

Wombat



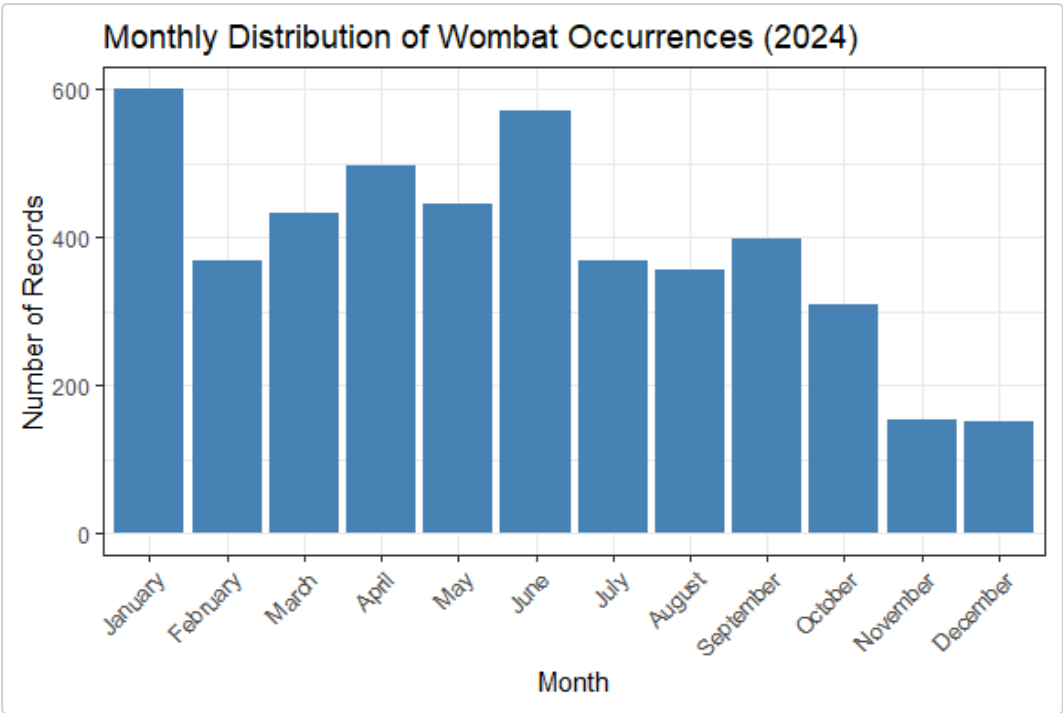
Wombat

We are investigating occurrence data of the [Wombat](#) in Australia from the **Atlas of Living Australia**, and make a map showing the spatial locations of sightings for 2024.

