected Libraries** selected, so the heatmap will only display results from our libraries of interest (only those libraries sampled from the back or umbilicus).



Anatomical positions with identical OTU counts appear black, while anatomical positions with very different OTU counts appear red. Based on this data, the back is more similar across subjects than the umbilicus. Plot attributes allow control of plot characteristics and color usage as described earlier.

You may choose to save the Morisita-Horn heatmap as a figure. To do so, continue as shown earlier in the stacked bar chart example; close the graphics window, and select **Save As Figure** in the **OTU Heatmap** window.

# XI. Alpha Diversity

Since we have a workspace set up to run mini-experiments on a subset of our data, we should make sure that the data is representative. We need to make sure that enough sequences were generated from the back and umbilicus samples to be considered representative of the anatomical position for a subject. We can test this by running an alpha diversity test called Good's Coverage.

## A. Run a Good's Coverage Test

 $\textbf{Tools} \rightarrow \textbf{Analyze} \rightarrow \textbf{Alpha Diversity}$ 

New pop-up window appears

To create curves, deselect Single statistic at Rarefaction point only

Change # Steps to 10

To create smooth curves, change Bootstrap Size to 1000

Click Bootstrap

|                 | All Libraries       | Selected Libraries     | 20 of 30 Libs         |                                |                                  | Done      |
|-----------------|---------------------|------------------------|-----------------------|--------------------------------|----------------------------------|-----------|
| # Libraries:    | 20                  | Min Size: 180          | Max Size: 541         | Avg Size: 334                  | Show Libraries                   | Bootstra  |
| Bootstrap Size: | 1000                | let Signa: 255         | 2nd Sigma: 177        | 3rd Sigma: 98                  | Show Sorted Libs                 |           |
| Cutoff Size:    | 98 📮                | # Libs Inc: 20         | # Libs Exc: 0         |                                | Show Lib Groups                  |           |
| # Steps:        | 10                  | Min Lib Size           | Min Inc Lib Size: 180 | Step Size: 18                  |                                  |           |
| $\rightarrow$   | Single statistic at | Rarefaction point only |                       |                                |                                  |           |
| Figures:        | No figure selected  | O Use Work             | space Filter Wo       | rkspace Filter: Back+Umbilicus |                                  |           |
|                 |                     | 🔘 Use Figure           | e Filter              | Figure Filter:                 |                                  |           |
|                 |                     |                        |                       |                                |                                  |           |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.55 | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.55 | %         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.5% | ¥6        |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.59 | X6        |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.59 | ×         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.55 | *         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.59 | <u>*6</u> |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.59 | ×         |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.55 |           |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.55 | %<br>Plot |
| Sobs Mean       | Sobs Median         | Sobs 2.5%              | Sobs 97.5% Singleton  | s Mean Singletons Median       | Singletons 2.5% Singletons 97.55 |           |

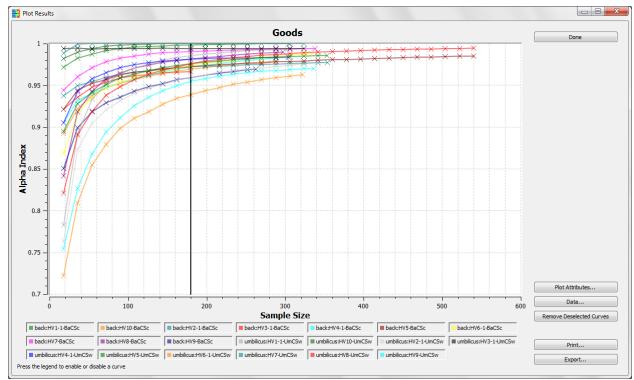
When **Bootstrap** is finished running, click **Plot** 

|                  | All Libra | aries 💿 Se             | elected Libraries                   | 20 of 30 Libs         |                         |                 |                   |       | Done     |    |
|------------------|-----------|------------------------|-------------------------------------|-----------------------|-------------------------|-----------------|-------------------|-------|----------|----|
| # Libraries:     | 20        | Min Si                 | ze: 180                             | Max Size: 541         | Avg Size: 33            | 4 🔘 Sho         | w Libraries       |       | Bootstr  | ар |
| Bootstrap Size:  | 1000      | 1st Si                 | gma: 255                            | 2nd Sigma: 177        | 3rd Sigma: 90           | 8 O Sho         | w Sorted Libs     |       |          |    |
| Cutoff Size:     | 98        | 🗘 🗰 # Libs             | Inc: 20                             | # Libs Exc: 0         |                         | Sho             | w Lib Groups      |       |          |    |
| # Steps:         | 10        | ÷ U:                   | se Min Lib Size                     | Min Inc Lib Size: 180 | Step Size: 18           | 3               |                   |       |          |    |
|                  | Single :  | statistic at Rarefacti | on point only                       |                       |                         |                 |                   |       |          |    |
| Figures:         | No figure | selected 🔹             | <ul> <li>Use Workspace</li> </ul>   | e Filter              | Norkspace Filter: Back+ | Umbilicus       |                   |       |          |    |
|                  |           |                        | <ul> <li>Use Figure Filt</li> </ul> | er                    | Figure Filter:          |                 |                   |       |          |    |
|                  |           | Sobs Mean              | Sobs Median                         | Sobs 2.5%             | Sobs 97.5%              | Singletons Mean | Singletons Median | Sing  | <b>^</b> |    |
| ack:HV1-1-BaCSc: | 18        | 1.624                  | 2.000                               | 1.000                 | 3.000                   | 0.503           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 36        | 2.010                  | 2.000                               | 1.000                 | 3.000                   | 0.617           | 1.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 54        | 2.297                  | 2.000                               | 1.000                 | 3.000                   | 0.675           | 1.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 72        | 2.417                  | 2.000                               | 1.000                 | 3.000                   | 0.588           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 90        | 2.551                  | 3.000                               | 2.000                 | 3.000                   | 0.552           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 108       | 2.645                  | 3.000                               | 2.000                 | 3.000                   | 0.477           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 126       | 2.735                  | 3.000                               | 2.000                 | 3.000                   | 0.436           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 144       | 2.771                  | 3.000                               | 2.000                 | 3.000                   | 0.399           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 162       | 2.839                  | 3.000                               | 2.000                 | 3.000                   | 0.334           | 0.000             | 0.000 |          |    |
| ack:HV1-1-BaCSc: | 180       | 2.852                  | 3.000                               | 2.000                 | 3.000                   | 0.302           | 0.000             | 0.000 | Plot     | ¢  |
|                  | 198       | 2.908                  | 3.000                               | 2.000                 | 3.000                   | 0.249           | 0.000             | 0.000 | Export   |    |

