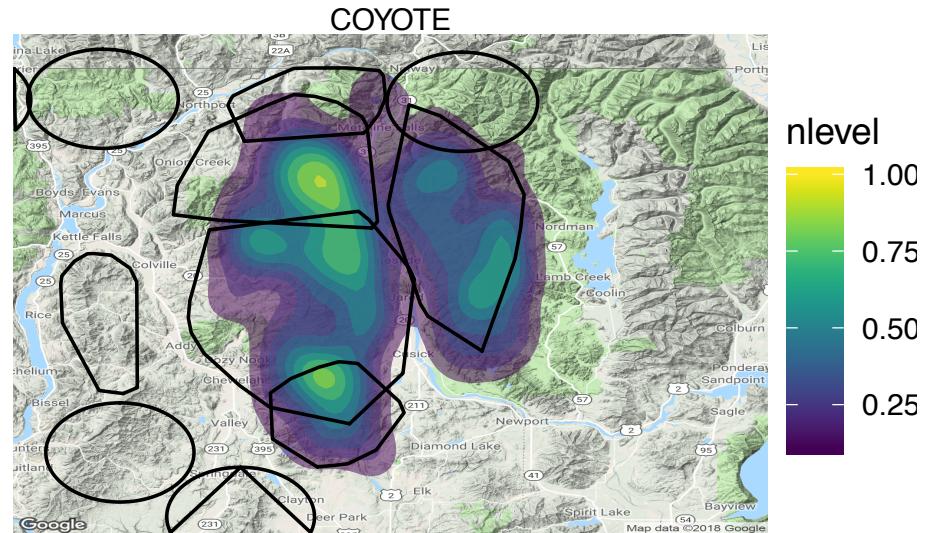
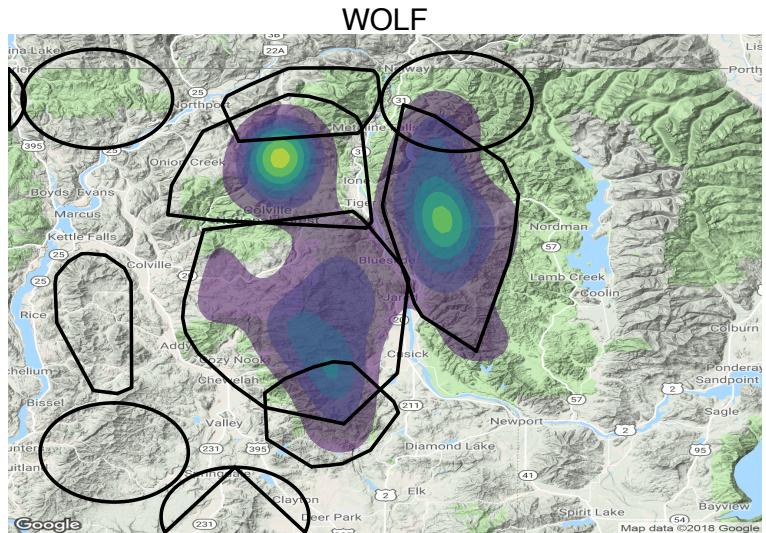


