

Final event - AI-based tools for taxonomy

27th April 2026 | Brussels, Belgium

Monday 27th of April 2026			
Date	WP/Task n.	Description	Convener
14:15-15:45			
Advances on tools for taxonomy (Auditorium)			
14:15 - 15:00	Taxonomic information meets Biodiversity challenges	Panel on AI-based tools for taxonomy	Michael Maggee (NHMD), Laurens Hogeweg, Jessica Awad & Leonie Baier (Naturalis), Hannes Ledegen (Natuurpunt.be/Observation.org)

Aims:

This panel will begin with four short pitches, followed by a discussion on how AI is transforming biodiversity research and citizen science. Topics include the current impact of image recognition, advances in sound recognition for monitoring, and the needs of taxonomists using these tools. The session will also explore future developments in AI and what can be expected in the coming years.

Moderator



Michael Magee is a biologist and project manager at the Natural History Museum of Denmark. He works in science communication, focusing on engaging young people with nature through citizen science. His work emphasizes improving biological literacy and encouraging public participation in biodiversity research. He is the leader of WP10 - Communication and Dissemination.

Panellists

Jessica Awad is a researcher at Naturalis Biodiversity Center in Leiden, specializing in insect dark taxa, highly abundant and diverse groups in which most individuals are unidentifiable to species. Her research focuses on developing diagnostic resources and accelerating discovery of the unknown European fauna, especially parasitoid wasps and gall-inducing flies. Through integrative taxonomic methods including computer vision and AI-assisted text mining, her work connects natural history collections and literature to applied problems in agriculture, biogeography, and biodiversity loss.





Hannes Ledegen works at the scientific division of Natuurpunt, an NGO that owns, maintains and studies 30.000 hectares of nature in the North of Belgium. Natuurpunt was the first partner to adopt Observation.org as their platform for biodiversity monitoring in 2008. Hannes coordinated projects to bridge the gap between the needs of Scientists and Citizen Scientists through innovative technological tools. AI plays a central role in almost all of these tools, the most notable ones being the current version of the mobile app Observation.org, ObsIdentify. With 1.5 million annual users, this mobile application combines AI image recognition with Hannes' vision on gamification and other aspects to motivate users and nudge their behaviour towards the data we need.

Laurens Hogeweg is the technical lead of the AI team at Naturalis Biodiversity Center. Within the AI team he coordinates the development of AI models for biodiversity and their practical application in research and citizen science. Laurens has extensive experience developing these models as he originated the AI models behind the mobile app ObsIdentify and the insect camera DIOPSIS. Besides doing research and development to further improve these AI models he coordinates the integration of AI into software infrastructures that make it easy for researchers to develop and use AI models themselves.



Leonie Baier is a neuroethologist and bioacoustician who never quite stopped wondering what the world sounds like to a bat. She works at Naturalis Biodiversity Center, the Netherlands' national research institute for biodiversity, where she moved from fundamental research to conservation impact, using sound-based machine learning to tackle real-world challenges. As part of the EU-funded MAMBO project, she is establishing the first pan-European bat acoustic dataset and developing a continent-wide AI classifier for bat calls. Leonie is also a founding member and administrator of GloBat: Advancing Bat Conservation Through Artificial Intelligence, a global scientific collaboration network accelerating the development and application of AI tools for bat acoustic monitoring and supporting more effective conservation decisions.