

February 2026 update on the progress of translatE project

9/2/2026

Tatsuya Amano and Violeta Berdejo-Espinola (University of Queensland)

We share with you our latest project update, covering our recent papers, media coverages, and update on our big multilingual synthesis project!

1. **New paper: Berdejo-Espinola V, Hajas A, Cornford R, Ye Nan, Amano T. Assessing diverse values of nature requires multilingual evidence. 2025. *Environmental Evidence*.**

Read the open access article [here](#).

Very delighted to announce a brand-new paper led by Violeta published in *Environmental Evidence*! Despite growing evidence showing the importance of non-English-language evidence, environmental evidence syntheses still remain predominantly monolingual (English), potentially leading to biased results and misinforming policy decisions. In this paper we trained supervised machine learning models using a corpus of Spanish-language peer-reviewed academic articles on the effectiveness of conservation actions. The best-performing model achieved a recall of 100%, meaning it missed no relevant articles, while filtering out over 70% of irrelevant documents based solely on titles and abstracts.

This is Violeta's first paper developing ML/AI based approaches to multilingual evidence synthesis and a huge step forward for our project. Congratulations Violeta and the team!

2. **New paper: Amano T, Ramirez-Casteñeda V, Berdejo-Espinola V, Borokini I, Chowdury S, Golivets M, Gonzalez-Trujillo JD, Montaño-Centellas F, Paudel K, White R, Veríssimo D. Language, economic and gender disparities widen the scientific productivity gap. 2025. *PLOS Biology* 23(9): e3003372.**

Read the open access article [here](#) and The Conversation article [here](#).

Excited to announce another important paper from us showing systematic barriers in academia, published in *PLOS Biology*. Women, non-native English speakers and researchers from low-income countries are disadvantaged in science but by how much? In this paper we found that women with non-English first languages from low-income countries publish up to 70% fewer in English than their counterparts (Figure 1). Men with non-English first languages from low-income countries publish up to 58% fewer in English, than their counterparts.

Obviously this does not reflect the true productivity of researchers facing gender, economic and language barriers, as they face tremendous hurdles when conducting various scientific activities, as we previously showed in [this paper](#). Indeed when we included both English and non-English publications, the productivity gap narrowed significantly. Non-native English speakers and researchers from lower-income countries often publish more papers overall

than their native English-speaking, high-income counterparts. We should stop using metrics based solely on publications in English to evaluate the performance of researchers. Instead we should focus on what is published, not just where, as advocated by [DORA](#).

