galah

An interface to biodiversity data hosted by the Living Atlases.

`galah` enables users to locate and download species occurrence records (observations, specimens, eDNA records), taxonomic information, or associated media such as images or sounds, and to restrict their queries to particular taxa and locations.

galah
ala.org.au

Download & filter data

Counts

```
galah_call() |>
  galah_identify("litoria") |>
  galah_group_by(species) |>
  galah_apply_profile("ALA") |> # group of data quality filters
  atlas_counts() |> print(n = 5)
#> # A tibble: 74 × 2
#>   species              count
#>   <chr>                <int>
#> 1 Litoria peronii      51123
#> 2 Litoria fallax       44840
#> 3 Litoria ewingii      38752
#> 4 Litoria aurea        34944
#> 5 Litoria verreauxii   22641
#> # … with 69 more rows
```

Occurrences

```
galah_config(email = "your-email-here") # ALA-registered email

galah_call() |>
  galah_identify("eolophus") |>
  galah_filter(year == 2022) |>
  galah_select(scientificName, decimalLongitude,
          decimalLatitude, eventDate) |>
  atlas_occurrences() |> print(n = 5)
#> # A tibble: 2,463 × 4
#>   scientificName        decimalLongitude decimalLatitude eventDate
#>   <chr>                 <dbl>            <dbl>           <chr>
#> 1 Eolophus roseicapilla 151.             -32.9           2022-06-01T01:38:00Z
#> 2 Eolophus roseicapilla 139.             -34.9           2022-09-10T21:08:00Z
#> 3 Eolophus roseicapilla 142.             -34.3           2022-06-29T02:10:17Z
#> 4 Eolophus roseicapilla 139.             -35             2022-09-18T11:42:00Z
#> 5 Eolophus roseicapilla 139.             -34.9           2022-06-28T14:30:00Z
#> # … with 2,458 more rows
```

Species lists

```
galah_call() |>
  galah_identify("orchidaceae") |>
  galah_filter(year > 2020) |>
  atlas_species() |> print(n = 5)
#> # A tibble: 1,003 × 10
#>   kingdom phylum     class     order family genus species author speci…¹ verna…²
#>   <chr>   <chr>      <chr>     <chr> <chr>  <chr> <chr>   <chr>  <chr>   <chr>
#> 1 Plantae Charophyta Equiseto… Aspa… Orchi… Glos… Glosso… R.Br.  https:… Parson…
#> 2 Plantae Charophyta Equiseto… Aspa… Orchi… Pter… Pteros… R.Br.  https:… Noddin…
#> 3 Plantae Charophyta Equiseto… Aspa… Orchi… Cala… Calade… R.Br.  https:… Pink F…
#> 4 Plantae Charophyta Equiseto… Aspa… Orchi… Diur… Diuris… D.L.J… https:… Wallfl…
#> 5 Plantae Charophyta Equiseto… Aspa… Orchi… Diur… Diuris… Lindl. https:… Leopar…
#> # … with 998 more rows, and abbreviated variable names ¹species_guid,
#> #   ²vernacular_name
```

