



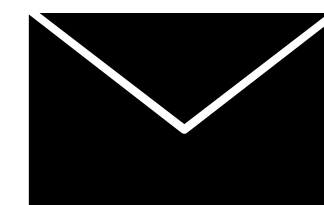
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Si usas parte de su contenido, no te olvides de citar a las/los autores al hacerlo.



# Uso de datos de NaturalistaUY

Convenio CURE-SNAP Especies Prioritarias

Florencia Grattarola | 7 Marzo 2025



flo@naturalista.uy

# Uso de datos de NaturalistaUY

## Agenda

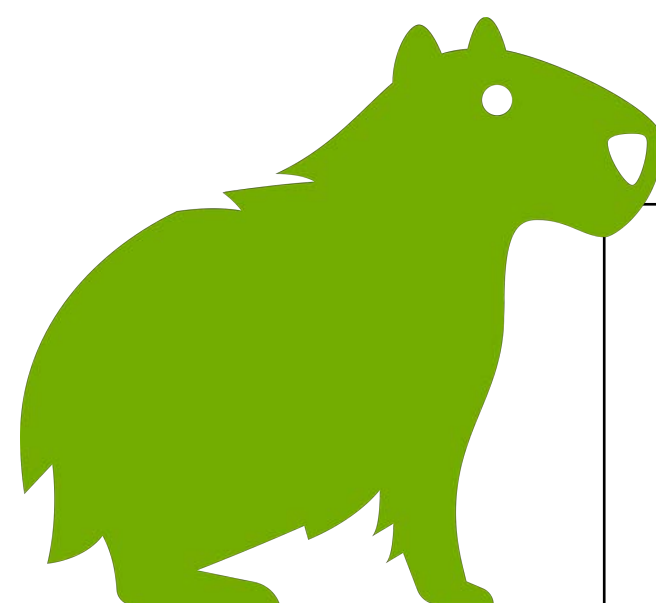
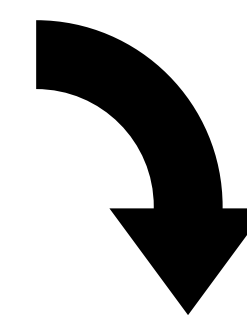
Tipo de datos

Usos

Descarga

Cita

Más info



Seminario DEB IIBCE

**Las maravillas  de iNaturalist**

por qué promover la ciencia ciudadana y cómo usar los datos  
para tu investigación

Florencia Grattarola | Czech University of Life Sciences in Prague | 26 abril 2024

<https://flograttarola.com/talk/las-maravillas-de-inaturalist/>

# Tipo de datos

## Oportunísticos

- Registros de presencia puntuales no estructurados
- Se desconoce el **proceso de observación** y existen pocos o nulos metadatos que permiten deducir o tener en cuenta los sesgos asociados a la recopilación de los datos.

Carlen et al. 2024. 'A Framework for Contextualizing Social-Ecological Biases in Contributory Science Data'

