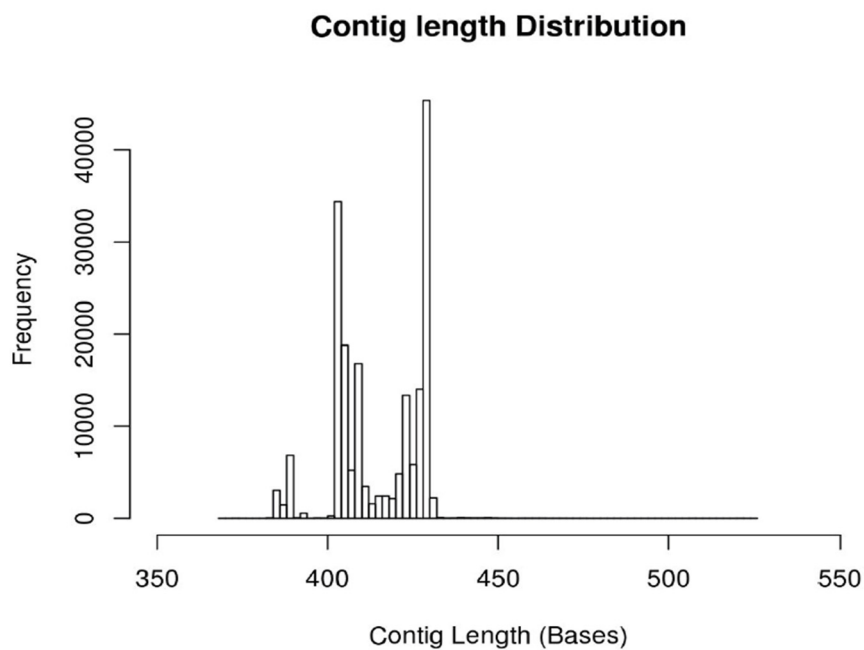
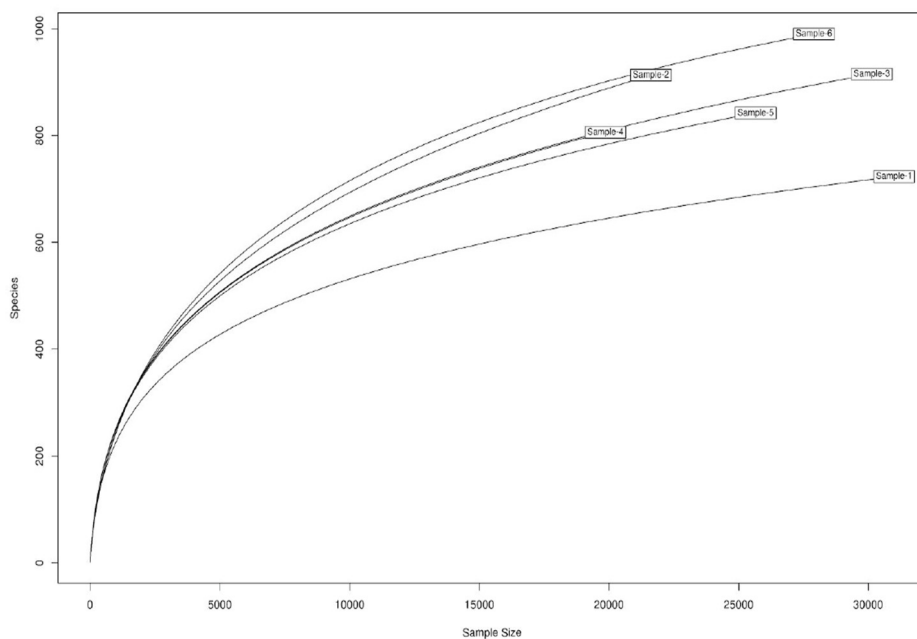