Scientific productivity gap based on English papers

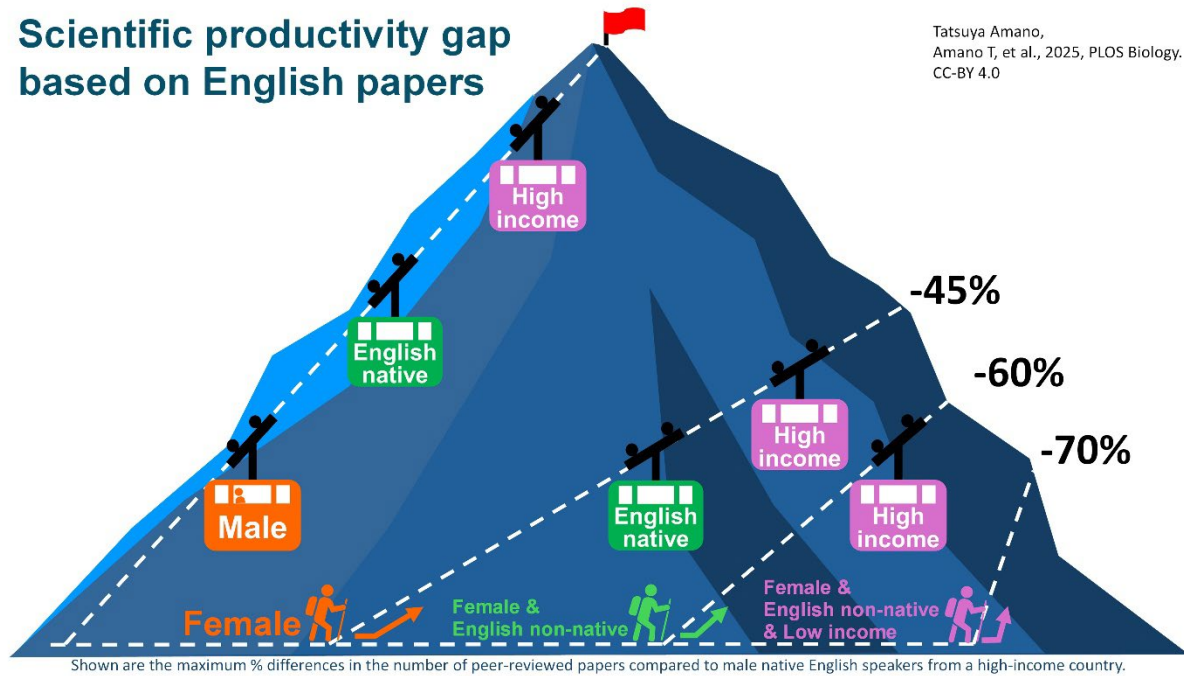


Figure 1. Scientific productivity gap based on English-language peer-reviewed papers. Shown are the maximum % differences in the number of peer-reviewed papers published by female native English speakers from a high-income country (-45%), female non-native English speakers from a high-income country (-60%), and female non-native English speakers from a lower-middle income country (-70%), compared to male native English speakers from a high-income country (red flag).

3. New perspective article: Amano, T., Bowker, L. and Burton-Jones, A. (2025) AI-mediated translation presents two possible futures for academic publishing in a multilingual world. PLOS Biology 23(6): e3003215.

Can we imagine a future in which everyone can use their own language to write, assess and read science with the help of AI?

Read [our new perspective article](#) published in PLOS Biology to see why we believe this is the future of academic publishing.

Great collaboration with Lynne Bowker and Andrew Burton-Jones!

4. New paper: Burton-Jones A, Tatsuya A, Boyce J, Chau, P, Feng J, Guzman IR, Jarvenpaa S, Li J, Namvar M, Padmanabhan B, Richet JL, Sarker S, Seidel S, Sharma S, Vogel D, Wang H, Yoon, V. This Article is Not Just in English: Making Science More Inclusive and Impactful with Artificial Intelligence Translation. 2005, *Australasian Journal of Information Systems*.

With AI translation tools advancing rapidly, in this paper we ask what truly multilingual science could look like and how we might get there. We also experimented with multilingual review/publishing in this paper.

Read the open access article [here](#).

5. Update: multilingual synthesis on vertebrate population trends

In our ongoing global collaboration, we have been synthesising scientific literature in English as well as scientific and grey literature in non-English languages on vertebrate population trends following the pre-determined eligibility criteria suitable for the [Living Planet Index](#). Read the synthesis protocol [here](#).

Thanks to the tremendous efforts of 41 multilingual collaborators, we now have preliminary results. Please note that the outcomes of the supplementary searches are not included in the results below, and the French language data is incomplete as one collection of articles is still undergoing data extraction.

We find that non-English languages predominantly constitute the language of publication of vertebrate population trends in most study countries/regions, with China, Germany, Hungary, Japan, Poland and Russia having between 55% and 80% of their relevant documents in the local language (Figure 2). The exceptions are France and French-speaking Africa, where relevant documents in French account for less than 10% of the total. Publications in English and Spanish in Latin America are tied with 271 and 270, respectively.

