

The pollinator information network newsletter



March 31, 2025. Vol. 8, Issue 1

Welcome to the first issue of volume 8 of the *Pollinator Information Network Newsletter*

The *Pollinator Information Network Newsletter* is one of the key outputs of the “Diversity of Pollinating Diptera of the Afrotropical Region” (DIPoDIP) project, funded by the Belgian Development Cooperation in collaboration with the AfricaMuseum (Royal Museum for Central Africa).

In this issue, we shine a spotlight on three new South African PhD students funded through the DIPoDIP project, Thandwa Dlamini, Ben de la Fontaine and Arjan Engelen.

We cover the study visit of Kurt Jordaens (AfricaMuseum) to the [African Natural Heritage Research Trust](#) in Leominster (UK) and report on our fieldwork at the Lajuma Nature Reserve and Nthakeni Nature Reserve in December 2024, and at Tswalu Kalahari Reserve in February 2025. John Midgley of the KwaZulu-Natal Museum (South Africa) reports on the first discussion meeting on the development of a new Biodiversity plan for the KwaZulu-Natal Province in South Africa.

Looking ahead, we are excited to announce that the [XXIV ESSA congress](#) of the Entomological Society of Southern Africa will take place from 8-11 July 2025 at the University of Free State, Bloemfontein Campus, South Africa. A large delegation of DIPoDIP partners and students will be present!

Last but not least, we announce our sixth entomological training course that will be held at the Grootbos Private Nature Reserve, in the Western Cape of South Africa from 13-24 October 2025. More information on the call, as well as an application form, can be obtained from the [PINDIP website](#) and soon also from the [AfricaMuseum website](#).

We invite everyone interested to contribute to the *Newsletter*. Submit summaries of your research, publications, relevant literature, upcoming conferences, symposia, or opportunities for collaboration and grants related to plant-pollinator networks by June 31, 2025. We hope you enjoy this first issue of Volume 8!

Warm regards - The DIPoDIP Team

Would you like more updates on the DIPoDIP project ?
follow us on Facebook and Instagram !



<https://www.facebook.com/pollinatingdiptera/>



[dipodip.africa](https://www.instagram.com/dipodip.africa)



Spotlight: PhD student Thandwa Dlamini - University of Pretoria & KwaZulu-Natal Museum, South Africa

Thandwa Dlamini



My name is Thandwa Dlamini from the Kingdom of Eswatini and I have been working in the University of Eswatini as a laboratory technician in the Crop Production Department, Entomology laboratory. I have been involved in support teaching by demonstrating practical techniques essential for studying insects and for other modules including microbiology, plant pathology and weed management. I have over 10 years' experience in the field of Entomology and I developed a huge passion for Entomology from my undergraduate studies and hence, the decision to pursue a career in entomology. While working at The University of Eswatini I have had the opportunity to work and collaborate with experts in the field of entomology and gained valuable research skills (project planning and management, data analysis, writing, presenting and teaching). I developed a strong background in taxonomy, ecology, and applied research in Entomology helping students in designing and management of their research projects. I have worked on a study on genetic diversity of stemborers in Eswatini and have work that has been published in that regard.

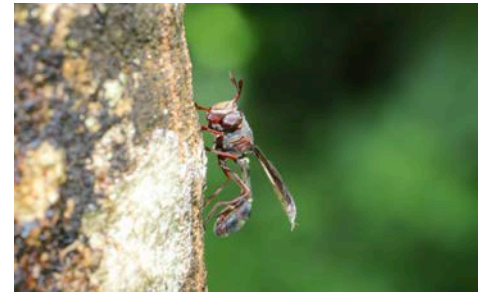
I have an Msc in Entomology from Stellenbosch University in South Africa and my Msc project studied the prospects for using Entomopathogenic Nematodes as a Biocontrol Agent against Western flower thrips *Frankliniella occidentalis* (Thysanoptera: Thripidae). From this study I gained in-depth skills in morphology perfecting my microscope skills and basics in molecular entomology; biological control especially the use of Entomopathogenic nematodes in laboratory bioassays and in the field and a published first author.