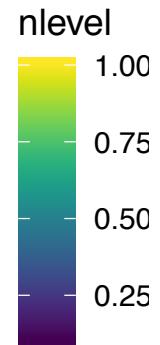
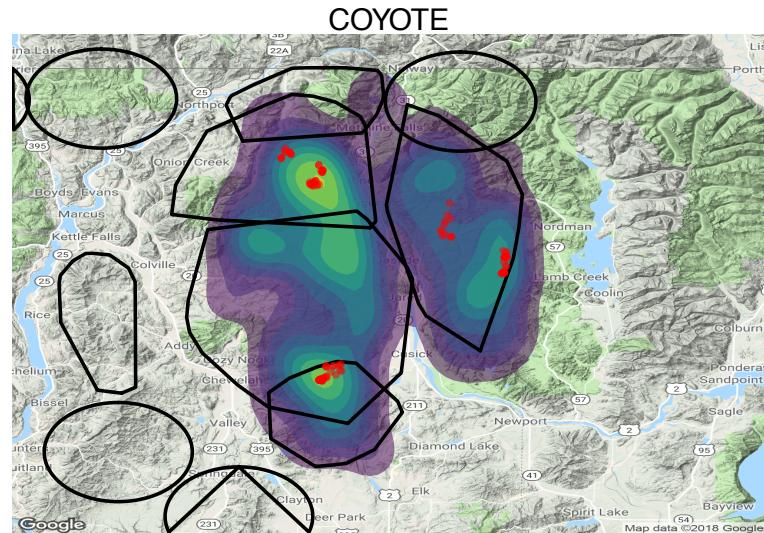
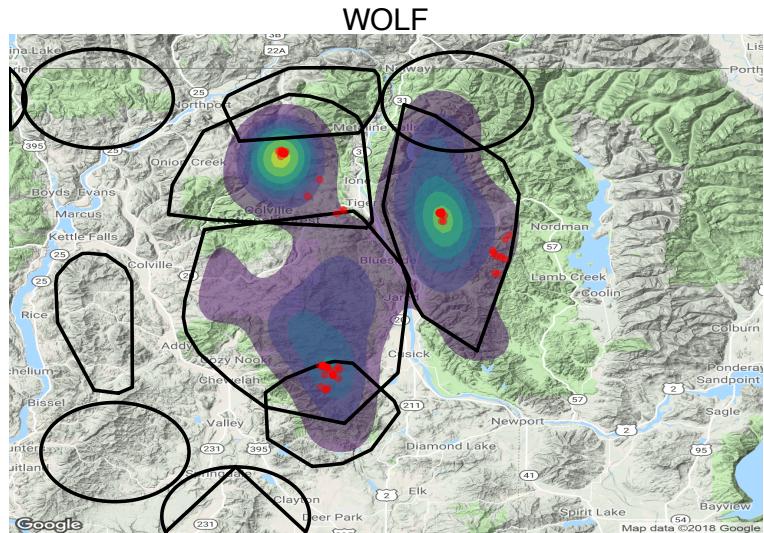
Prey Partitioning between Gray Wolves and Coyotes with Different Levels of Wolf and Coyote Density

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FISH 546
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Sample Collection



