

**Appendix 3:** Example configuration for QIIME.1. *BIN\_module.txt* file:

[[Job Start]

Name pickotu

Memory 2G

Queue sci.q

CPU N

Major T

Order 1

Thread 1

Qsub False

Command BIN/pick\_open\_reference\_otus.py -i Para\_inputdir/  
all.fa -r DB\_reference -o Para\_outputdir -f

[[Job End]

[[Job Start]

Name biom2table

Memory 2G

Queue sci.q

CPU N

Major T

Order 2

Thread 1

Qsub False

Command BIN/biom convert--header-key taxonomy--to-tsv -i  
Para\_outputdir/otu\_table\_mc2\_w\_tax\_no\_pynast\_failures.biom -o  
Para\_outputdir/otu\_table.txt

[[Job End]

[[Job Start]

Name level

Memory 2G

Queue sci.q

CPU N

Major T

Order 3

Thread 1

Qsub False

Command BIN/summarize\_taxa\_through\_plots.py -i Para\_  
outputdir/otu\_table\_mc2\_w\_tax\_no\_pynast\_failures.biom -o  
Para\_outputdir/taxa\_summaries

[[Job End]

[[Job Start]

Name alphadiversity

Memory 2G

Queue sci.q

CPU N

Major F

Order 3

Thread 1

Qsub False

Command BIN/parallel\_alpha\_diversity.py -i Para\_outputdir/  
otu\_table\_mc2\_w\_tax\_no\_pynast\_failures.biom -o alpha -m  
chao1,observed\_species,shannon,simpson -t rep\_set.tre

[[Job End]

[[Job Start]

Name betadiversity

Memory 2G

Queue sci.q

CPU N

Major F

Order 3

Thread 1

Qsub False

Command BIN/parallel\_beta\_diversity.py -i Para\_outputdir/  
otu\_table\_mc2\_w\_tax\_no\_pynast\_failures.biom -o beta -t rep\_  
set.tre -m bray\_curtis,weighted\_unifrac,unweighted\_unifrac

[[Job End]

2. *pipeline\_config.txt* file:

[Para]

Para\_inputdir=/home/lusf/software/program/example

Para\_outputdir=/home/lusf/software/CPLSTool/program/  
example/qiime\_result

[DB]

DB\_reference=/home/lusf/software/CPLSTool/program/  
example/97\_otus.fasta.