I have been selected as one of the recipients of the DIPoDIP 2 project scholarships to do a PhD in Entomology and my research will be entitled Taxonomic revision, biogeography and distribution modeling of the hover fly genus *Monoceromyia* (Syrphidae, Eristalinae) and I will be supervised by Dr. John Midgley (KwaZulu-Natal Museum, South Africa), Prof. Catherine Sole (University of Pretoria, South Africa) and Dr. Kurt Jordaens (AfricaMuseum, Belgium). This PhD project aims to revise the taxonomy of the Afrotropical representatives of the wasp-mimicking genus, *Monoceromyia*. The taxonomic revision will be the basis for further research in the PhD, focusing on the ecology, distribution and systematics of *Monoceromyia*. The project offers an opportunity to be a well-trained entomologist in different areas of study in Entomology including taxonomy, molecular entomology and phylogenetics and species distribution modelling.



I am grateful to have been granted this life changing career opportunity by the DIPoDIP project to further my PhD studies where I will be able to expand my scientific knowledge and showcase my passion for research in the entomology field. I hope to contribute significantly to the success of this project and be part of the team of young entomologists trained by the project to identify Afrotropical Diptera.

My greatest desire is to mentor future generations of entomologists in Eswatini and outside my country and contribute to the entomology field by becoming a researcher doing impactful research and create future collaborations with entomologists globally.



An Afrotropical representative of the hover fly genus *Monoceromyia*. The larvae of these species live in sap streams of trees © Terence Bellingan.



On iNaturalist one may find very nice pictures of Afrotropical *Monoceromyia* species. Left: iNaturalist observation 105212331; middle: iNaturalist observation 10992661 ; right: iNaturalist observation 140809039.



Spotlight: PhD student Ben de la Fontaine - University of Pretoria & KwaZulu-Natal Museum, South Africa

Ben de la Fontaine

I am Benjamin de la Fontaine, entomologist and PhD student at the KwaZulu-Natal Museum in Pietermaritzburg and the University of Pretoria. My research focus is the taxonomic revision of the Afrotropical nose fly genus *Rhyncomya* (Calliphoridae: Rhiniinae) as part of the DIPoDIP project.

I graduated with a joint BSc in Entomology and Botany, and presently a MSc in Entomology, at Rhodes University in Makhanda. Before transferring to the DIPoDIP Project, I worked on an international biological control project for invasive grasses at the Centre for Biological Control in my capacity as a postgraduate student. It was during this time that I became interested in the systematics of gall midges (Cecidomyiidae) and used genetics and morphology to identify several new species, some with potential biocontrol applications. I have also published and presented research on the fire ecology of southern African mound termites (Termitidae).



Rhyncomya and other nose flies are thought to be an important guild of pollinators. The genus occurs throughout Africa, Europe and Asia, but is most speciose in the Afrotropical region. My goal for the next three years is to expand the collection of Afrotropical *Rhyncomya* to include their unusual termitophilous larval stage and link these to the adult stage, which has never been done before. This will involve next-generation sequencing techniques and biogeographic modelling of the distributions of *Rhyncomya* species and their termite hosts. In the process, I will revise the taxonomy of the genus based on phylogenetic relationships and larval-adult morphology, and produce a comprehensive key for the whole Afrotropical region.

When I am not in the lab or at work in the field, I enjoy hiking, climbing, and identifying animals, plants and fungi of all sorts.



Some *Rhyncomya* specimens from South Africa from iNaturalist. Left: observation 161049824, middle: observation 235160083, right: observation 149984583



Spotlight: PhD student Arjan Engelen – Department of Botany and Zoology, Stellenbosch University, South Africa

Arjan Engelen



I am Arjan Engelen, a freshly enrolled PhD Zoology student at Stellenbosch University. My PhD work will focus on the evolution of visual system diversity in a group of keystone fly pollinators, and the influence of this diversity on the evolution of uniquely prevalent petal spot patterns in the mass-flowering daisies of the Greater Cape Floristic Region (GCFR). This is the kind of research that I have been eager to dive into since my first exposure to the spring daisy displays as an undergraduate student. The previous work of my supervisor, Prof. Allan Ellis, showed that the complex spots in one of the dominant annual daisy species in the GCFR evolved in a sexually deceptive context, where petal spots mimic female *Megapalpus* bee flies to elicit pollinating visits from mate-seeking males. My goals with this PhD are to test whether this idea is generalizable to other daisy and fly taxa in the GCFR, and to identify the drivers of visually directed fly behaviour that may lead to the evolution of sexually deceptive pollination systems.

