CABI Science Report

2024

Issued June 2025

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CABI, as an international intergovernmental not-for-profit organization, gratefully acknowledges the generous support received from our many donors, sponsors and partners. In particular we thank our Member Countries for their vital financial and strategic contributions.

CABI (2025) CABI Science Report 2024. CABI, Wallingford, UK, 69 pp.

Cover photo: Violet Ochieng, Research Officer – Drone Technology, CABI, rears desert locusts to establish an insect colony for experiments testing the efficiency of drones for surveillance and spraying. Credit: Brian Otieno for CABI.

Inside front cover photo: Aflatoxin testing laboratory in Pakistan. Credit: CABI.

Page 11 photo: © CABI (Philip Weyl)

Page 15 photo: © CABI (René Eschen)

Contents

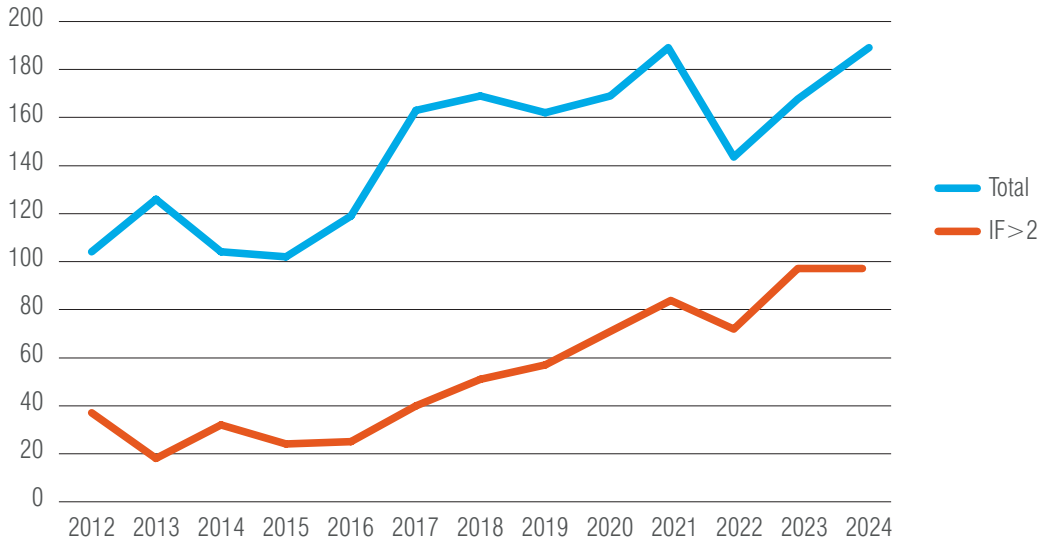
1. Implementing the CABI Science Strategy

In this section we present highlights from a number of areas anticipated in the CABI Science Strategy, 2022–2025, part of it supported by the CABI Development Fund (CDF).

Maintain CABI's annual publication record

It is one of CABI's corporate key performance indicators to produce at least 100 scientific publications each year, of which at least 30 are in journals with an impact factor greater than 2.00 that year. The table below summarizes the listings that are shown later in this report (Section 2), while the graph shows the trend over the last 13 years; it can be seen that we significantly exceeded both targets in 2024.

Scientific publications in 2024	Open access	Not open access	Total
Total number of publications	**155**	**35**	**190**
Number of peer-reviewed publications	147	25	172
Number of peer-reviewed journal publications	122	15	137
Number of publications in journals with a 2023 impact factor >2	87	11	98
Publications with a socio-economic focus	21	3	24
Publications with a development focus	27	4	31
Not peer-reviewed	8	10	18
Books, proceedings and manuals	2	1	3
Book chapters and proceedings papers	25	11	36



Total annual number of publications by CABI staff since 2012, and the number appearing in journals with an impact factor greater than 2.00 (IF>2)

Since 2018, a second CABI corporate key performance indicator has been that at least 15 of our published papers should have a socio-economic focus which should gradually increase to at least 25 publications in 2025. In 2024, 24 publications were considered to almost meet this criterion. Another key milestone since 2022 requires that the top 50 CABI scientists have an average h-index of more than 15. This criterion was met with an average h-index of 22.3 (Google Scholar accessed on 17 May 2024).

CABI's research published open access

In a further CABI corporate key performance indicator, CABI aimed to publish its research open access, specifically all of CABI's core research published in peer-reviewed journals with a CABI staff member lead, or corresponding author should be open access. In 2024, 52 out of 54 such papers (96.3%) were published open access (Section 2.4.2), compared to 48 of 49 such papers (98%) in 2023. The costs were met from projects (when appropriate), CDF and CABI centre budgets.