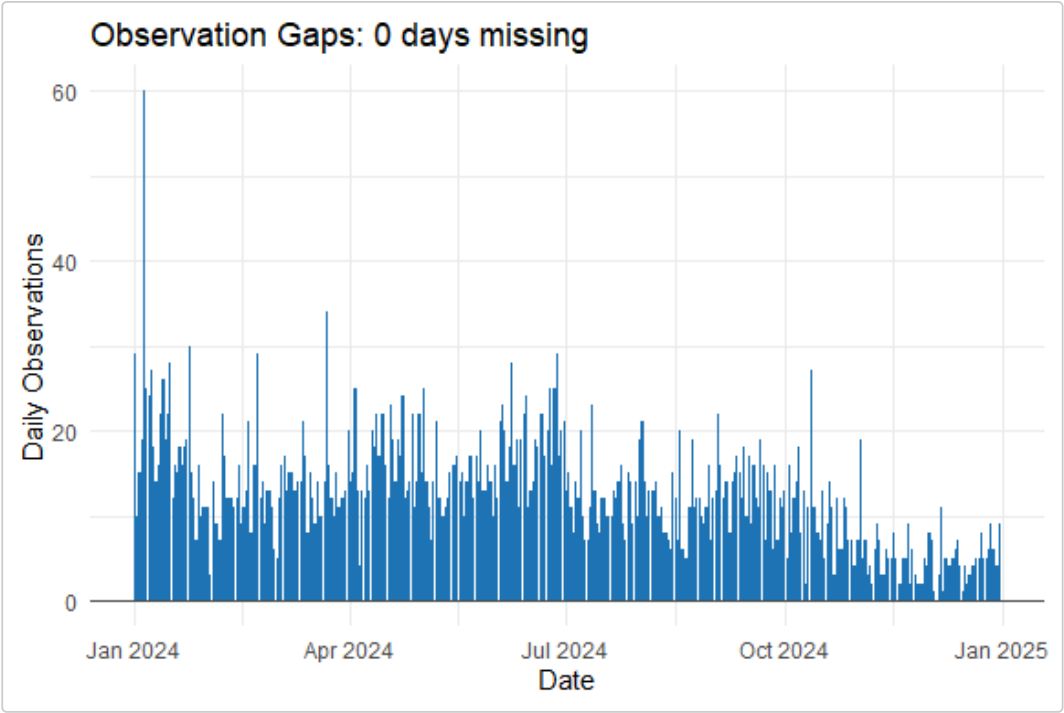
```
#> # A tibble: 6 × 5
#>   lat lon year eventDate      scientificName
#>   <dbl> <dbl> <dbl> <dtm>      <chr>
#> 1 -43.6 147. 2024 2024-05-18 12:50:00 Vombatus ursinus tasmaniensis
#> 2 -43.6 147. 2024 2024-09-07 10:03:00 Vombatus ursinus tasmaniensis
#> 3 -43.5 147. 2024 2024-05-18 17:51:35 Vombatus ursinus tasmaniensis
#> 4 -43.5 147. 2024 2024-11-30 10:55:48 Vombatus ursinus tasmaniensis
#> 5 -43.1 148. 2024 2024-04-09 03:03:20 Vombatus ursinus tasmaniensis
#> 6 -43.1 147. 2024 2024-10-27 18:49:00 Vombatus ursinus tasmaniensis
```

the length of the records is 4647

Monthly Distribution of organism (2024)