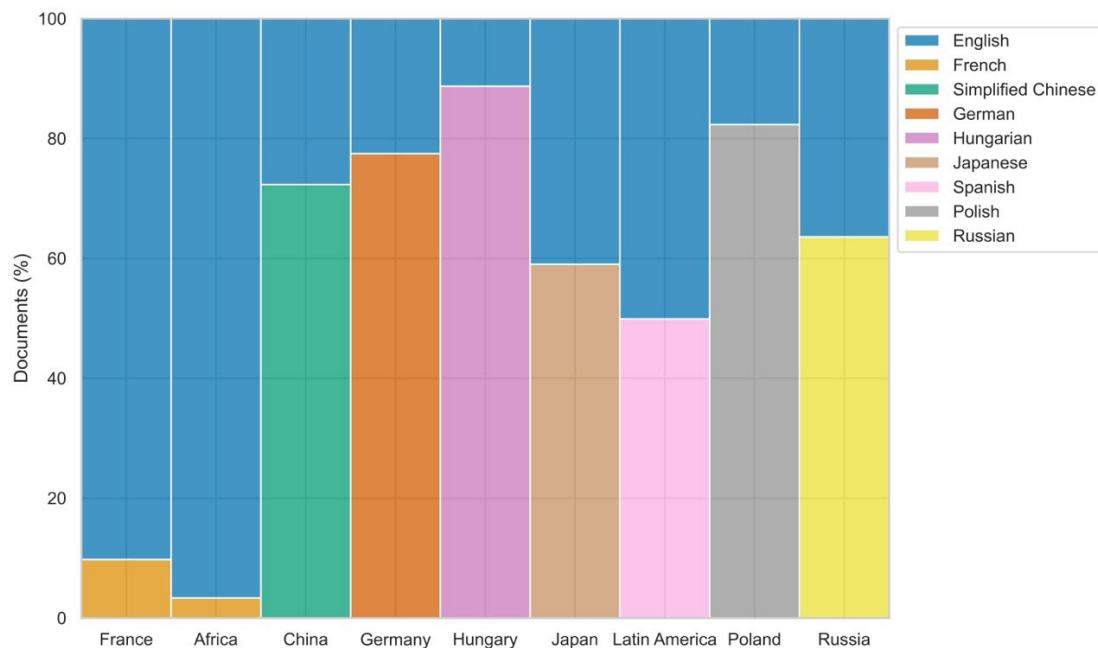


Figure 2. Number of relevant documents published in English and non-English languages per country/region.

The document level patterns are also reflected in the geographic distribution of populations studied in those documents (Figure 3) with non-English languages covering locations poorly studied in English.