A new pop-up window appears which lists the various alpha diversity tests Select **Goods** Click **OK** 

| ndex 🖲 Mean 🔘 Median  |   | ок 🧲   |
|-----------------------|---|--------|
| Sobs                  |   | Cancel |
| Singletons            |   |        |
| Doubletons            |   |        |
| Ace                   |   |        |
| AceVar                |   |        |
| Chao1                 |   |        |
| Chao195ciL            |   |        |
| Chao195ciU            |   |        |
| Goods                 |   |        |
| ShannonH              |   |        |
| ShannonE              |   |        |
| Simpson               |   |        |
| SimpsonD              |   |        |
| SimpsonE              |   |        |
| SimpsonR              |   |        |
| ibraries              |   |        |
| back:HV5-BaCSc        | * |        |
| back:HV6-1-BaCSc      |   |        |
| back:HV7-BaCSc        |   |        |
| back:HV8-BaCSc        |   |        |
| back:HV9-BaCSc        |   |        |
| umbilicus:HV1-1-UmCSw |   |        |
| umbilicus:HV10-UmCSw  |   |        |
| umbilicus:HV2-1-UmCSw |   |        |
| umbilicus:HV3-1-UmCSw |   |        |
| umbilicus:HV4-1-UmCSw | E |        |
| umbilicus:HV5-UmCSw   |   |        |
| umbilicus:HV6-1-UmCSw |   |        |
| umbilicus:HV7-UmCSw   |   |        |
| umbilicus:HV8-UmCSw   |   |        |

A new pop-up window appears showing the Good's Coverage plot.



Since the curves on the plot generally reach asymptotes, we conclude that both sites were sampled reasonably well to be considered representative of the anatomical positions.

You may choose to save your Good's Coverage plot as a figure. To do so, continue as shown earlier in the stacked bar chart example; close the graphics window, and select **Save As Figure** in the **Two-Part** window.

# XII. Two-Part Test

Now that we know our data are representative, we will continue with another statistical test. A Two-Part statistical test can identify taxa that differ between two groups. We will use the Two-Part test to compare sequence counts between the back and umbilicus. The Two-Part Test is a combined statistic that examines both the proportion of the samples that contain a given OTU and the median relative abundance of the OTU across two categories. Because microbiome data often are non-normally distributed, parametric tests such as the familiar t-test may not be appropriate. Consequently, we use a non-parametric Wilcoxon test to examine percent abundance data. For more information on the Two-Part Test, please see: Wagner BD, Robertson CE, Harris JK (2011) Application of Two-Part Statistics for Comparison of Sequence

Variant Counts. PLoS ONE 6(5): e20296.

## A. Run a Two-Part Test

## $\textbf{Tools} \rightarrow \textbf{Analyze} \rightarrow \textbf{Two-Part}$

## A new pop-up window appears

In order to compare the back data against the umbilicus data, we need to set up individual filters for each anatomical position. To do so, we will proceed as discussed earlier in "To create a filter...".

### Click Setup Filters

|                    |                    | Two-Part in Workspace Ba  | <+Umbilicus: Back+Umbilicus | s vs Back+Umbilicus                    |                          | Done          |
|--------------------|--------------------|---|-----------------------------|--|--------------------------|---------------|
| Category 1 Filter: | Back+Umbilicus     | ▼ 20 of 20 Libs   | OTU Start: 1                | All Libraries                          | Alphabetical by OTU Name | Calculate     |
| Category 2 Filter: | Back+Umbilicus     | ▼ 20 of 20 Libs   | OTU Width: 2                | <ul> <li>Selected Libraries</li> </ul> | O Descending by PValue   | Setup Filters |
| P Threshhold:      | 0                  |   | OTU Show Las                | t 20 of 30 Libs                        | Ascending by PValue      |               |
| Figures:           | No figure selected | <ul> <li>Use Workspace Filter</li> <li>Use Figure Filter</li> </ul> | Workspace<br>Figure         | Filter: Back+Umbilicus<br>Filter:      |                          |               |
|                    |                    |   | Collis                      | ions: Libraries that are in both Ca    | tegory 1 and Category 2  |               |
|                    |                    | HV1-1-BaCSc   |                             |  |                          |               |
|                    |                    | HV10-BaCSc  |                             |  |                          |               |
|                    |                    | HV2-1-BaCSc   |                             |  |                          |               |
|                    |                    | HV3-1-BaCSc   |                             |  |                          |               |
|                    |                    | HV4-1-BaCSc   |                             |  |                          |               |
|                    |                    | HV5-BaCSc   |                             |  |                          |               |
|                    |                    | HV6-1-BaCSc   |                             |  |                          |               |
|                    |                    | HV7-BaCSc   |                             |  |                          |               |
|                    |                    | HV8-BaCSc   |                             |  |                          |               |
|                    |                    | HV9-BaCSc   |                             |  |                          |               |
|                    |                    | HV1-1-UmCSv   |                             |  |                          |               |
|                    |                    | HV10-UmCSw  |                             |  |                          |               |
|                    |                    | HV2-1-UmCSv   |                             |  |                          |               |
|                    |                    | HV3-1-UmCSv   |                             |  |                          |               |
|                    |                    | HV4-1-UmCSv   |                             |  |                          |               |
|                    |                    | HV5-UmCSw   |                             |  |                          |               |
|                    |                    | HV6-1-UmCSv   |                             |  |                          |               |
|                    |                    | HV7-UmCSw   |                             |  |                          |               |
|                    |                    | HV8-UmCSw   |                             |  |                          | Plot          |
|                    |                    | HV9-UmCSw   |                             |  |                          | Export        |

