

# Advancing pollinator science: A new global and integrative research platform

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## Background

Pollinators comprise a taxonomically diverse group – including insects, mammals, birds, and more rarely, amphibians, reptiles, and even gastropods – that support wild plant communities and underpin global food production systems (Klein et al. 2007; Rader et al. 2015; Siopa et al. 2024). However, numerous pollinator populations are undergoing rapid declines across multiple regions and ecosystems (e.g., Regan et al. 2015; Potts et al. 2016; Seibold et al. 2019; Warren et al. 2021; Stewart et al. 2024). These declines stem from interacting anthropogenic pressures (Fig. 1), including habitat loss and fragmentation, pol-



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lution, climate change, land-use intensification, and the spread of pests and pathogens (Dicks et al. 2021). Understanding the combined effects of these pressures is essential for developing effective and scalable mitigation strategies that can be implemented across sectors – ranging from policy, education and land management to agricultural practice and community-led conservation (Potts et al. 2011; Hölting et al. 2022; Stout and Dicks 2022).

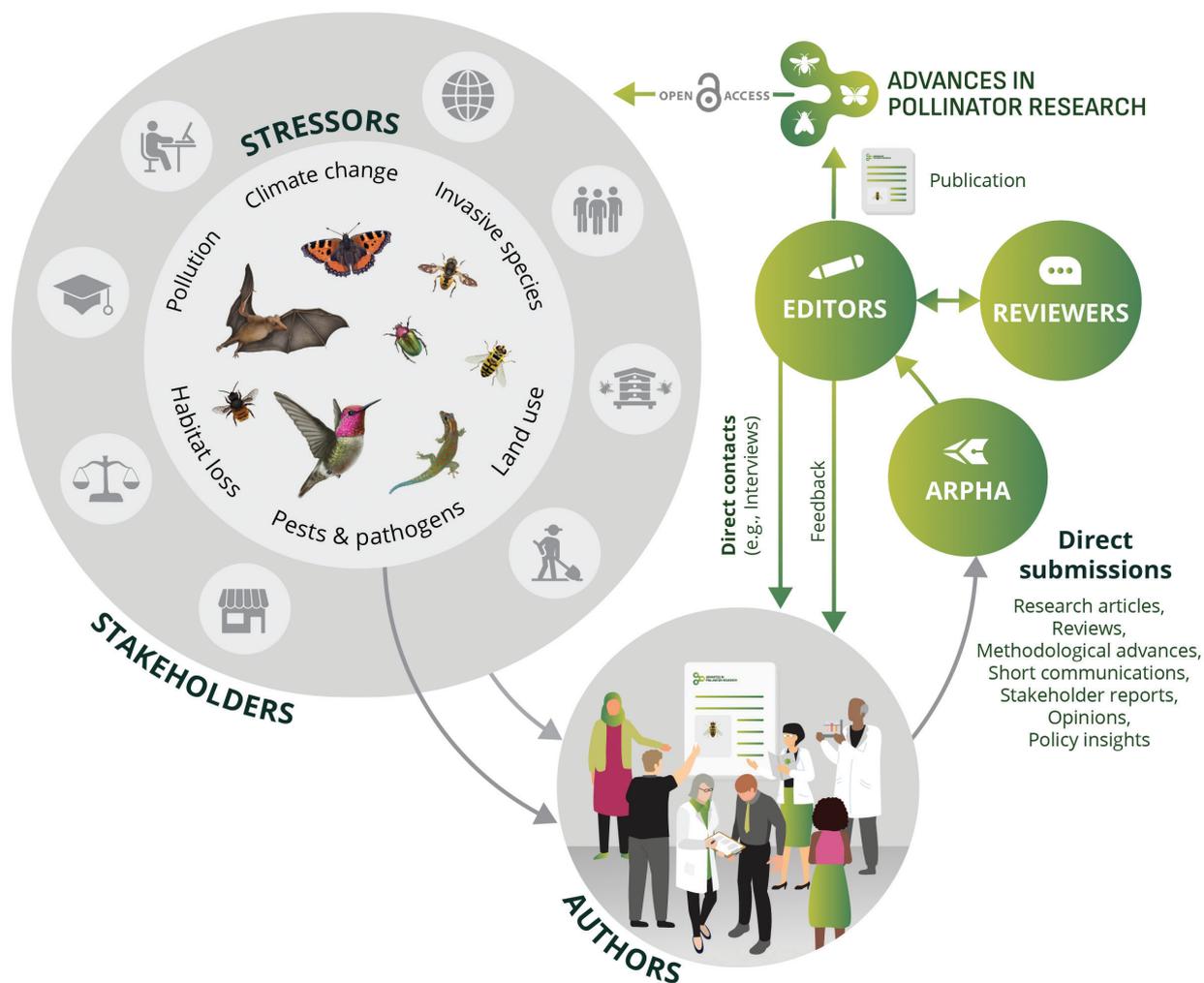
Pollinator research encompasses much more than the study of environmental stressors and the conservation of these vital organisms. It spans fundamental biology, ecological interactions, evolutionary processes, agroecological systems, economics, cultural relationships, and social dimensions. However, current research and management efforts remain fragmented: studies sometimes focus on single taxa, ecological scales and socio-economic contexts – separated by disciplinary boundaries, specialised funding schemes, and siloed publication landscapes. As a result, the pollinator evidence base is fragmented and biased, with a disproportionate emphasis on Europe and North America, bees, agricultural systems, and crop pollination. *Advances in Pollinator Research* (APR) seeks to address these imbalances by encouraging research from underrepresented regions, taxa, and ecological contexts.