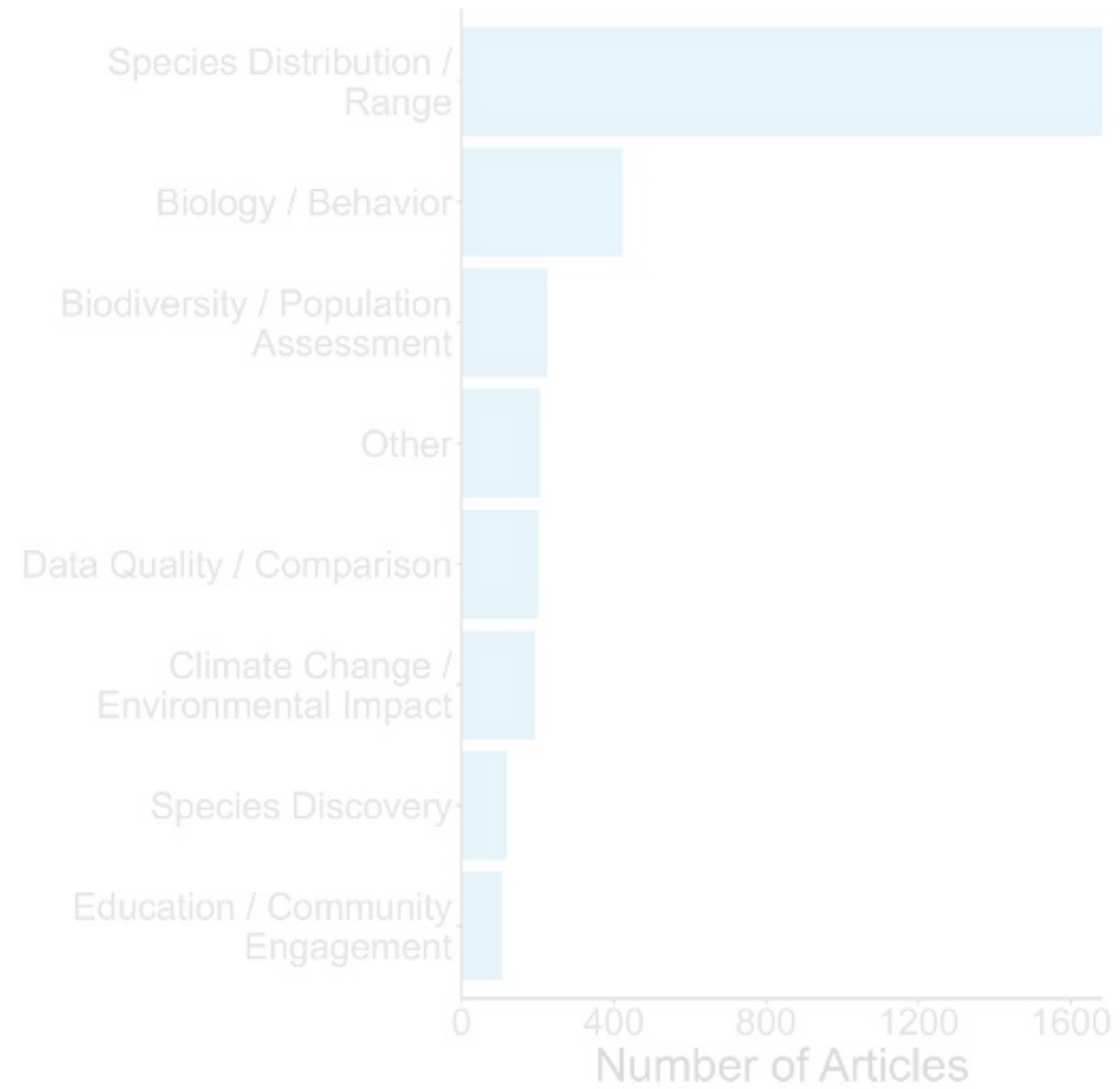




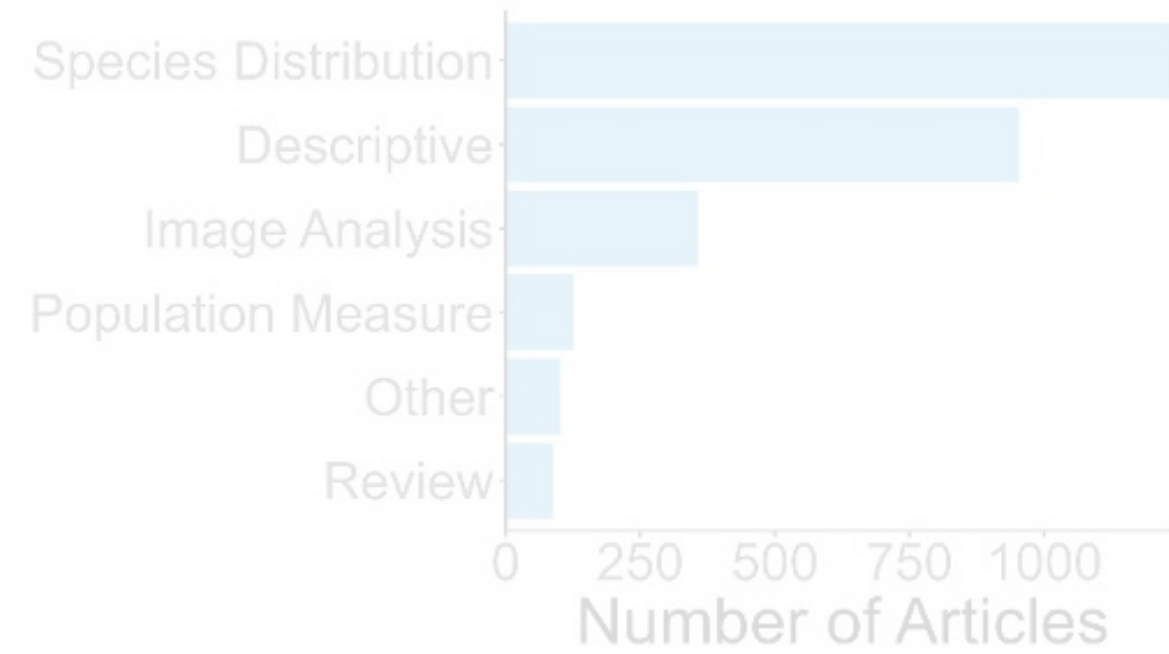
# Usos

¡Muchísimos!