Sample Collection



Sample Collection

```

##      Sample   Predator      lat      lon
## 1215 : 1    WOLF : 99 Min.  :48.25  Min.  :-117.6
## 1216 : 1 COYOTE:103 1st Qu.:48.30 1st Qu.:-117.5
## 1545 : 1                               Median :48.61  Median :-117.5
## 163033 : 1                           Mean   :48.56  Mean   :-117.4
## 163036 : 1                           3rd Qu.:48.73 3rd Qu.:-117.2
## 163038 : 1                           Max.   :48.81  Max.   :-117.1
## (Other):196
##      Altitude      Session      pack
## 1050.099976: 2 Spring2015:74 Smackout :68
## 1050.900024: 2 Fall2015  :57 DirtyShirt :62
## 875.2000122: 2 Fall2016  :34 GoodmanMeadow:72
## 954       : 2 Spring2017:37
## 1001       : 1
## 1005.5     : 1
## (Other)    :192
##
##          Smackout DirtyShirt GoodmanMeadow
## WOLF        34         28          37
## COYOTE      34         34          35

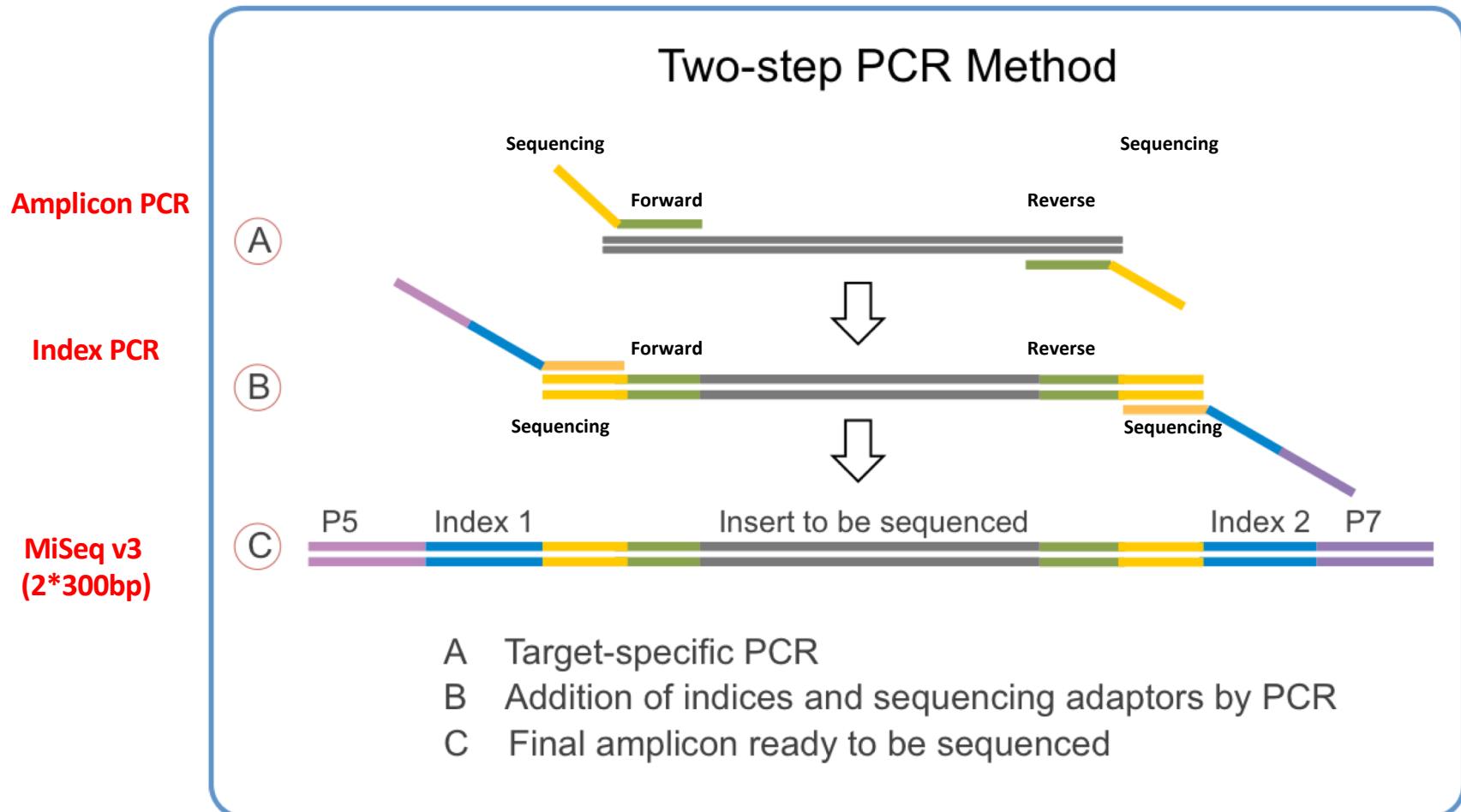
```

Density	Smackout	DirtyShirt	Goodman Meadow
High Wolf Density area	27/11	23/12	26/12
High Coyote Density area	4+3/23	13/22	11/23
Sum	34/34	36/34	37/35