Meeting the global challenge of pollinator losses requires an environment where information flows openly and easily between fields, helping transdisciplinary collaboration – with farmers, Indigenous communities, policymakers, industry, NGOs, and citizen scientists – to become central to knowledge co-production. A dedicated platform that integrates different perspectives, encourages methodological transparency, and provides global access to research is therefore essential.

## Mission

*Advances in Pollinator Research* was founded to transform how pollinator science is shared and translated into real-world action. APR offers the first comprehensive platform that unifies biological, environmental, socio-economic, and governance dimensions of pollinator health. The journal bridges fundamental and applied science, linking molecular biology, ecology, evolution, conservation, agroecology, ecosystem services, behavioural, economic and social sciences with policy development, agricultural management, commercially managed pollinator operation practices and community-based conservation. By adopting this holistic approach, APR recognises pollinators as integral to ecosystem functioning, agricultural resilience, cultural values and human well-being (Potts et al. 2016; Feuerbacher et al. 2025).

APR embraces both past experience, as well as emerging and future directions in pollinator research. While we welcome submissions focusing on conventional approaches, we also highly encourage publications applying innovative methods, such as automated monitoring systems, AI-assisted analytics, molecular and genomic tools, large-scale network initiatives, and open databases that increase FAIR (Findable, Accessible, Interoperable, and Reusable) data dissemination across regions and taxa. Crucially, APR values research co-produced with those who directly influence pollinator outcomes – land managers, farmers, indigenous leaders, conservation groups, entrepreneurs, and citizen scientists (Fig. 1). As such, APR is not only a publication venue, but also a participatory forum for catalysing open dialogue, knowledge exchange, and a resource for collective problem-solving.



**Figure 1.** Overview of Advances in Pollinator Research (APR): Figure illustrating the scope and publishing process of the APR journal, showing the diversity of pollinators, the multitude of stressors affecting them, and the various stakeholders interacting with them. Stakeholders investigating these topics can disseminate their ideas and results to the journal through various article types. To do so, authors submit their manuscripts via the innovative ARPHA (Authoring, Reviewing, Publishing, Hosting, and Archiving) platform. Subject editors find and communicate with reviewers to agree on realistic deadlines for providing feedback. Editors can also contact authors directly regarding specific article types, including interviews with early-career researchers, legacy articles, and special issues. Once the double-blind peer review process is complete, authors are informed of the editorial board’s decision. Accepted manuscripts are published promptly and widely disseminated via APR and Pensoft’s well-established global channels.

