# sample_tables

```
library(raster)
library(kableExtra)
library(dplyr)
library(tidyr)
library(stringr)
```

```
mt_data <- read.csv("data/raw/occurrence/Pk_merged_uncoded_SEA.csv")

# We do not ever use non-MBS polygons
mt_data <- mt_data %>%
  filter(! (Geometry_type == "polygon" & Site_country != "Malaysia"))

# Remove thinned polygons (looking ahead in the processing pipeline here)
poly_thinned <- read.csv("data/clean/occurrence/pk_present/ALL_occ_thinned.csv") %>%
  filter(str_detect(Source, "MBS_MT_polygon")) %>%
  pull(Original_Unique_ID) %>% unique()


mt_data <- mt_data %>%
  filter(Geometry_type == "point" | ID %in% poly_thinned)
```

```
data_by_year <- mt_data %>%
  group_by(Publication_year) %>%
  summarise(n_pubs = length(unique(Source_primary)),
            n_data = n())

kbl(data_by_year,
    col.names = c("Year", "Papers included", "Samples included"),
    booktabs = TRUE, linesep = "") %>%
  kable_styling(latex_options = "striped")
```

```
malaysia_admin1 <- shapefile('data/raw/mbs_maps/mys_admbnda_adm1_unhcr_20210211')

mt_data_with_mys <- mt_data %>%
  rowwise() %>%
  mutate(points = list(SpatialPoints(tibble(Longitude, Latitude),
                                     proj4string = CRS("+proj=longlat +datum=WGS84")))) %>%
```

| Year | Papers included | Samples included |
|---|---|---|
| 2015 | 3 | 6 |
| 2016 | 8 | 35 |
| 2017 | 4 | 22 |
| 2018 | 6 | 29 |
| 2019 | 5 | 11 |
| 2020 | 1 | 1 |

```
  mutate(mys_adm1 = over(points, malaysia_admin1)$ADM1_EN[1]) %>%
  ungroup() %>%
  mutate(Region = ifelse(is.na(mys_adm1), Site_country, mys_adm1))
```

```
data_by_region <- mt_data_with_mys %>%

  group_by(Site_country, Region, Host, Geometry_type) %>%
  summarise(n_data = n()) %>%
  ungroup() %>%

  pivot_wider(names_from = c(Host, Geometry_type),
              values_from = c(n_data)) %>%

  mutate(mosquito_polygon = 0) # No data here!!
```

```
## `summarise()` has grouped output by 'Site_country', 'Region', 'Host'. You can override using the `.g
```

```
data_by_region <- data_by_region %>%
  mutate(across(-c(Site_country, Region),
                ~ ifelse(is.na(.), 0, .))) %>%

  mutate(human_total = human_point + human_polygon,
         monkey_total = monkey_point + monkey_polygon,
         mosquito_total = mosquito_point + mosquito_polygon) %>%

  bind_rows(.,
            filter(., Site_country == "Malaysia") %>%
              summarise(across(-c(Site_country,Region),sum)) %>%
              mutate(Region = "Malaysia (Total)",
                     Site_country = "M_alaysia")) %>%

  arrange(Site_country, Region) %>%

  select(Site_country, Region,
         human_point, human_polygon, human_total,
         monkey_point, monkey_polygon, monkey_total,
         mosquito_point, mosquito_polygon, mosquito_total)

data_by_region <- data_by_region %>%

  mutate_at(vars(-c(Site_country, Region)),
         ~ cell_spec(., color = ifelse(. == 0, "#666666", "black")))

kbl(data_by_region %>% select(-Site_country),
    col.names = c("Country/Region", rep(c("Point", "Polygon", "Total"), times = 3)),
    booktabs = TRUE, linesep = "",
    escape = FALSE) %>%
  kable_styling(latex_options = "striped") %>%
  add_header_above(c("", "Human" = 3, "Macaque" = 3, "Mosquito" = 3)) %>%
  add_indent(which(data_by_region$Site_country == "Malaysia"))
```

| | Human | | | Macaque | | | Mosquito | | |
|---|---|---|---|---|---|---|---|---|---|
| Country/Region | Point | Polygon | Total | Point | Polygon | Total | Point | Polygon | Total |
| Cambodia | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| Indonesia | 16 | 0 | 16 | 0 | 0 | 0 | 1 | 0 | 1 |
| Laos | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Malaysia (Total) | 56 | 9 | 65 | 1 | 4 | 5 | 7 | 0 | 7 |
| Johor | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kelantan | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Melaka | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Negeri | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| Pahang | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Perak | 3 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 |
| Sabah | 30 | 5 | 35 | 0 | 0 | 0 | 7 | 0 | 7 |
| Sarawak | 14 | 2 | 16 | 1 | 1 | 2 | 0 | 0 | 0 |
| Selangor | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| W.P. Kuala Lumpur | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Philippines | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Thailand | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |