# NATURECOUNTS: MILLIONS OF BIRD OCCURRENCE RECORDS AT YOUR FINGERTIPS



NATURECOUNTS : DES MILLIONS D'ENREGISTREMENTS D'OCCURRENCES D'OISEAUX À PORTÉE DE MAIN



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> 60,000 citizen scientist Citoyen scientifique



~ 40 monitoring programs programmes de surveillance



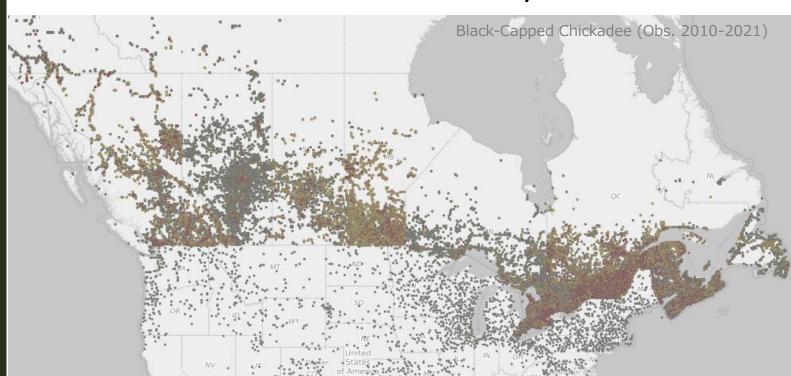
~ 1,400 datasets ensembles de données





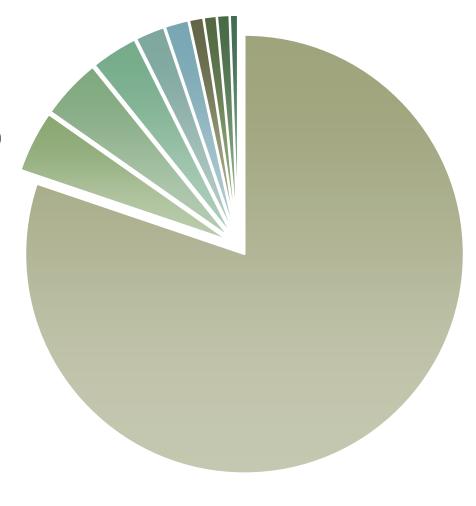
164 M observations/ d'observations







- eBIRD Canada (54 M)
- CMMN (3 million)
- Breeding Bird Survey (3 million)
- Project Feeder Watch (2 million)
- Ontario Atlas (1.5 million)
- Quebec Atlas (1.2 million)
- Manitoba Atlas (700 K)
- BC Atlas (660 K)
- **■** Christmas Bird Count (640 K)
- HawkCounts (400K)





# Step 1/ Étape 1

Create a **FREE** account online with NatureCounts Créez un compte GRATUIT en ligne avec NatureCounts



#### Create a new login

You must have a login name in order to register to a project. If the login name you select is already taken, you will be asked to provide a new one. If you have already registered for another project on the NatureCount site, we encourage you to reuse the same login. You can use this page to log in, add then go to your profile to register to this project. If you forgot your password, you can ask to reset it here.

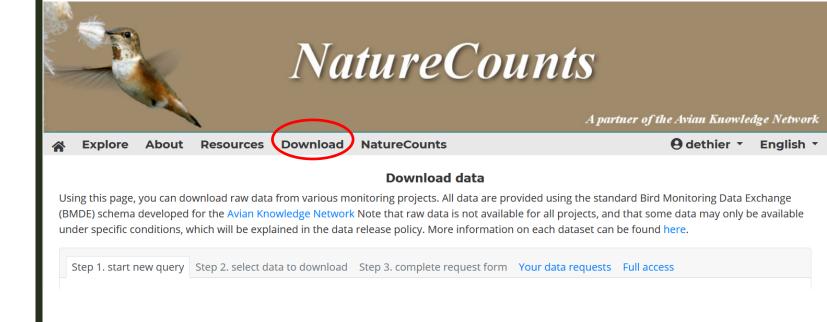


https://www.birdscanada.org/birdmon/default/register.jsp



# Step 2/ Étape 2

Make your data request using the **Downloads** tab Faites votre demande de données en utilisant l'onglet Téléchargements



nc permissions

# Step 3/ Étape 3

Access your data in R with your request\_id Accédez à vos données en R avec votre request\_id







R Package



# Step 4/ Étape 4



```
Install.packages("remotes")
remotes::install_github("BirdStudiesCanada/nat
urecounts")
```

library(naturecounts)

# Step 5/ Étape 5

```
my_data <- nc_data_dl(request_id = 000000,
username = "USER", info = "MY REASON")
```





naturecounts 0.2.2

### Reference

https://birdstudiescanada.github.io/naturecounts/reference/index.html

#### **Accessing Data**

Main functions of naturecounts for accessing data or counts or updating local metadata from the NatureCounts server

Download list of accessible collections nc\_permissions()

Download information about NatureCounts collections nc\_count()

nc data dl() Download NatureCounts data records Update NatureCounts metadata files nc\_metadata()

Check on status of data requests nc\_requests()

#### Metadata

Functions for returning metadata

```
meta_country_codes() meta_statprov_codes()
                                               Metadata
meta_subnational2_codes() meta_iba_codes()
meta bcr codes() meta utm squares()
meta species authority() meta species codes()
meta species taxonomy() meta collections()
meta breeding codes() meta project protocols()
meta projects() meta protocol types()
meta bmde versions() meta bmde fields()
```

#### Searching through Metadata

Functions for searching through metadata

Find country, state/province, subnational2, IBA, or BCR codes search\_region()

Find species codes search\_species()

Search for bird species id codes by alphanumeric codes search species code()

# **Articles**

https://birdstudiescanada.github.io/naturecounts/articles/index.html

#### Reference

Reference articles for metadata codes and descriptions.

Region Codes Species codes

#### **Tutorials**

How-to articles describing common tasks

Data Access
Exploring IBAs and BCRs
Using spatial data to filter observations
Filtering data after download
Mapping Observations
Selecting columns and fields to download

# Formating

How to format downloaded data

Zero-filling data

#### NatureCounts Introductory Tutorial

#### Welcome to NatureCounts

- 1 Introduction
  - 1.1 NatureCounts and R
  - 1.2 Prerequisites
  - 1.3 Acknowledgements
- 2 Loading R Packages
  - 2.1 Installing naturecounts
  - 2.2 Additional packages
- 3 Understanding and Viewing Data

# NatureCounts: An Introductory R Tutorial

Danielle Ethier

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### Welcome to NatureCounts



NatureCounts is the gateway to avian citizen science data collected in North American, with an emphasis on Canadian datasets managed by Birds Canada. The purpose of this workbook is to provide you with the basic tools and skills you will need to get started using the naturecounts R package. Let's get started!

https://birdstudiescanada.github.io/NatureCounts IntroTutorial/index.html

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