Data Regularity & Temporal Gaps



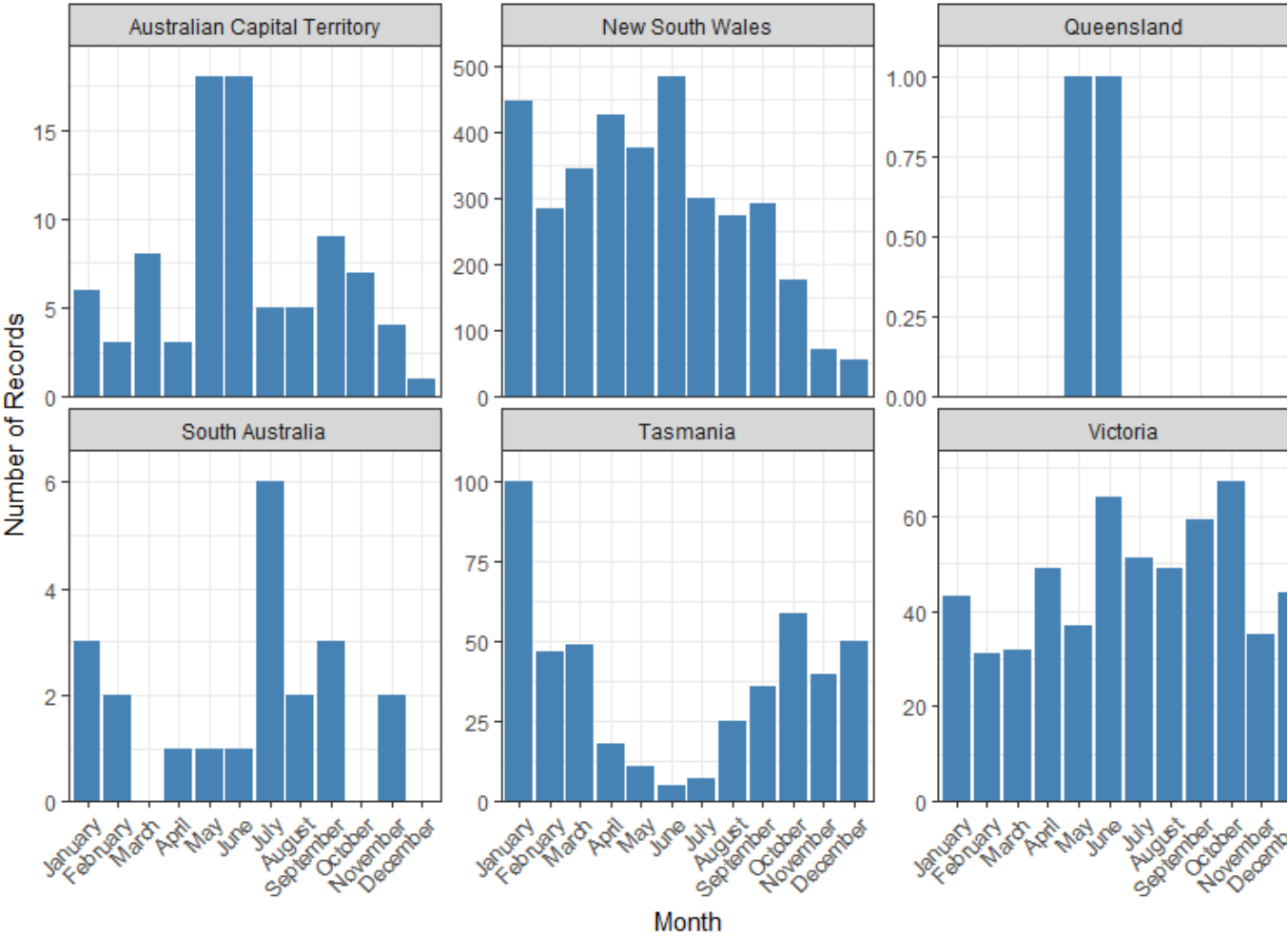
Nearest Weather Station Mapping

```
#> # A tibble: 3 × 12
#>   lat.x lon.x year eventDate      scientificName weather_station_id stname
#>   <dbl> <dbl> <dbl> <dtm>      <chr>          <chr>          <chr>
#> 1 -43.6  147.  2024 2024-05-18 12:50:00 Vombatus ursi... 949670-99999    CAPE ...
#> 2 -43.6  147.  2024 2024-09-07 10:03:00 Vombatus ursi... 949670-99999    CAPE ...
#> 3 -43.5  147.  2024 2024-05-18 17:51:35 Vombatus ursi... 949670-99999    CAPE ...
#> # i 5 more variables: lat.y <dbl>, lon.y <dbl>, address <chr>, city <chr>,
#> #   state <chr>
```

