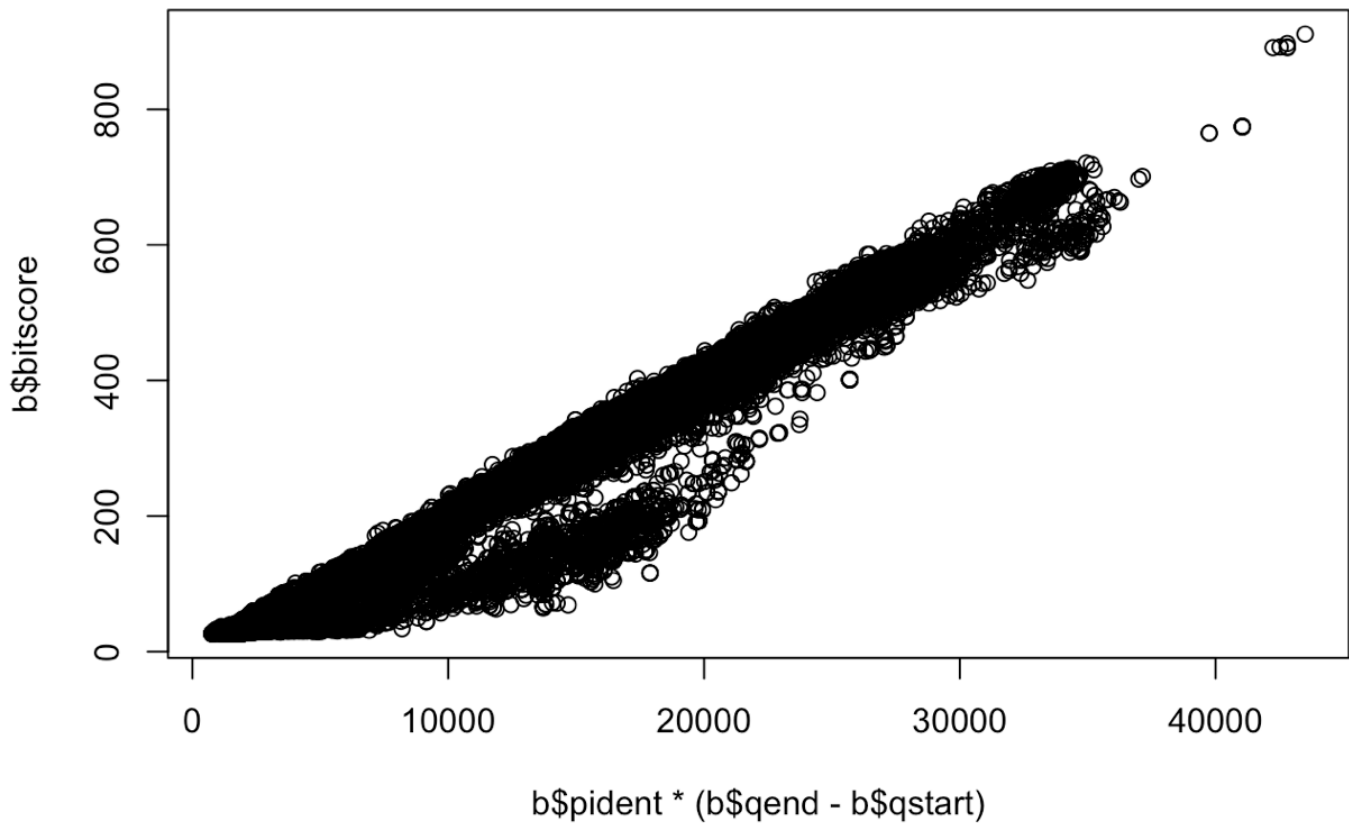


# extra cred

```
b <- read.table("mm-second.x.zebrafish.tsv")  
colnames(b) <- c("qseqid", "sseqid", "pident", "length", "mismatch", "gapopen", "qsta
```

