

Does Age correlate with ability to spawn?

```
SpawnDF <- read_csv(file="Data/SpawningData20180327.csv")

## Parsed with column specification:
## cols(
##   `Spawn Date` = col_date(format = ""),
##   Incubator = col_character(),
##   `Start Date` = col_character(),
##   `End Date` = col_character(),
##   `Tank Name` = col_character(),
##   Male = col_character(),
##   Female = col_character(),
##   `Spawn Type` = col_character(),
##   `Time Found` = col_character(),
##   Cleavage = col_character(),
##   `Day of Cycle` = col_integer(),
##   `Total # of tanks` = col_integer(),
##   Notes = col_character()
## )

colnames(SpawnDF) <- c("Spawn.Date", "Incubator", "Start.Date", "End.Date", "Tank.Name", "Male", "Female", "Spawn.Type", "Time.Found", "Cleavage", "Day.of.Cycle", "Total.#.of.tanks", "Notes")
SpawnDF$`Spawn.Date` <- as.Date(SpawnDF$`Spawn.Date`, "%m/%d/%y")
SpawnDF$Start.Date <- as.Date(SpawnDF$Start.Date, "%m/%d/%y")

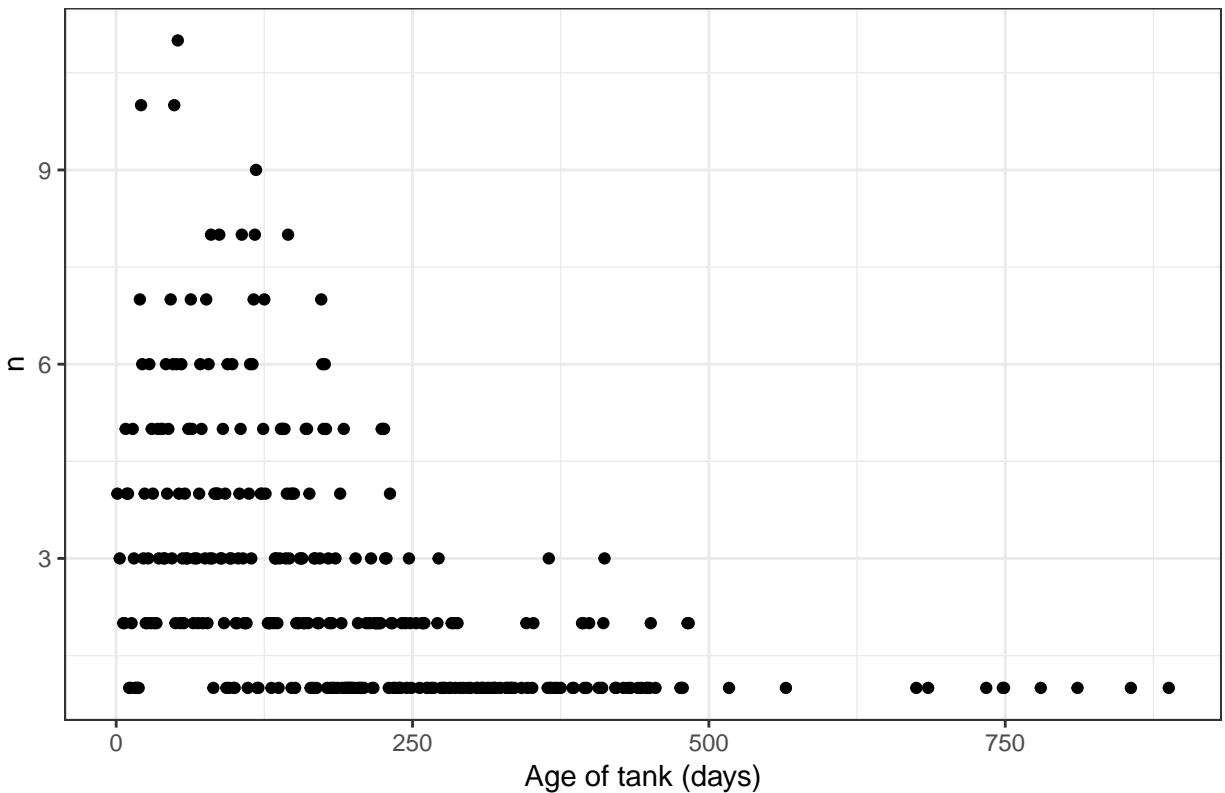
## Warning in strptime(x, format, tz = "GMT"): unknown timezone 'zone/tz/'
## 2018c.1.0/zoneinfo/America/Los_Angeles'

SpawnDF$End.Date <- as.Date(SpawnDF$End.Date, "%m/%d/%y")
levels(SpawnDF$Spawn.Type) <- c("eggs", "sperm", "embryos", "larvae")

SpawnDF %>% mutate(age_Days = Spawn.Date - Start.Date) %>% filter(age_Days > 0) %>%
  count(age_Days) %>%
  ggplot( aes(x=age_Days, y=n)) +
  geom_point() +
  theme_bw() +
  ggtitle("Correlation of age of tank with spawning amount") +
  xlab("Age of tank (days)")

## Don't know how to automatically pick scale for object of type difftime. Defaulting to continuous.
```