Support for the preparation of research papers

In previous years, CABI has used CDF funding to support staff time for the publication of selected papers, particularly those arising from completed projects, where resources are not otherwise available. The following papers published in 2024 received support in this way.

Rware, H., **Kansiime, M.K.**, **Mugambi, I.**, **Makale, F.**, Davis, I., Buke, W., **Danielsen, S.**, **Karanja, D.**, **Chacha, D.**, Byskov, M. and Hyams, K. (2024) Examining antibiotic use in Kenya: farmers' knowledge and practices in addressing antibiotic resistance. *CABI Agriculture and Bioscience* 5, 21, 15 pp. https://doi.org/10.1186/s43170-024-00223-4

Tambo, J.A. and Liverpool-Tasie, L.S.O. (2024) Are farm input subsidies a disincentive for integrated pest management adoption? Evidence from Zambia. *Journal of Agricultural Economics* 75(2), 740–763. https://doi.org/10.1111/1477-9552.12582

CABI Scientific Publication Recognition scheme 2024

A Scientific Publication Recognition scheme for CABI's scientists was designed, resourced from the CDF, and implemented since 2017. In 2022, several awards were modified or introduced to align more closely with DORA (The Declaration on Research Assessment) and comments of the 2020–21 external science review. Six awards to recognize achievements in 2023 were made of £2000, each to be spent as the awardee decided in support of CABI's Scientific Strategy.

Marc Kenis

Award 1: The CABI staff member with the largest number of authored/co-authored papers in journals with IF>2 in 2023. **Marc Kenis** – for 11 authored/co-authored papers.

Marc Kenis

Award 2: The CABI staff member (first and/or corresponding author) of the publication from the last five years (published since 1 January 2019) with the most citations (2019 to end 2023 on Google Scholar). **Marc Kenis** – for the following paper: Kenis, M., Plessis, H. du, Van den Berg, J., Ba, M.N., Goergen, G., Kwadjo, K.E., Baoua, I., Buddie, A., Cafà, G., Offord, L., Rwomushana, I. and Polaszek, A. (2019) *Telenomus remus*, a candidate parasitoid for the biological control of *Spodoptera frugiperda* in Africa, is already present on the continent. *Insects* 10(4), 92, 10 pp. https://doi.org/10.3390/insects10040092 (144 citations, Google Scholar accessed 1–2 March 2024).

Justice Tambo

Award 3: The CABI staff member (first and/or corresponding author) with the largest number of socio-economic papers in journals with IF>2 in 2023. **Justice Tambo** – for four papers.

Fernadis Makale

Award 4: The CABI staff early career scientist (no PhD or PhD held less than three years on 1 January 2024) who has published a paper as first author since 1 January 2022 with the most citations in the last two years (2022 to end 2023 on Google Scholar). **Fernadis Makale** – for the following paper:
Makale, F., Mugambi, I., Kansiime, M.K., Yuka, I., Abang, M., Lechina, B.S., Rampeba, M. and Rwomushana, I. (2022) Fall armyworm in Botswana: impacts, farmer management practices and implications for sustainable pest management. *Pest Management Science* 78(3), 1060–1070. https://doi.org/10.1002/ps.6717 (nine citations, Google Scholar accessed 2–3 March 2024).

Yelitza Colmenarez

Award 5: The CABI staff member (first and/or corresponding author) who has published the paper in *CABI Agriculture and Bioscience* or *CABI One Health* with the most citations in the last two years (2022 to end 2023 on Google Scholar). **Yelitza Colmenarez** – for the following paper:
Colmenarez, Y.C., Babendreier, D., Ferrer Wurst, F.R., Vasquez-Freytaz, C.L. and Bueno, A.F. (2022) The use of *Telenomus remus* (Nixon, 1937) (Hymenoptera: Scelionidae) in the management of *Spodoptera* spp.: potential, challenges and major benefits. *CABI Agriculture and Bioscience* 3, 5, 13 pp. https://doi.org/10.1186/s43170-021-00071-6 (29 citations, Google Scholar accessed 2–3 March 2024).