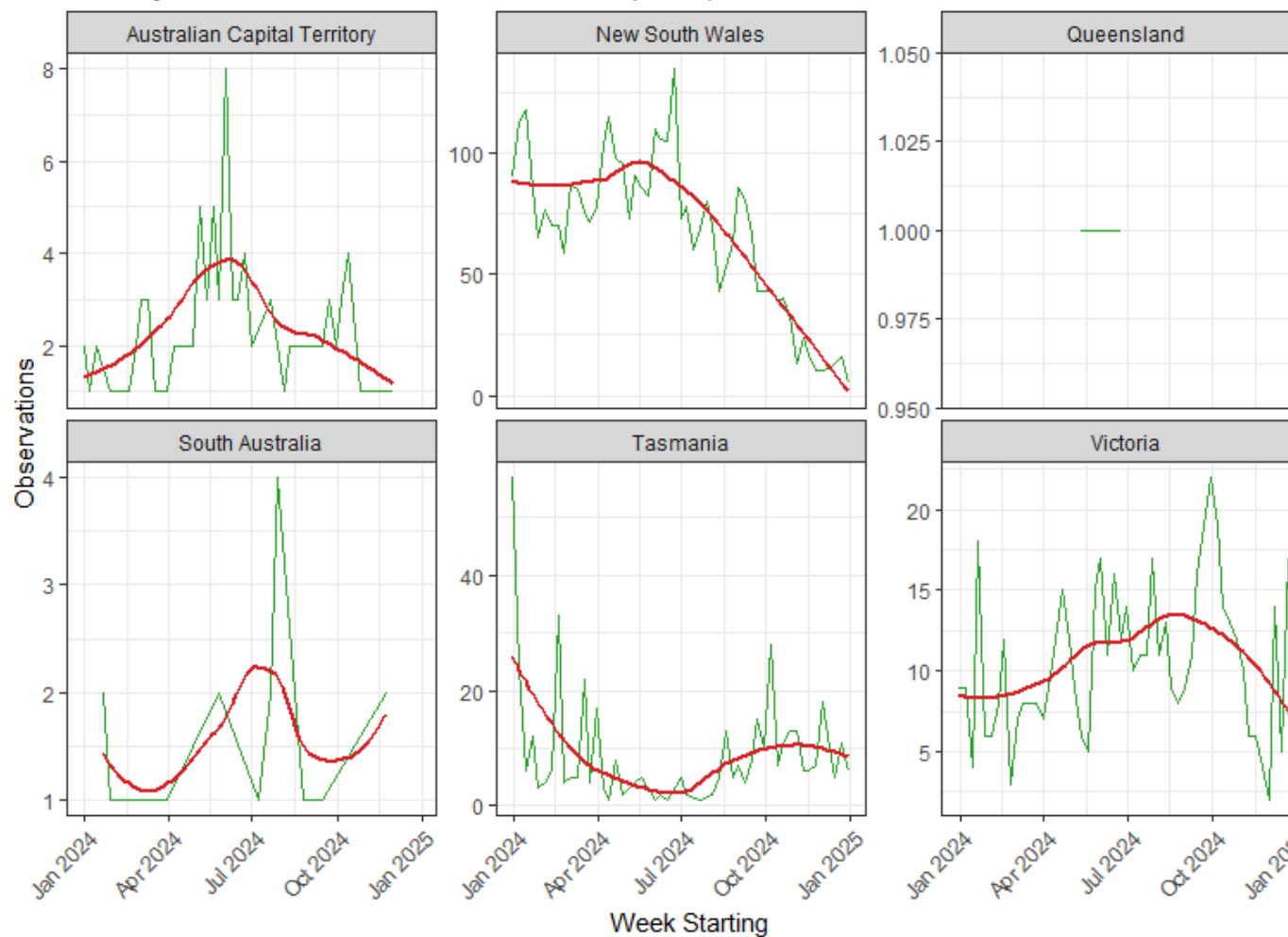
```
#>
#> State Frequency
#> 1 New South Wales 3529
#> 2 Victoria        561
#> 3 Tasmania        447
#> 4 Australian Capital Territory 87
#> 5 South Australia  21
#> 6 Queensland       2
```

