

# Alejandro Manuel Ferreiro

Ph.D. in Biological Sciences

Institute of Animal Diversity and Ecology (IDEA, CONICET-UNC)

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## Education

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### Doctor in Biological Sciences (2017-2022)

**Title:** Phylogeography and species distribution models to define conservation units of the southern three-banded armadillo (*Tolypeutes matacus*) in Argentina.

**National University of Cordoba, Argentina.**



### Biologist (2008-2014)

**Title:** Molecular phylogeny of the Euphractinae subfamily (Xenarthra).

**GPA:** 8.25/10

**National University of Cordoba, Argentina.**

## Journal articles

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Ferreiro AM, Soibelzon E, Pinotti JD, Poljak S, Chiappero MB. 2022. **Reconstructing the distribution of Chacoan biota from current and past evidence: the case of the southern three-banded armadillo *Tolypeutes matacus* (Desmarest, 1804).** *Journal of Mammalian Evolution*: 1–13. DOI: 10.1007/S10914-022-09627-3

Pinotti JD, Ferreiro AM, Martin ML, Levis S, Chiappero M, Andreo V, González-Iltig RE. 2020. **Multiple refugia and glacial expansions in the Tucumane–Bolivian Yungas: The phylogeography and potential distribution modeling of *Calomys fecundus* (Thomas, 1926) (Rodentia: Cricetidae).** *Journal of Zoological Systematics and Evolutionary Research* 58: 1359–1373.

Poljak S, Ferreiro AM, Chiappero MB, Sánchez J, Gabrielli M, Lizarralde MS. 2018. **Phylogeography of screaming hairy armadillo *ChaetophRACTUS vellerosus*: Successive disjunctions and extinctions due to cyclical climatic changes in southern South America.** PLOS ONE 13: e0190944.

## Other publications

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Ferreiro AM, Abba A, Camino M, Tamburini DM, Decarre J, Soibelzon E, Castro LB, Rogel TG, Agüero AJ, Albretch CD, Superina M. 2019. ***Tolypeutes matacus*.** In: SAYDS–SAREM (eds) **Categorización 2019 de los mamíferos de Argentina según su riesgo de extinción. Lista Roja de los mamíferos de Argentina.** URL: <http://cma.sarem.org.ar/index.php/es/especie-nativa/tolypeutes-matacus>

Abba AM, Camino M, Torres R, Ferreiro AM, Tamburini DM, Decarre J, Soibelzon E, Castro LB, Rogel TG, Agüero AJ, Albretch CD, Superina M. 2019. ***ChaetophRACTUS vellerosus*.** In: SAYDS–SAREM (eds) **Categorización 2019 de los mamíferos de Argentina según su**

riesgo de extinción. Lista Roja de los mamíferos de Argentina. URL: <http://cma.sarem.org.ar/index.php/es/especie-nativa/chaetophractus-vellerosus>

## Manuscripts submitted

Ferreiro AM, Pinotti JD, Poljak S, Soibelzon E, Chiappero MB. **Effects of Quaternary climatic oscillations over the Chacoan fauna: the phylogeographic patterns of the southern three-banded armadillo *Tolypeutes matacus* (Cingulata: Chlamyphoridae).**

*Zoological Journal of the Linnean Society.*

Issaly EA, Baranzelli M, Rocamundi N, Ferreiro AM, Johnson LA, Sersic A; Paiaro V. **Too much water under the bridge: unraveling the worldwide invasion of the tree tobacco through genetic and ecological approaches.** *Biological Invasions.*

## Manuscripts in preparation

Ferreiro AM, Chiappero MB, Romero-Muñoz A, Soibelzon E. **Future climatic changes and potential threats for the southern three-banded armadillo (*Xenarthra*, *Tolypeutes matacus*).** Sending soon to *Diversity and Distributions*.

## Funding and awards

### PICT project funding (2022-2023)

**Funder:** Fund for Scientific and Technological Research (FONCYT, Argentina).

**Title:** Biodiversity richness of non-flying mammals from central Argentina (La Pampa): changes in their distribution, dispersal pathways and extinctions during the Holocene.

**Role:** Research fellow.

### PICT project funding (2021-2022)

**Funder:** Fund for Scientific and Technological Research (FONCYT, Argentina).

**Title:** Evolutionary processes in mammals from the plains of Chaco, Espinal and the Pampean region: an approach from comparative phylogeography and ecological niche modeling.

**Role:** Research fellow.

### IDEA WILD project funding (2019)

**Funder:** IDEA WILD Foundation (US).

**Title:** Conservation of Southern three-banded Armadillo on its southernmost distribution range.

**Role:** Project leader.

### PICT project funding (2017-2019)

**Funder:** Fund for Scientific and Technological Research (FONCYT, Argentina).

**Title:** Distribution areas and dispersal routes of medium and small mammals during the Quaternary. The Arid South American Diagonal.

**Role:** Research fellow.

### SECyT project funding (2016-2017)

**Funder:** National University of Cordoba (Argentina).

**Title:** Distribution areas and dispersal routes of medium and small mammals during the Quaternary. The Arid South American Diagonal.

**Role:** Research fellow.

### SAREM Awards (2018)

**Funder:** Argentinean Society for the Study of Mammals (SAREM).

**Title:** Phylogeography and species distribution modelling to define conservation units for the southern three-banded armadillo (*Tolypeutes matacus*).

