Wildlife Insights: How Camera Trap Data Can Foster Global Biodiversity Conservation

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Threats to biodiversity

**Changes to land
and sea use**

**Direct exploitation
of organisms**

Climate change

Pollution

**Invasive alien
species**

WHERE species are?

WHAT do they prefer?

HOW well are they doing?

IMAGES

IMAGES

unique_id	project_id	latitude	longitude	wi_taxon_id	photo_datetime
5268953935	2000300	4.78	-56.2	8bc77c4f-5437	2008-11-27 10:13:10
5268953936	2000300	4.78	-56.2	8bc77c4f-5437	2008-11-27 10:13:11
5268953937	2000300	4.78	-56.2	8bc77c4f-5437	2008-11-27 10:13:33
5268953938	2000300	4.78	-56.2	8bc77c4f-5437	2008-11-27 10:13:35
5268953939	2000300	4.78	-56.2	8bc77c4f-5437	2008-11-27 10:13:36
5268953940	2000300	4.78	-56.2	8bc77c4f-5437	2008-11-27 10:13:45

DATA

IMAGES

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DATA

RESULTS

1

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DATA

2

IMAGES

↓ 1 IMAGE PROCESSING

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DATA

2 DATA ANALYSIS

RESULTS

WILDLIFE INSIGHTS

A platform to maximize the potential of camera trap
and other passive sensor wildlife data for the planet

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IMAGES

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DATA

↓ **2 DATA ANALYSIS**

RESULTS

[Manage](#)[Help](#) [Taxonomy request](#) [Feature request](#) [Report a bug](#)

1

Create

All of your photos are part of a project, which in turn is part of an organization. Get started by creating them.

[Create...](#)

2

Upload

By uploading your photos, you'll get suggestions from the Computer Vision and you'll get help from your collaborators.

[Upload photos](#)

3

Identify

Accept suggestions or manually tag the animals in the photos. You can search by family, genus or species.

[Identify images](#)

4

Analyze

Get insights about where species are located, when are they seen and how much this changes over time.

[Analyze](#)

Projects list

Manage

[Help](#) [Taxonomy request](#) [Feature request](#) [Report a bug](#)

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Analyze

[Manage](#) / [Snapshot](#)

Snapshot USA 2021

[Summary](#)

[Details](#)

[Identify](#)

[Catalogued](#)

[Analysis](#)

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Camera deployments

392

Species

453,517

Total sequences

154,417

Wildlife sequences

[Manage](#) / Snapshot

Snapshot USA 2021

Summary Details Identify ⁹⁹⁹⁺ Catalogued Analysis

Download

Organization *:

Snapshot

ID:

2003286

Initiative:

Snapshot Camera Surveys x

Leave empty if the field is not applicable.

Project name *:

Snapshot USA 2021

17/400 characters.

Website:

255 characters maximum.

If the project has a dedicated website, please list it here. E.g., <https://wildlifeinsights.org>

Short name *:

Snapshot USA 2021

17/43 characters.

A short name that uniquely identifies the project. This name will be used as a display on the Explore page and within your own account.

Project type:*

Sequence

Read more about types of projects [here](#).

Project Admin *:

Roland Kays

Project Admin Email *:

rwkay@

Summary

Details

Identify

999+

Catalogued

Analysis

Download

Subprojects ▼

Camera deployments ▼

Species ▼

Status: All ▼

Photos: All ▼

Sequence: 60 sec

Date taken ▾

Search by filename

Grid Size

Bulk selections ⓘ

Viewing 687897 images within 448878 sequences

18

3

3

15

12

3

3

3

3

3

3

3

18

3

3

3

12

3

3

3

2012-07-04 10:44:34 PM M 1/3

20°C

CTMNU120

RECONYA

Identify

Edit photo

Metadata

Author	Computer vision
Identification date	12/11/2020 01:49:46
Class	Mammalia
Order	Carnivora
Family	Felidae
Genus	Leopardus
Species	wiedii
Count	1
Confidence	92%

Accept suggestion

Mark as blank

Edit identification

Highlight

Download

Delete

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Snapshot USA 2021

[Summary](#) [Details](#) [Identify](#) **999+** [Catalogued](#) [Analysis](#)

Download

Subprojects ▼

Camera deployments ▼

Species ▼

Status: All ▼

Photos: All ▼

Sequence: 60 sec

Date taken ▾

Search by filename

Grid Size

Bulk selections

Viewing 832802 images within 453517 sequences

[Manage](#) / Snapshot

Snapshot USA 2021

Summary

Details

Identify

999+

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Analysis

Download

It seems this project doesn't have any data yet. [Check the demo of a project analysis.](#)

Analyze all the data from the identifications or [analyze by species](#).

Wildlife Picture Index

Data not calculated yet.

[Manage](#) / [Snapshot](#)

Snapshot USA 2021

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Wildlife Picture Index

Data not calculated yet.

Activity patterns

packages:

- **activity**
- **overlap**

Wildlife Insights

packages:

- **NIMBLE**

Detection rates

Probability of occupancy and detection

Wildlife Picture Index

SpeciesRichness

Showing **22,163,565** camera trap records
taken in the whole world between 1990-01-
02 and 2021-11-16.

[See filters and statistics](#)

Species by Class

1857 species

Aves: 1045 species (56.5%)

Mammalia: 767 species (41.5%)

Reptilia: 34 species (1.8%)

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Where to camera trap?

Capturability based on traits

Nocturnal, ground—dwelling species

Where to camera trap?

Capturability based on traits

Nocturnal, ground—dwelling species

Gaps in coverage

from Oliver et al. 2021, Plos Bio

How are species doing?

How are species doing?

**Which species are more sensible to human disturbance?
What are their characteristics?**

Acknowledgements

Walter Jetz

Ruth Oliver

Tanya Birch

Sara Beery

Roland Kays

Jorge A. Ahumada

Nicole Flores

Eric Fegraus

Session: B13A. Monday, 13 December 2021: 12:45 - 14:00 (13:20 - 13:25 CST), Convention Center, Room 252-254