Feng Zhang

Award 6: The CABI staff member (first and/or corresponding author) based in Africa, the Americas or Asia of the publication since 1 January 2022 with the most citations in the last two years (2022 to end 2023 on Google Scholar). **Feng Zhang** – for the following paper:
Singh, G., Xu, J., Schaefer, D., Day, R., Wang, Z. and Zhang, F. (2022) Maize diversity for fall armyworm resistance in a warming world. *Crop Science* 62(1), 1–19. https://doi.org/10.1002/csc2.20649 (17 citations, Google Scholar accessed 2–3 March 2024).

Carol Ellison Science Award

This annual award was introduced in 2021, following a similar format to the Scientific Publication Recognition awards. Named after our late colleague, the Carol Ellison Science Award is given to a student conducting research in the field of biologically-based integrated pest management with CABI, or an early career CABI researcher, with the objective of enriching their research experience with CABI.

The 2024 Carol Ellison Science Award was awarded to **Hettie Arwoh Boafo**, an early career scientist based at CABI in Ghana, who obtained her PhD in 2022. The award was used to catalogue the natural enemies associated with the Asian citrus psyllid (ACP), *Diaphorina citri*, in Ghana. ACP is a polyphagous pest of citrus species and other cultivated plants that damages the plants directly and by transmitting diseases which can be lethal for the trees. Natural enemies associated with ACP are unknown in Ghana and a survey is needed before a classical biological control project is set up. Field surveys for natural enemies of ACP in Ghana were conducted from June 2024 to December 2024 in three regions: Greater Accra, Eastern and Volta. In each of the 54 communities across 18 districts, surveys were conducted at a minimum of ten locations. Samples were taken from commercial citrus farms, backyard citrus and orange jasmine plants (*Murraya paniculata*), focusing on 2nd to 5th instars and mummified nymphs of ACP. The collected nymphs were sent to the biocontrol laboratory at CABI and incubated for 14 days. Parasitoids that emerged from these nymphs were sent for molecular confirmation of their identity. Based on their morphology, four different parasitoids and a hyperparasitoid were identified. Parasitoids were found in all regions visited, occurring on both citrus and orange jasmine (*M. paniculata*) leaves. The parasitism rate exceeded 10% in all regions. Additionally, a syrphid fly was discovered among the samples, along with other predatory insects, mainly coccinellids, and spiders.

Gopi Ramasamy Science Award

Established in 2024, this annual award follows the format of the Scientific Publication Recognition awards. Named in honour of our late colleague, the Gopi Ramasamy Science Award recognizes early career scientists who are working/studying in the field of youth/women empowerment in rural communities or business development.

The first awardee is **Lillian Owembabazi**, a research assistant at CABI in Uganda, with the proposed study 'Piloting business models for enhancing uptake of livestock vaccination and women's empowerment in selected districts in Uganda'. In the context of women smallholder farmers, the research aims to tackle the low adoption of livestock vaccines such as that against Newcastle disease, which is currently reported as the most significant disease of poultry at joint crop and livestock clinics supported by CABI in selected districts in Uganda. A baseline study of 276 female and 127 male farmers was conducted to understand their knowledge, attitudes and practices regarding poultry vaccines, and the challenges they face in accessing them. The study also identified business models for vaccine distribution, participation in community groups and indicators of women's economic empowerment, such as increased access to credit and markets. Following the study, a dissemination meeting with farmers and district officials identified key priority activities. This led to training 60 female and 58 male farmers and three Private Animal Health Workers (PAHWs, all male) on poultry management and health, focusing on vaccination, brooder management, breed selection, marketing and disease management. The PAHWs were equipped with cooler boxes, syringes and starter pack drugs for common diseases. They also developed a business model canvas to guide their operations, promoting healthy competition and collaboration. Due to the absence of female PAHWs in the area, the training was conducted exclusively for males. This study highlights opportunities to explore business models that promote livestock vaccination and shows that poultry farming, primarily done by women, can economically empower them.

Selection of five best research papers

This collection highlights development-focused publications led by CABI scientists, published in 2024 and exemplifying the diverse areas of CABI's expertise. Each publication is open access, features a CABI lead author, and appears in a journal with a 2023 impact factor exceeding 2.0. This collection was originally motivated by the UK Foreign, Commonwealth and Development Office (FCDO) and requested for the annual review of CABI's performance.

CABI authors are shown in bold, and corresponding authors are underlined.

