bassinat

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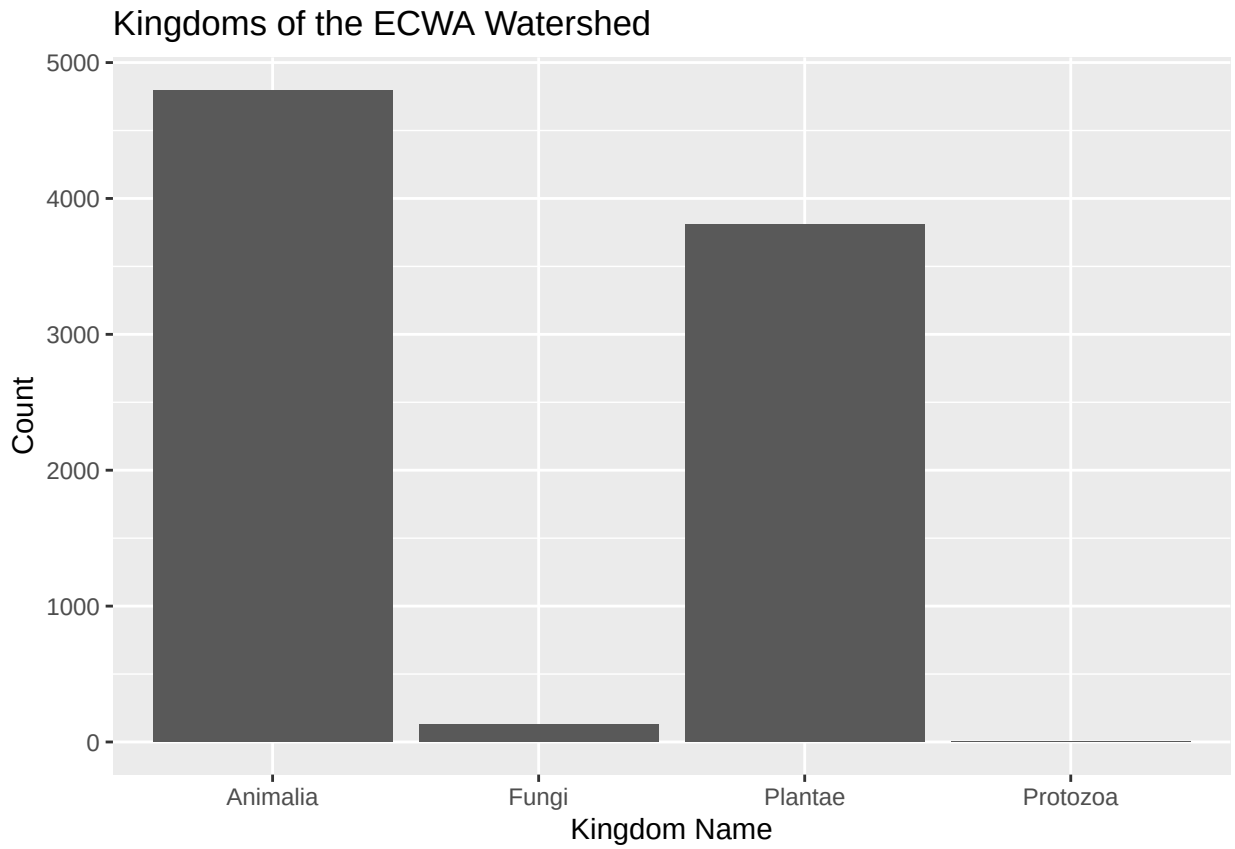
```
inat%>%
  ggplot(aes(x = taxon_kingdom_name)) +
  geom_bar() +
  labs(x = "Kingdom Name", y = "Count", title = "Kingdoms of the ECWA Watershed")
```




```
inatfungi <- inat %>%
  filter(taxon_kingdom_name == "Fungi")
```

```
inatfungi %>%
  count(scientific_name)
```

```
## # A tibble: 68 x 2
##    scientific_name              n
##    <chr>                    <int>
##  1 Amanita flavoconia           2
```

```
##  2 Amanita flavorubens           1
##  3 Amanita parcivolvata          1
##  4 Amanita persicina             1
##  5 Amanita rubescens             1
##  6 Apioperdon pyriforme          2
##  7 Aureoboletus betula           3
##  8 Auricularia americana         1
##  9 Baeospora myosura             1
## 10 Cantharellus cinnabarinus     2
## # ... with 58 more rows
```

```
inatprotozoa <- inat %>%
  filter(taxon_kingdom_name == "Protozoa")
```

```
inatprotozoa %>%
  count(scientific_name)
```

```
## # A tibble: 3 x 2
##   scientific_name         n
##   <chr>               <int>
## 1 Diachea leucopodia      1
## 2 Fuligo septica          3
## 3 Lycogala epidendrum     1
```

```
inatanimalia <- inat %>%
  filter(taxon_kingdom_name == "Animalia")
```

```
inatanimalia %>%
    count(scientific_name, sort=TRUE)
```

```
## # A tibble: 974 x 2
##    scientific_name              n
##    <chr>                    <int>
##  1 Cardinalis cardinalis       75
##  2 Turdus migratorius          58
##  3 Buteo lineatus              56
##  4 Thryothorus ludovicianus    50
##  5 Papilio polyxenes           45
##  6 Danaus plexippus            43
##  7 Sciurus carolinensis        43
##  8 Storeria dekayi             43
##  9 Xylocopa virginica          43
## 10 Argiope aurantia            39
## # ... with 964 more rows
```