## Supplementary Figure Files

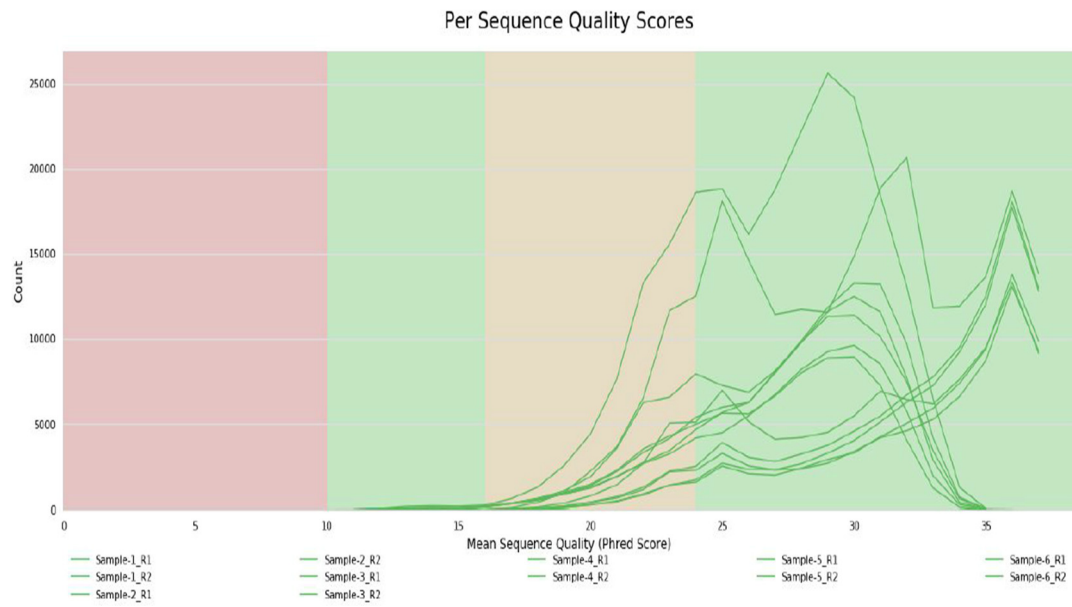
**Figure S1.** Histogram representing contig length distribution



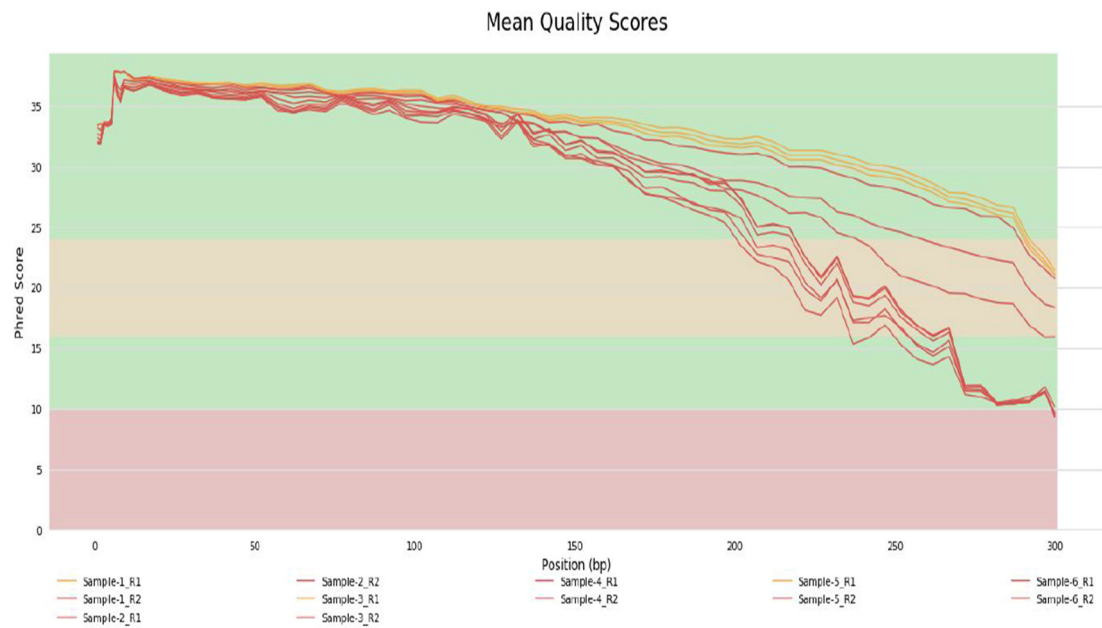
**Figure S2.** Rarefaction curve shows the measure of diversity that has been captured by a given number of reads in a six sample