Day, C., **Murphy, S.T.**, Styles, J., **Taylor, B.**, **Beale, T.**, **Holland, W.**, **Williams, F.**, Shaw, A., **Finegold, C.**, **Oronje, M.**, **Oppong-Mensah, B.**, **Phiri, N.**, **Lowry, A.**, **Finch, E.A.**, Mahony, J., **Wood, S.**, **Durocher-Granger, L.**, **Chacha, D.**, **Maczey, N.**, **Gonzalez-Moreno, P.**, **Thomas, S.E.**, **Beeken, J.**, Lewis, J., Lopez Saldana, G., **Duah, S.**, **Bundi, M.**, Wasilwa, L., Amata, R., Musila, R., Mutisya, D., Gitonga, C.K., Kalama, P., Nyasani, J.O., Matimelo, M., Mgomba, H., Gaitu, C., Ocloo, C., Adjei-Mensah, I., Ohene-Mensah, G., Nboyine, J.A. and Susuwele, B. (2024) Forecasting the population development of within-season insect crop pests in sub-Saharan Africa: the Pest Risk Information Service. *Journal of Integrated Pest Management* 15(1), 7, 16 pp. https://doi.org/10.1093/jipm/pmad026

Eschen, R., Kaaya, O.E., Kilawe, C.J., Malila, B.P., Mbwambo, J.R., **Mwihomeke, M.S.** and **Nunda, W.** (2024) Adoption of a sustainable land management practice for invasive *Prosopis juliflora* in East Africa. *CABI Agriculture and Bioscience* 5, 113, 14 pp. https://doi.org/10.1186/s43170-024-00315-1

Kadzamira, M., **Chege, F.**, **Suntharalingam, C.**, **Bundi, M.**, **Likoko, L.**, **Magero, D.**, **Romney, D.**, **Kansiime, M.** and **Mulema, J.** (2024) African women and young people as agriculture service providers – business models, benefits, gaps and opportunities. *CABI Agriculture and Bioscience* 5, 24, 14 pp. https://doi.org/10.1186/s43170-024-00229-y

Tambo, J.A., **Holmes, K.A.**, **Aliamo, C.**, **Mbugua, F.**, **Alokit, C.**, Muzira, F., Byamugisha, A. and Mwambu, P. (2024) The role of agro-input dealer certification in promoting sustainable pest control: insights from Uganda. *International Journal of Agricultural Sustainability* 22(1), 2299181, 15 pp. https://doi.org/10.1080/14735903.2023.2299181

Tambo, J.A., **Kansiime, M.K.**, **Alaganthiran, J.R.**, **Danish, M.**, **Duah, S.A.**, **Faisal, S.**, **Khonje, M.G.**, **Mbugua, F.** and **Rajendran, G.** (2024) Consumer pesticide concerns and the choice of fruit and vegetable markets in five low- and middle-income countries. *Global Food Security* 42, 100801, 10 pp. https://doi.org/10.1016/j.gfs.2024.100801

Strategically important scientific review/synthesis papers published

The CABI Science Strategy calls for CABI staff to be involved in the publication of strategically important scientific review/synthesis papers. Examples from 2024 in which CABI staff took a lead include:

Bateman, M., **Day, R.**, **Migiro, L.**, **Agboyi, L.K.**, **Gurmessa, N.E.**, **Romney, D.**, **Boafo, H.A.**, Doughty, K., Ward, A. and Stewart, M. (2024) Strengthening emergency pest prevention, preparedness and response: the potential role of the private sector. *Outlook on Agriculture* 53(3), 216–225. https://doi.org/10.1177/00307270241279097

Bunny, S.M., **Umar, A.**, **Bhatti, H.S.** and **Honey, S.F.** (2024) Aflatoxin risk in the era of climatic change – a comprehensive review. *CABI Agriculture and Bioscience* 5, 105, 13 pp. https://doi.org/10.1186/s43170-024-00305-3

Eschen, R., Kaaya, O.E., Kilawe, C.J., Malila, B.P., Mbwambo, J.R., **Mwihomeke, M.S.** and **Nunda, W.** (2024) Adoption of a sustainable land management practice for invasive *Prosopis juliflora* in East Africa. *CABI Agriculture and Bioscience* 5, 113, 14 pp. https://doi.org/10.1186/s43170-024-00315-1

Fallet, P., Bazagwira, D., Ruzzante, L., Ingabire, G., Levivier, S., Bustos-Segura, C., Kajuga, J., **Toepfer, S.** and Turlings, T.C.J. (2024) Entomopathogenic nematodes as an effective and sustainable alternative to control the fall armyworm in Africa. *PNAS Nexus* 3(4), pgae122, 8 pp. https://doi.org/10.1093/pnasnexus/pgae122