New pop-up window appears for creation of filters Click **New** on far right side of window

| Select                  |   |                 |                  |                                |   |             |
|-------------------------|---|-----------------|------------------|--------------------------------|---|-------------|
| Filters: Back+Umbil     | icus 🔹 🗸  | lext Filter Pre | vious Filter     |                                |   | Done Select |
| Metadata Selection Cr   | iteria  |                 |                  |                                |   |             |
|                         |   |                 |                  | Delete/Group/Move              | Add   |             |
| And/Or                  | Metadata  | Operator        | Value            | Clear All                      | Add   | New         |
|                         | Anatomy   | ▼ contains      | ▼ back           |                                | Delete  | Save Filter |
|                         | Anatomy   | Contains        | Dack             |                                | Add Parentheses   |             |
| or 👻                    | Anatomy   | ▼ contains      | ▼ umbilicus      |                                |   | Save As     |
|                         |   |                 |                  |                                | Remove Parentheses  | Rename      |
|                         |   |                 |                  |                                | Move Up   | Delete      |
|                         |   |                 |                  |                                | Move Down   |             |
|                         |   |                 |                  | ~                              | Hove bown   |             |
|                         | Metadata<br>tion criteria for Taxonomy, click Add |                 | Operator Value   | Delete/Group/Move<br>Clear All | Add Delete Add Parentheses Remove Parentheses Move Up Move Down |             |
| ULIDS Selected of 20 In | wo Part Libs Selected 30 Total Libra              | aries           | Total Member Cou | ot OTUN                        | latched Count   | A           |
| -W1-1-BaCSc             | Library   |                 | 305              |                                | atched Count  |             |
| IV10-BaCSc              |   |                 | 289              |                                |   | =           |
| V2-1-BaCSc              |   |                 | 354              |                                |   |             |
| IV3-1-BaCSc             |   |                 | 180              |                                |   |             |
| IV4-1-BaCSc             |   |                 | 296              |                                |   |             |
| HV5-BaCSc               |   |                 | 541              |                                |   |             |
| HV6-1-BaCSc             |   |                 | 334              |                                |   |             |
| HV7-BaCSc               |   |                 | 338              |                                |   |             |
|                         |   |                 | 297              |                                |   |             |
| HV8-BaCSc               |   |                 |                  |                                |   |             |

# Enter desired filter name in the pop-up window Click **OK**

| <b>U</b> |              |     |     |
|----------|--------------|-----|-----|
|          | New Filter   | 9   | ×   |
|          | Filter name: |     |     |
|          | Back         |     |     |
|          | ок           | Can | cel |
|          |              |     |     |

The filter name will appear in upper left corner of window.

| Select   |                               |
|--|-------------------------------|
| Filters: Back    Next Filter  Previous Filter                    | Done Select                   |
| Metadata Selection Criteria                                      | Delete/Group/Move             |
| And/Or Metadata Operator Value                                   | Clear All Add New             |
|  | Delete Save Filter            |
| To add a new criteria for Metadata, click Add                    | Add Parentheses Save As       |
|  | Remove Parentheses Rename     |
|  | Move Up Delete                |
|  | Move Down                     |
|  | T                             |
| Taxonomy Selection Criteria                                      |                               |
| And/Or Metadata Operator Va                                      | Delete/Group/Move Add         |
| Anu/or metadata Operator va                                      | Delete                        |
| To add a new selection criteria for Taxonomy, dick Add           | Add Parentheses               |
|  | E Remove Parentheses          |
|  | Move Up                       |
|  | The Move Down                 |
|  |                               |
| 20 Libs Selected of 20 Two Part Libs Selected 30 Total Libraries |                               |
| Library Total Mer  | ember Count OTU Matched Count |
|  |                               |
|  |                               |
|  |                               |
|  |                               |
|  |                               |
|  |                               |
|  |                               |

Now that we have created a new filter, we need to set up the parameters to filter by. We will select for all libraries which were sampled from the "back".

B. Set Up Filter Parameters Click Add in the Metadata Criteria pane

| Select              |                                    |                |                 |               |                   |                    |             |
|---------------------|------------------------------------|----------------|-----------------|---------------|-------------------|--------------------|-------------|
| Filters: Back       | •                                  | Next Filter    | Previous Filter |               |                   |                    | Done Select |
| Metadata Selectio   | on Criteria                        |                |                 |               | Delete/Group/Move |                    |             |
| And/Or              | Metadata                           | Operator       | Value           | 2             | Clear All         | Add                | New         |
|                     |                                    |                |                 |               | *                 | Delete             | Save Filter |
| To add a new o      | criteria for Metadata, dick Add    |                |                 |               |                   | Add Parentheses    | Save As     |
|                     |                                    |                |                 |               |                   | Remove Parentheses | Rename      |
|                     |                                    |                |                 |               |                   | Move Up            | Delete      |
|                     |                                    |                |                 |               |                   | Move Down          |             |
|                     |                                    |                |                 |               | Ŧ                 |                    |             |
| Taxonomy Selecti    | on Criteria                        |                |                 |               | Delete/Group/Move |                    |             |
| And/Or              | Metadata                           |                | Operator        | Value         | Clear All         | Add                |             |
|                     |                                    |                |                 |               | <u>^</u>          | Delete             |             |
| To add a new s      | selection criteria for Taxonomy, d | lick Add       |                 |               |                   | Add Parentheses    |             |
|                     |                                    |                |                 |               | E                 | Remove Parentheses |             |
|                     |                                    |                |                 |               |                   | Move Up            |             |
|                     |                                    |                |                 |               | -                 | Move Down          |             |
| 20 Libs Selected of | 20 Two Part Libs Selected 30 T     | otal Libraries |                 |               |                   |                    |             |
|                     | Library                            |                | Total           | /lember Count | στυι              | Matched Count      |             |
|                     | Libitity                           |                | lotar i         |               | 0.01              |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |
|                     |                                    |                |                 |               |                   |                    |             |