### CONICET DOCTORAL Fellowship (2016-2022)

**Funder:** National Council of Scientific and Technical Research (CONICET, Argentina)

**Title:** Phylogeography and species distribution modelling to define Conservation Units for the southern three-banded armadillo (*Tolypeutes matacus*).

**Tutors:** Marina B. Chiappero and Esteban Soibelzon.



**ESTÍMULO A LAS VOCACIONES CIENTÍFICAS Undergraduate scholarship (2013)**

**Funder:** National Interuniversity Council (CIN, Argentina)

**Title:** Molecular phylogeny of the Euphractinae subfamily (Xenarthra, Mammalia).

**Tutors:** Sebastian Poljak and Raúl González Ittig.

## Courses

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- ✓ **Introduction to bioinformatics analysis of RAD-seq sequences (2023)**  
**Institution:** National University of Tierra del Fuego (Argentina), In-person course (+40hs).  
**Score:** Scoreless.
- ✓ **ENM 2020: Advanced course in Ecological Niche Modeling. (2020)**  
**Institution:** University of Kansas (US), Online course (+100hs).  
**Score:** Scoreless.
- ✓ **Cladistic. (2020)**  
**Institution:** National University of Cordoba (Argentina), Online course (40hs)  
**Score:** 9/10.
- ✓ **Cladistic, philosophy, theory and methods. (2020)**  
**Institution:** Federal University of Paraná (Brazil), Online course (45hs).  
**Score:** B.
- ✓ **Statistics. (2019)**  
**Institution:** National University of Cordoba (Argentina), In-person course (40hs)  
**Score:** 9/10.
- ✓ **Theoretical-practical advanced course in modeling of species niches, an approach to correlative and process-based models. (2019)**  
**Institution:** National University of Tucuman (Argentina), In-person course (40hs)  
**Score:** 10/10.
- ✓ **Extending and Enhancing DNA Barcoding Research in Argentina and Neighboring Countries: Tenth Leading Labs Training Workshop. (2019)**  
**Institution:** Argentinean Museum of Natural Sciences "Bernardino Rivadavia" (MACN, Argentina), In-person course (40hs).  
**Score:** Scoreless.
- ✓ **IUCN Red List Assessment modules. (2018)**  
**Institution:** [www.conservationtrainig.org](http://www.conservationtrainig.org), Online course.  
**Score:** Scoreless.
- ✓ **Niche and distribution modeling, with an emphasis on the use of MAXENT. (2017)**  
**Institution:** National University of Tucuman (Argentina), In-person course (40hs)  
**Score:** 7/10.
- ✓ **XI Conservation Genetics Workshop. (2017)**  
**Institution:** Red de Genética para la Conservación (ReGeneC) and the National University of Misiones (Argentina), In-person course (100hs).  
**Score:** 83/100.
- ✓ **Genetic data analysis with R. (2016)**  
**Institution:** University of Buenos Aires (Argentina), In-person course (60hs)  
**Score:** 9/10.
- ✓ **Conservation biology. (2016)**  
**Institution:** National University of Cuyo (Argentina), In-person course (45hs)  
**Score:** 9/10.
- ✓ **Introduction to phylogeography and niche modelling. (2016)**

**Institution:** National University of Cordoba (Argentina), In-person course (45hs)  
**Score:** 10/10.

- ✓ **Analysis of the genetic structure of natural populations. (2016)**  
**Institution:** National University of Cordoba (Argentina), In-person course (45hs)  
**Score:** 10/10.
- ✓ **Introductory course to GIS and remote sensing. (2015)**  
**Institution:** National University of Cordoba (Argentina), In-person course (10hs)  
**Score:** Scoreless.

## Other capacitation

- **i-Teams. Entrepreneurial training program and scientific-technological link. (2019)**  
**Institution:** Ministry of Science and Technology, Government of Cordoba Province (Argentina)







## Teaching experience

-  **Head of Practical Assignments. (2022-Present)**  
**Institution:** National University of Santiago del Estero (Argentina).  
**Course:** Introduction to Biology.
-  **Fellow collaboration. (2016-2018)**  
**Institution:** National University of Cordoba (Argentina).  
**Course:** Population Genetics and Evolution.
-  **Undergraduate assistant. (2011-2012)**  
**Institution:** National University of Santiago del Estero (Argentina).  
**Course:** Animal Diversity 1.

## Scientific management positions

-  **Representative of Fellows on the Boards of Directors. (2019-2021)**  
**Institution:** Institute of Animal Diversity and Ecology (IDEA, Argentina)

## Other skills

Advanced	Intermediate	Junior
 R programming	 Python programming	 JavaScript
 Github ( <a href="#">aleferreiro</a> )	 Bash programming	 CSS

## References

### Prof. Marina B. Chiappero

**Institution:** Institute of Animal Diversity and Ecology (IDEA, Argentina)  
**Contact:** [marina.chiappero@gmail.com](mailto:marina.chiappero@gmail.com)

### Prof. Esteban Soibelzon

**Institution:** Vertebrate Paleontology Division, La Plata Museum (UNLP-CONICET)  
**Contact:** [esoibel@gmail.com](mailto:esoibel@gmail.com)

### Prof. Sebastian Poljak

**Institution:** Southern Center for scientific research (CADIC; UNTDF-CONICET)  
**Contact:** [sebapoljak@hotmail.com](mailto:sebapoljak@hotmail.com)