My interest in the Cape daisy pollination systems began with an impromptu springtime camping trip to the West Coast National Park as a second-year student. Coming from the suburbs of Johannesburg, I had heard of the spectacle of the Cape daisies, but I did not anticipate how enamoured I would become with the intricate details of the flowers, nor the fuzzy and mustachioed creatures that bounced so frantically between them. These interests solidified when I attended a set of lectures on the GCFR daisy systems delivered by Prof. Ellis in my third year, and I approached him to enquire about opportunities for pursuing research in this field.

Prof. Ellis has since taken me under his wing, providing ample opportunities to explore and contribute to our knowledge of the Cape daisy pollination systems. I have worked as a research assistant on several projects run by him and his colleagues - documenting floral variation, characterizing flower visitor communities, and exploring the role of fly pollinator behaviour in the diversification in Cape daisies. Although I devised my own research project on this topic for my Honours year, the COVID-19 lockdown forced me to undertake a desk-based project instead. Not ready to let the subject go, I expanded on the original idea in my MSc work, which I began in 2021 and completed in 2024. During my MSc, I was fortunate enough to be awarded a scholarship for a course in dipteran taxonomy and systematics, organized by the AfricaMuseum (RMCA). This course provided me with training in the ecology and identification of pollinating flies, which was integral to completing my MSc work, and which will certainly come in handy for my upcoming PhD fieldwork. My PhD has also been generously funded by the RMCA and the Directorate-General for Development Cooperation and Humanitarian Aid in Belgium, granting me the opportunity to pursue my passion in acquiring and disseminating deeper knowledge of South Africa's incredible and understudied dipteran diversity.



Corsomyza species (Bombyliidae) (left: iNaturalist observation 246814082; right: iNaturalist observation 242138464) are important pollinators of Cape daisies of the genus *Dimorphotheca* (middle: iNaturalist observation 265956611).



Study visit to the African Natural History Research Trust

Kurt Jordaens

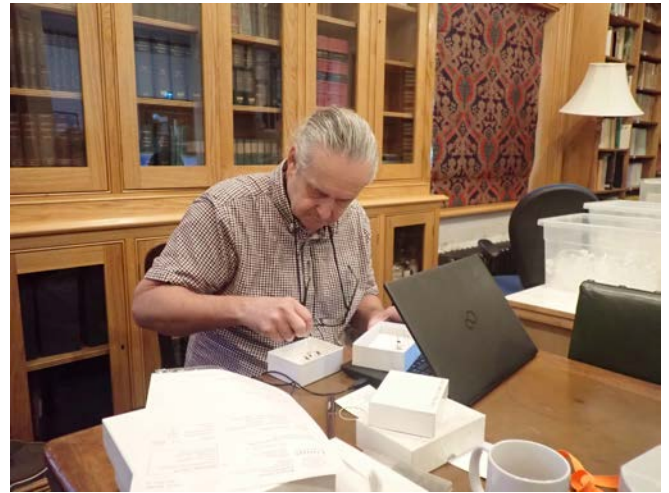


The ANHRT at Herefordshire, UK © RMCA.

The African Natural History Research Trust (ANHRT) was established as a charitable trust in 2010. Based in Herefordshire (UK), the climate-controlled building currently houses nearly 500,000 mounted Lepidoptera specimens and roughly double that number of papered specimens. The dry and wet Diptera collections contain nearly 1 million specimens whilst other orders such as Mantodea, Orthoptera, Neuroptera, Hemiptera and Odonata are represented by tens of thousands of specimens.

The mission of the ANHRT is to promote collection-based faunistic and taxonomic research whilst safeguarding these important collections and scientific resources for future generations.

During the period of January 26–31, 2025, Kurt Jordaens visited the ANHRT to sort and identify hover flies (Syrphidae) and nose flies (Calliphoridae, Rhiniinae). Most of the specimens were collected by Ashley Kirk-Spriggs, senior curator of Diptera at the ANHRT, in the Republic of Congo. This region is poorly known in terms of Diptera diversity. The recently collected material allows us to improve our taxonomic revisions of several genera of Syrphidae (hoverflies) and Rhiniinae (nose flies).



Ashley Kirk-Spriggs is senior curator of Diptera at the ANHRT © RMCA.