Images & media

```
galah_config(email = "your-email-here") # ALA-registered email

galah_call() |>
  galah_identify("ceyx pusillus") |>
  galah_filter(multimedia == "Image") |>
  atlas_media() |>
  collect_media(type = "thumbnail",
          path = "path-to-folder") |>
  dplyr::select(scientificName, eventDate, recordID,
          multimedia, size_in_bytes, license) |> print(n = 5)
#> # A tibble: 145 × 5
#>   scientificName multimedia license                          size_…¹ recor…²
#>   <chr>          <chr>      <chr>                            <int>   <chr>
#> 1 Ceyx pusillus  Image      ""                               251821  7e58db…
#> 2 Ceyx pusillus  Image      "http://creativecommons.org/license… 1269060 0d249f…
#> 3 Ceyx pusillus  Image      "http://creativecommons.org/license… 311986  c4b290…
#> 4 Ceyx pusillus  Image      "http://creativecommons.org/license… 972214  9eda4c…
#> 5 Ceyx pusillus  Image      "http://creativecommons.org/license… 1380563 8032a3…
#> # … with 140 more rows, and abbreviated variable names ¹size_in_bytes,
#> #   ²recordID
```
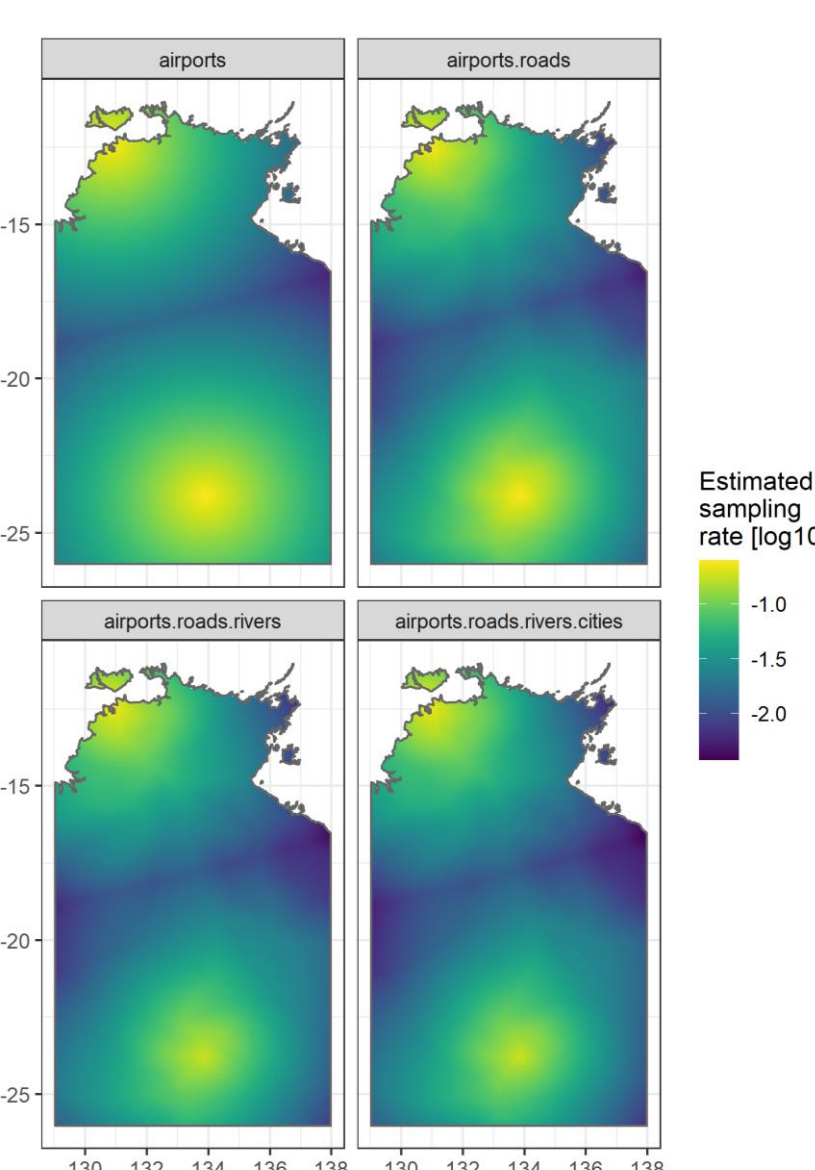
Learn how to use galah for analyses & dataviz
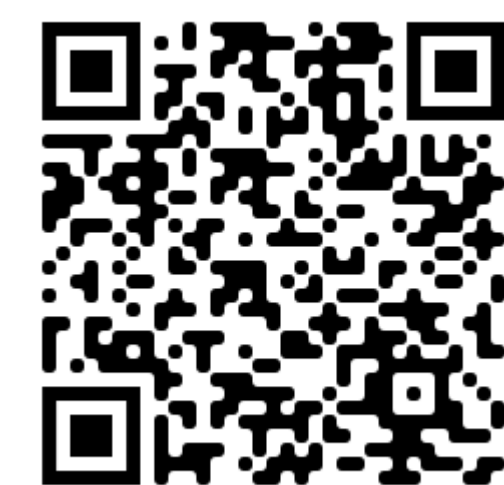
ALA LABS
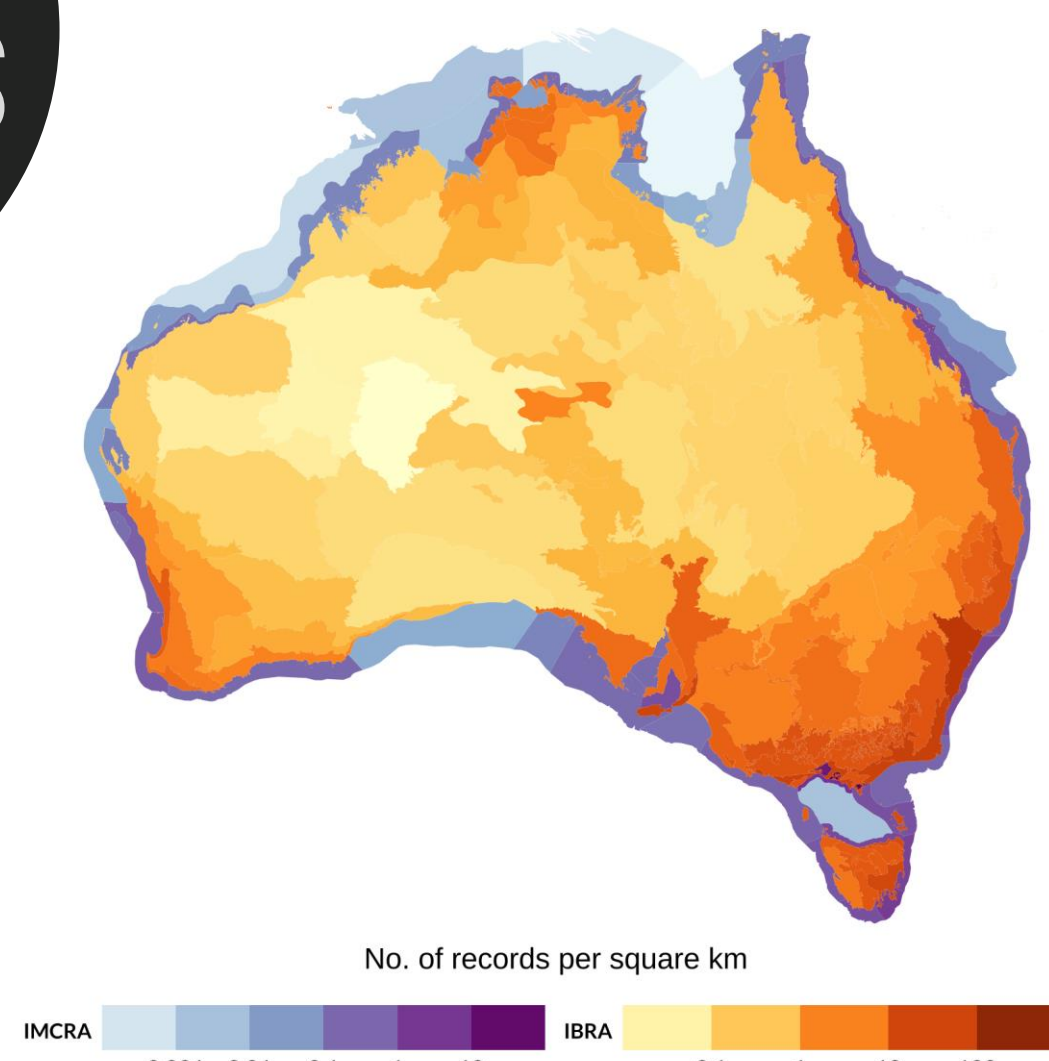
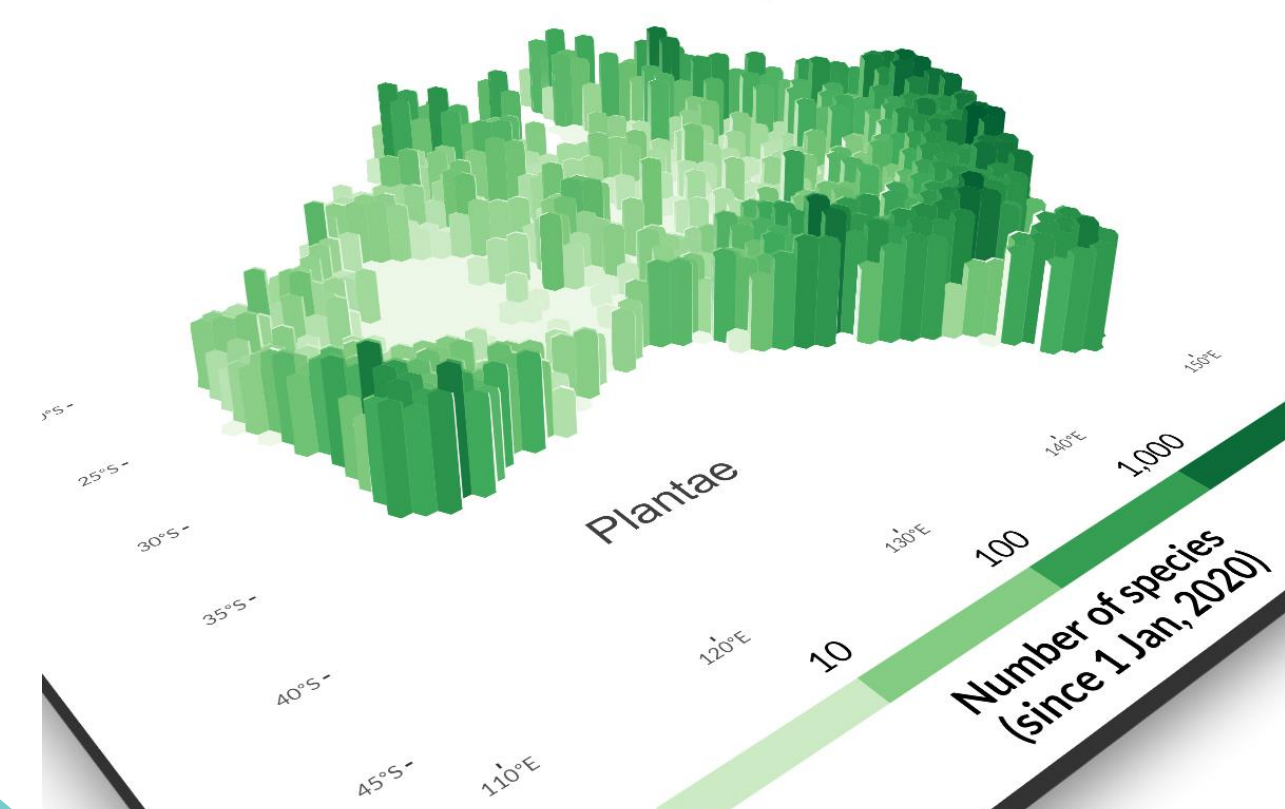Multiple colour scales in choropleth maps with {ggnewscale}
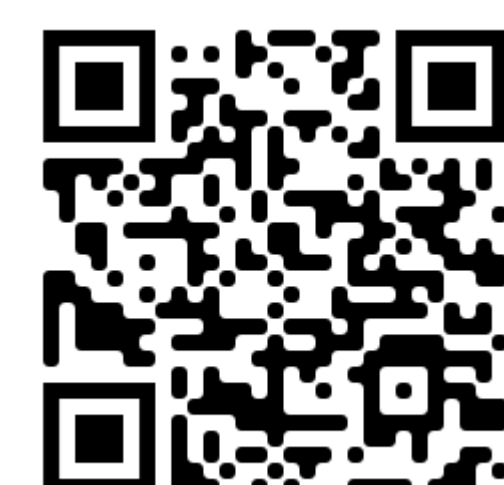
Scan QR code to read