plot

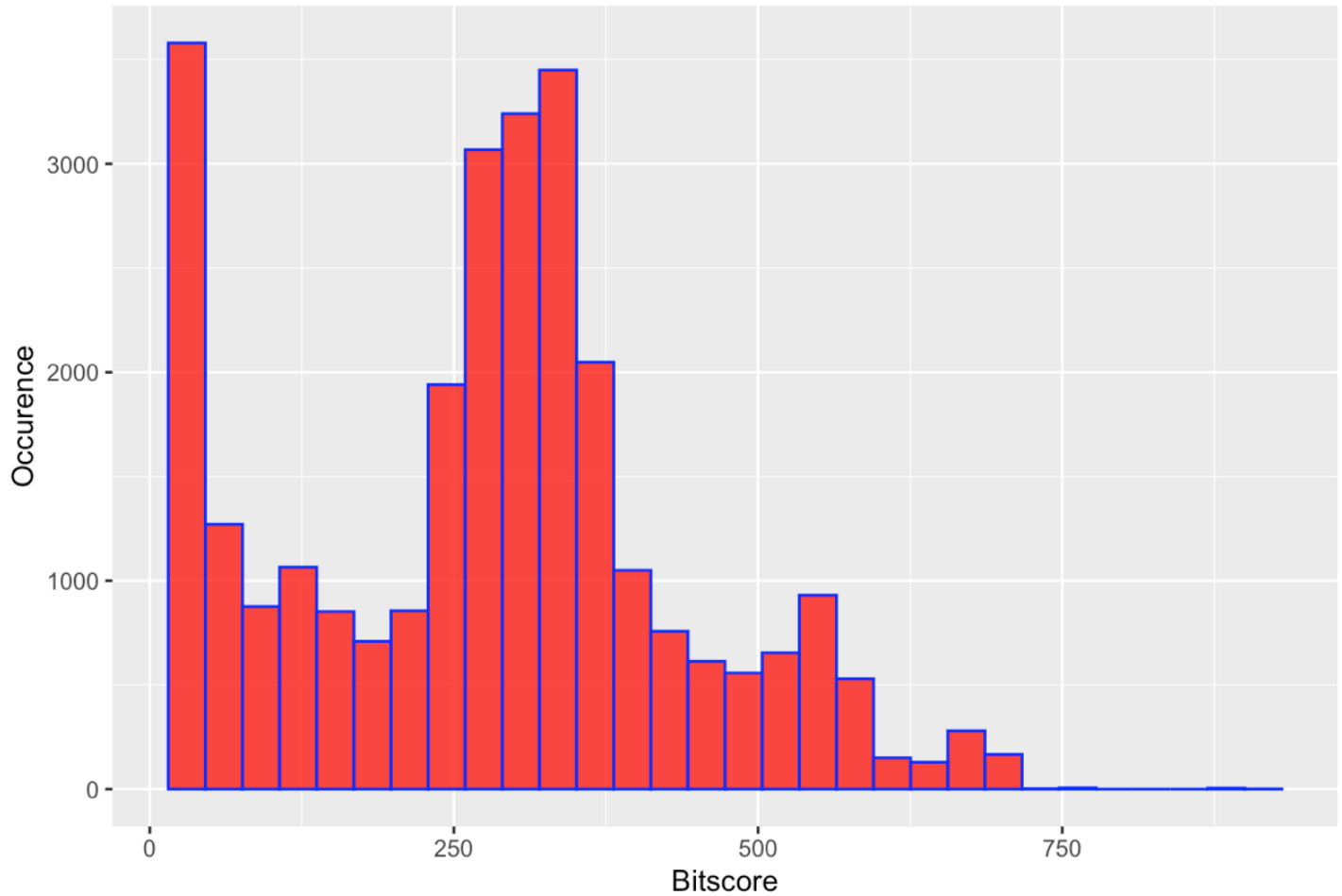
```
library(ggplot2)  
## Asuming your blast results are stored in an object called 'b'  
plot(b$pident * (b$qend - b$qstart), b$bitscore)
```