**Figure S3(a).** Histogram of reads with average sequence quality scores

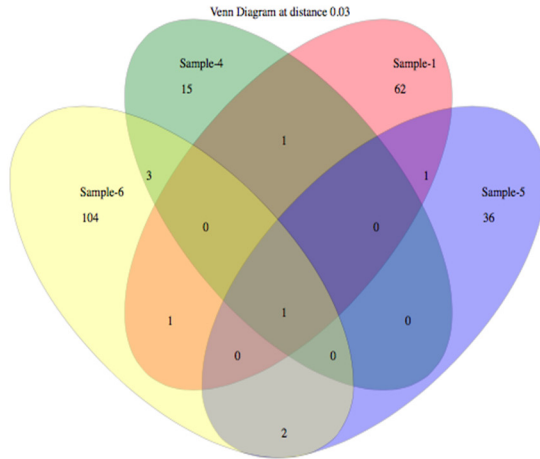


**Figure S3(b).** Histogram of reads with average base sequence quality scores



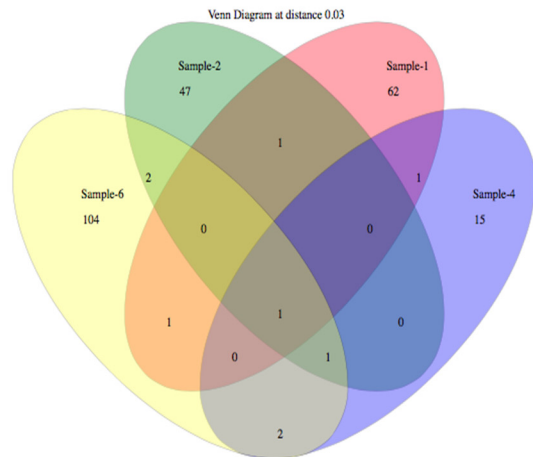
**Figure S4 (a-h). Venn Diagram:** Selective enrichment of microbial features at arid and semi-arid habitat. The Venn diagrams illustrate analysis of dominant features for arid and semi-arid habitats





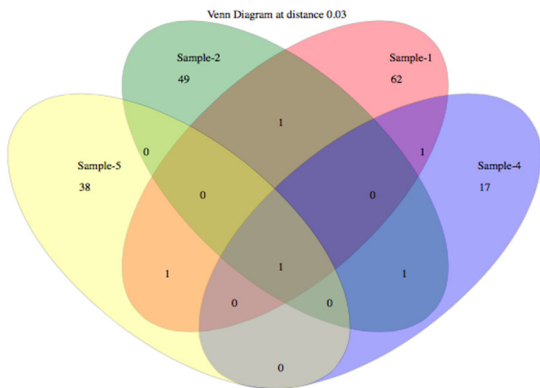
The number of species in group Sample-1 is 66  
 The number of species in group Sample-4 is 20  
 The number of species in group Sample-5 is 40  
 The number of species in group Sample-6 is 111  
 The number of species shared between groups Sample-1 and Sample-4 is 2  
 The number of species shared between groups Sample-1 and Sample-5 is 2  
 The number of species shared between groups Sample-1 and Sample-6 is 2  
 The number of species shared between groups Sample-4 and Sample-5 is 1  
 The number of species shared between groups Sample-4 and Sample-6 is 4  
 The number of species shared between groups Sample-5 and Sample-6 is 3  
 The number of species shared between groups Sample-1, Sample-4 and Sample-5 is 1  
 The number of species shared between groups Sample-1, Sample-4 and Sample-6 is 1  
 The number of species shared between groups Sample-1, Sample-5 and Sample-6 is 1  
 The number of species shared between groups Sample-4, Sample-5 and Sample-6 is 1  
 The total richness of all the groups is 226