```
inatplantae <- inat %>%
  filter(taxon_kingdom_name == "Plantae")
```

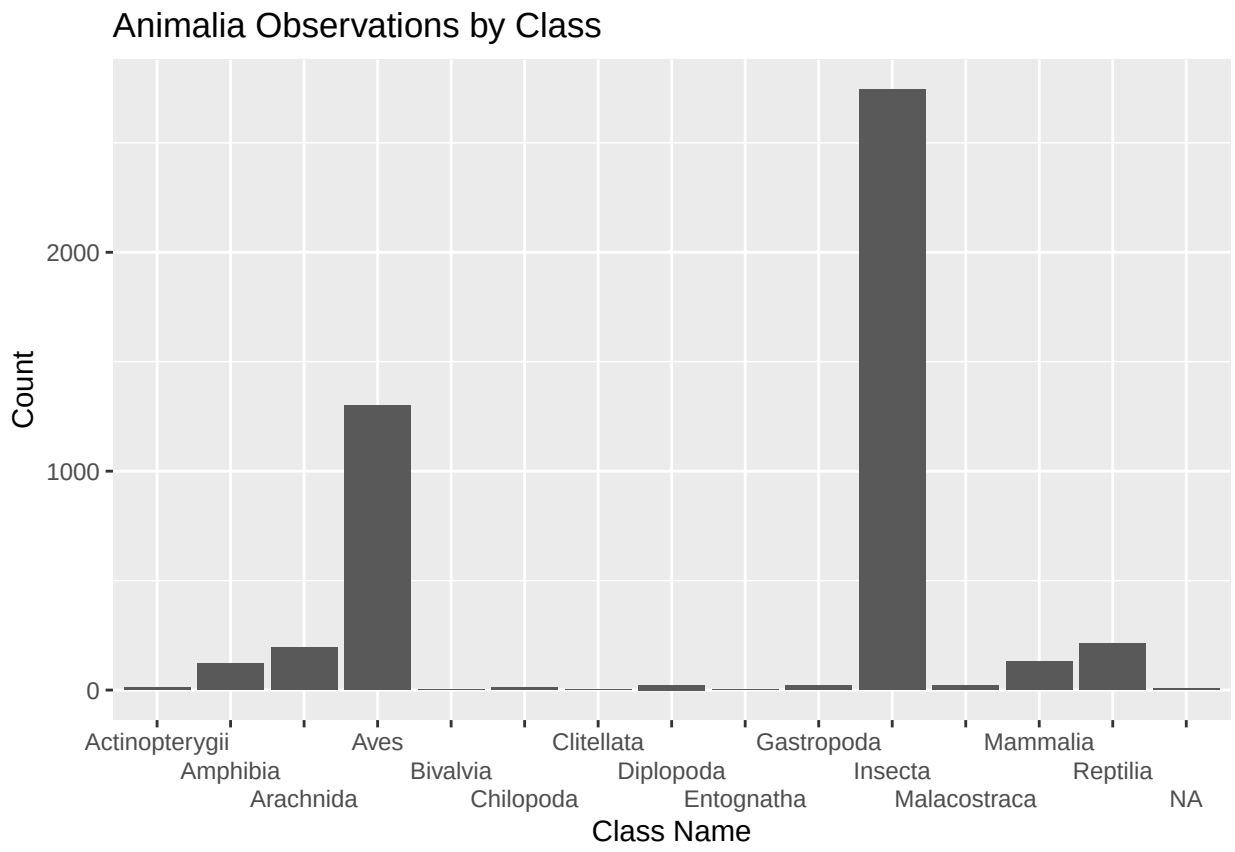
```
inatplantae %>%
  count(scientific_name)
```

```
## # A tibble: 607 x 2
##    scientific_name            n
##    <chr>                  <int>
##  1 Abelmoschus esculentus     1
##  2 Acalypha hispida           1
##  3 Acalypha rhomboidea        1
```

```
##  4 Acer buergerianum          1
##  5 Acer floridanum            9
##  6 Acer negundo              24
##  7 Acer palmatum              2
##  8 Acer rubrum               12
##  9 Acer saccharinum           2
## 10 Acer saccharum             1
## # ... with 597 more rows
```

2 most common kingdoms: animalia and plantae

```
inatanimalia %>%
  ggplot(aes(x=taxon_class_name)) +
  geom_bar() +
  scale_x_discrete(guide = guide_axis(n.dodge=3)) +
  labs(x= "Class Name", y = "Count", title = "Animalia Observations by Class")
```




```
inatanimalia %>%
  filter(taxon_class_name == "Insecta") %>%
count(scientific_name, sort = TRUE)
```

```
## # A tibble: 719 x 2
##    scientific_name        n
##    <chr>              <int>
##  1 Papilio polyxenes     45
##  2 Danaus plexippus      43
##  3 Xylocopa virginica    43
##  4 Harmonia axyridis     39
```

```
##  5 Bombus impatiens      34
##  6 Papilio glaucus       34
##  7 Plathemis lydia       33
##  8 Junonia coenia        28
##  9 Phyciodes tharos      28
## 10 Alaus oculatus        26
## # ... with 709 more rows
```

```
inatanimalia %>%
  filter(taxon_class_name == "Aves") %>%