Use the first pull-down menu to select "Anatomy" (**Metadata** to filter by) Use the second pull-down menu to select "contains" (filter **Operator**)

## Enter "back" into Value

| etadata Selection Cr | riteria                               | - I      | - I                | Delete/Group/Move |   | Select      |
|----------------------|---------------------------------------|----------|--------------------|-------------------|---|-------------|
| And/Or               | Metadata                              | Operator | Value              | Clear All         | Add   | New         |
|                      | Library                               | ▼ equals |                    |                   | Delete  | Save Filter |
|                      |                                       |          |                    |                   | Add Parentheses   | Save As     |
|                      |                                       |          |                    |                   | Remove Parentheses  | Rename      |
|                      |                                       |          |                    |                   | Move Up   | Delete      |
|                      |                                       |          |                    | Ţ                 | Move Down   |             |
|                      | tion criteria for Taxonomy, click Add |          |                    |                   | Delete       Add Parentheses       Remove Parentheses       Move Up       Move Down |             |
|                      | Library                               |          | Total Member Count | ΟΤυ Μ             | atched Count  |             |
|                      |                                       |          |                    |                   |   |             |

To apply filter, click **Select** in upper right corner of window

| lect                       | e Filter on far                  | 9                 | •                  |   |             |
|----------------------------|----------------------------------|-------------------|--------------------|---|-------------|
| ilters: Back               | •                                | Next Filter Previ | bus Filter         |   | Done Select |
| tadata Selection           | ) Criteria                       |                   |                    | Delete/Group/Move                         |             |
| And/Or                     | Metadata                         | Operator          | Value              | Clear All Add                             | New         |
|                            | Anatomy                          | ▼ contains        | ▼ back             | Delete                                    | Save Filter |
|                            | <u></u>                          |                   |                    | Add Parenth                               | Save As     |
|                            |                                  |                   |                    | Remove Parer                              | Rename      |
|                            |                                  |                   |                    | Move U                                    | Delete      |
|                            |                                  |                   |                    | Move Dov                                  | wn          |
| konomy Selection<br>And/Or | n Criteria<br>Metadata           |                   | Operator Value     | Delete/Group/Move Add<br>Clear All Delete |             |
| To add a new se            | lection criteria for Taxonomy, o | dick Add          |                    | E Add Parenti<br>Remove Parent<br>Move U  | theses      |
|                            |                                  |                   |                    | Move Do                                   |             |
| ibs Selected of 2          | 0 Two Part Libs Selected 30 1    | īotal Libraries   |                    |   |             |
|                            | Library                          |                   | Total Member Count | OTU Matched Count                         |             |
|                            |                                  |                   |                    |   |             |
|                            |                                  |                   |                    |   |             |
|                            |                                  |                   |                    |   |             |
|                            |                                  |                   |                    |   |             |
|                            |                                  |                   |                    |   |             |

## Click Save Filter on far right side of window to keep the filter

Now we will create a separate filter for the umbilicus. Click **New** on far right side of window

| Select             |  |                   |                    |                     |   |             |
|--------------------|--|-------------------|--------------------|---------------------|---|-------------|
| Filters: Back      | ▼  | Next Filter Previ | bus Filter         |                     |   | Done Select |
| Metadata Selection | n Criteria   |                   |                    |                     |   |             |
|                    |  |                   |                    | Delete/Group/Move   | Add   |             |
| And/Or             | Metadata   | Operator          | Value              | Clear All           | Add   | New         |
|                    | Anatomy  | ▼ contains        | ▼ back             |                     | Delete  | Save Filter |
|                    |  |                   |                    |                     | Add Parentheses   |             |
|                    |  |                   |                    |                     | Remove Parentheses  | Save As     |
|                    |  |                   |                    |                     |   | Rename      |
|                    |  |                   |                    |                     | Move Up   | Delete      |
|                    |  |                   |                    |                     | Move Down   |             |
|                    |  |                   |                    | $\overline{\nabla}$ | ·   |             |
|                    | Metadata<br>election criteria for Taxonomy, click <i>i</i> |                   | Operator Value     | Clear All           | Delete<br>Add Parentheses<br>Remove Parentheses<br>Move Up<br>Move Down |             |
|                    | Library  |                   | Total Member Count | отим                | atched Count  |             |
| HV1-1-BaCSc        |  |                   | 305                | 5101                |   |             |
| HV10-BaCSc         |  |                   | 289                |                     |   |             |
| HV2-1-BaCSc        |  |                   | 354                |                     |   |             |
| HV3-1-BaCSc        |  |                   | 180                |                     |   | =           |
| HV4-1-BaCSc        |  |                   | 296                |                     |   |             |
| HV5-BaCSc          |  |                   | 541                |                     |   |             |
| HV6-1-BaCSc        |  |                   | 334                |                     |   |             |
| HV7-BaCSc          |  |                   | 338                |                     |   |             |
| HV8-BaCSc          |  |                   | 297                |                     |   | <b>.</b>    |
| 1.00 D.CC          |  |                   | 262                |                     |   |             |

# Enter desired filter name in the pop-up window Click **OK**

| Olioi |            |     |     |
|-------|------------|-----|-----|
|       | New Filter | 9   | ×   |
| Fil   | ter name:  |     |     |
| U     | Imbilicus  |     |     |
|       | ок 🧲       | Can | cel |
|       |            |     |     |

The filter name will appear in upper left corner of window.