**(e)**



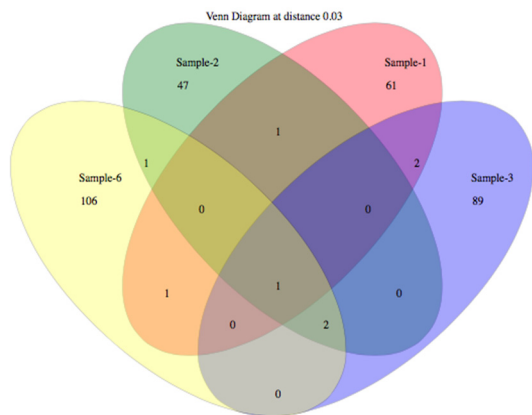
The number of species in group Sample-1 is 66  
The number of species in group Sample-2 is 52  
The number of species in group Sample-4 is 20  
The number of species in group Sample-6 is 111  
The number of species shared between groups Sample-1 and Sample-2 is 2  
The number of species shared between groups Sample-1 and Sample-4 is 2  
The number of species shared between groups Sample-1 and Sample-6 is 2  
The number of species shared between groups Sample-2 and Sample-4 is 2  
The number of species shared between groups Sample-2 and Sample-6 is 4  
The number of species shared between groups Sample-4 and Sample-6 is 4  
The number of species shared between groups Sample-1, Sample-2 and Sample-4 is 1  
The number of species shared between groups Sample-1, Sample-2 and Sample-6 is 1  
The number of species shared between groups Sample-1, Sample-4 and Sample-6 is 1  
The number of species shared between groups Sample-2, Sample-4 and Sample-6 is 2  
The total richness of all the groups is 237

**(f)**



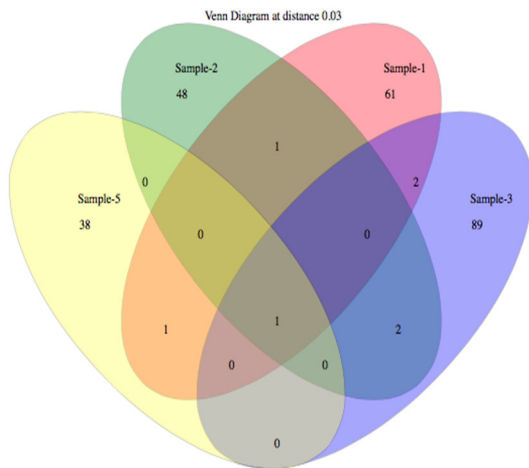
The number of species in group Sample-1 is 66  
The number of species in group Sample-2 is 52  
The number of species in group Sample-4 is 20  
The number of species in group Sample-5 is 40  
The number of species shared between groups Sample-1 and Sample-2 is 2  
The number of species shared between groups Sample-1 and Sample-4 is 2  
The number of species shared between groups Sample-1 and Sample-5 is 2  
The number of species shared between groups Sample-2 and Sample-4 is 2  
The number of species shared between groups Sample-2 and Sample-5 is 1  
The number of species shared between groups Sample-4 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-2 and Sample-4 is 1  
The number of species shared between groups Sample-1, Sample-2 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-4 and Sample-5 is 1  
The number of species shared between groups Sample-2, Sample-4 and Sample-5 is 1  
The total richness of all the groups is 171

(g)