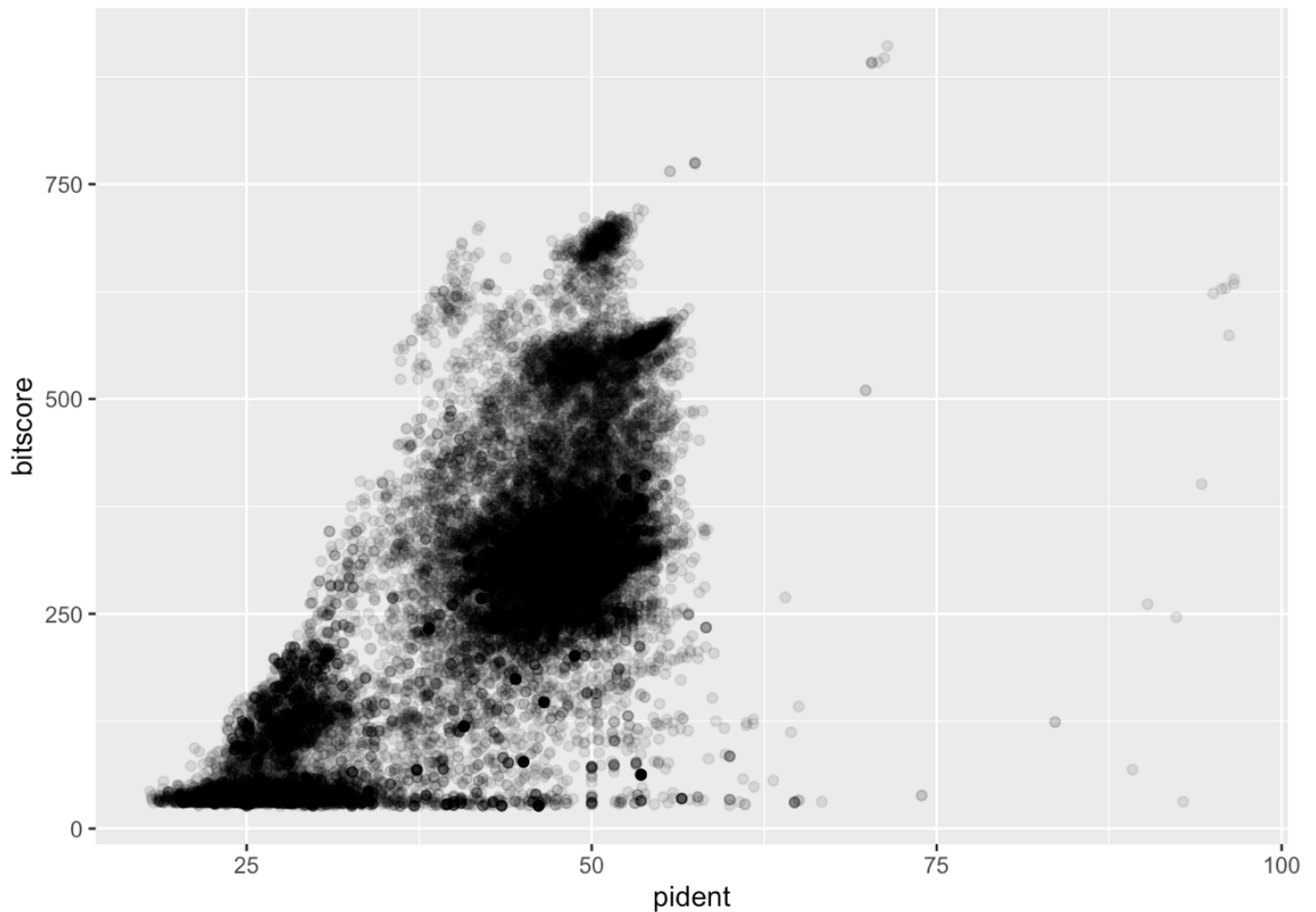
```
ggplot(b, aes(x = bitscore)) +  
  geom_histogram(bins = 30, fill = "red", color = "blue", alpha = 0.8) +  
  labs(title = "Histogram ",  
       x = "Bitscore",
```

```
y = "Occurrence")
```

### Histogram



```
ggplot(b, aes(pident, bitscore)) + geom_point(alpha=0.1)
```



```
ggplot(b, aes((b$pident * (b$qend - b$qstart)), bitscore)) + geom_point(alpha=0.1) +
```

Warning: Use of `b\$pident` is discouraged.  
i Use `pident` instead.

Warning: Use of `b\$qend` is discouraged.  
i Use `qend` instead.

Warning: Use of `b\$qstart` is discouraged.  
i Use `qstart` instead.