| Select               |                                 |                   |                    |                   |                    |             |
|----------------------|---------------------------------|-------------------|--------------------|-------------------|--------------------|-------------|
| Filters: Umbilicu    |                                 | Next Filter P     | revious Filter     |                   |                    | Done Select |
| Metadata Selectio    | n Criteria                      |                   |                    | Delete/Group/Move |                    |             |
| And/Or               | Metadata                        | Operator          | Value              | Clear All         | Add                | New         |
|                      |                                 |                   |                    |                   | Delete             |             |
| To add a new c       | riteria for Metadata, click Add |                   |                    |                   | Add Parentheses    | Save Filter |
|                      |                                 |                   |                    |                   | Remove Parentheses | Save As     |
|                      |                                 |                   |                    |                   | Move Up            | Rename      |
|                      |                                 |                   |                    |                   |                    | Delete      |
|                      |                                 |                   |                    | *                 | Move Down          |             |
| Taxonomy Selectio    | en Criteria                     |                   |                    |                   |                    |             |
| Taxonomy Selection   | on Criteria                     |                   |                    | Delete/Group/Move | Add                |             |
| And/Or               | Metadata                        |                   | Operator Value     | Clear All         | Delete             |             |
|                      |                                 |                   |                    | <u>^</u>          | Add Parentheses    |             |
| To add a new s       | election criteria for Taxonomy, | , click Add       |                    |                   |                    |             |
|                      |                                 |                   |                    | =                 | Remove Parentheses |             |
|                      |                                 |                   |                    |                   | Move Up            |             |
|                      |                                 |                   |                    | -                 | Move Down          |             |
|                      |                                 |                   |                    |                   |                    |             |
| 0 Libs Selected of 2 | 20 Two Part Libs Selected 30    | ) Total Libraries |                    |                   |                    |             |
|                      | Library                         |                   | Total Member Count | OTU M             | atched Count       |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |
|                      |                                 |                   |                    |                   |                    |             |

Now that we have created a new filter, we need to set up the parameters to filter by. We will select for all libraries which were sampled from the "umbilicus".

## Click Add in the Metadata Criteria pane

| Select   |                   |                    |                   |                    |             |
|--|-------------------|--------------------|-------------------|--------------------|-------------|
| Filters: Umbilicus                               | Next Filter       | Previous Filter    |                   |                    | Done Select |
| Metadata Selection Criteria                      |                   |                    | Delete/Group/Move |                    |             |
| And/Or Metadata                                  | Operator          | Value              | Clear All         | Add                | New         |
|  |                   |                    | ~                 | Delete             | Save Filter |
| To add a new criteria for Metadata, click Add    |                   |                    |                   | Add Parentheses    | Save As     |
|  |                   |                    |                   | Remove Parentheses | Rename      |
|  |                   |                    |                   | Move Up            | Delete      |
|  |                   |                    | _ (               | Move Down          |             |
| Taxonomy Selection Criteria                      |                   |                    |                   |                    |             |
|  |                   |                    | Delete/Group/Move | Add                |             |
| And/Or Metadata                                  |                   | Operator Value     |                   | Delete             |             |
| To add a new selection criteria for Taxonomy     | , click Add       |                    |                   | Add Parentheses    |             |
|  |                   |                    | ≡ (               | Remove Parentheses |             |
|  |                   |                    |                   | Move Up            |             |
|  |                   |                    | <b>.</b> (        | Move Down          |             |
| 10 Libs Selected of 20 Two Part Libs Selected 30 | D Total Libraries |                    |                   |                    |             |
| Library  |                   | Total Member Count | OTU M             | latched Count      |             |
|  |                   |                    |                   |                    |             |
|  |                   |                    |                   |                    |             |
|  |                   |                    |                   |                    |             |
|  |                   |                    |                   |                    |             |

Use the first pull-down menu to select "Anatomy" (**Metadata** to filter by) Use the second pull-down menu to select "contains" (filter **Operator**)

## Enter "umbilicus" into Value

| iteria   |  | ious Filter   | Delete/Group/Move  |   | Select   |
|----------|--|---|--|---|--|
| Metadata | Operator   | Value   | Clear All  | Add   | New  |
| Library  | ← lequals  |   |  | Delete  | Save Filter  |
|          |  |   |  |   | Save As  |
|          |  |   |  |   | Rename   |
|          |  |   |  |   | Delete   |
|          |  |   | -  | Move Down   |  |
|          |  | Operator Value  | Delete/Group/Move<br>Clear All   | Add Delete Add Parentheses Remove Parentheses Move Up Move Down   |  |
| Library  |  | Total Member Count  | t OTU I  | Matched Count   |  |
|          |  |   |  |   |  |
|          |  |   |  |   |  |
|          | Metadata<br>Library<br>iteria<br>Metadata<br>ion criteria for Taxonomy, click<br>wo Part Libs Selected 30 Tota | Metadata Operator<br>Library equals<br>iteria<br>Metadata<br>ion criteria for Taxonomy, click Add | Metadata     Operator     Value       Library     equals     •       iteria     •     •       Metadata     Operator     Value       ion criteria for Taxonomy, click Add     • | Metadata     Operator     Value     Clear Al       Library     equals     Image: Clear Al     Image: Clear Al       iteria     Delete/Group/Move     Clear Al       Metadata     Operator     Value       Metadata     Operator     Value       ion criteria for Taxonomy, dick Add     Image: Clear Al | Metadata       Operator       Value       Clear Al       Add         Library       equals       Image: Clear Al       Delete       Add Parentheses         Remove Parentheses       Move Up       Move Up       Move Up         Iteria       Operator       Value       Clear Al       Delete         Metadata       Operator       Value       Clear Al       Delete         Iteria       Operator       Value       Clear Al       Delete         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Delete       Move Up         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Delete       Move Up         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Delete       Move Up         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Delete       Move Up         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Delete       Move Up         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Image: Clear Al       Delete         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Image: Clear Al       Image: Clear Al       Image: Clear Al         Ion criteria for Taxonomy, dick Add       Image: Clear Al       Image: Clear       Image: Clear Al       < |