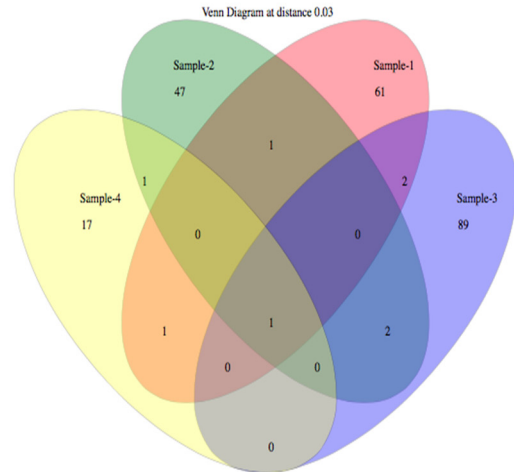
The number of species in group Sample-1 is 66  
 The number of species in group Sample-2 is 52  
 The number of species in group Sample-3 is 94  
 The number of species in group Sample-6 is 111  
 The number of species shared between groups Sample-1 and Sample-2 is 2  
 The number of species shared between groups Sample-1 and Sample-3 is 3  
 The number of species shared between groups Sample-1 and Sample-6 is 2  
 The number of species shared between groups Sample-2 and Sample-3 is 3  
 The number of species shared between groups Sample-2 and Sample-6 is 4  
 The number of species shared between groups Sample-3 and Sample-6 is 4  
 The number of species shared between groups Sample-1, Sample-2 and Sample-3 is 1  
 The number of species shared between groups Sample-1, Sample-2 and Sample-6 is 1  
 The number of species shared between groups Sample-1, Sample-3 and Sample-6 is 1  
 The number of species shared between groups Sample-2, Sample-3 and Sample-6 is 3  
 The total richness of all the groups is 311

### (h)



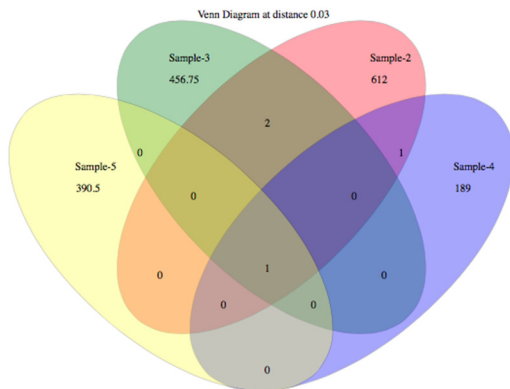
The number of species in group Sample-1 is 66  
The number of species in group Sample-2 is 52  
The number of species in group Sample-3 is 94  
The number of species in group Sample-5 is 40  
The number of species shared between groups Sample-1 and Sample-2 is 2  
The number of species shared between groups Sample-1 and Sample-3 is 3  
The number of species shared between groups Sample-1 and Sample-5 is 2  
The number of species shared between groups Sample-2 and Sample-3 is 3  
The number of species shared between groups Sample-2 and Sample-5 is 1  
The number of species shared between groups Sample-3 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-2 and Sample-3 is 1  
The number of species shared between groups Sample-1, Sample-2 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-3 and Sample-5 is 1  
The number of species shared between groups Sample-2, Sample-3 and Sample-5 is 1  
The total richness of all the groups is 243

(i)