During the visit, approximately 1,000 hoverflies were identified to the genus level (with some to the species level), along with around 600 nose flies that were identified to genus level. A portion of the material was taken on loan and will be further studied at the RMCA. These specimens will also be used to expand the RMCA's DNA barcode reference database of Afrotropical hover flies and nose flies.



The impressive climate-condition building at ANHRT showing part of the Diptera dry-collection © RMCA.



Fieldwork at Lajuma Research Centre and Nthakeni

John Midgley & Kurt Jordaens

From November 30 to December 10, 2025, John Midgley (KwaZulu-Natal Museum, South Africa) and Kurt Jordaens (AfricaMuseum, Belgium) collected Diptera at the Lajuma Research Centre and Nthakeni Bush & River Camp in Limpopo Province, South Africa. This region is poorly studied in terms of fly diversity, and this expedition marked our first sampling effort there. Unfortunately, a severe heatwave, with temperatures soaring up to 47°C in the shade, significantly reduced insect activity. Nevertheless, this provides the perfect excuse to return to this stunning area for further exploration!



A view on the montane grassland at Lajuma (left) and part of the Research Centre which offers great facilities to organize training courses © RMCA.

Lajuma (<https://www.lajuma.com/>) is situated 25 km east of Vivo and 45 km west of Louis Trichardt (Makhado) high up in the Soutpansberg Mountain range. The highest peak of the Soutpansberg is situated on the reserve. Lajuma has a surface area of 430 hectares, is rugged and has deep valleys and high cliffs. The reserve is characterized by clear mountain streams and beautiful waterfalls. Vegetation varies from montane grassland to woodland, thicket, and groundwater forest. Due to its location and diversity of soil and climatic zones, the area contains a remarkable diversity of plants and animals. Moreover, the Lajuma Research Centre provides excellent fieldwork opportunities to, for example, students, volunteers and research teams. To date more than 500 students and volunteers ranging from pre-university to PhD candidates to Postdoctoral Fellows have participated in the Lajuma Programme or conducted their own research, publishing over 100 peer-reviewed articles. A great place to collect Diptera and we will certainly stay in touch with the research team!

Nthakeni Bush and River camp is situated in the far north-east of the Limpopo province, near the Pafuri Kruger National Park gate. Situated on the banks of the Mutale river the area has a high diversity of trees, including magnificent Baobab specimens. The area is under strong human pressure with expanding agricultural activities.



From left to right: entrance of the Nthakeni Bush and River camp ; our Malaise trap in a dry river bed ; agricultural field with a marvelous Baobab tree ; semi-natural (though very dry) grassland (left) as compared to strongly grazed grassland (right) © RMCA.



Fieldwork at the Rolfontein Nature Reserve and Tswalu Kalahari Reserve

Genevieve Theron

On the 3rd of February four of us, John Midgley, Kurt Jordaens, Genevieve Theron and Burgert Muller, headed from our various institutions to the Northern Cape for fieldwork. Our first stop was Rolfontein Nature Reserve in Vanderkloof, which is managed by the Northern Cape department of Agriculture, Environmental Affairs, Rural Development and Land Reform. We explored the reserve and decided to set up two 6m malaise traps in a dry river bed surrounded by acacia thorn trees. The next morning, to our surprise, the trap was jam-packed full of flies and we thought we would spend all our time pinning. Unfortunately, the weather did not hold passed the first day and we spend the following days pinning what little material the traps collected and finding fly larvae. This reserve, which was new to all of us, was a pleasant surprise.



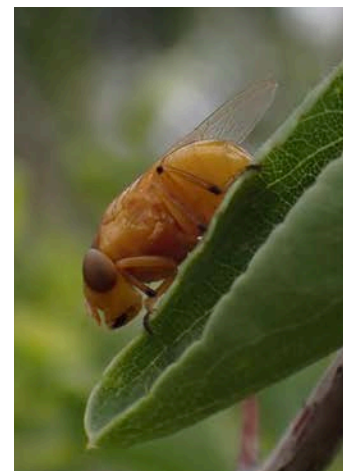
Scenery at Rolfontein Nature Reserve © RMCA.



Entrance gate to Rolfontein Nature Reserve © RMCA.



Malaise trap in a dry river bed at Tswalu Kalahari Reserve © RMCA.