To apply filter, click **Select** in upper right corner of window

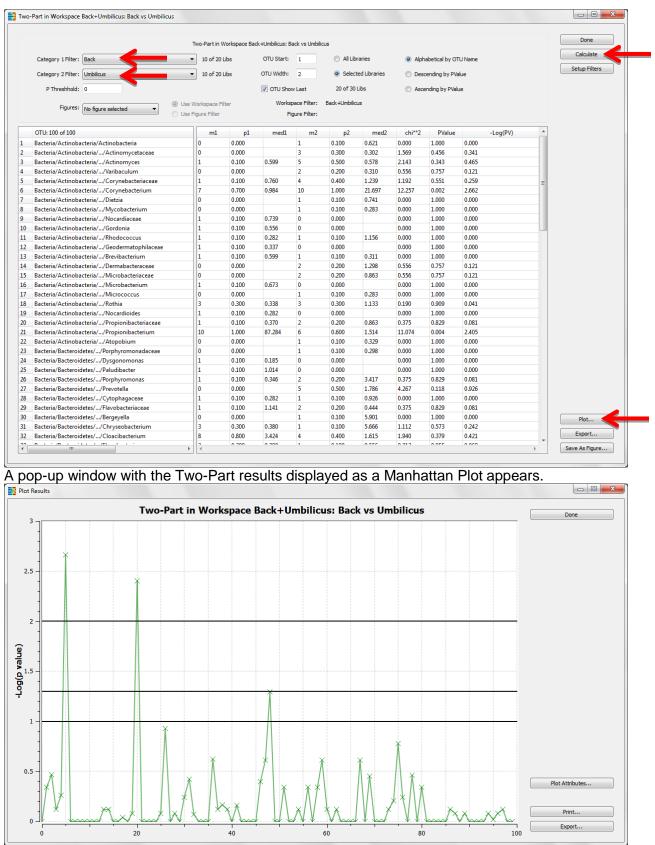
| Click Save Filter on t | far right side | of window to ke | ep the filter |
|------------------------|----------------|-----------------|---------------|
|------------------------|----------------|-----------------|---------------|

| Select                     |                                       |                    |                    |                   |  |   |
|----------------------------|---------------------------------------|--------------------|--------------------|-------------------|--|---|
| Filters: Umbilicus         | ▼ Next                                | Filter Previous Fi | liter              |                   |  | Done<br>Select                                    |
| - Metadata Selection Crite | Metadata<br>(Anatomy -                | Operator           | Value<br>umbilicus | Delete/Group/Move | Add<br>Delete<br>Add Parentheses<br>Remove Parentheses<br>Move Up<br>Move Down | New<br>Save Filter<br>Save As<br>Rename<br>Delete |
| Taxonomy Selection Crite   | eria<br>Metadata                      | Op                 | perator Value      | Delete/Group/Move | Add  |   |
| To add a new selectio      | n criteria for Taxonomy, click Add    |                    |                    |                   | Add Parentheses Remove Parentheses Move Up Move Down                           |   |
| 10 Libs Selected of 20 Two | Part Libs Selected 30 Total Libraries | 5                  |                    |                   |  |   |
|                            | Library                               |                    | Total Member Count | OTU Match         |  |   |

## Click Done to return to the Two-Part test setup window

| Select   |   |                |   |                    |                                  |                |
|--|---|----------------|---|--------------------|----------------------------------|----------------|
| Filters: Umbilicus   |   | Next Filter Pr | evious Filter                                 |                    |                                  | Done<br>Select |
| Metadata Selection   | Criteria                                  |                |   | Dalata (Casua Maus |                                  |                |
|  |   |                |   | Delete/Group/Move  | Add                              |                |
| And/Or   | Metadata                                  | Operator       | Value   | Clear All          |                                  | New            |
|  | Anatomy                                   | ▼ contains     | ▼ umbilicus                                   |                    | Delete                           | Save Filter    |
|  |   |                |   |                    | Add Parentheses                  | Save As        |
|  |   |                |   |                    | Remove Parentheses               | Jave As        |
|  |   |                |   |                    |                                  | Rename         |
|  |   |                |   |                    | Move Up                          | Delete         |
|  |   |                |   |                    | Move Down                        |                |
|  |   |                |   | Ŧ                  |                                  |                |
| And/Or   | Metadata                                  |                | Operator Value                                | Delete/Group/Move  | Add<br>Delete<br>Add Parentheses |                |
| To add a new se  | lection criteria for Taxonomy, di         | ick Add        |   | =                  | Remove Parentheses               |                |
|  |   |                |   |                    | Move Up                          |                |
|  |   |                |   |                    | Move Down                        |                |
|  |   |                |   |                    | Hore boilin                      |                |
|  |   |                |   |                    |                                  |                |
|  | 0 Two Part Libs Selected 30 To<br>Library | ətal Libraries | Total Member Count                            | OTU Match          | ed Count                         |                |
| HV1-1-UmCSw  |   | otal Libraries | 303   | OTU Match          | ed Count                         |                |
| HV1-1-UmCSw<br>HV10-UmCSw  |   | otal Libraries | 303<br>313                                    | OTU Match          | ed Count                         |                |
| HV1-1-UmCSw<br>HV10-UmCSw<br>HV2-1-UmCSw   |   | otal Libraries | 303<br>313<br>346                             | OTU Match          |                                  |                |
| HV1-1-UmCSw<br>HV10-UmCSw<br>HV2-1-UmCSw<br>HV3-1-UmCSw  |   | otal Libraries | 303<br>313<br>346<br>331                      | OTU Match          | ed Count                         |                |
| HV1-1-UmCSw<br>HV10-UmCSw<br>HV2-1-UmCSw<br>HV3-1-UmCSw<br>HV4-1-UmCSw   |   | stal Libraries | 303<br>313<br>346<br>331<br>304               | OTU Match          |                                  |                |
| HV1-1-UmCSw<br>HV10-UmCSw<br>HV2-1-UmCSw<br>HV3-1-UmCSw<br>HV4-1-UmCSw<br>HV5-UmCSw  |   | btal Libraries | 303<br>313<br>346<br>331<br>304<br>353        | OTU Match          |                                  |                |
| HV1-1-UmCSw<br>HV10-UmCSw<br>HV2-1-UmCSw<br>HV3-1-UmCSw<br>HV4-1-UmCSw<br>HV5-UmCSw<br>HV6-1-UmCSw   |   | otal Libraries | 303<br>313<br>346<br>331<br>304<br>353<br>322 | OTU Match          |                                  |                |
| 0 Libs Selected of 20<br>HV1-1-UmCSw<br>HV10-UmCSw<br>HV2-1-UmCSw<br>HV3-1-UmCSw<br>HV3-1-UmCSw<br>HV5-1-UmCSw<br>HV6-1-UmCSw<br>HV6-1-CSw |   | otal Libraries | 303<br>313<br>346<br>331<br>304<br>353        | OTU Match          |                                  |                |

Select "Back" for the **Category 1 Filter** Select "Umbilicus" for the **Category 2 Filter** Click **Calculate** Click **Plot** 



The Manhattan Plot displays logarithmically transformed p-values, with higher peaks representing lower (more significant) p-values. The horizontal lines represent p-values of 0.10, 0.05, and 0.01. Inclusion of the p=0.10 line is intended to highlight taxa that are approaching significance in an analysis.