Correlation of age of tank with spawning amount

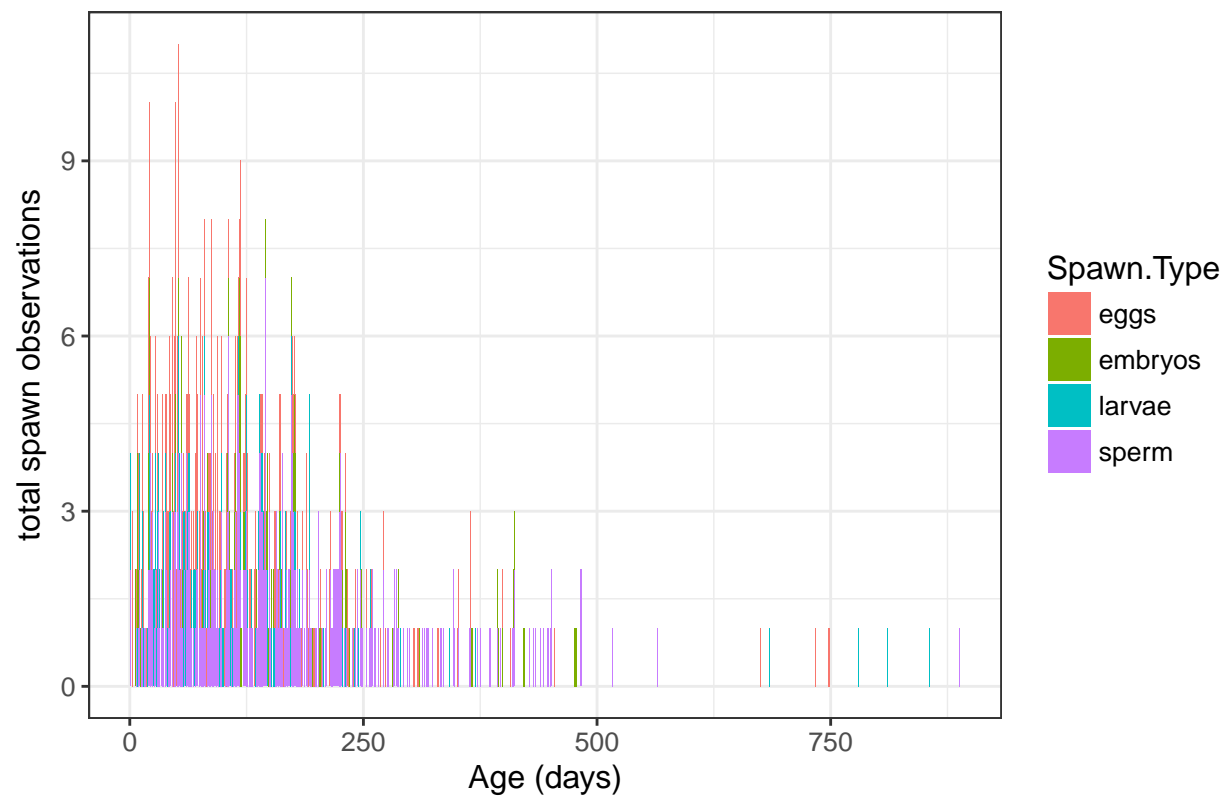


```
p<-SpawnDF %>% mutate(age_Days = Spawn.Date - Start.Date) %>% filter(age_Days > 0) %>%
  group_by(age_Days) %>%
  count(Spawn.Type) %>%
  ggplot( aes(x=age_Days, y=n, fill=Spawn.Type)) +
  geom_bar(stat = "identity") +
  ggtitle("Spawn Type Frequency by age of tank") +
  ylab("total spawn observations") + xlab("Age (days)") +
  theme_bw() + theme(text = element_text(size = 12))
```

p

Don't know how to automatically pick scale for object of type difftime. Defaulting to continuous.

Spawn Type Frequency by age of tank



```
#Zoom in
p + coord_cartesian(xlim=c(0,250)) +ggtitle("Zoom in")
```

```
## Don't know how to automatically pick scale for object of type difftime. Defaulting to continuous.
```

Zoom in