Stegosoma sp. (Rhiniidae) © RMCA.

Next we travelled six hours north-east to the Tswalu Kalahari Reserve. Here we were greeted by red sands and sweltering heat. It had been an incredibly dry season so far and there was not much flowering. We, nonetheless, put up another malaise trap in a dry river bed and hoped for the best. We had some success hand collecting off of the few flowers that were around but the real gems came from a number of flowering *Ziziphus macronata*. This species which is named for the very pointy thorns that face both forward and backwards. Collecting off of these bushes was quite the challenge and a hazard to our field clothes. The several Rhiniidae species found will contribute towards Ben's PhD, the Athorigona species collected will contribute towards a new taxonomic project on the group and an exciting syrphid is the only record for the genus in South Africa.

Before leaving Kurt managed to squeeze in a talk for the rangers and students at Tswalu about the DIPoDIP project and all the work that is being done.



Scenery at Tswalu (top) and Kurt giving a talk to the staff and students at Tswalu (bottom) © RMCA.

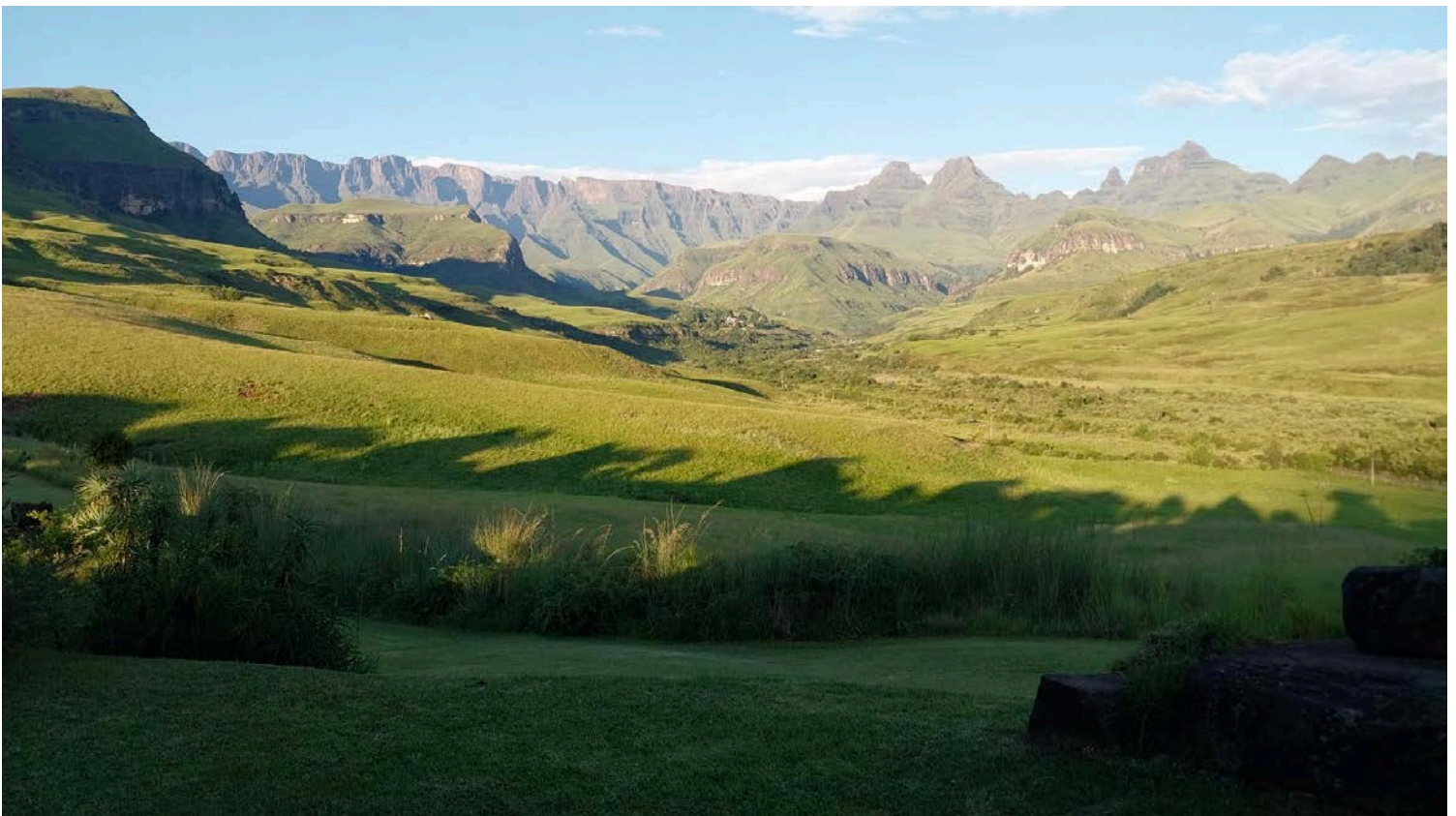


Start of the updated KwaZulu-Natal Biodiversity Plan development process

John Midgley

From 28 to 31 January, John Midgley attended the first discussion meeting on the development of a new Biodiversity plan for the KwaZulu-Natal Province. The meeting was held at the Didima Resort in the Cathedral Peak area of the Drakensberg. The Biodiversity plan is the go to document used by conservation planners in the province, prioritizing areas for conservation and ensuring that developments in the province do not come at an undue cost to biodiversity.

The primary aim of the workshop was to decide on methods for species assessment and development of conservation targets, and the entire process will take about two years to complete. Taking part in these developments is an important goal in the DIPoDIP project, converting the knowledge created through primary research into policy that guides development in KwaZulu-Natal. The process involved discussions about the aims of conservation in the province and breakaway group discussions about specific target taxa. Various DIPoDIP fieldwork and publications in the last five years have increased our knowledge of invertebrates in KwaZulu-Natal, enabling the inclusion of more species in the Biodiversity Plan.



The view from Didima, the stunning Inner and Outer Horn peaks alongside The Bell and Cathedral Peak