count(scientific_name, sort = TRUE)
```

```
## # A tibble: 120 x 2
##    scientific_name             n
##    <chr>                   <int>
##  1 Cardinalis cardinalis      75
##  2 Turdus migratorius         58
##  3 Buteo lineatus             56
##  4 Thryothorus ludovicianus   50
##  5 Setophaga coronata         39
##  6 Spinus tristis             39
##  7 Ardea herodias             36
##  8 Sayornis phoebe            35
##  9 Dryobates pubescens        32
## 10 Mimus polyglottos          30
## # ... with 110 more rows
```

```
inatanimalia %>%
  filter(taxon_class_name == "Amphibia") %>%
  count(scientific_name, sort = TRUE)
```

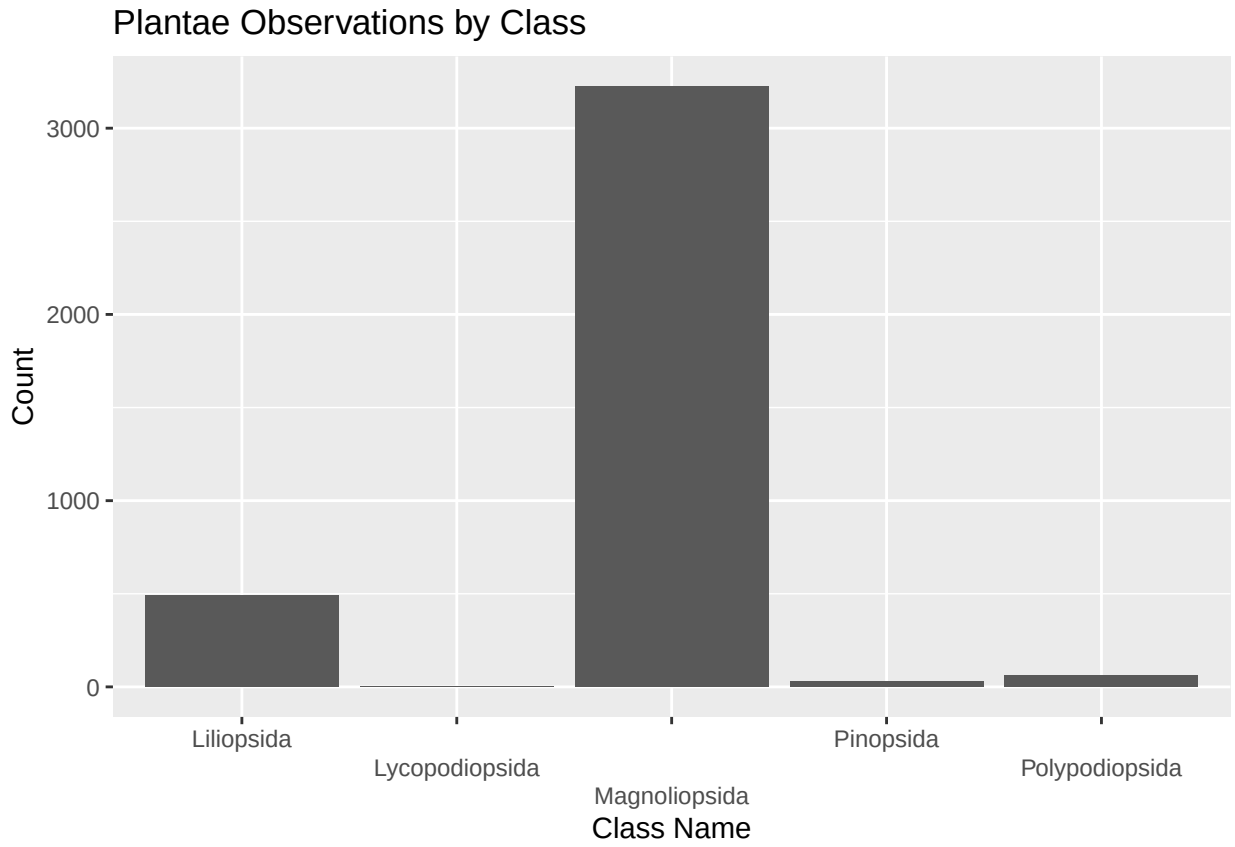
```
## # A tibble: 14 x 2
##    scientific_name              n
##    <chr>                    <int>
##  1 Lithobates palustris        23
##  2 Hyla chrysoscelis           20
##  3 Acris crepitans             17
##  4 Hyla cinerea                16
##  5 Lithobates catesbeianus     13
##  6 Lithobates clamitans         9
##  7 Anaxyrus americanus          7
##  8 Ambystoma opacum             4
##  9 Eurycea cirrigera            3
## 10 Anaxyrus fowleri             2
## 11 Lithobates sphenocephalus    2
## 12 Notophthalmus viridescens    2
## 13 Pseudacris crucifer          2
## 14 Pseudacris feriarum          1
```

```
inatanimalia %>%
  filter(taxon_class_name == "Reptilia") %>%
count(scientific_name, sort = TRUE)
```

```
## # A tibble: 29 x 2
##    scientific_name               n
##    <chr>                     <int>
```

```