In the example above, the first significant peak (position 6) corresponds to Corynebacterium, which have a higher proportion and relative abundance in the umbilicus samples. The second peak (position 21) represents Propionibacterium that is present at a higher proportion and relative abundance in the back samples. The third peak that approaches significance (position 49) represents Anaerococcus. This taxon is not seen in many of the libraries generated from back samples, and thus is present at higher proportion and relative abundance in the umbilicus samples.

Data can be exported from the **Plot Results** window as tab delimited text using the export button (available in all graphics windows). The data incorporated for each taxon in the Two-Part statistic are summarized for each category. The number of samples with sequences belonging to an OTU within each category is designated "m", proportion of positive libraries in a category "p", and median relative abundance "med".

You may choose to save the Two-Part test as a figure. To do so, continue as shown earlier in the stacked bar chart example; close the graphics window, and select **Save As Figure** in the **Two-Part** window.

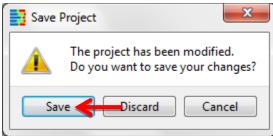
This tutorial has provided a quick overview of how to use Explicet. For more complete information on Explicet capabilities, please see the Explicet Handbook. We will now save our changes and close the project.

# XIII. Close the Project

## Click the Close Project button in upper right corner of the window

| Edit Da   | ata Group Tools View Help  |  |   |  |  |   |  |  |         |
|---|--|--|---|--|--|---|--|--|---------|
|   | T  | Hierarch   | y 🔘 Counts  | OTU Start: 1                                   | Hierarchy Level: 🔘 S                           | ihow Libraries 💿 🖉  | All Libraries                                  | Figures  |         |
| Project:  | Tutorial_HSM   | (DTU   | % of Library  | OTU Width: 2                                   | 3 🌲 💿 S  | how Sorted Libs   | Selected Libraries                             | Clone Workspace  |         |
| Workspace:  | Back+Umbilicus   | <ul> <li>Both</li> </ul>   | % of Total  | OTU Show Last                                  |  | ihow Lib Groups 20 d  | of 30 Libs                                     | Save   |         |
| Current Filter:   | Back+Umbilicus   | C Boar   | 9% OF 10tal   | CTO Show Last                                  | 03   | riow Lib Groups 20 c  | 1 30 LIDS                                      | Close Project  | 4       |
| Hierarchy   |  | Total  | back:HV1-1-BaCSc  | back:HV10-BaCSc                                | back:HV2-1-BaCSc                               | back:HV3-1-BaCSc  | back:HV4-1-BaCSc                               | back:HV5-BaCSc   |         |
| / root  |  | 100%   | 100%  |  | 100%   | 100%  | 100%   | 100%   |         |
| <ul> <li>Bacteria</li> </ul>  | ia   | 100%   | 100%  |  | 100%   | 100%  | 100%   | 100%   |         |
|   | tinobacteria   | 60.40%   | 96.72%  |  | 93.50%   | 91.67%  | 85.81%   | 95.01%   |         |
|   | cteroidetes  | 7.69%  | 0%  |  | 1.69%  | 3.89%   | 2.70%  | 0.18%  |         |
| Car   | ndidate-division-TM7   | 0.03%  | 0%  |  | 0%   | 0.56%   | 0%   | 0%   |         |
|   | anobacteria  | 0.15%  | 0%  | 0%   | 0%   | 0%  | 0%   | 0%   |         |
|   | micutes  | 17.39%   | 3.28%   |  | 2.82%  | 0.56%   | 2.36%  | 3.14%  |         |
|   | sobacteria   | 0.40%  | 0%  |  | 0%   | 0%  | 0%   | 0%   |         |
|   | oteobacteria<br>nergistetes  | 13.88%   | 0%  |  | 1.98%  | 3.33%<br>0%   | 9.12%<br>0%                                    | 1.66%<br>0%  |         |
|   |  |  |   |  |  |   |  |  |         |
| 1   | Þ  | < +  | ۲   |  |  |   |  |  | 4       |
|   | kule Set:  | Total  | back:HV1-1-BaCSc  | back:HV10-BaCSc                                | back:HV2-1-BaCSc                               | back:HV3-1-BaCSc  | back:HV4-1-BaCSc                               | back:HV5-BaCSc   | ŀ       |
| root  | ule Set:   | Total<br>100%  | back:HV1-1-BaCSc<br>100%  | 100%   | 100%   | 100%  | 100%   | 100%   | ÷ •     |
| root<br>Bacteria//  | /Actinobacteria/Actinobacteria   | Total<br>100%<br>0.03%   | back:HV1-1-BaCSc<br>100%<br>0%  | 100%<br>0%                                     | 100%<br>0%                                     | 100%<br>0%  | 100%<br>0%                                     | 100%<br>0%   |         |
| root<br>Bacteria/A<br>Bacteria/A  | ule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae  | Total<br>100%<br>0.03%<br>0.07%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%  | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%  | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%   | ► A     |
| root<br>Bacteria/A<br>Bacteria/A<br>Bacteria/A  | Aule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces   | Total<br>100%<br>0.03%<br>0.07%<br>0.24%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%<br>0%                         | 100%<br>0%<br>0%  | 100%<br>0%<br>0%                               | 100%<br>0%<br>0%<br>0%   | × ( III |
| root<br>Bacteria/J<br>Bacteria/J<br>Bacteria/J<br>Bacteria/J  | ule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Varibaculum  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%                         | 100%<br>0%<br>0%<br>0%                         | 100%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%                         | 100%<br>0%<br>0%<br>0%   | HI >    |
| root<br>Bacteria/A<br>Bacteria/A<br>Bacteria/A<br>Bacteria/A<br>Bacteria/A  | ule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Varibaculum<br>/Actinobacteria//Corynebacteriaceae   | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.30%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%                                  | 100%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%                                     |         |
| root<br>Bacteria/J<br>Bacteria/J<br>Bacteria/J<br>Bacteria/J<br>Bacteria/J<br>Bacteria/J  | ule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Yaribaculum<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Corynebacterium   | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>22.29%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%  | 100%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>1.67%                   | 100%<br>0%<br>0%<br>0%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%                            |         |