Fielder, H., **Beale, T.**, Jeger, M.J., **Oliver, G.**, Parnell, S., **Szyniszewska, A.M.**, **Taylor, P.** and Cunniffe, N.J. (2024) A synoptic review of plant disease epidemics and outbreaks published in 2022. *Phytopathology* 114(8), 1717–1732. https://doi.org/10.1094/PHYTO-01-24-0042-RVW

Hinz, H.L., Cabrera Walsh, G., Paterson, I., Paynter, Q., Schwarzländer, M., Smith, M. and **Weyl, P.** (2024) Enhancing pre-release studies for weed biocontrol agents: a review of existing and emerging tools. *Biological Control* 198, 105607, 13 pp. https://doi.org/10.1016/j.biocontrol.2024.105607

Kansiime, M.K., **Makale, F.**, **Chacha, D.**, **Nunda, W.**, **Karanja, D.** and **Durocher-Granger, L.** (2024) Area-wide pest management and prospects for fall armyworm control on smallholder farms in Africa: a review. *Sustainable Environment* 10(1), 2345464, 15 pp. https://doi.org/10.1080/27658511.2024.2345464

Schaffner, U., Heimpel, G.E., Mills, N.J., Muriithi, B.W., Thomas, M.B., GC, Yubak D. and Wyckhuys, K.A.G. (2024) Biological control for One Health. *Science of The Total Environment* 951, 175800, 13 pp. https://doi.org/10.1016/j.scitotenv.2024.175800

Contributions of CABI staff to publications in which authors are not listed

CABI staff contributed to the following publications through technical input or contributions:

FAO (2024) *Baseline Survey on Emerging Plant Pests in Eastern Africa – Programme Support to the Establishment of the Eastern African Emerging Pests Programme on Early Warning, Preparedness and Response System*. Food and Agriculture Organization of the United Nations, Addis Ababa, xii + 127 pp. https://doi.org/10.4060/cc2751en [**Oronje, M.L.**, **Karanja, D.**, **Chacha, D.**, **Makale, F.**, **Njunge, R.** and **Mbugua, F.**, technical contributions].

Kimitei, A. (2024) *Assessment of Kenya's Dairy and Beef Sectors and Opportunities for US Investment*. USDA Foreign Agricultural Service and GAIN, 7 pp. https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=Assessment%20of%20Kenya%27s%20Dairy%20and%20Beef%20Sectors%20and%20Opportunities%20for%20US%20Investment_Nairobi_Kenya_KE2024-0006.pdf [**Oronje, M.L.**, **Karanja, D.**, **Njunge R.**, **Agwanda, C.**, **Karugu, D.** and **Migiro, L.**, technical contributions].

CABI Scientific Outputs Portal

Scientific papers and other publications by CABI scientists from the early 20th century to the present day can be found through our open access website CABI Scientific Outputs, which is updated as new articles are released. New records were added during 2024, and by the end of the year, the CABI Scientific Outputs held 7,820 records, an increase from 7,527 records at the end of 2023.

Effective scientific reporting mechanisms

The CABI Science Strategy recognizes the need for a record of work to monitor publications, reports, talks and posters presented, research students and major scientific contributions. This annual science report provides the primary record of all these scientific outputs (Sections 2 and 3). In addition, an internal publications pipeline is in use which enables the progress of all staff publications to be monitored from concept to publication.

Public relations support for CABI's scientific papers published in 2024

The CABI communications team supports its scientists with a full range of public relations (PR), marketing and design functions including the drafting and issuing of press releases using the EurekAlert! and AlphaGalileo platforms and databases, the writing of news stories for CABI News, the writing of blogs for the CABI Blog, Invasives Blog and PlantwisePlus Blog, as well as writing thought leadership articles for placement in external media. Social media posts are made on CABI's News, Invasives and PlantwisePlus X (formerly known as Twitter) accounts, and the CABI Facebook and LinkedIn accounts (linking to the news stories on CABI's website and/or the paper).

During 2024, the CABI communications team provided PR support for 14 papers. These were selected based on CABI's role, the impact of the journal and the perceived newsworthiness of the science published. For these 14 papers, a total of 81 items of media coverage were generated, with combined estimated views of over 1.14 million.

The three papers with the most media coverage achieved were:

Khonje, M.G. and Qaim, M. (2024) Animal-sourced foods improve child nutrition in Africa. *Proceedings of the National Academy of Sciences, USA* 121(50), e2319009121, 8 pp. https://doi.org/10.1073/pnas.2319009121

16 items of coverage and estimated views of 100,000.