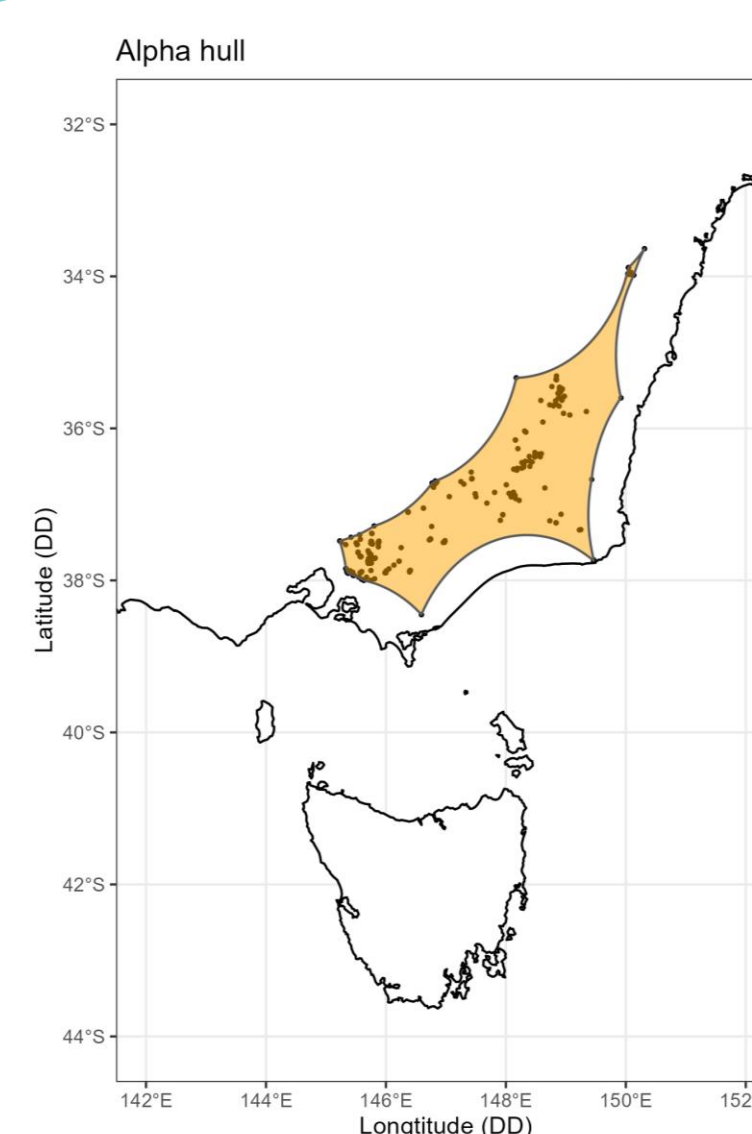Quantify geographic sampling bias with {sampbias}

Scan QR code to read

Download plant species data by hexagon to make a 3D hex map

Scan QR code to read

Convex and alpha hulls for conservation mapping

Scan QR code to read