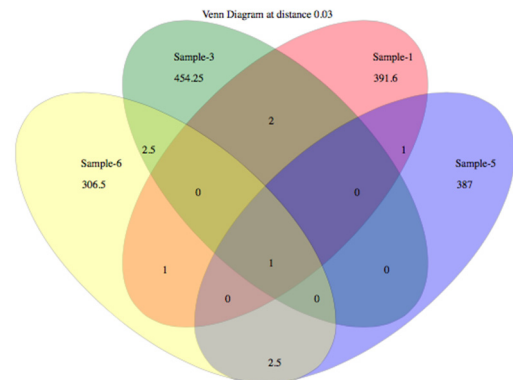


The number of species in group Sample-1 is 66  
 The number of species in group Sample-2 is 52  
 The number of species in group Sample-3 is 94  
 The number of species in group Sample-4 is 20  
 The number of species shared between groups Sample-1 and Sample-2 is 2  
 The number of species shared between groups Sample-1 and Sample-3 is 3  
 The number of species shared between groups Sample-1 and Sample-4 is 2  
 The number of species shared between groups Sample-2 and Sample-3 is 3  
 The number of species shared between groups Sample-2 and Sample-4 is 2  
 The number of species shared between groups Sample-3 and Sample-4 is 1  
 The number of species shared between groups Sample-1, Sample-2 and Sample-3 is 1  
 The number of species shared between groups Sample-1, Sample-2 and Sample-4 is 1  
 The number of species shared between groups Sample-1, Sample-3 and Sample-4 is 1  
 The number of species shared between groups Sample-2, Sample-3 and Sample-4 is 1  
 The total richness of all the groups is 222

(j)



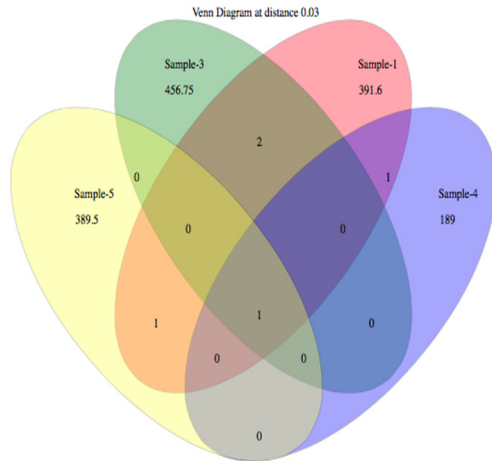
The number of species in group Sample-2 is 616  
 The number of species in group Sample-3 is 459.75  
 The number of species in group Sample-4 is 191  
 The number of species in group Sample-5 is 391.5  
 The number of species shared between groups Sample-2 and Sample-3 is 3  
 The number of species shared between groups Sample-2 and Sample-4 is 2  
 The number of species shared between groups Sample-2 and Sample-5 is 1  
 The number of species shared between groups Sample-3 and Sample-4 is 1  
 The number of species shared between groups Sample-3 and Sample-5 is 1  
 The number of species shared between groups Sample-4 and Sample-5 is 1  
 The number of species shared between groups Sample-2, Sample-3 and Sample-4 is 1  
 The number of species shared between groups Sample-2, Sample-3 and Sample-5 is 1  
 The number of species shared between groups Sample-2, Sample-4 and Sample-5 is 1  
 The number of species shared between groups Sample-3, Sample-4 and Sample-5 is 1  
 The total richness of all the groups is 1652.25

$$(\mathbf{k})$$


The number of species in group Sample-1 is 396.6  
 The number of species in group Sample-3 is 459.75  
 The number of species in group Sample-5 is 391.5  
 The number of species in group Sample-6 is 313.5  
 The number of species shared between groups Sample-1 and Sample-3 is 3  
 The number of species shared between groups Sample-1 and Sample-5 is 2  
 The number of species shared between groups Sample-1 and Sample-6 is 1  
 The number of species shared between groups Sample-3 and Sample-5 is 2  
 The number of species shared between groups Sample-3 and Sample-6 is 3.5  
 The number of species shared between groups Sample-5 and Sample-6 is 3.5  
 The number of species shared between groups Sample-1, Sample-3 and Sample-5 is 1  
 The number of species shared between groups Sample-1, Sample-3 and Sample-6 is 1  
 The number of species shared between groups Sample-1, Sample-5 and Sample-6 is 1  
 The number of species shared between groups Sample-3, Sample-5 and Sample-6 is 1  
 The total richness of all the groups is 1549.35