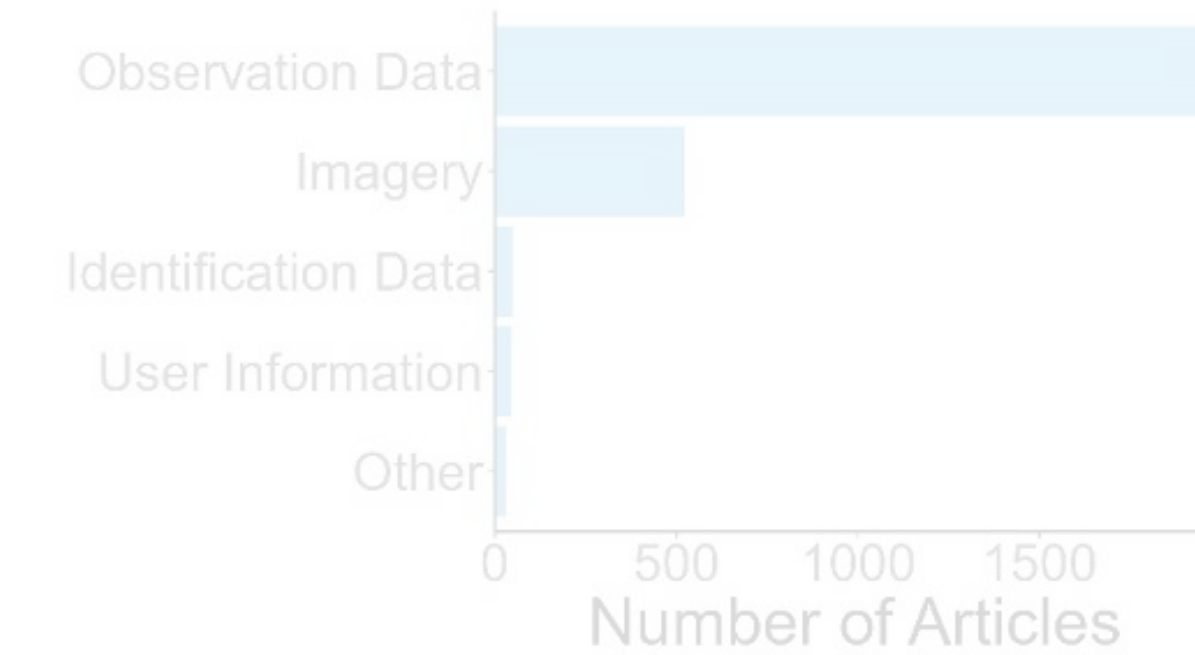
a) iNaturalist literature topics



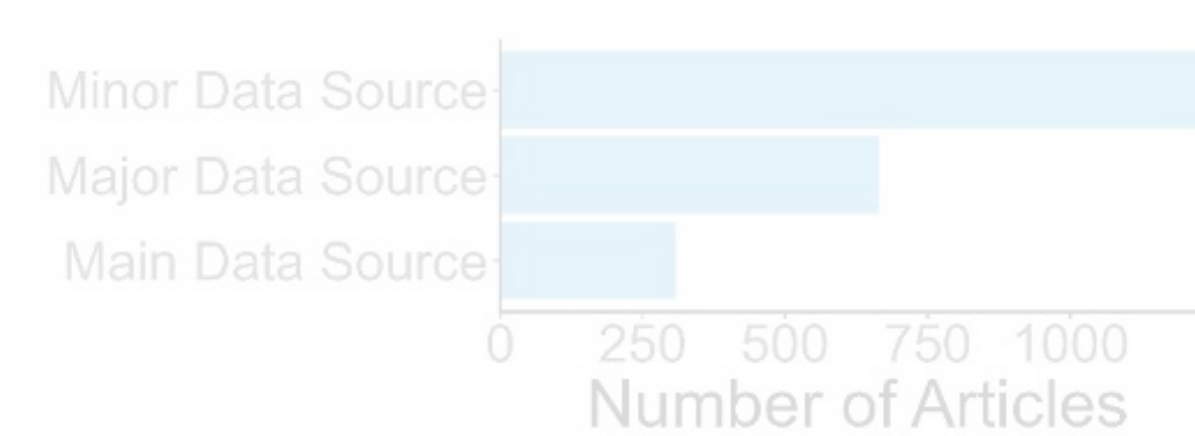
a) Analyses conducted



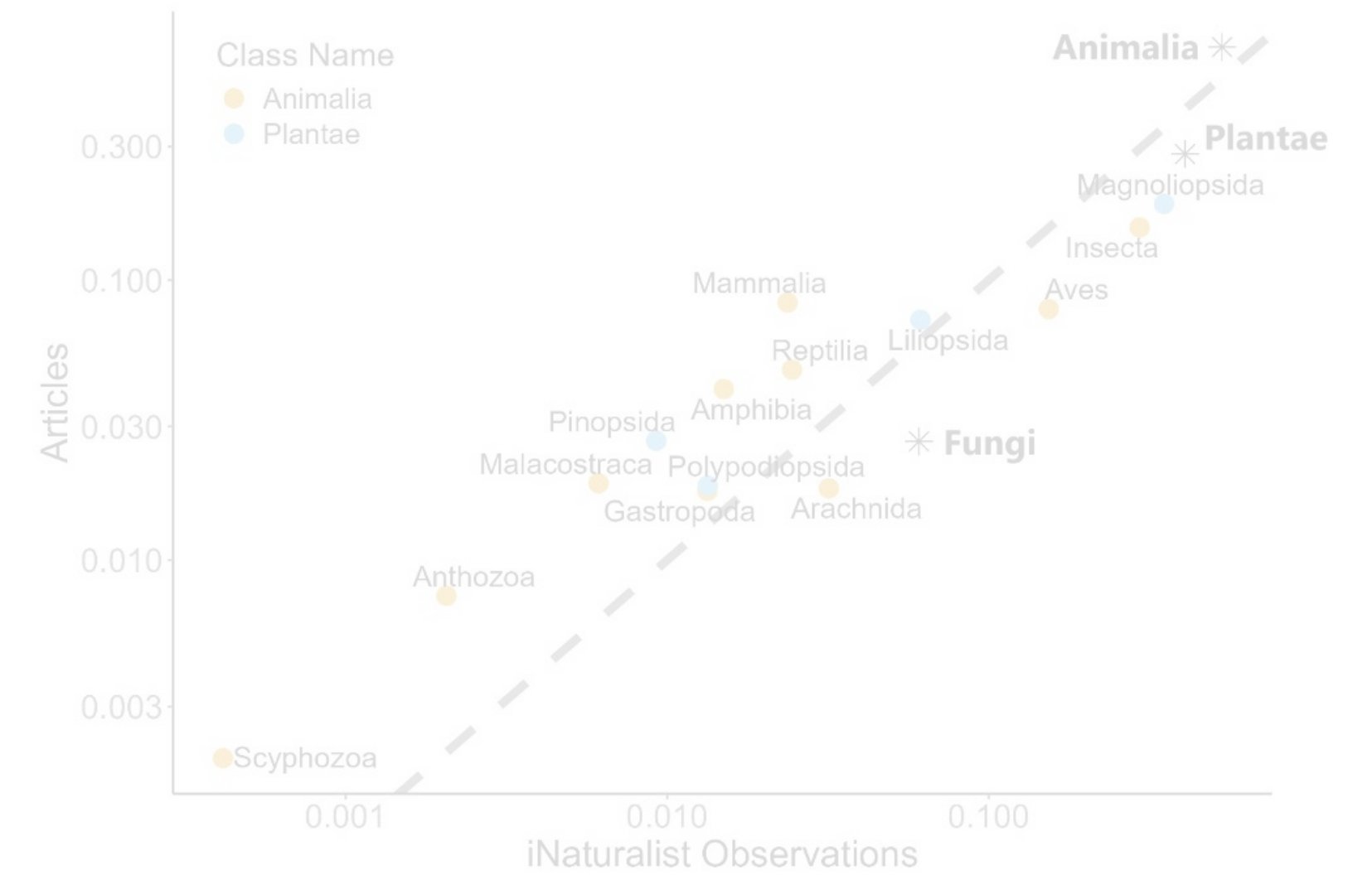
b) iNaturalist data type



c) iNaturalist data role



Artículo en revisión - NO DIVULGAR





# Descripción de especies nuevas

## Ejemplo

 *Phytotaxa* 472 (3): 249–258  
<https://www.mapress.com/j/pt/>  
Copyright © 2020 Magnolia Press

Article

ISSN 1179-3155 (print edition)  
**PHYTOTAXA**   
ISSN 1179-3163 (online edition)

<https://doi.org/10.11646/phytotaxa.472.3.3>



### *Gonolobus naturalistae* (Apocynaceae; Asclepiadoideae; Gonolobeae; Gonolobinae), a New Species From México



LEONARDO O. ALVARADO-CÁRDENAS<sup>1,3\*</sup>, MARÍA G. CHÁVEZ-HERNÁNDEZ<sup>1,4</sup> & JUAN F. PÍO LEÓN<sup>2,5</sup>


<sup>1</sup> Departamento de Biología Comparada, Laboratorio de Plantas Vasculares, Facultad de Ciencias, Universidad Nacional Autónoma de México, Apartado Postal 70-282, 04510, Ciudad de México, México.

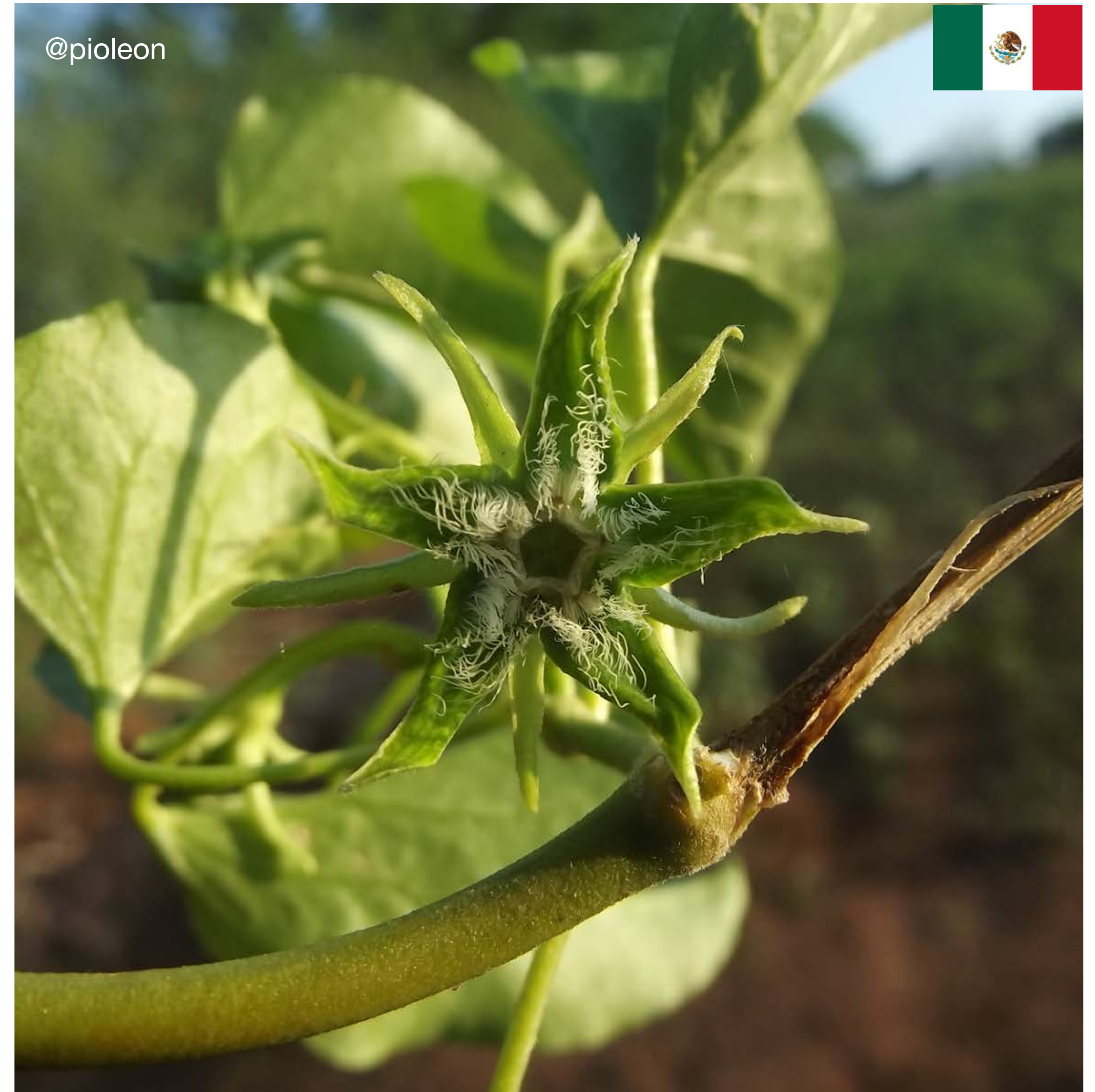
<sup>2</sup> Universidad Politécnica del Mar y la Sierra, Código Postal 82700, La Cruz de Elota, Sinaloa, México.