Test Run

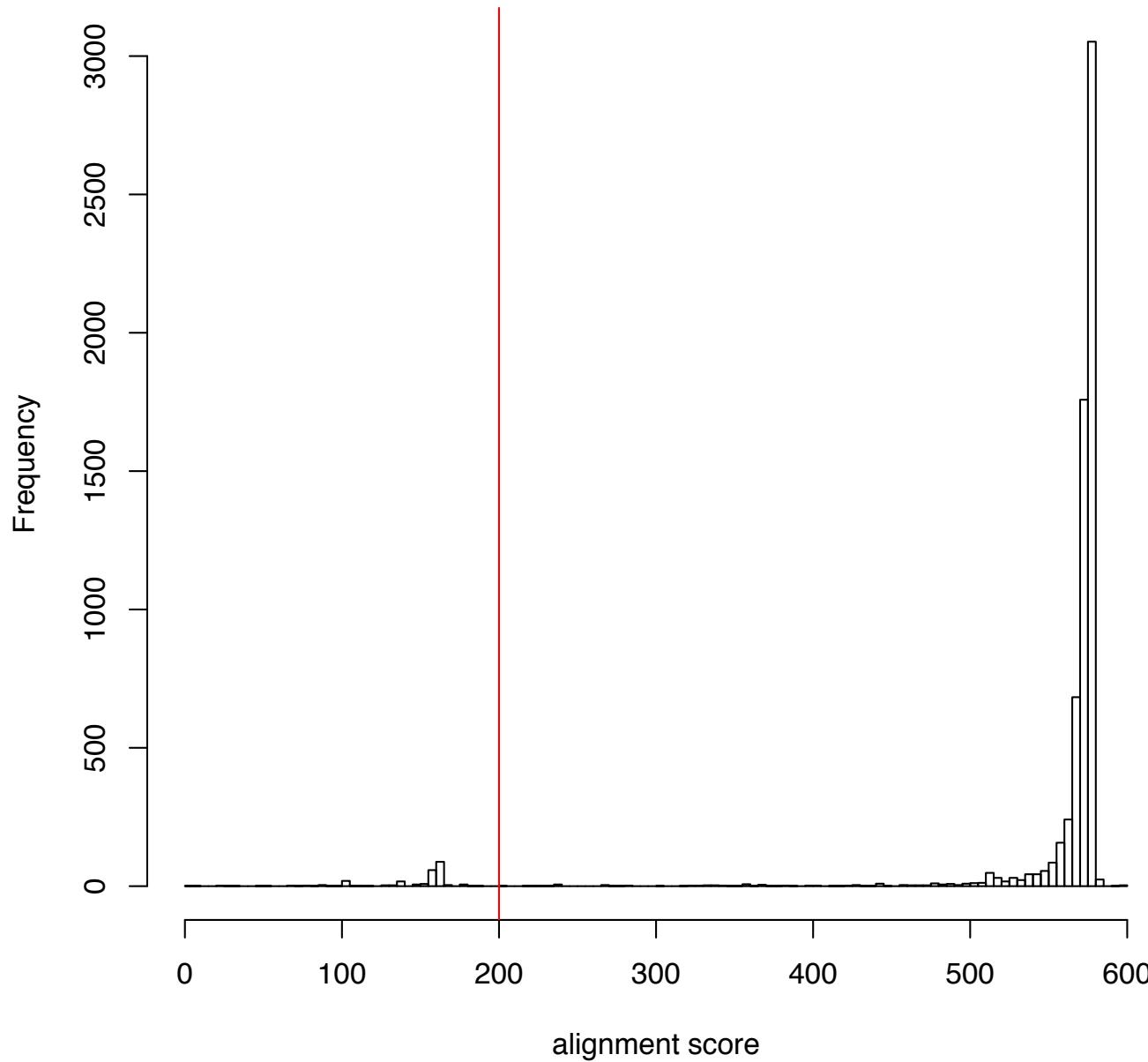
9 samples (different carnivores) + 1 PCR negative control