##  1 Storeria dekayi                43
##  2 Anolis carolinensis            25
##  3 Haldea striatula               22
##  4 Pantherophis alleghaniensis    18
##  5 Agkistrodon contortrix         14
##  6 Scincella lateralis            13
##  7 Trachemys scripta              13
##  8 Chelydra serpentina             8
##  9 Thamnophis sirtalis             7
## 10 Carphophis amoenus              6
## # ... with 19 more rows
```

```
inatplantae %>%
  ggplot(aes(x=taxon_class_name)) +
  geom_bar() +
  scale_x_discrete(guide = guide_axis(n.dodge=3)) +
  labs(x= "Class Name", y = "Count", title = "Plantae Observations by Class")
```




```
inatplantae %>%
  filter(taxon_class_name == "Magnoliopsida") %>%
count(scientific_name, sort = TRUE)
```

```
## # A tibble: 489 x 2
##    scientific_name             n
##    <chr>                   <int>
##  1 Alliaria petiolata        111
##  2 Ficaria verna             107
```

```
##  3 Impatiens capensis         91
##  4 Phytolacca americana       63
##  5 Liriodendron tulipifera    62
##  6 Hedera helix               61
##  7 Ligustrum sinense          61
##  8 Toxicodendron radicans     54
##  9 Liquidambar styraciflua    52
## 10 Sassafras albidum          51
## # ... with 479 more rows
```

```
inatplantae %>%
  filter(taxon_class_name == "Liliopsida") %>%
count(scientific_name, sort = TRUE)
```

```
## # A tibble: 95 x 2
##    scientific_name             n
##    <chr>                   <int>
##  1 Microstegium vimineum     139
##  2 Arisaema triphyllum        28
##  3 Smilax rotundifolia        23
##  4 Commelina communis         18
##  5 Allium vineale             16
##  6 Dioscorea polystachya      16
##  7 Chasmanthium latifolium    14
##  8 Tipularia discolor         11
##  9 Lycoris radiata            10
## 10 Iris pseudacorus            9
## # ... with 85 more rows
```