

Nicolás Kass

Ecologist and university educator · conservation, fieldwork, data and systems

Biologist and PhD candidate in Natural Sciences, with conservation as the focus of my research. I have taught at university since 2010, from first-year students to an advanced course, and handled wild animals in the field since 2008, from Talampaya to Antarctica. I also ran a retail business for four years and built its management system with AI assistants. What ties it together: I take complex things apart until other people can use them.

La Plata, Argentina · on-site in Buenos Aires or remote github.com/nicolaskass [LinkedIn](#)
[Google Scholar](#)

EXPERIENCE

University teaching assistant · Zoology

Faculty of Natural Sciences and Museum, Universidad Nacional de La Plata (UNLP)

2010 – present

- About seven years with first-year students (General Zoology) and about fifteen in an advanced course (Zoology III: Vertebrates). The same field taught from scratch and at the level of future colleagues.
 - Oral and written exams, plus continuous assessment during the course, so I can change how I teach while it still matters. When a group lacks a base concept (maths, physics, chemistry, physiology), I add it briefly, at their level.
 - Led groups of 10 to 15 students on field campaigns in the Iberá Wetlands, teaching sampling methods for birds, reptiles and amphibians.
 - Taught Vertebrate Zoology unpaid for twelve years before the position became paid. Designed and taught outreach workshops for children for eight years.
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PhD candidate · conservation research

UNLP · Somuncurá Plateau, Patagonia

2017 – present · doctoral fellowship 2018–2024

- Spatial ecology, population dynamics and conservation of a threatened Patagonian frog (*Atelognathus reverberii*). Run as a multi-year project of my own: research design, logistics for campaigns in remote areas, field problem-solving, analysis and writing.
 - Capture–mark–recapture campaigns; frogs of 3.5–4 cm marked with visible implant elastomer, and stomach flushing to study diet.
 - Bayesian capture–recapture analysis and regional environmental analysis in Google Earth Engine, built with AI assistants. Four manuscripts in preparation.
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Field technician · Antarctic ecosystem monitoring

Instituto Antártico Argentino · CCAMLR Ecosystem Monitoring Programme (CEMP)

September 2018 – March 2019 · pre-campaign and summer campaign

- The full CEMP protocol on Adélie and Gentoo penguins: censuses, nest sampling, arrival and fledging weights, fitting and retrieving GPS loggers and video cameras, blood sampling and stomach flushing for diet, from collection to analysis.
- A protocol written to be comparable across countries and decades. In the Antarctic a sample cannot be retaken and the season does not come back: that is where protocol discipline stopped being an abstraction for me.

Field surveyor (per project)

Latitud Sur — land surveying and topography · La Plata

2023 – 2026

- Topographic control on the widening of the La Plata–Buenos Aires highway (2026): optical levelling, GNSS RTK surveying and staking out, as-built drawings in CAD, and reports.
- Benchmark transfers on a sewer project, and took part in boundary marking and parcel status surveys.

Operations manager

Digital Discos — family record store · La Plata

2022 – 2026 · in charge of the whole business from 2024

- Ran the daily operation: customer service, sales across five channels, purchasing, stock and cash closes, with one employee.
- Sold reconditioned vintage audio with one-to-one advice to customers with no technical background: what they needed, how they would use it, and nothing they didn't need.
- Specified the business's management system and directed its build with AI coding assistants, from the data model to automated marketplace publishing. It is still in production at the business, which I am no longer part of.

External ISO 9001 consultant

IMUA · La Plata

2022

- Reviewed and designed procedures in three organizations, and supported a maintenance audit and a recertification audit, both passed.

Founder

T³ — Three Tech Thinkers · La Plata

2023 – present · part-time

- My own operations and technology consulting project. Work delivered: Latitud Sur and Digital Discos.

WHAT I HAVE PUBLISHED

Public repositories documenting how my systems and analyses are built and why. No client source code: the reasoning, what I decided, what I rejected and what each decision cost. I build with AI assistants and say so; the decisions and the review are mine.