| root<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//  | ule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Varibaculum<br>/Actinobacteria//Varibaculum<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Corynebacterium<br>/Actinobacteria//Dietzia   | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>22.29%<br>0.06%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                                  | 100%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>0%             | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%                      |         |
| root<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,  | Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Varibaculum<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Dietzia<br>/Actinobacteria//Dietzia<br>/Actinobacteria//Dietzia  | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>22.29%<br>0.06%<br>0.01%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.98%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0.28%<br>0%    | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%                   | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%                |         |
| root<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,  | Aule Set:<br>/Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Aribaculum<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Corynebacterium<br>/Actinobacteria//Dietzia<br>/Actinobacteria//Dietzia<br>/Actinobacteria//Nycobacterium<br>/Actinobacteria//Nocardiaceae  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.30%<br>22.29%<br>0.06%<br>0.06%   | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%                            | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%<br>0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0% | 100%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0%                |         |
| root<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,<br>Bacteria/,  | Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Varibaculum<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Corynebacterium<br>/Actinobacteria//Nocardiaceae<br>/Actinobacteria//Nocardiaceae<br>/Actinobacteria//Nocardiaceae   | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>22.29%<br>0.06%<br>0.01%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0.98%<br>0.98%<br>0.98%<br>0%<br>0% | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 1.67% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0.74%             |         |
| root<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//  | Actinobacteria/Actinobacteria<br>Actinobacteria//Actinomycetaceae<br>Actinobacteria//Actinomyceta<br>(Actinobacteria//Actinomyces<br>(Actinobacteria//Corynebacteriaceae<br>(Actinobacteria//Corynebacteriaceae<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Orardiaceae<br>(Actinobacteria//Orardiaceae<br>(Actinobacteria//Rhodococcus  | Total<br>100%<br>0.03%<br>0.07%<br>0.24%<br>0.03%<br>0.2229%<br>0.05%<br>0.01%<br>0.06%<br>0.01%<br>0.00%                            | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%    | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%<br>0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0%<br>0.74%<br>0% |         |
| root<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//                                  | Actinobacteria/Actinobacteria<br>Actinobacteria//Actinomycetaceae<br>(Actinobacteria//Actinomyces<br>Actinobacteria//Corynebacteriaceae<br>Actinobacteria//Corynebacteria<br>(Actinobacteria//Dietzia<br>Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycoardiaceae<br>(Actinobacteria//Rodococcus<br>(Actinobacteria//Rodococcus   | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.20%<br>0.30%<br>22.29%<br>0.06%<br>0.01%<br>0.06%<br>0.01%<br>0.01%                    | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%    | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>1.67%<br>0%<br>0%<br>0.56%<br>0%    | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100%<br>0%<br>0%<br>0%<br>4.44%<br>0%<br>0.74%<br>0%<br>0.74%    |         |
| root<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>Bacteria//<br>1 Bacteria//<br>2 Bacteria//<br>3 Bacteria//  | Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Corynebacterium<br>/Actinobacteria//Dietzia<br>/Actinobacteria//Nocardiaceae<br>/Actinobacteria//Gordonia<br>/Actinobacteria//Gordonia<br>/Actinobacteria//Gordonia  | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>2.2.29%<br>0.06%<br>0.05%<br>0.05%<br>0.05%<br>0.01%<br>0.01%<br>0.01%<br>0.01% | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%    | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 1.67% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%                         |         |
| root<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>2 Bacteria/<br>2 Bacteria/<br>3 Bacteria/<br>4 Bacteria/  | Actinobacteria//Actinobacteria<br>Actinobacteria//Actinomycetaceae<br>Actinobacteria//Actinomycetaceae<br>(Actinobacteria//Actinomyces<br>(Actinobacteria//Orynebacteriaceae<br>(Actinobacteria//Orynebacteriae<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Nycobacterium<br>(Actinobacteria//Brevibacterium<br>(Actinobacteria//Brevibacterium<br>(Actinobacteria//Brevibacterium | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>22.29%<br>0.06%<br>0.01%<br>0.06%<br>0.01%<br>0.07%<br>0.01%<br>0.01%<br>0.01%  | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%    | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%                      | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%                         |         |
| root<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/<br>Bacteria/ | Actinobacteria/Actinobacteria<br>/Actinobacteria//Actinomycetaceae<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Actinomyces<br>/Actinobacteria//Corynebacteriaceae<br>/Actinobacteria//Corynebacterium<br>/Actinobacteria//Dietzia<br>/Actinobacteria//Nocardiaceae<br>/Actinobacteria//Gordonia<br>/Actinobacteria//Gordonia<br>/Actinobacteria//Gordonia  | Total<br>100%<br>0.03%<br>0.24%<br>0.03%<br>0.30%<br>2.2.29%<br>0.06%<br>0.05%<br>0.05%<br>0.05%<br>0.01%<br>0.01%<br>0.01%<br>0.01% | back:HV1-1-BaCSc<br>100%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%<br>0%    | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 1.67% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%       | 100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%                         |         |

## A pop-up window will open Click Save



The Explicet window will close, and all of the OTU data, metadata, and figures are now saved within the project file.