Peck, L.D., Llewellyn, T., Bennetot, B., O'Donnell, S., Nowell, R.W., **Ryan, M.J.**, **Flood, J.**, Rodríguez de la Vega, R.C., Ropars, J., Giraud, T., Spanu, P.D. and Barraclough, T.G. (2024) Horizontal transfers between fungal *Fusarium* species contributed to successive outbreaks of coffee wilt disease. *PLOS Biology* 22(12), e3002480, 36 pp. https://doi.org/10.1371/journal.pbio.3002480

13 items of coverage and estimated views of 116,000.

Tambo, J.A., **Kansiime, M.K.**, **Alaganthiran, J.R.**, **Danish, M.**, **Duah, S.A.**, **Faisal, S.**, **Khonje, M.G.**, **Mbugua, F.** and **Rajendran, G.** (2024) Consumer pesticide concerns and the choice of fruit and vegetable markets in five low- and middle-income countries. *Global Food Security* 42, 100801, 10 pp. https://doi.org/10.1016/j.gfs.2024.100801

Six items of coverage and estimated views of 68,000.

You can see the **Coverage Book**, which includes the coverage for all papers promoted, here.

CABI News items

In 2024, the communications team produced a total of 102 CABI News items. The following selection showcases key scientific outcomes, notable publications, and highlights from major scientific conferences.

African smallholder farmers benefit from reduced crop losses and higher incomes from a novel pest alert service. *CABI News*, 25 January 2024. Read here.

CABI makes progress to sustainably tackle invasive pest and weed as part of EUR €6 million ADOPT-IPM project. *CABI News*, 31 January 2024. Read here.

Farming Innovation Programme award to explore vital role of soil microbiomes and move towards greater sustainable agriculture in the UK. *CABI News*, 14 February 2024. Read here.

CABI science award winners to help increase livelihoods, food security, and empowerment for women in Africa. *CABI News*, 19 February 2024. Read here.

Role of African women and young people in agricultural service provision investigated in new CABI-led study. *CABI News*, 4 March 2024. Read here.

CABI scientist joins panel discussion focused on how to invest in agricultural solutions that work for women. *CABI News*, 8 March 2024. Read here.

CABI-led study reveals "considerable farmer knowledge" on different aspects of antibiotics risk. *CABI News*, 12 March 2024. Read here.

National Prosopis Strategy created with expertise from CABI and partners approved by Kenyan government. *CABI News*, 19 March 2024. Read here.

CABI-led study shows benefits of chatgroups to human health can be replicated in plant health. *CABI News*, 20 March 2024. Read here.

Annual Report and Work Plan of MARA-CABI Joint Lab witnesses "outstanding progress" throughout 2023. *CABI News*, 28 March 2024. Read here.

CABI publishes first guide to the naturalized and invasive plants of the Caribbean. *CABI News*, 15 April 2024. Read here.

Crop success celebrated in Zambia after farmers plant virus-free cassava cuttings. *CABI News*, 17 April 2024. Read here.

Team of global experts to develop beneficial nematode-based biocontrol solution to fall armyworm. *CABI News*, 22 April 2024. Read here.

CABI strengthens partnerships for development of biological control agents to control crop pests in Chile. *CABI News*, 24 April 2024. Read here.

Study explores biology, impact, management and potential distribution of destructive longhorn beetle. *CABI News*, 30 April 2024. Read here.

CABI-led review of Soil Information Systems highlighted at Africa Fertilizer and Soil Health Summit. *CABI News*, 8 May 2024. Read here.

CABI's expertise in plant health management highlighted at symposium to mark International Day of Plant Health. *CABI News*, 16 May 2024. Read here.

CABI's expertise in Earth Observation technology for greater food security highlighted at EO4AGRI 2024. *CABI News*, 21 May 2024. Read here.

New project to use earth observation data and climate forecasts for targeted management of wheat blast disease. *CABI News*, 28 May 2024. Read here.

Natural Enemies Field Reservoirs play critical role in management of papaya mealybug, CABI study reveals. *CABI News*, 29 May 2024. Read here.

PlantwisePlus supports Global Alliance Against Hunger and Poverty revealed at G20-MACS summit in Brazil. *CABI News*, 31 May 2024. Read here.

Sustainable crop pest management options highlighted at Veggies 4 Planet & People First International Conference. *CABI News*, 3 June 2024. Read here.

CABI wins FAO Partnership Award 2024 in recognition of efforts towards sustainable development. *CABI News*, 11 June 2024. Read here.

Senior Chinese delegation visit to Switzerland strengthens collaboration between joint labs for crop pest research. *CABI News*, 24 June 2024. Read here.

