Use the r/iDigBio API to Access Biodiversity Data

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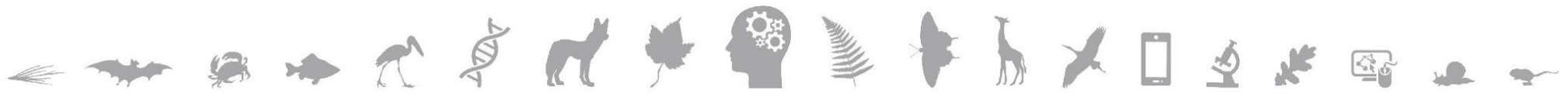University of Florida
@lbrensk

What is an API?

- **A**pplication **P**rogramming **I**nterface

- Software intermediary that allows two applications to share data

- Think about it like a waiter for data

What is r/iDigBio?

- R package that allows you to search iDigBio and download occurrence data

- Data returned as a data.frame

- https://github.com/iDigBio/ridigbio

Installing r/iDigBio

```
[Workspace loaded from ~/.RData]

> install.packages("ridigbio")
trying URL 'https://cran.rstudio.com/bin/macosx/el-capitan/contrib/3.6/ridigbio_0.3.5.tgz'
Content type 'application/x-gzip' length 67619 bytes (66 KB)
==================================================
downloaded 66 KB


The downloaded binary packages are in
        /var/folders/w3/d6pvmtdd09v8vwrtd98kydcc0000gn/T//RtmpVnQNIQ/downloaded_packages
> library("ridigbio")
> |
```
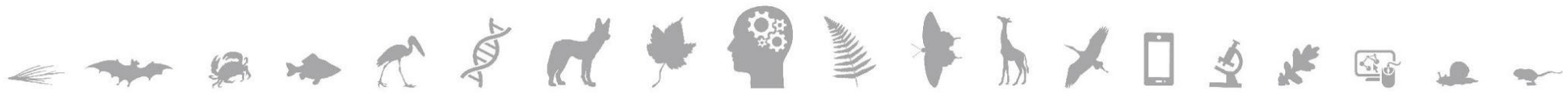
Getting occurrence records
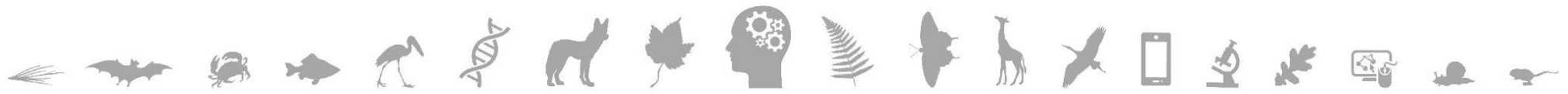
```
> acer_idigbio <- idig_search_records(rq=list(genus="acer"))
> head(acer_idigbio)
                                    uuid
1 000095c8-592c-497d-83e8-c5a1fdfd26cd
2 00017511-04f9-4d1c-9ce4-2b3ef70a38b5
3 0002e0d5-d731-4f81-9385-bac039a21113
4 00034fd0-bc75-46df-94ca-09bc9ebeea2e
5 00037cb2-5f3b-43f6-a274-fda6dab6f372
6 00037f84-2063-44e5-a5c9-5809a7be4b3e

                                                    occurrenceid catalognumber
1         http://n2t.net/ark:/65665/3b3822d1b-4355-4059-9767-d501064643b1      295828