### Features and editorial principles

APR is built on scientific excellence, transparency, equity, and constructive peer review. The journal implements a supportive double-blind peer-review process designed to strengthen manuscripts rather than merely assess them. Reviewers and editors are encouraged to provide clear and constructive feedback, while reviewers may adjust deadlines within reasonable limits to ensure quality while maintaining a fair timeline for authors. Openness and reproducibility are core to APR’s publishing values. The journal promotes impartial editorial decisions, clear and open reporting standards, and the sharing of data, code, protocols, and software whenever feasible. These FAIR practices can increase research credibility and accelerate progress across sectors and regions.

APR supports a broad range of publication formats to reflect the diversity of pollinator science and the communities shaping it (Fig. 1). Alongside research articles and reviews, the journal welcomes methodological advances, short communications, commentaries, co-produced stakeholder reports, opinion and perspective pieces, 'matters arising', book reviews, policy insights, student dissertation-derived articles (e.g., M.Sc. theses), early-career researcher interviews, and legacy papers that capture long-term expertise and the evolution of pollinator science. This diversity aims to foster evidence-based action, inclusion, and facilitate knowledge exchange among generations, disciplines, and cultures.

### Equity and global access

Pollinator diversity is the highest in the Global South (Ollerton 2017; Lopes et al. 2021; Ocampo-Ariza et al. 2023), where research resources and access to publication support often remain limited. These same regions are disproportionately affected by ecological degradation, climate change, and threats to food security (Zabel et al. 2019; Ngcamu 2023). Reducing regional knowledge inequities is therefore not only a matter of fairness – it is a scientific imperative for filling evidence gaps and understanding the heterogeneity of pollinators.

APR aims to lower publication barriers linked to open-access fees, language, methodological resources, and participation in scientific networks. By promoting equitable publication and shared knowledge, APR aims to help close persistent data gaps that undermine conservation and management and policies globally. As the journal grows, APR aims to meet indexing standards for Scopus and Web of Science to ensure global discoverability, greater citation reach, and recognition of the innovative research emerging from diverse authors and regions.

### Community-driven initiative

While still growing, APR's editorial board aims to reflect the interdisciplinary and international nature of its mission. The editorial board includes researchers and experts from a wide range of disciplines, geographical regions, and fields of expertise, supported by a wider advisory panel of well-established international experts to provide strategic and scientific guidance. APR is further committed to early-career development by offering dedicated publication formats, mentoring opportunities, and expedited review processes for manuscripts derived from student theses and dissertations. Through these supportive initiatives, emerging scholars can help shape the future of pollinator science from the outset of their careers.

### Conclusions and perspectives

Pollinator research spans from genes to landscapes, and from local practices to global market systems. This complexity makes the field both challenging and indispensable in the face of biodiversity loss (Cardinale et al. 2012), climate change (IPCC 2023), pressure on food systems (Hasegawa et al. 2021; Singh et al. 2023), as well as new emerging threats such as plastic pollution and antibiotic contamination (Li et al. 2017; Sheng et al. 2024; Müller et al. 2025). Now,

more than ever, the diverse fields of pollinator science need to better collaborate across disciplines and communities to advance pollinator research globally. APR aims to catalyse this transformation by fostering rigorous, integrative, and inclusive science and by enhancing connections between research, practice and policy. Through global collaboration, equitable access, open dialogue, and innovative methodologies, APR strives to accelerate the generation of solutions that protect pollinators and their habitats. We invite researchers, practitioners, policymakers, stakeholders and communities to contribute to a shared scientific foundation that safeguards pollinators and the ecosystems we depend on. Together, we can build a stronger, more actionable knowledge base needed to protect pollinators and secure a resilient future for nature and people.

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## Additional information

### Conflict of interest

The authors have declared that no competing interests exist.

### Ethical statement

No ethical statement was reported.

### Use of AI

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### Author contributions

Conceptualization: TM, PS, LS, AB. Visualization: AB, TM, LS. Writing – original draft: AB & LS. Writing – review and editing: PS, CG, PT, RHP, LTC, AP, PC, CK, PLK, LTG, FLE, LVB, TM, TD, BR, SE, JO, NW.

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## Data availability

All of the data that support the findings of this study are available in the main text.

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