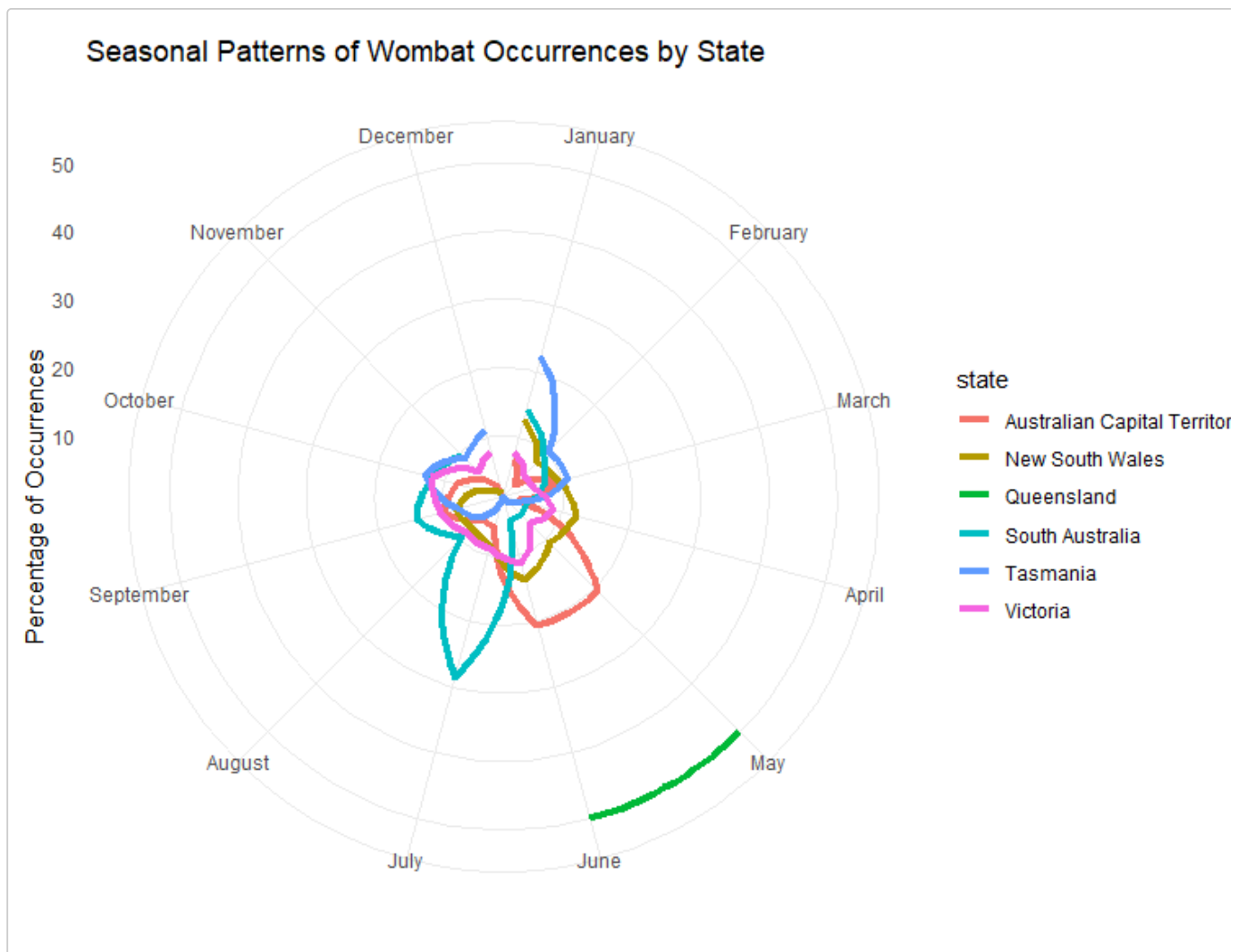
Pattern Analysis

Monthly Distribution of Wombat Occurrences (2024) by State



Weekly Occurrence Patterns of Wombat (2024) with Trend Lines





Datasets Overview

We have organized the wombat occurrence and weather station data into the following structured datasets, stored in the `data/` directory:

- `wombat_2024.rda`
Contains wombat occurrence records across all states in Australia.
- `wombat_2024_ws.rda`
An enhanced version of the occurrence data, merged with the nearest weather station information, including:

```
--Station ID (weather_station_id)
--Station name (sname)
--Geographic details (lat.y, lon.y, address, city, state)
```
- `wombat_top_weather.rda`
Focuses on weather data from the top 3 most frequently recorded stations associated with wombat occurrences.
- `weather_stations.rda`
A standalone dataset of all unique weather stations in Australia, providing reference metadata for cross-referencing.