

## **Wetland Conservation and the Impact of Invasive Alien Mammals in Northwest Patagonia (41149-B)**

NATIONAL PARKS RESEARCH PERMIT: N° 1862

PRINCIPAL RESEARCHER: Dr. Sebastián A. Ballari

SITE: Estancia Fortín Chacabuco, Nahuel Huapi National Park, Argentina.

Since completing the Booster Grant, I have continued to share and apply the project's findings across inter-institutional and interdisciplinary settings. In August 2025 I participated in the workshop "Meeting on Methodologies for Assessing Sustainability in the Patagonian Region," organized by INTA and hosted at Estancia Fortín Chacabuco. INTA (Instituto Nacional de Tecnología Agropecuaria) is Argentina's national agricultural research and extension agency; it plays a central role in developing evidence-based, on-the-ground solutions for producers across the country. It also actively fosters small-scale producers and supports regional economies to drive equitable development.

At the workshop I presented our project, "Wetland Conservation and the Impact of Invasive Alien Mammals in Northwest Patagonia (41149-B)," highlighting the most relevant results (Fig. 1, 2). We also organized a field visit to the project site (mallines - wet meadows-) where herbivore exclusion experiments were installed, to explain in situ the project's objectives and design (Fig. 3). The workshop focused on practical tools for sustainable, ecologically sound livestock production that also improve rural livelihoods. One particularly fruitful discussion addressed the potential for carbon credits on ranches in Northwest Patagonia linked to improved practices. In that context, the presence and impacts of invasive mammals evaluated by our project were highly relevant, as integrating invasive-species management is essential for better stewardship of the region's grasslands and wetlands.

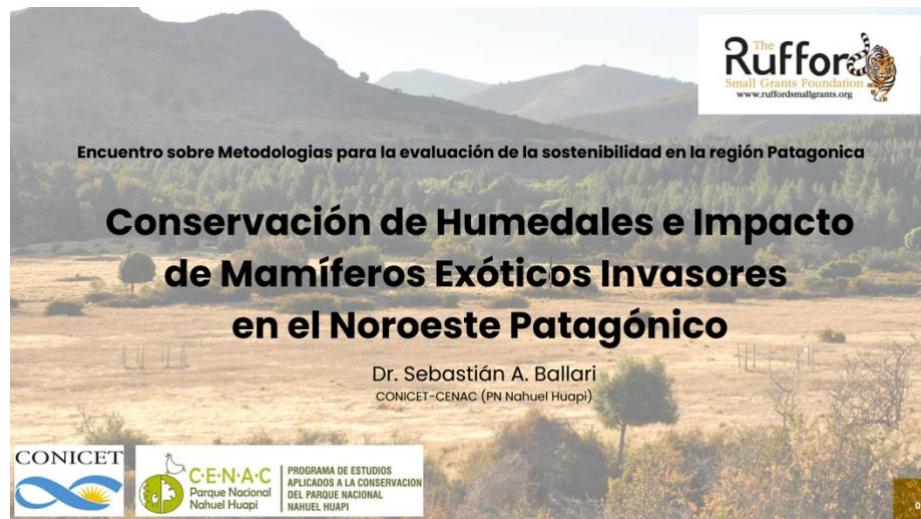


Figure 1. Project presentation during the inter-institutional workshop.



Figure 2. Presentation at Fortín Chacabuco Ranch.



Figure 3. Workshop group with INTA researchers.

In September 2025, I presented additional results at the Jornadas Argentina de Mastozoología (Argentine Mastozoology Meetings -JAM 2025-) in El Calafate (Santa Cruz Province), where we showcased a poster summarizing the project and its most salient findings to date (Fig. 4, 5, 6). The session generated strong interest, particularly in our sampling design and the socio-ecological, inter-institutional framework underpinning the study. During JAM 2025, the society assembly finalized plans for the next two meetings (2026–2027). In 2026 the JAM will be held in Paraná (Entre Ríos Province), and in 2027 I committed to serve as lead organizer in San Carlos de Bariloche (Río Negro Province). That meeting will provide a valuable opportunity to bring together Rufford Foundation grantees working on mammal conservation across Argentina.

## Impacto de Mamíferos Exóticos Invasores en Humedales del Noroeste Patagónico



1 CENAC, Parque Nacional Nahuel Huapi - Consejo Nacional de Investigaciones Científicas y Técnicas; 2 Laboratorio de Suelo y Agua - EEA  
 Bariloche, Instituto Nacional de Tecnología Agropecuaria; 3 Rubenstein School of Environment and Natural Resources, University of Vermont, USA.

### INTRODUCCIÓN

Los humedales son **ecosistemas clave** por su valor ecológico, económico, social y cultural. Son **amenazados a nivel global** por el cambio climático, la contaminación y las especies exóticas invasoras. En Patagonia, los **mallines** destacan por su alta productividad y biodiversidad, sin embargo se ven amenazados por el **impacto de mamíferos exóticos invasores** como el **jabalí** y los **ciervos**.

### OBJETIVOS

Evaluar el uso y e impactos de jabalíes y ciervos introducidos sobre la **estructura y funcionalidad** de los mallines patagónicos.

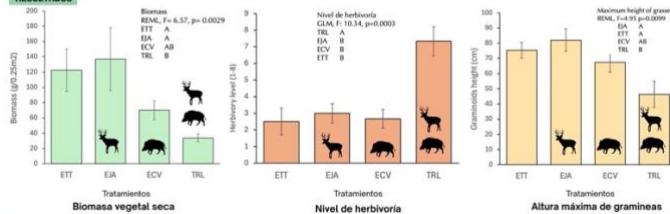
### MÉTODOS

6 **mallines** Parque Nacional Nahuel Huapi con un experimento de **4 tratamientos**:  
 1. Exclusión de jabalí (EJA); 2. Exclusión de ciervos (ECV); 150 cm alto + aperturas;  
 3. Exclusión de ciervos y jabalí (ETT); 150 cm alto; 4. Control, sin exclusión (TRL).

**Medición:** vegetación (biomasa, altura, herbivoría) y suelo (compacación, pH).



### RESULTADOS



### DISCUSIÓN

- Los impactos de estos mamíferos introducidos se han intensificado por su crecimiento poblacional y dispersión continua en Argentina
- Los resultados muestran evidencias del impacto potencial aditivo de los mamíferos exóticos en mallines del noroeste de la Patagonia, alterando significativamente el crecimiento de la vegetación y los cambios estructurales de estos ecosistemas

✉ sebastianballari@gmail.com

Agradecemos al Parque Nacional Nahuel Huapi, Estancia Fortín Chacabuco, The Nature Conservancy y The Rufford Foundation

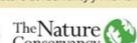


Figure 4. Project poster presented with Rufford Foundation acknowledgment.



Figure 5. Strong turnout of students and professionals in El Calafate.



Figure 6. Presenting the project poster at JAM 2025.

I remain actively engaged in disseminating and applying the project's outcomes with local stakeholders, research partners and producers. Rufford's support has been instrumental in getting this work into the field and into the hands of decision-makers. Building on this momentum, I would be honored to continue under the Completion Grant, further consolidating and expanding the conservation impact achieved so far.

With appreciation for your ongoing support,



Dr. Sebastián A. Ballari