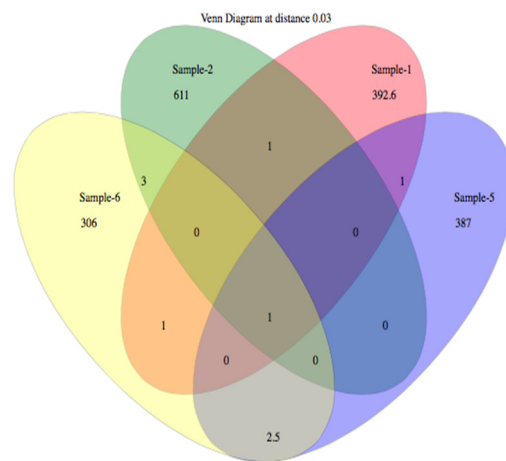
(1)





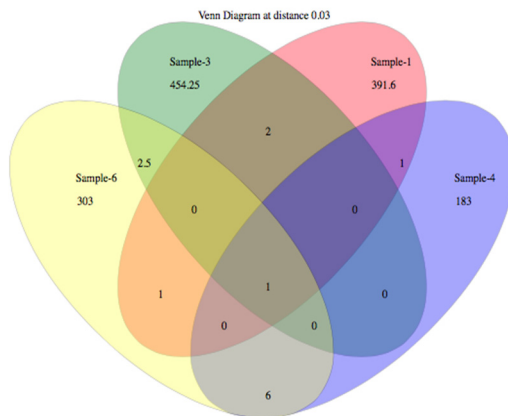
The number of species in group Sample-1 is 396.6  
The number of species in group Sample-3 is 459.75  
The number of species in group Sample-4 is 191  
The number of species in group Sample-5 is 391.5  
The number of species shared between groups Sample-1 and Sample-3 is 3  
The number of species shared between groups Sample-1 and Sample-4 is 2  
The number of species shared between groups Sample-1 and Sample-5 is 2  
The number of species shared between groups Sample-3 and Sample-4 is 1  
The number of species shared between groups Sample-3 and Sample-5 is 1  
The number of species shared between groups Sample-4 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-3 and Sample-4 is 1  
The number of species shared between groups Sample-1, Sample-3 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-4 and Sample-5 is 1  
The number of species shared between groups Sample-3, Sample-4 and Sample-5 is 1  
The total richness of all the groups is 1431.85

(m)



The number of species in group Sample-1 is 396.6  
The number of species in group Sample-2 is 616  
The number of species in group Sample-5 is 391.5  
The number of species in group Sample-6 is 313.5  
The number of species shared between groups Sample-1 and Sample-2 is 2  
The number of species shared between groups Sample-1 and Sample-5 is 2  
The number of species shared between groups Sample-1 and Sample-6 is 2  
The number of species shared between groups Sample-2 and Sample-5 is 1  
The number of species shared between groups Sample-2 and Sample-6 is 4  
The number of species shared between groups Sample-5 and Sample-6 is 3.5  
The number of species shared between groups Sample-1, Sample-2 and Sample-5 is 1  
The number of species shared between groups Sample-1, Sample-2 and Sample-6 is 1  
The number of species shared between groups Sample-1, Sample-5 and Sample-6 is 1  
The number of species shared between groups Sample-2, Sample-5 and Sample-6 is 1  
The total richness of all the groups is 1706.1

(n)



The number of species in group Sample-1 is 396.6  
The number of species in group Sample-3 is 459.75  
The number of species in group Sample-4 is 191  
The number of species in group Sample-6 is 313.5  
The number of species shared between groups Sample-1 and Sample-3 is 3  
The number of species shared between groups Sample-1 and Sample-4 is 2  
The number of species shared between groups Sample-1 and Sample-6 is 2  
The number of species shared between groups Sample-3 and Sample-4 is 1  
The number of species shared between groups Sample-3 and Sample-6 is 3.5  
The number of species shared between groups Sample-4 and Sample-6 is 7  
The number of species shared between groups Sample-1, Sample-3 and Sample-4 is 1  
The number of species shared between groups Sample-1, Sample-3 and Sample-6 is 1  
The number of species shared between groups Sample-1, Sample-4 and Sample-6 is 1  
The number of species shared between groups Sample-3, Sample-4 and Sample-6 is 1  
The total richness of all the groups is 1345.35

(o)