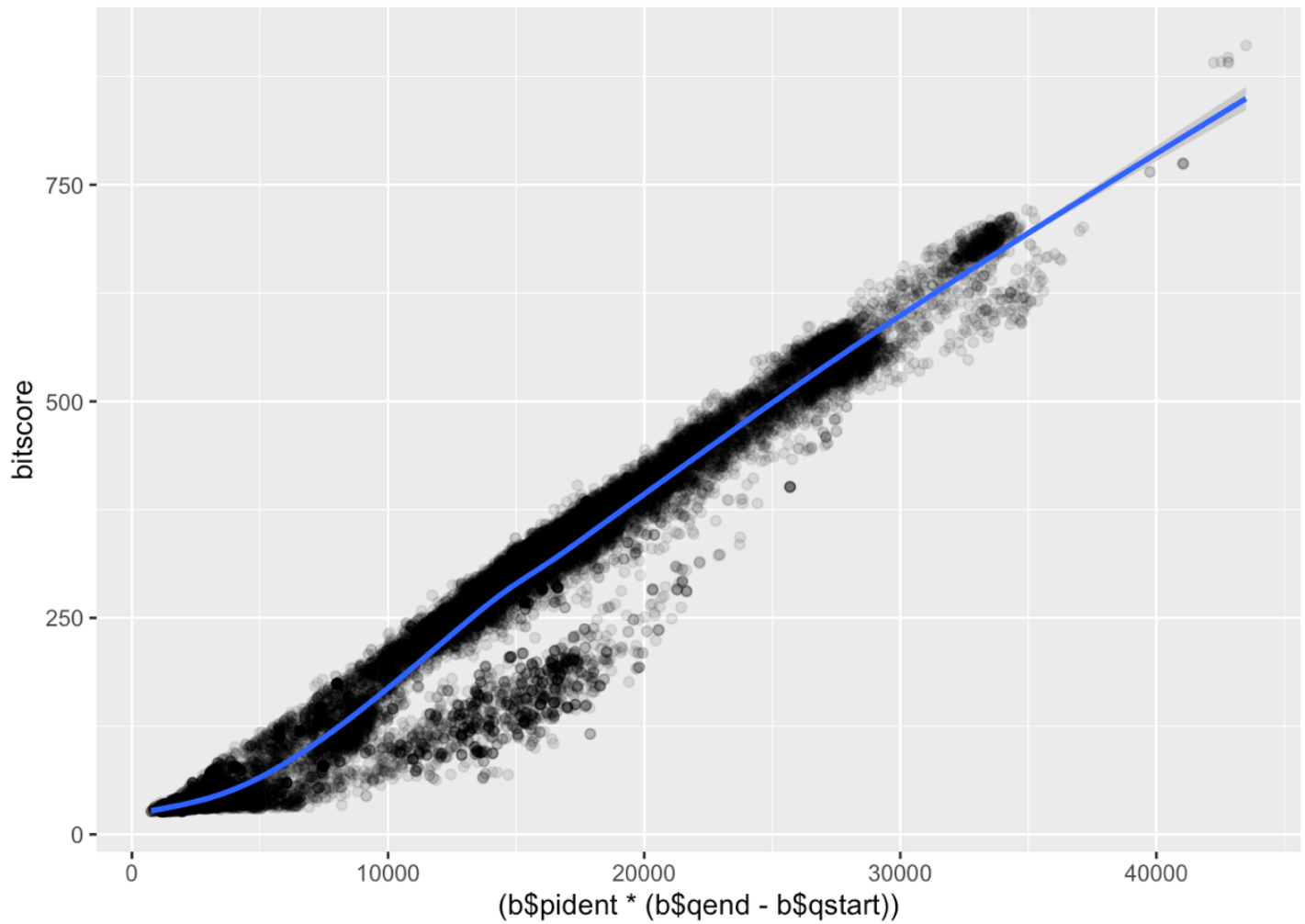
Warning: Use of `b\$pident` is discouraged.  
i Use `pident` instead.

Warning: Use of `b\$qend` is discouraged.  
i Use `qend` instead.

Warning: Use of `b\$qstart` is discouraged.

i Use `qstart` instead.

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



...