<sup>3</sup>  [leonardo.oac77@gmail.com](mailto:leonardo.oac77@gmail.com);  <https://orcid.org/0000-0002-4938-8339>

<sup>4</sup>  [mariagchavez@ciencias.unam.mx](mailto:mariagchavez@ciencias.unam.mx);  <https://orcid.org/0000-0003-1071-9994>

<sup>5</sup>  [d1j17kk@hotmail.com](mailto:d1j17kk@hotmail.com);  <https://orcid.org/0000-0002-1926-110X>

\*Correspondence author:  [leonardo.oac77@gmail.com](mailto:leonardo.oac77@gmail.com)



new species for science describe from records on iNat



# Detección de especies invasoras

## Ejemplo

NOVITATES CARIBAEA 17: 179–183, 2021

179

NOTA

*SPILOSTETHUS PANDURUS* (HEMIPTERA: HETEROPTERA: LYGAEIDAE),  
NUEVO REGISTRO PARA REPÚBLICA DOMINICANA  
Y EL CARIBE INSULAR

*Spilostethus pandurus* (Hemiptera: Heteroptera: Lygaeidae),  
new record for Dominican Republic and the insular Caribbean

Ruth H. Bastardo<sup>1\*</sup> y Daniel E. Perez-Gelabert<sup>2</sup>

<sup>1</sup>Instituto de Investigaciones Botánicas y Zoológicas, Universidad Autónoma de Santo Domingo; [orcid.org/0000-0003-1564-0724](https://orcid.org/0000-0003-1564-0724). <sup>2</sup>Integrated Taxonomic Information System (ITIS) and Department of Entomology, National Museum of Natural History, Smithsonian Institution, P.O. Box 37012, Washington, DC 20013-7012, USA; [orcid.org/0000-0003-3270-9551](https://orcid.org/0000-0003-3270-9551); [perezd@si.edu](mailto:perezd@si.edu). \*Para correspondencia: [rbastardo40@uasd.edu.do](mailto:rbastardo40@uasd.edu.do).



early detection of an exotic (invasive) species



# Fenología

## Ejemplo

**scientific** reports

**OPEN** Analyzing a phenological anomaly  
in *Yucca* of the southwestern  
United States

Laura Brenskelle<sup>1,2</sup>✉, Vijay Barve<sup>1</sup>, Lucas C. Majure<sup>1</sup>, Rob P. Guralnick<sup>1</sup> & Daijiang Li<sup>3,4</sup>

Check for updates



studying of normal and anomalous blooming events



# Fenología

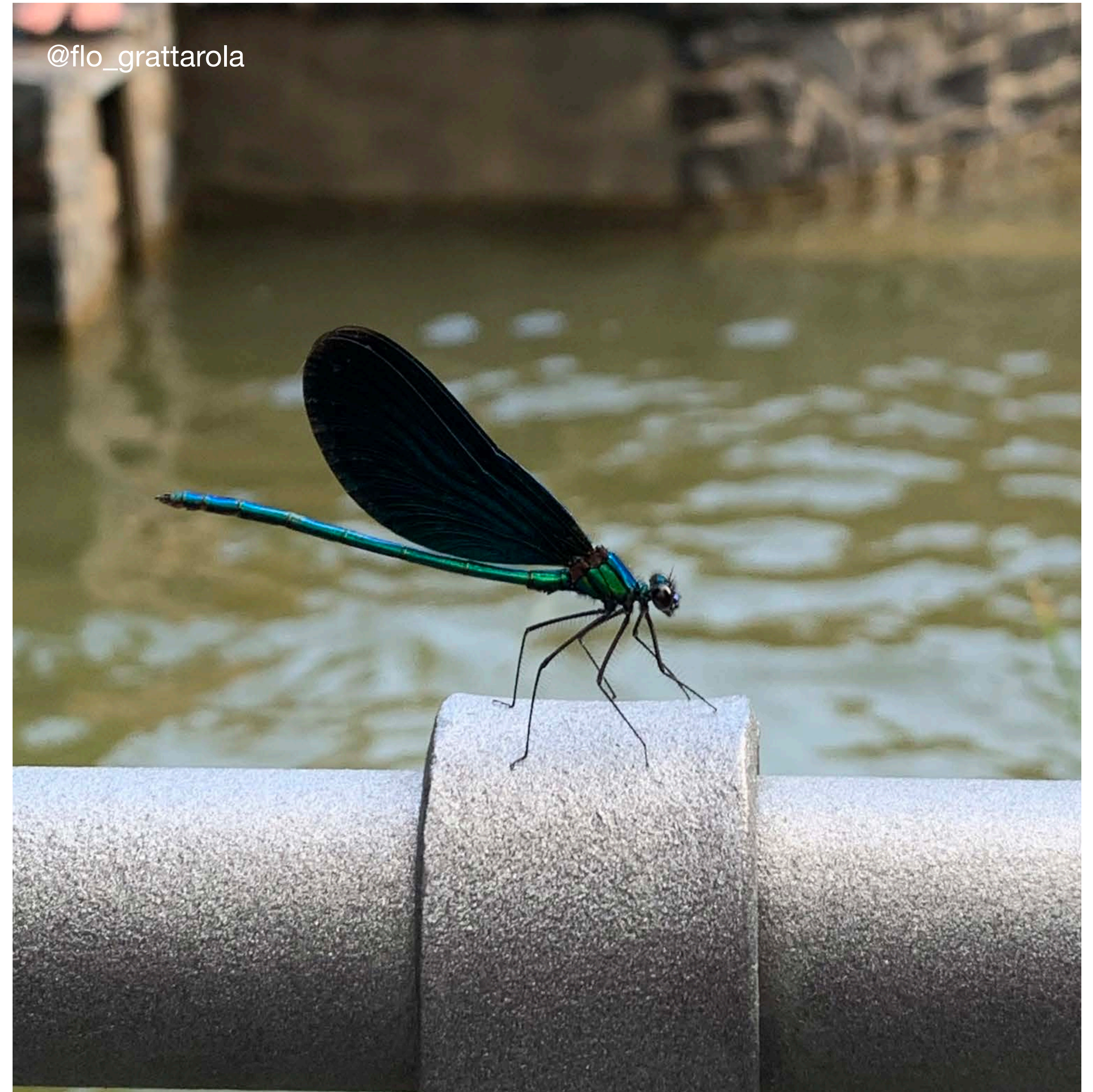
## Ejemplo

# ECOGRAPHY

### Research

Continent-scale phenotype mapping using citizen scientists' photographs

Jonathan P. Drury, Morgan Barnes, Ann E. Finneran, Maddie Harris and Gregory F. Grether