Third International Congress of Biological Control calls for greater collaboration on national and international policy. *CABI News*, 1 July 2024. Read here.

Most climate-vulnerable countries with highest hunger rates significantly under-represented in agrifood research. *CABI News*, 2 July 2024. Read here.

CABI and partners step up fight against devastating papaya mealybug on more farms in Kenya. *CABI News*, 9 July 2024. Read here.

Ghanian women's rights as farmers and extension service clients more recognised by men and women, study shows. *CABI News*, 22 July 2024. Read here.

CABI awarded £1.25 million capital grant from the Wolfson Foundation towards relocation of its UK research facilities. *CABI News*, 24 July 2024. Read here.

CABI wins Global Innovators Award at Better Cotton Conference 2024. *CABI News*, 31 July 2024. Read here.

CABI supports the Plant Health Strategy and the Implementation Plan for Africa 2022-2036. *CABI News*, 7 August 2024. Read here.

CABI assists the Philippines in assessing the impact of fall armyworm in rice. *CABI News*, 12 August 2024. Read here.

CABI scientists share expertise on digital tools to fight crop pests at RUFORUM Triennial Scientific Conference. *CABI News*, 16 August 2024. Read here.

CABI-led research recommends public-private partnership approach to open access to high-quality niche markets. *CABI News*, 19 August 2024. Read here.

CABI Distribution Database used to support analysis of plant health threats to crops in Scotland. *CABI News*, 20 August 2024. Read here.

New project aims to enhance national and regional phytosanitary research coordination. *CABI News*, 21 August 2024. Read here.

CABI's work on weed biological control is highlighted in the annual progress report. *CABI News*, 23 August 2024. Read here.

CABI and IICA sign formal agreement to collaborate more on sustainable agricultural development. *CABI News*, 27 August 2024. Read here.

CABI launches framework for sustainable national soil information systems at Africa Food Systems Forum. *CABI News*, 3 September 2024. Read here.

CABI's expertise in sustainable pest management highlighted at 9th International Agriculture Congress. *CABI News*, 10 September 2024. Read here.

Report recommends "highly ambitious enterprise" to create world-leading UK Microbiome Biobank. *CABI News*, 11 September 2024. Read here.

New project explores the power of Generative Artificial Intelligence to support smallholder farmers. *CABI News*, 12 September 2024. Read here.

CABI contributes to baseline survey on emerging pests in Eastern Africa. *CABI News*, 16 September 2024. Read here.

Pesticide residue concerns highlighted by fruits and vegetables consumers in five countries, new study reveals. *CABI News*, 17 September 2024. Read here.

CABI shares expertise in Earth Observation data at International Pest Risk Research Group annual meeting. *CABI News*, 23 September 2024. Read here.

CABI study leads to assessment of Kenya's dairy and beef sectors and opportunities for US investment. *CABI News*, 25 September 2024. Read here.

CABI shares expertise on biological control agents and biostimulants at FAO open-ended workshop. *CABI News*, 2 October 2024. Read here.

Study reveals invasive Apple Snail could spread further in Africa. *CABI News*, 7 October 2024. Read here.

Tiny wasp helps protect island bird species threatened with extinction. *CABI News*, 8 October 2024. Read here.

CABI shares expertise on biopesticides to support new Green Economy Centre at Swansea University. *CABI News*, 9 October 2024. Read here.

Biological control generates 'desirable outcomes' within all One Health dimensions, new CABI-led research reveals. *CABI News*, 15 October 2024. Read here.

Climate change-induced pests remain major 'bottleneck' to agricultural productivity and food security in South Sudan. *CABI News*, 16 October 2024. Read here.

Publication outlines 16 calls of action to tackle fall armyworm following global symposium on major crop pest. *CABI News*, 28 October 2024. Read here.

Biodiversity event celebrates 75 years of partnership between CABI and Canada for biological control research. *CABI News*, 28 November 2024. Read here.

Sustainable land management practice successfully 'uproots' invasive *Prosopis juliflora* in East Africa. *CABI News*, 2 December 2024. Read here.

Animal-sourced foods improve child nutrition in Africa, CABI-led study finds. *CABI News*, 3 December 2024. Read here.

Scientists 'turn up the heat' on understanding coffee wilt disease which threatens our favourite daily brew. *CABI News*, 6 December 2024. Read here.

Delegation of officials from MARA-CABI Joint Lab and its four subcentres convene to develop research projects. *CABI News*, 9 December 2024. Read here.