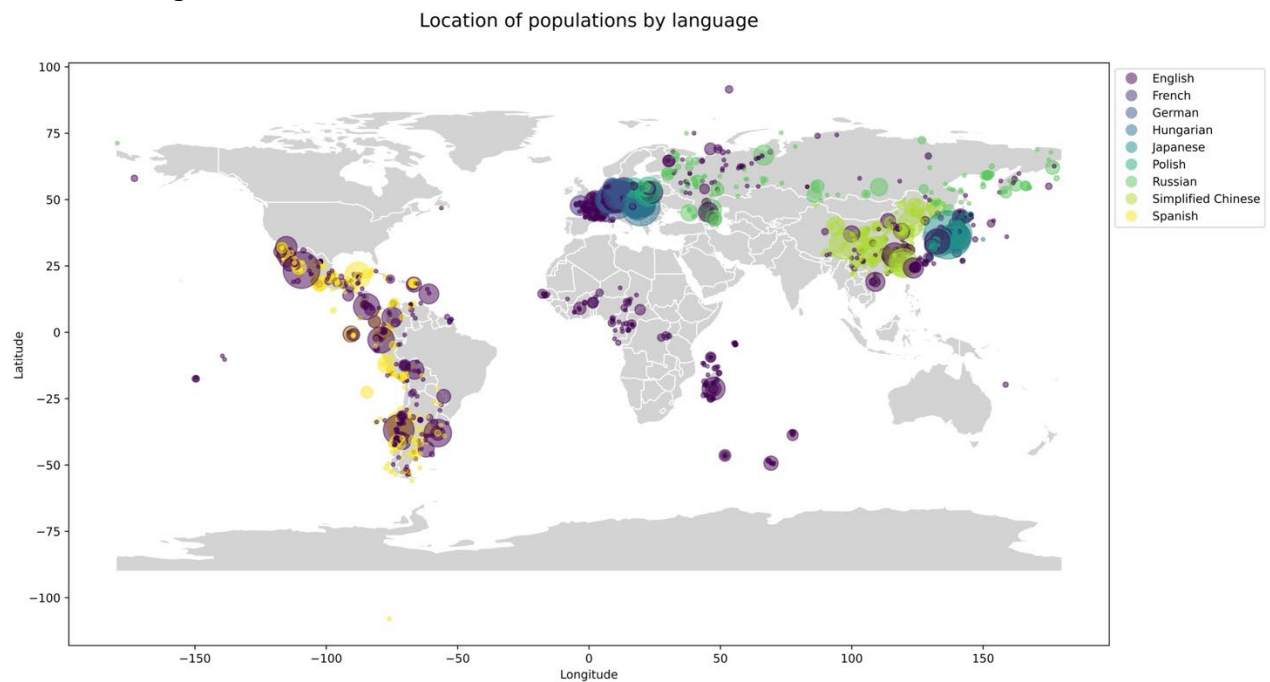


Figure 3. The locations of populations studied in relevant documents in English and non-English languages. Colour indicates the language of the source (English, French, German, Hungarian, Japanese, Polish, Russian, Simplified Chinese, Spanish). Larger bubbles represent a larger number of populations studied in the same location.

We are now working on finalising the synthesis and the analysis of the collected data. Once again, this massive work would not be possible without YOU! **THANK YOU** 🐦 🌐 🌍

6. Presentation at the 5th Helsinki Initiative Webinar on Multilingualism in Scholarly Communication

Tatsuya delivered his presentation “Language, economic and gender disparities widen the scientific productivity gap” at the 5th Helsinki Initiative Webinar on Multilingualism in Scholarly Communication.

Watch the recording [here](#).

7. Presentation at a UQ library event “The Promises, Perils and Possibilities: AI in Research and Scholarly Publishing”.

Tatsuya delivered his presentation “How can we leverage AI to overcome language barriers in Science?” and contributed to panel discussion with other speakers at a UQ library event “The Promises, Perils and Possibilities: AI in Research and Scholarly Publishing”.

See the library page [here](#) and watch the [recording](#).



8. Media coverage: Nature Career Podcast

Nature's Changemaker podcast series features our work on language barriers in science and the role of AI:

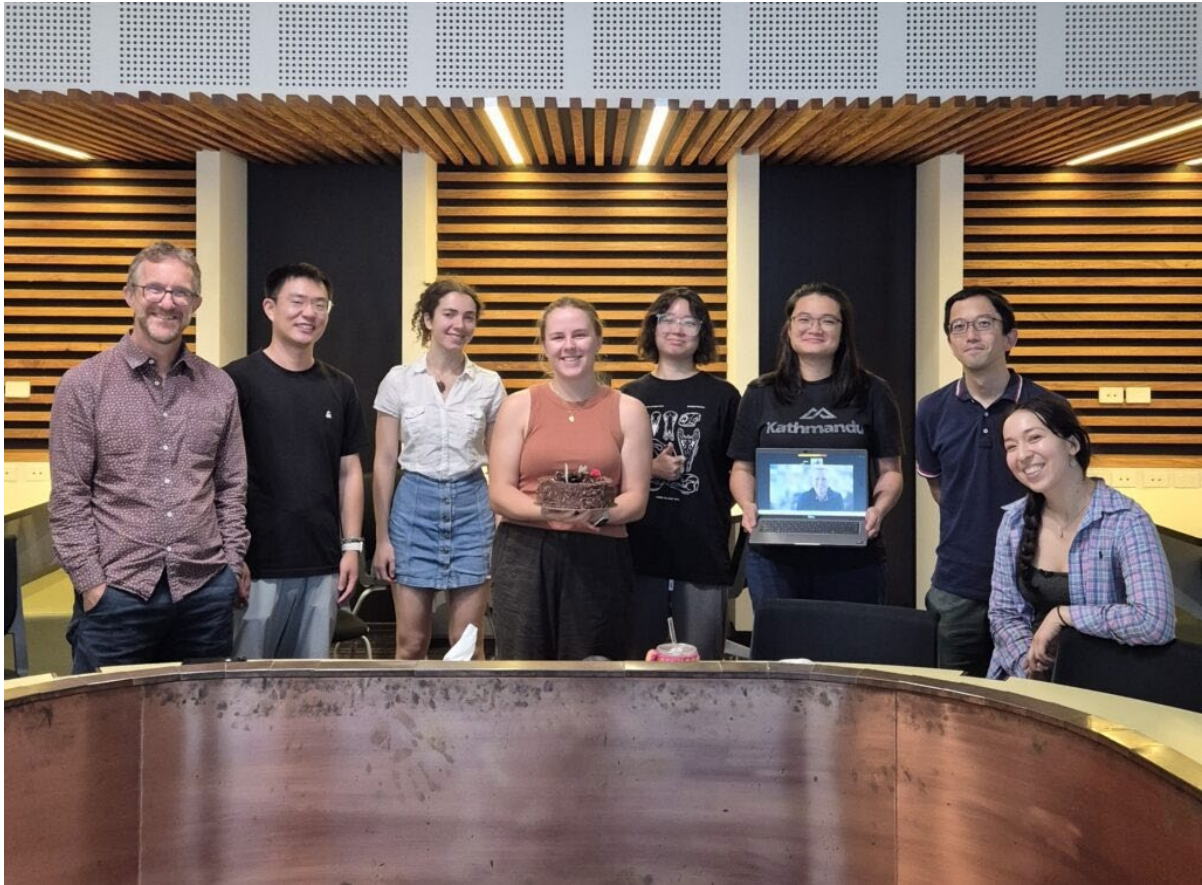
Read the coverage [here](#), and listen to Tatsuya's interview [here](#).