2                 http://coldb.mnhn.fr/catalognumber/mnhn/p/p05188416      p05188416
3                     urn:uuid:8a20ea2b-cf62-4f58-8e95-b90436f4aa0d      ccsu-00107
4                         25da76e1-5264-4487-bb6c-a39da693b1fd      eiu015479
5                         ac6f5df3-e107-4ba4-8e98-837abe298288      uvmvt237286
6 http://ucjeps.berkeley.edu/cgi-bin/new_detail.pl?rsa819912&related=yes      rsa819912

       family genus      scientificname      country stateprovince geopoint.lon
1 sapindaceae  acer      acer spicatum united states     new york           NA
2 sapindaceae  acer            acer sp.         <NA>         <NA>           NA
3 sapindaceae  acer  acer saccharinum united states  connecticut           NA
4 sapindaceae  acer    acer saccharum united states     illinois           NA
5 sapindaceae  acer              acer       canada         <NA>           NA
6 sapindaceae  acer acer macrophyllum united states   california    -118.0326
```
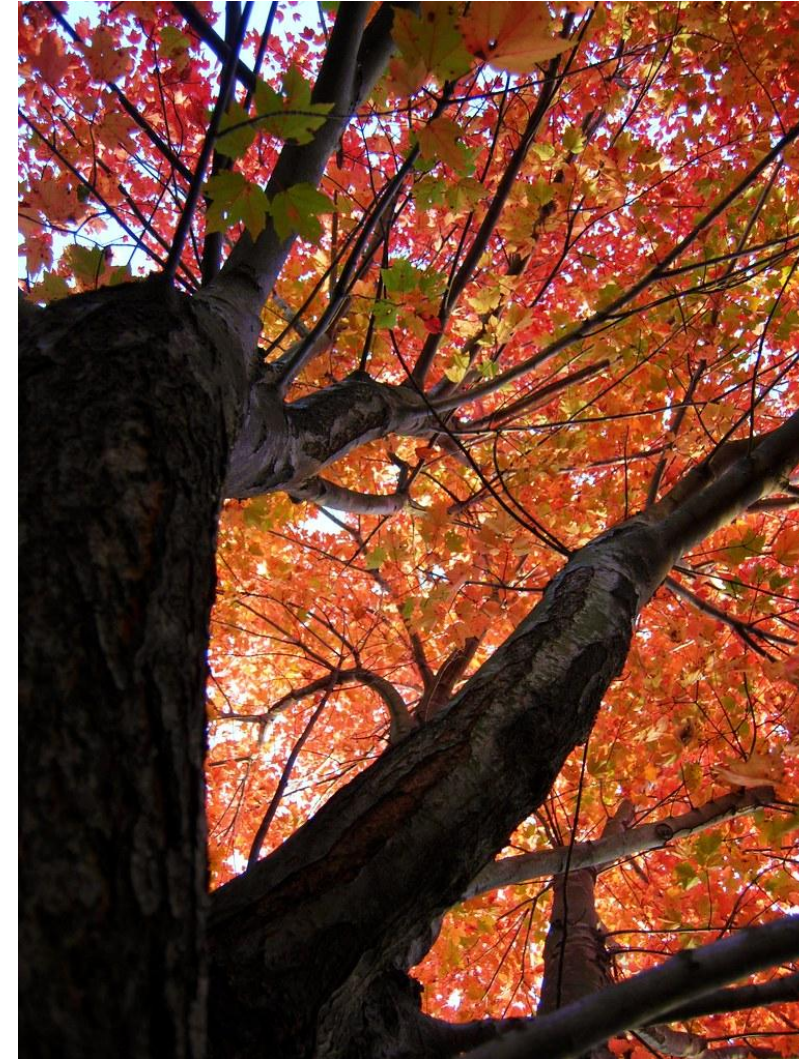
What can I search by?

- Species, genus, any other taxonomic ranking

- Institution name, collector name, collection date

- Locality

- Full list: https://bit.ly/2yZSHAo

Other similar R packages

- rgbif - https://bit.ly/33E91on
  - searches GBIF

- spocc - https://bit.ly/2Hatg3v
  - searches nine different occurrence databases

  ! be aware ! this means you may have to clean for duplicates

Thank you!

Do you have questions?

 facebook.com/iDigBio

 twitter.com/iDigBio

 vimeo.com/idigbio

 idigbio.org/rss-feed.xml

 webcal://www.idigbio.org/events-calendar/export.ics

www.idigbio.org