24th Congress of the Entomological Society of Southern Africa



The Entomological Society of Southern Africa

8 – 11 July 2025 | University of the Free State, Bloemfontein

Congress Theme

Navigating Progress for a Sustainable Future in an Unpredictable World

Congress Topics:

Agricultural Entomology
Biodiversity, Conservation & Climate Change
Biological Control
Edible Insects & Protein Alternatives
Ecology & Physiology
Medical, Veterinary & Forensic Entomology
Taxonomy, Systematics & Zoogeography
Technological Innovation in Entomology

Key dates:

28 Feb 2025 Online registration opens
17 March 2025 Submission deadline for all abstracts
11 April 2025 Abstract outcome notification to authors
22 April 2025 Provisional Programme available
5 May 2025 Early bird registration closes
27 June 2025 Online registration closes
8 - 11 July 2025 Congress dates



The XXIV ESSA congress will take place at the University of Free State, Bloemfontein Campus © UFS.



Call for applications: Sixth entomological training course: October, South Africa

Organisation:

The training will be organized by several institutions: the AfricaMuseum (RMCA) in Belgium, and the KwaZulu-Natal Museum and Stellenbosch University in South Africa, and be supported by the University of Pretoria and the Burundian Office for the Protection of the Environment (Burundi).

Background:

The objective of this group training is to ensure, for the sake of the African scientists or the persons confronted with the problem, a basic training on the identification and ecology of African Diptera, with special emphasis on those families (e.g., Bombyliidae, Calliphoridae, Nemestrinidae, Rhiniidae, Syrphidae, and pangonine Tabanidae) that have a significant role in plant-pollinator networks.

The training course shall consist of ex-cathedra courses on morphology, classification, identification, identification methods, collection methods, and conservation methods of Diptera, with a focus on the target families listed above. Practical exercises will be used to comment on, and test, the topics presented in the courses.

Participants shall be asked to bring material they collected so it can be identified during practical work sessions. Likewise, should they have large datasets at their disposal, these may also be analysed.

When/where? :

The course will take place at the Grootbos Private Nature Reserve, in the Western Cape province of South Africa from 13-24 October 2025 and be taught in English.