Library Prep Protocol



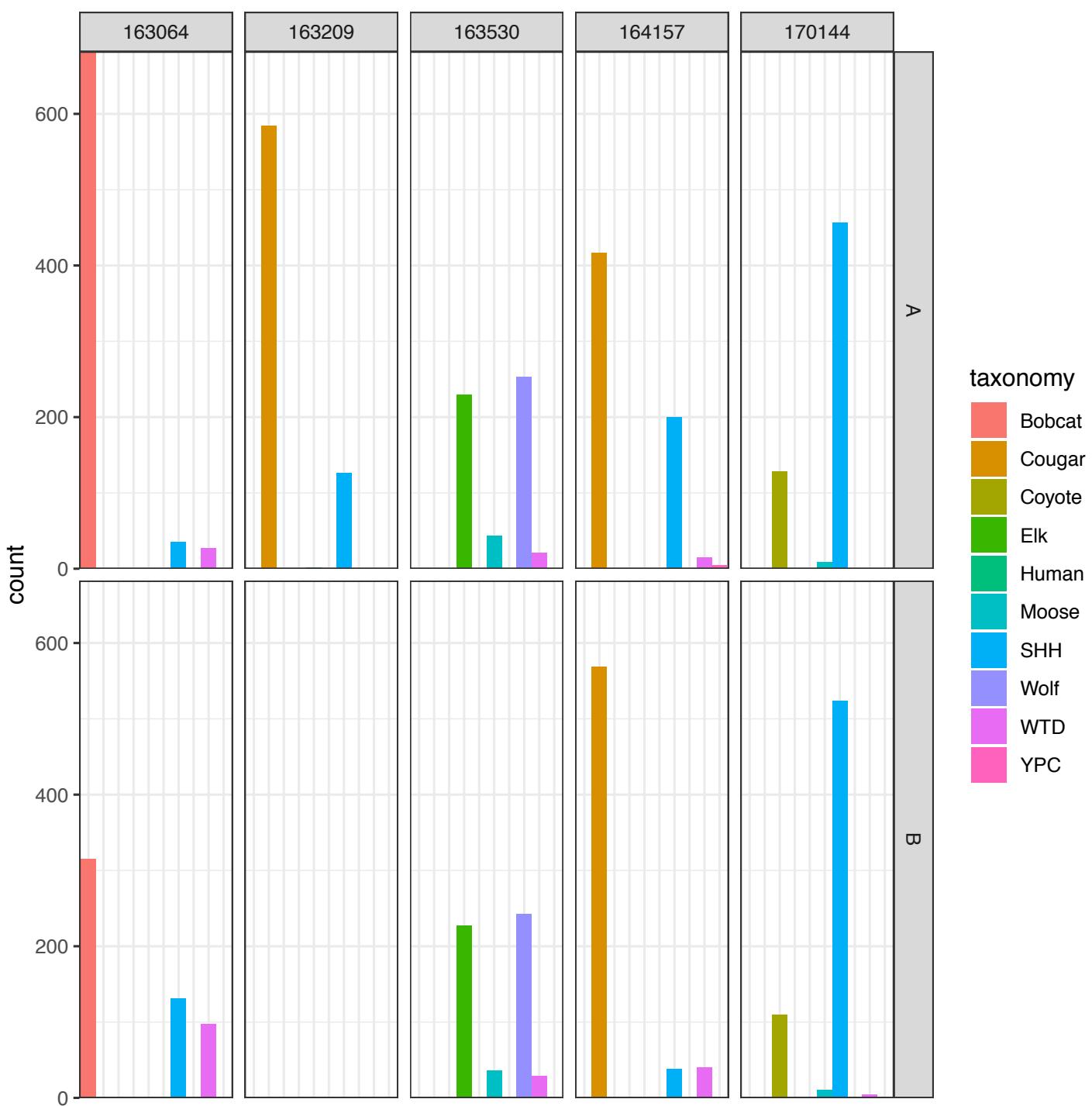
```
2 for sample in allSamples
3 do
4     illuminapairend $R1 $R2 > *_merged.fastq           Step1
5 done
6
7 cat *_merged.fastq > all.merged
8 obistat score all.merged > all.merged.scores
9 Rscript AlignmentScorePlot.R
10
11
12 for *.merged.fastq in allMergedFastq
13 do
14     obigrep 'score>200' |
15     obiuniq |
16     obigrep -p 'count>1' > *_noSingleton.fastq        Step2
17 done                                         Step3
18
19 bash SummaryCount.sh
20 blastn *_noSingleton.fastq reference.db
21 bash |GoodMatch.sh
22 Rscript DietBar.R
23
```

alignement scores



Step1 Step2 Step3 Step4

1	N701–N508_S85	658	658	657	657	95	657	14	576
2	N702–N508_S86	635	635	626	626	80	626	14	560
3	N703–N508_S87	793	793	788	788	69	788	14	733
4	N705–N508_S89	857	857	846	846	89	846	12	769
5	N706–N508_S90	669	669	649	649	76	649	17	590
6	N707–N508_S91	664	664	662	662	63	662	10	609
7	N708–N508_S92	753	753	747	747	89	747	11	669
8	N709–N508_S93	158	158	0	0	0	0	0	0
9	N710–N508_S94	735	735	727	727	69	727	13	671
10	N711–N508_S95	757	757	740	740	85	740	23	678
11									



Next step?

