

# class15

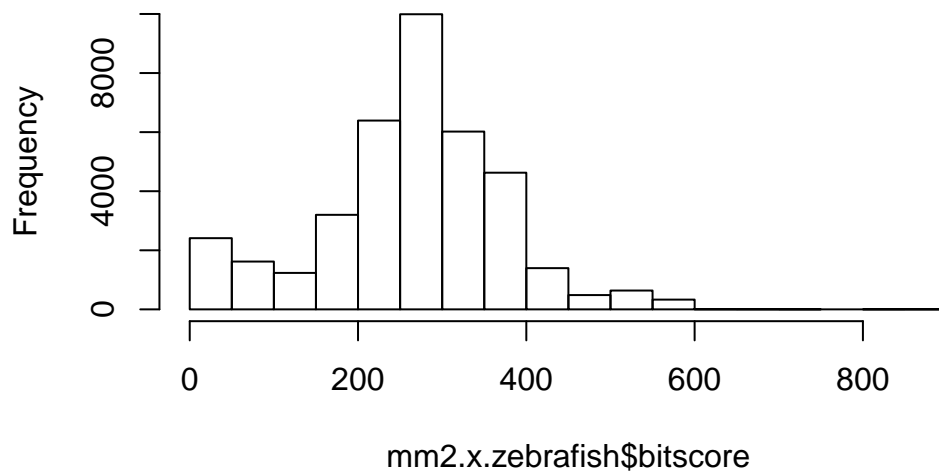
Steven Gan

## 10. Using RStudio online (or locally) to read your output

```
mm2.x.zebrafish <- read.table("mm-second.x.zebrafish.tsv")
colnames(mm2.x.zebrafish) <- c("qseqid", "sseqid", "pident", "length", "mismatch", "gapopen",
                              "qstart", "qend", "sstart", "send", "eval", "bitscore")

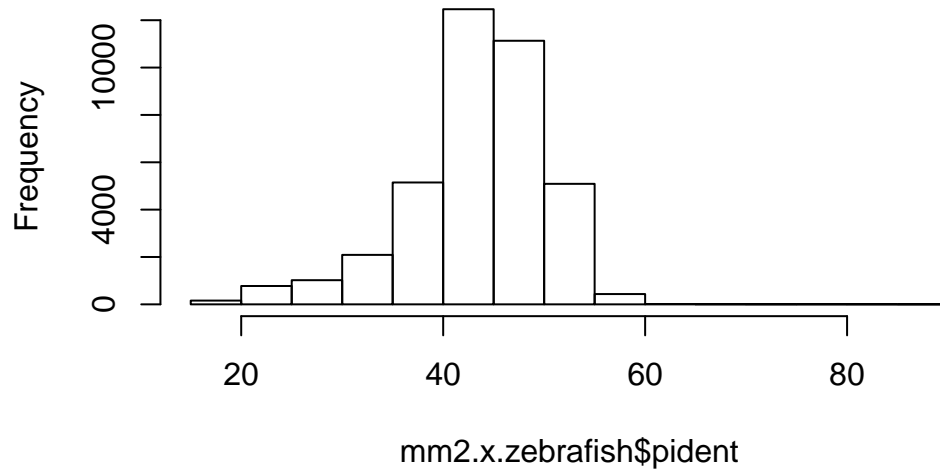
hist(mm2.x.zebrafish$bitscore, breaks = 30)
```

**Histogram of mm2.x.zebrafish\$bitscore**

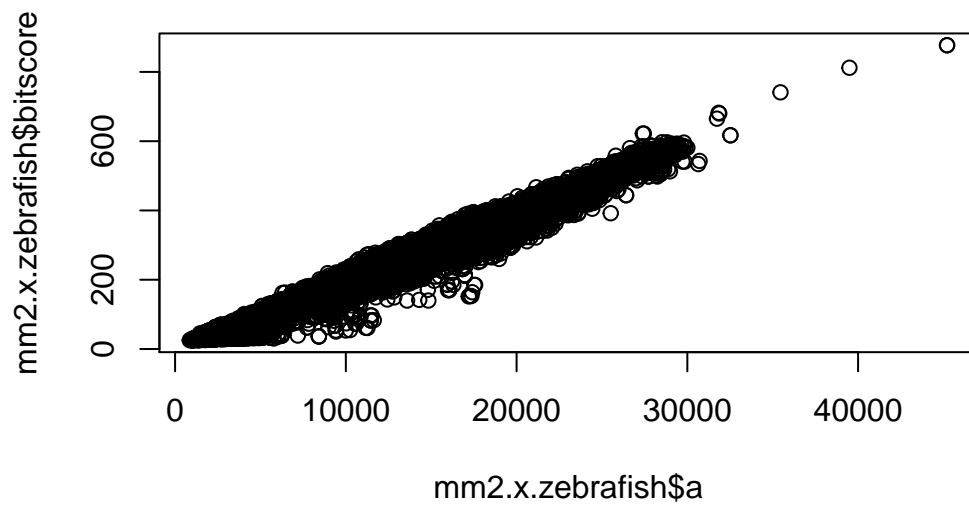


```
hist(mm2.x.zebrafish$pident)
```

## Histogram of mm2.x.zebrafish\$pident



```
mm2.x.zebrafish$a <- mm2.x.zebrafish$pident *  
  (mm2.x.zebrafish$qend - mm2.x.zebrafish$qstart)  
plot(mm2.x.zebrafish$a, mm2.x.zebrafish$bitscore)
```



```
# install.packages("ggplot2")
library(ggplot2)

ggplot(mm2.x.zebrafish, aes(a, bitscore)) + geom_point(alpha = 0.1) + geom_smooth()
```

`geom\_smooth()` using method = 'gam' and formula = 'y ~ s(x, bs = "cs")'