studying phenotypic variation in damselfly wings



# Interacción entre especies

## Ejemplo

Received: 2 September 2021 | Accepted: 12 October 2021

DOI: 10.1111/2041-210X.13762

RESEARCH ARTICLE

Methods in Ecology and Evolution 

### MetaComNet: A random forest-based framework for making spatial predictions of plant–pollinator interactions

Markus A. K. Sydenham<sup>1</sup>  | Zander S. Venter<sup>1</sup>  | Trond Reitan<sup>2</sup>  |  
Claus Rasmussen<sup>3</sup>  | Astrid B. Skrindo<sup>1</sup>  | Daniel I. J. Skoog<sup>4</sup> | Kaj-Andreas Hanevik<sup>4</sup> |  
Stein Joar Hegland<sup>5</sup>  | Yoko L. Dupont<sup>6</sup>  | Anders Nielsen<sup>7,2</sup>  |  
Joseph Chipperfield<sup>8</sup>  | Graciela M. Rusch<sup>9</sup> 



predicting plant–pollinator interaction networks over space and time



# Interacción entre especies

## Ejemplo scientific reports

**OPEN** The power of community science to quantify ecological interactions in cities

Breanna J. Putman<sup>1,2</sup>, Riley Williams<sup>1</sup>, Enjie Li<sup>1</sup> & Gregory B. Pauly<sup>1</sup>

 Check for updates

<https://doi.org/10.1038/s41598-021-82491-y>



quantifying interactions with predators and parasites



# Distribución de especies

## Ejemplo

Official journal website:  
amphibian-reptile-conservation.org



*Amphibian & Reptile Conservation*  
15(2) [General Section]: 228– 237 (e290).

### Updating the distributions of four Uruguayan hylids (Anura: Hylidae): recent expansions or lack of sampling effort?

<sup>1,2</sup>Gabriel Laufer, <sup>1,3</sup>Noelia Gobel, <sup>1,4</sup>Nadia Kacevas, <sup>1</sup>Ignacio Lado, <sup>1,5</sup>Sofía Cortizas, <sup>2</sup>Magdalena Carabio, <sup>6</sup>Diego Arrieta, <sup>6</sup>Carlos Prigioni, <sup>6</sup>Claudio Borteiro, and <sup>6,\*</sup>Francisco Kolenc

<sup>1</sup>Área Biodiversidad y Conservación, Museo Nacional de Historia Natural, MEC, Miguelete 1825, 11800 Montevideo, URUGUAY <sup>2</sup>Vida Silvestre Uruguay, Canelones 1198, 11100 Montevideo, URUGUAY <sup>3</sup>Sistema Nacional de Áreas Protegidas, DINAMA-MVOTMA, Galicia 1133, 11100 Montevideo, URUGUAY <sup>4</sup>Departamento de Ecología y Biología Evolutiva, Departamento de Biodiversidad y Genética, Instituto de Investigaciones Biológicas Clemente Estable, Av. Italia 3318, 11600 Montevideo, URUGUAY <sup>5</sup>Instituto Tecnológico Regional Centro Sur, Universidad Tecnológica del Uruguay, Francisco Antonio Maciel s/n, 97000 Durazno, URUGUAY <sup>6</sup>Sección Herpetología, Museo Nacional de Historia Natural, MEC, Miguelete 1825, 11800 Montevideo, URUGUAY

[https://amphibian-reptile-conservation.org/pdfs/Volume/Vol\\_15\\_no\\_2/ARC\\_15\\_2\\_\[General\\_Section\]\\_228-237\\_e290.pdf](https://amphibian-reptile-conservation.org/pdfs/Volume/Vol_15_no_2/ARC_15_2_[General_Section]_228-237_e290.pdf)

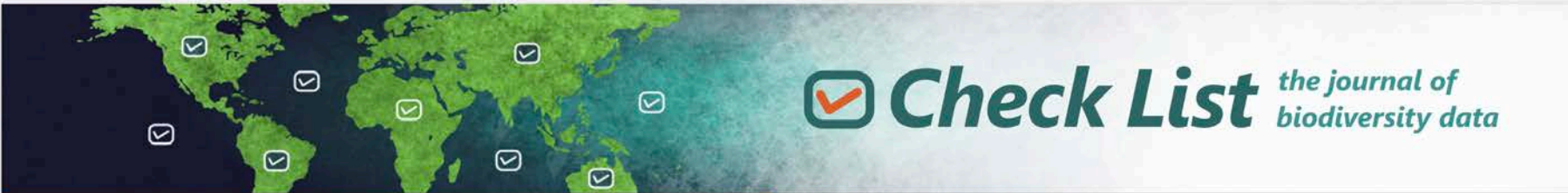


expansion of species' ranges and proposed conservation status reassessment



# Distribución de especies

## Ejemplo



**Check List** *the journal of biodiversity data*

NOTES ON GEOGRAPHIC DISTRIBUTION

Check List 17 (5): 1313–1322  
<https://doi.org/10.15560/17.5.1313>

**PENSOFT**

First record of *Gypogyna forceps* Simon, 1900 (Araneae, Salticidae, Scopocirini) in Uruguay, with notes on its taxonomy and natural history

Damián Hagopían<sup>1</sup>, Ary Mailhos<sup>2</sup>

<https://doi.org/10.15560/17.5.1313>



first record of the species



# Distribución de especies invasoras

## Ejemplo

Biol Invasions  
<https://doi.org/10.1007/s10530-023-03242-w>

INVASION NOTE



### Status of the invasion of *Carpobrotus edulis* in Uruguay based on citizen science records

Florencia Grattarola  ·  
Lucía Rodríguez-Tricot  · Matías Zarucki  ·  
Gabriel Laufer 