Ecological Data Analysis

github.com/nicolaskass/ecological-data-analysis

Methods behind four manuscripts · reproducibility packages private until publication

Bayesian capture–recapture cross-checked against an established reference, with prior sensitivity analysis and a simulation of the estimator's own bias. The journal uses double-anonymous review, so the data packages will be released with a DOI once each paper is accepted.

Bayesian inference

MCMC

Python

Reproducibility

Specialty Retail ERP

github.com/nicolaskass/specialty-retail-erp

The record store's management system · still in production at the business

Architecture and decision records of a system I specified and directed with AI coding assistants: modules, domain model for unique collectible items, and a consolidation refactor over live financial data.

Django

React

MongoDB

Docker

Claude Code

Geospatial Survey Toolkit

github.com/nicolaskass/geospatial-survey-toolkit

Field tooling for a land-surveying practice

Road-works quality control, survey-code validation and raster-to-CAD conversion, for surveyors with no technical setup. The tool flags anomalies and refuses to correct them: a field measurement is evidence, and the surveyor judges it.

Python

Streamlit

DXF

GNSS

Geospatial Data Processing

github.com/nicolaskass/geospatial-data-processing

Work in progress · learning project

Where I am learning Google Earth Engine, GIS, LiDAR and photogrammetry, built with AI assistants. It includes the Earth Engine work for my papers and reference notes that grow as I learn.

Google Earth Engine

GIS

LiDAR

Photogrammetry

HOW I WORK

What I want my students to leave with

Wherever I teach, I work the same way: identify the problem, design a solution, solve it, then assess and adjust. What I try to leave in my students is their own criteria: how to approach a problem and where to look when they don't know the answer. I'm proudest when an exam shows me a student reasoning their way through a problem.

I use AI as a tool, and the judgement stays with me

I built my own workflow on Claude Code, with separate agents for coding, reviewing and documenting. I do the planning: the AI writes most of the code, and I make the decisions, set the criteria and audit the result. We all have the same tools; what changes the result is the person guiding them.

I write down what a decision cost

Every decision record has a section for its downsides. A document that lists only benefits is marketing, and it makes everything around it less believable.

I know where automation should stop

In the surveying tools the software flags anomalies and corrects none of them. A field measurement is evidence, and the person qualified to judge it is the one who took it.

SKILLS

Teaching

Practical sessions and field trips with groups · oral and written exams · continuous assessment · workshops for the general public · written procedures (ISO 9001) · short videos

Field & animals	Handling wild amphibians, reptiles and birds since 2008 · blood sampling and stomach flushing · VIE marking and toe-clipping · GPS loggers and video cameras on wildlife · capture–mark–recapture · 4x4 driving
Surveying & GIS	GNSS RTK surveying and staking out · optical levelling · as-built drawings in CAD · coordinate systems and projections · Google Earth Engine (learning, with AI assistance)
Data & statistics	Bayesian inference and capture–recapture models · non-parametric methods · Python and R with AI assistance · Excel and Google Sheets
Systems	Management systems (Python, Django, React) specified and built with Claude Code · Linux · Git · LaTeX · Markdown
Management	Logical framework and stakeholder analysis (Conservation Leadership Programme, 2020 and 2022; Future Conservationist Award as team co-leader) · ISO 9001 internal auditor (Bureau Veritas, 2022)

EDUCATION & LANGUAGES

PhD candidate, Natural Sciences

Universidad Nacional de La Plata · conservation of a Patagonian amphibian

In progress · aiming to submit in 2027

Specialization in University Teaching

Universidad Nacional de La Plata · all coursework passed but one course and the thesis

2016 – present

Licenciado en Biología, Zoology track

Universidad Nacional de La Plata · five-year degree with a research thesis

2016

Languages

Spanish — native · English — advanced · German — B1 (certified) · Italian — basic

Academic record

Co-author in journals such as Oryx, Polar Biology and Journal for Nature Conservation: Google Scholar · ORCID. Full academic CV available on request.

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