9. Big congratulations to Kelsey for passing her PhD examination!

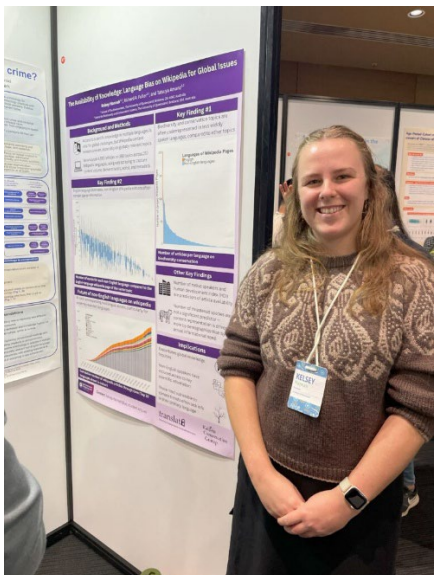
Lastly, big congratulations to Kelsey Hannah on successfully completing her PhD on 22nd Oct 2025! She passed her examination with no correction and is likely be the first person in the world to receive a PhD on language barriers in conservation.

Back in 2021 she was brave enough to join a new lab with only a few members AND to start PhD on a topic that no one had ever worked on before. Since then she has been extremely efficient and productive, learning a wide range of approaches in metascience, being an important member of the lab and translatE, and also completing a placement at CSIRO.

She has published the first two chapters in [Research Synthesis Methods](#) and [Conservation Biology](#). She was also awarded the best student presentation at ESA2024 and the 3rd place in the student best poster at ICCB 2025 - what an achievement! We can't wait to see what's next in your career!

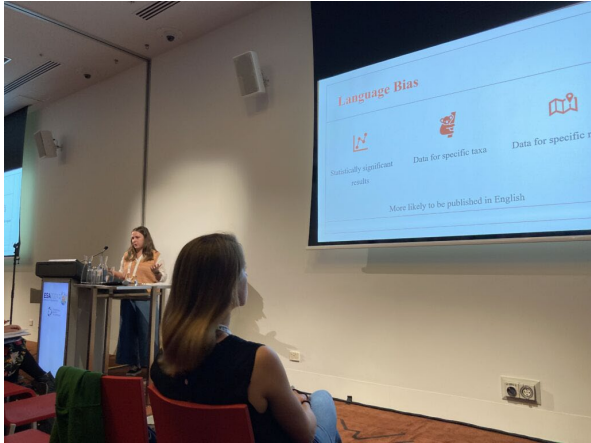


Kelsey with lab members



Kelsey @ICCB2025





Kelsey @ESA2024

Thanks for reading our latest project update. We hope you all had a great start of the year!