<https://doi.org/10.1007/s10530-023-03242-w>



status of the invasion of a non native plant



# Descarga

## Grado de investigación (!)

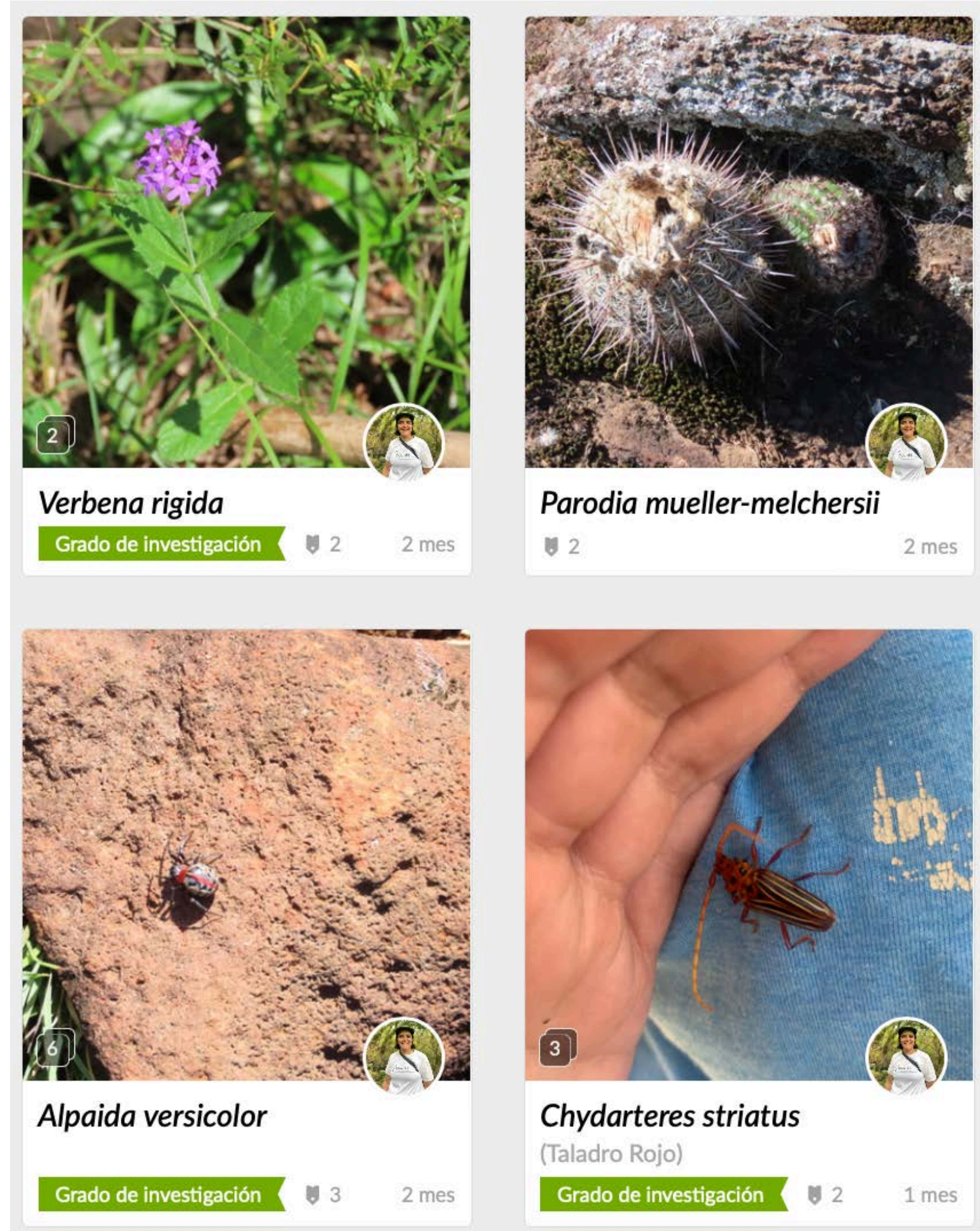
1 Desde GBIF

Directamente del sitio

2 Usando filtros

3 A través de proyectos

4 Usando la API de iNaturalist





# Ejemplos (demostración en vivo)

<https://biodiversidata.org/datos/buscar>

1

<https://www.naturalista.uy/observations/export>

2

<https://www.naturalista.uy/projects/ejemplo-proyecto-anfibios>

3

<https://bienflorencia.github.io/LatinR2024/>

4



# Proyectos en iNat 3

3

## Curadores con permisos especiales

- Los **proyectos tradicionales** permiten incluir manualmente en el proyecto los registros que fueron revisados por X persona.
- Se pueden agregar campos de observación para cada registro. Ejemplo, en relación a la confianza que le damos a la identificación (***Identification Confidence***).

### Curadores

Los curadores pueden quitar observaciones del proyecto y sus identificaciones son mostradas en ciertas vistas (como referencia). Además pueden ver las coordenadas oscurecidas o privadas del proyecto.

Ejemplo proyecto anfibios

Completa lo siguiente para añadir esta observación al proyecto:

Identification Confidence  
null

Select the level of confidence you have in your ID.

Identification Notes

\* Obligatorio



# Siete razones para contribuir a iNaturalist como **identificadores**

<https://doi.org/10.1371/journal.pbio.3001843>

## Box 1. Seven reasons to contribute to iNaturalist as an identifier

### 1. Your contributions increase knowledge of biodiversity

- › When you add an identification to an observation, it can immediately increase the value of that record by advancing the taxonomic level to which that observation is identified.
- › Identification efforts can be prioritized for maximum knowledge increase (e.g., by identifying species in undersampled regions of the world, targeting specific taxonomic groups that are threatened, or focusing on regions of the world with high endemism).

### 2. The value of opportunistic records is increasing

- › As a result of rapidly increasing statistical advances and data integration approaches with structured sampling, each identified record can advance our understanding of species distributions and abundance trajectories.
- › Photographs from iNaturalist are increasingly used in many unique and novel secondary ways, often opportunistic in nature.

### 3. You can contribute data on threatened, data-deficient, or invasive species

- › Since its inception, iNaturalist users have documented many significant records, including the rediscovery of species thought to be extinct or locally extirpated, considerable range extensions and new national records, previously undocumented behaviors and host associations, and even the discovery and subsequent descriptions of new species.
- › iNaturalist is useful in monitoring pathognomonic spread to new locations and for rapid responses in detecting novel introductions.

### 4. iNaturalist is a ready-made, free, and easy-to-use data collection infrastructure

- › A computer or smartphone and an internet connection are the only requirements for using iNaturalist, with all aspects of the platform, including uploading, identifying, and downloading data, entirely free.
- › An important component of the iNaturalist infrastructure is the computer vision providing automated identification suggestions.
- › iNaturalist features a dedicated “Identify: tool ([www.inaturalist.org/observations/identify](http://www.inaturalist.org/observations/identify)) that is streamlined for a rapid workflow to make, and review, identifications quickly.

### 5. You can partake in dynamic, real-time interactions around the world

- › Engaging with iNaturalist prompts you to discuss and collaborate with all types of users in real time, with benefits for everyone involved.
- › Discussing identifications is a way of honing and expanding your own skills, including the opportunity for more experienced experts to validate the identifications of less-experienced experts, training the next generation of identifiers.

### 6. You can engage with a broader audience

- › iNaturalist offers an efficient and powerful mechanism for broader societal impact, since identifiers can engage with thousands of individuals around the world, helping to connect people with the ecosystems of which they are a part.
- › Engaging with participants through the platform can also improve the quality and quantity of observations that are useful for biodiversity science.