Participant profile and admission requirement:

The training can receive 10-12 participants, among whom researchers and employees who are confronted with pollinating flies on a professional level. They may be employees from agricultural institutes, professors of agricultural faculties, researchers from national or international institutions, etc. Participants must have a minimum level of knowledge in basic Diptera ecology. The candidates' maximum age at the start of the training should not exceed 45 years. Only applications from people with residence in Sub-Saharan Africa and working for an institution, ministry, research institute or university can be taken into consideration. Applications from consultants or individuals cannot be accepted. Candidates must be citizens of one of the following countries: Benin, Burundi, Burkina Faso, Côte d'Ivoire, Cameroon, Democratic Republic of Congo, Ethiopia, Guinea, Kenya, Madagascar, Mali, Mozambique, Niger, Senegal, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe.

Scientists with a diploma other than MSc or PhD. should demonstrate a record of substantial work related to the subject that is presented (Diptera of the target families; plant-pollinator networks, etc.). All applications will be subject to an evaluation by internal experts. Applications are received between 1 April and 10 July 2025 (midnight).

More information :

More information on the trainings organized by the AfricaMuseum can be found on: <http://www.africamuseum.be/research/collaborations/training> . The call and application form can be downloaded from the PINDIP-website: <https://www.pindip.org/trainings>

contact: Kurt Jordaens at [kurt.jordaens\[at\]africamuseum.be](mailto:kurt.jordaens[at]africamuseum.be)



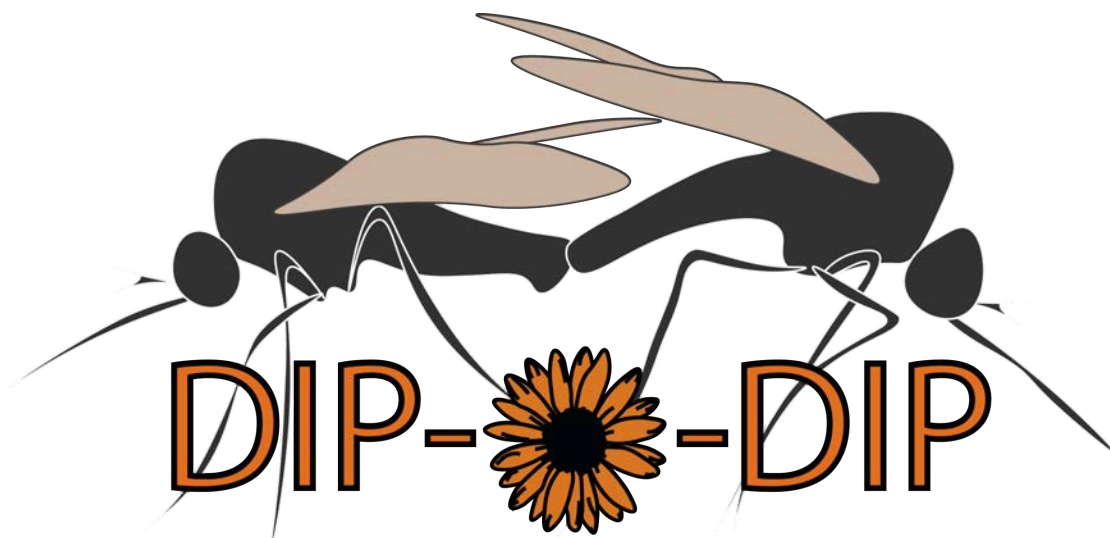


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About the DIPoDIP and DIPoDIP2 projects

The “Diversity of pollinating Diptera in South African biodiversity hotspots” project (DIPoDIP) was a five year project (2019-2023) financed by the Belgian Directorate-general Development Cooperation and Humanitarian Aid through a framework agreement with KMMA. It was a collaboration between the University of KwaZulu-Natal (UKZN), the KwaZulu-Natal Museum (KZNM), Stellenbosch University (SU), the South African National Biodiversity Institute (SANBI), and the AfricaMuseum (RMCA, Belgium). The project is continued as the “Diversity of pollinating Diptera in Afrotropical biodiversity hotspots“ (DIPoDIP2) project (2024-2029) with the following partners: KZNM, SU, the University of Pretoria (UP, South Africa), the Burundian Office for the Protection of the Environment (OBPE, Burundi), the University of Rwanda (UR, Rwanda), and the RMCA. Click on the logos for more information or read more on the project in the forthcoming *PINDIP Newsletters* and on our Facebook page: <https://www.facebook.com/pollinatingdiptera/>



Diversity of pollinating Diptera in the Afrotropical Region

©Genevieve Theron