### 7. You can enjoy yourself

- › Browsing photographs of even well-known species, and helping new naturalists to identify them, can be enjoyable and personally rewarding.
- › There is an official “iNat Observation of the Day” project (see [here](#)) showcasing such observations.

<https://coreytcallaghan.github.io/non-English-translations/es/>

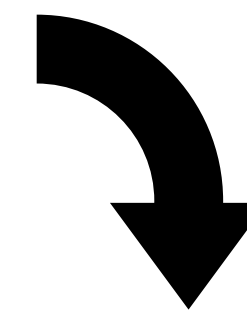


# ¿Cómo contribuir con **identificaciones** en NaturalistaUY?

[naturalista.uy/observations/identify](https://naturalista.uy/observations/identify)

The screenshot shows the 'Identificar' (Identify) page on NaturalistaUY. The page has a search bar at the top with 'Amphibia' and 'Uruguay' selected. Below the search bar, there are filters and a 'Revisada' checkbox. The main content is a grid of 10 observation cards, each with a photo of a frog and a list of possible species to identify it. The cards are arranged in two rows of five. The first row includes: 1) 'género Leptodactylus' (Ranas Espumeras) with 1 user; 2) 'Clase Amphibia' (Anfibios) with 1 user; 3) 'género Scinax' (Ranas Arborícolas Trompudas) with 3 users; 4) 'Pseudis limellum' (Ranita Boyadora Enana) with 1 user and an 'Aceptar' button; 5) 'Scinax granulatus' (Rana Roncadora) with 2 users and an 'Aceptar' button. The second row includes: 6) 'género Scinax' (Ranas Arborícolas Trompudas) with 1 user; 7) 'Pseudis minuta' (Rana Boyadora) with 1 user and an 'Aceptar' button; 8) 'Pseudopaludicola falcipes' (Macaquito) with 1 user and an 'Aceptar' button; 9) 'Familia Bufonidae' (Sapos) with 1 user; 10) 'Scinax granulatus' (Rana Roncadora) with 2 users and an 'Aceptar' button.

Más info



Guía básica para colaborar con la  
identificación de observaciones  
en  iNaturalist



 [biodiversidata@gmail.com](mailto:biodiversidata@gmail.com)  
 [biodiversidata.org](http://biodiversidata.org)  
 [@biodiversidata](https://twitter.com/biodiversidata)

[https://biodiversidata.org/assets/pdf/  
Guia para colaborar con IDs en iNaturalist.pdf](https://biodiversidata.org/assets/pdf/Guia%20para%20colaborar%20con%20IDs%20en%20iNaturalist.pdf)



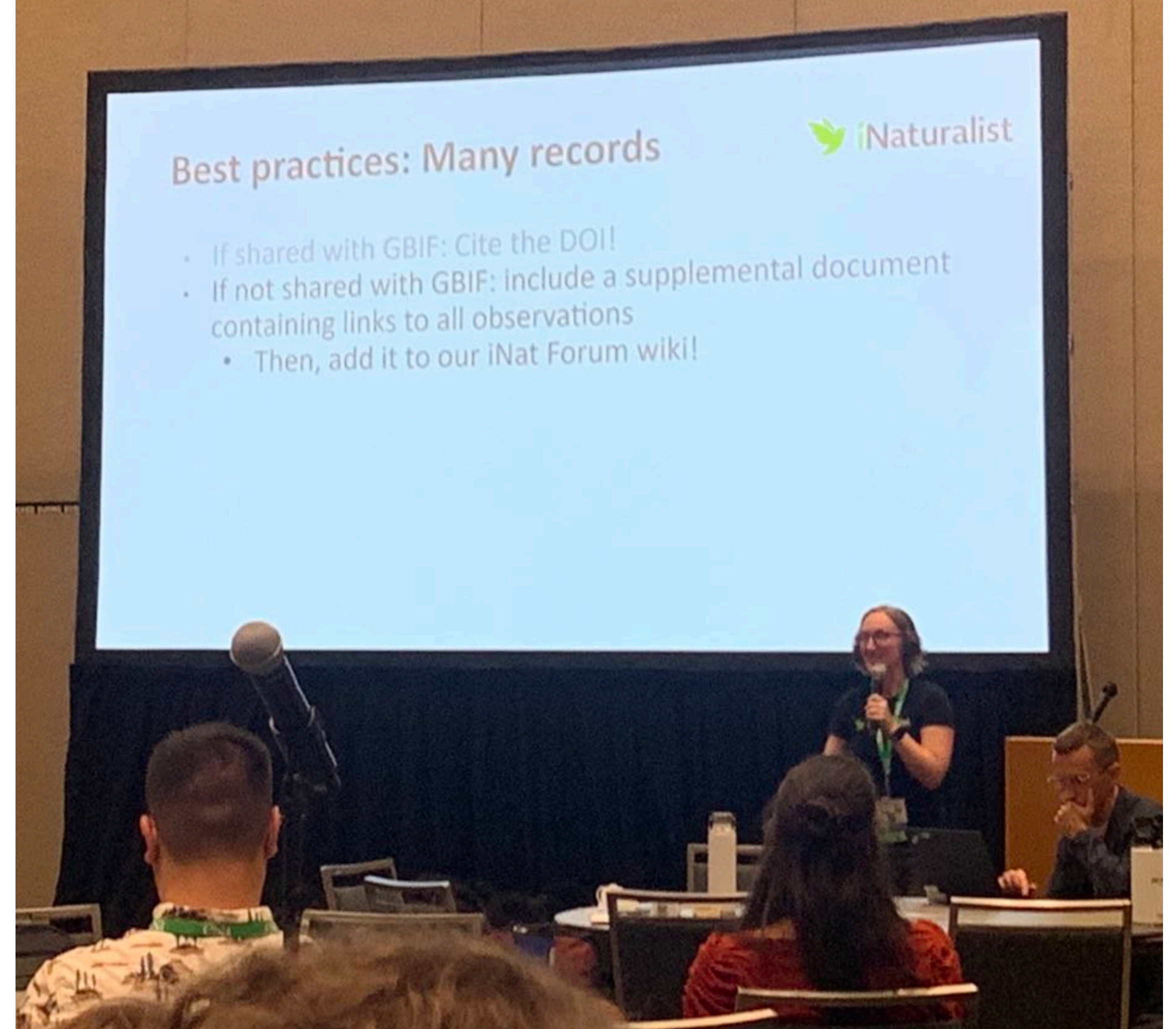
# Cita

## Buenas prácticas

- Usando el DOI de GBIF **1**
- Como archivo suplementario que incluya la URL de todas las observaciones

**2**

Carrie Seltzer, ESA Conferences - Portland (2023)





Received: 19 September 2022 | Revised: 14 March 2023 | Accepted: 31 March 2023

DOI: 10.1111/jbi.14622

RESEARCH ARTICLE

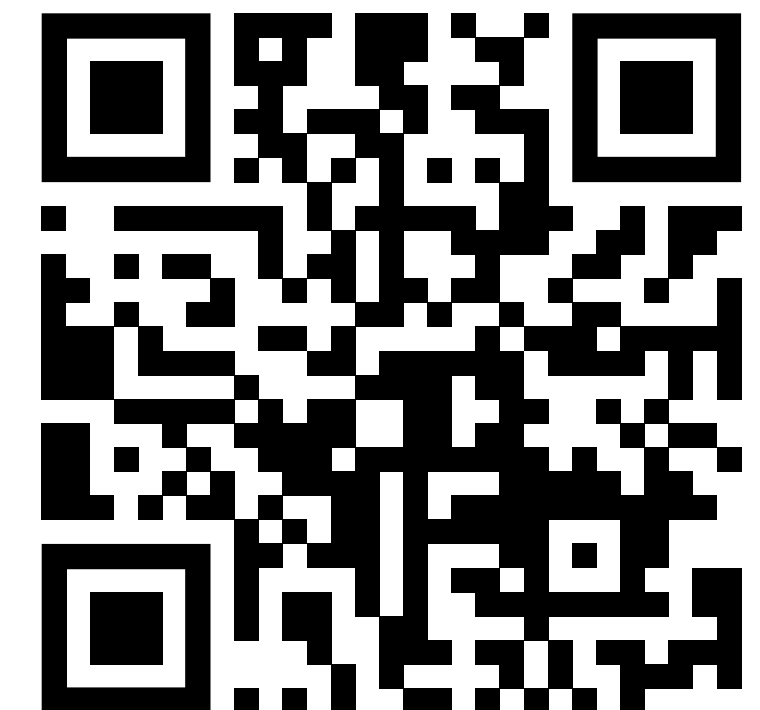
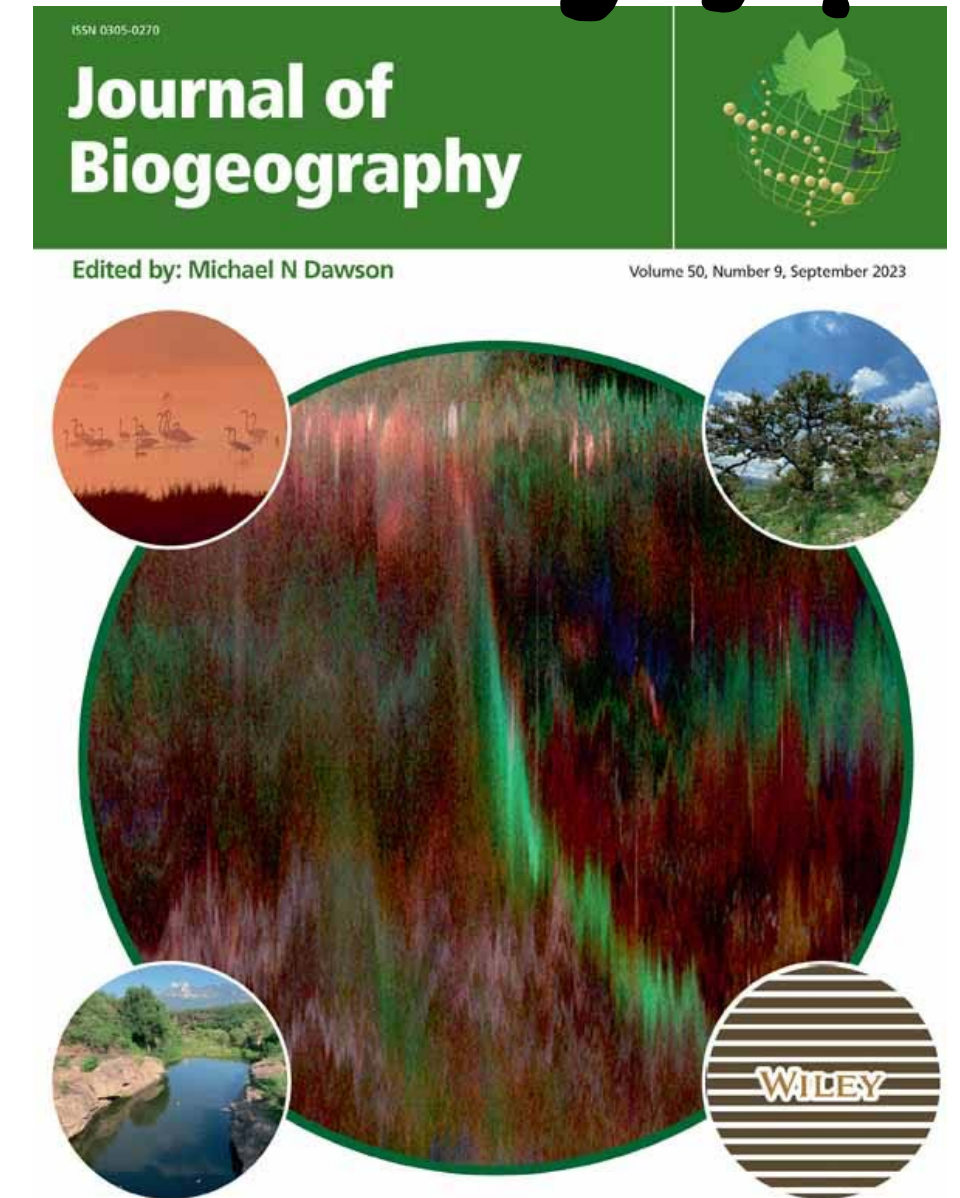
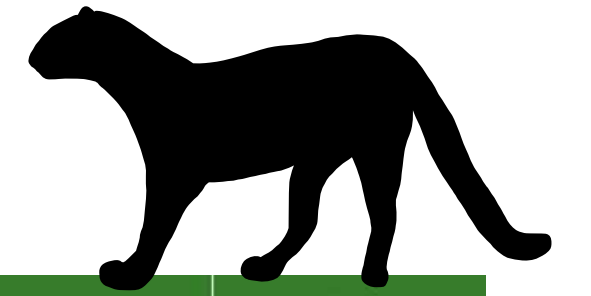


# Integrating presence-only and presence-absence data to model changes in species geographic ranges: An example in the Neotropics

Florencia Grattarola<sup>1</sup> | Diana E. Bowler<sup>2,3,4</sup> | Petr Keil<sup>1</sup>



<https://doi.org/10.1111/jbi.14622>





Biol Invasions

<https://doi.org/10.1007/s10530-023-03242-w>

INVASION NOTE



## Status of the invasion of *Carpobrotus edulis* in Uruguay based on citizen science records

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Lucía Rodríguez-Tricot  · Matías Zarucki  ·

Gabriel Laufer 



GitHub

<https://doi.org/10.1007/s10530-023-03242-w>

<https://bienflorencia.github.io/carpobrotus-uruguay/>





# Florenca Grattarola | Czech University of Life Sciences in Prague



Czech University  
of Life Sciences Prague



**MOBI**  
**Lab**

 [flograttarola.com](http://flograttarola.com) |  [@flograttarola.bsky.social](https://bsky.app/profile/flograttarola.bsky.social) |  [ecoevo.social/@flograttarola](https://mstdn.social/@flograttarola) |  [@flograttarola](https://twitter.com/flograttarola)