Research students (MSc, PhD, etc.) and interns (summer students)

In 2024, we hosted 34 research students (Section 4.3, 18 MSc and 16 PhD) and 55 interns, of whom 34 were at CABI in Pakistan (Section 4.8).

The BIOCAT database

Following the successful conclusion of the Generative AI prototype in early 2024, plans are underway to define approaches in ensuring the content is maintained and structured to ensure the most accurate responses from the Generative AI prototype. This work will continue into 2025.

CABI BioProtection Portal

The CABI BioProtection Portal entered its fifth year in 2024, after its launch in February 2020 in Kenya. During the year, the Portal was expanded into six additional countries (Egypt, Saudi Arabia, Vietnam, Barbados, South Africa and the Philippines), bringing the total number of countries live on the platform to 48 by year-end.

As geographic coverage has expanded, so too has platform usage, indicating a growing demand for accessible, science-based information on biocontrol solutions. In 2024, the Portal received 409,790 visits, with monthly traffic increasing from 23,386 in January to 34,443 in December. The highest proportion of users came from Kenya (29.6%), followed by India (19.4%) and Brazil (15.7%). This engagement led to 55,169 product searches and 74,939 product page views, with farmers/growers conducting 43.4% of all searches, and advisors accounting for 13.6%. The increase in use reflects targeted efforts throughout the year to improve visibility and content quality, including search engine optimization (SEO), regular publication of science- and practice-based blogs, and structured outreach activities in a selection of countries, notably Kenya and India.

Strengthening the Portal's public private partnership model remains high priority. In 2024, two new partners (T Stanes and Natural Insect Control), two sponsors (Minor Use Foundation and VeraPhages), and ten Associates (AAFC, STDF, SAN, IICA, APAARI, OMRI, ANBP, AARINENA, FAO and Red Chilena de Bioinputs) joined this global initiative. This growth reflects the increasing global momentum behind biocontrol as a sustainable pest management strategy, and the value placed on the Portal as a knowledge sharing platform for farm advisory service providers and farmers globally.

2. Scientific outputs

2.1. Honours, honorary roles

Location	Name	Honour/role	Date(s)
Austria	Valverde, Alvaro	Member of the Steering Committee of AGRA's Agribusiness and Finance Workstream	From 2020
Austria	Valverde, Alvaro	Member of the Steering Committee of the Agri-SME Learning Collective, funded by Small Foundation	From 2023
Brazil	Colmenarez, Yelitza	Member of the Steering Committee of the International Organisation for Biological Control – Neotropical Regional Section	From 2010
China	Li, Hong-Mei	Adjunct Professor, Chinese Academy of Agricultural Sciences – Institute of Plant Protection	From 2019
China	Li, Hong-Mei	Master student supervisor, Beijing University of Agriculture	From 2019
China	Li, Hong-Mei	Master student supervisor, Anhui Agricultural University	From 2024
China	Wan, Min	Adjunct Professor, Chinese Academy of Agricultural Sciences – Institute of Plant Protection	From 2023
China	Zhang, Feng	Adjunct Professor, Chinese Academy of Agricultural Sciences – Institute of Plant Protection	From 2013
China	Zhang, Feng	Associate Member, International Tropical Fruits Network (TFNet) Board of Trustees	From 2022
China	Zhang, Feng	Member, Academic Committee, Key Laboratory of Natural Enemy Insects, Chinese Ministry of Agriculture and Rural Affairs	From 2022
China	Zhang, Feng	Co-convenor, International Working Group on *Ostrinia* and other maize pests (IWGO)	From 2023
China	Zhang, Jin-Ping	Adjunct Professor, Jilin Agricultural University	From 2018
China	Zhang, Jin-Ping	Adjunct Professor, Yangtze University	From 2021
China	Zhang, Jin-Ping	Senior Agronomist, Beijing Human Resources and Social Security Bureau	From 2021
China	Zhang, Jin-Ping	Xi'an High-level Talents (local-level leading talents)	From 2023
Ethiopia	Gurmessa, Negussie	Member of National Advisory Committee for Plant Protection Roadmap of Ethiopia	From 2023
Hungary	Toepfer, Stefan	Adjunct Professor and member of plant science PhD school, Plant Protection Institute, Hungarian University of Agriculture and Life Sciences MATE (formerly Szent Istvan University), Godollo, Hungary	From 2012
Hungary	Toepfer, Stefan	Visiting Professorship, Chinese Academy of Agricultural Sciences – Institute of Plant Protection	From 2015
India	Chaudhary, Malvika	National Advisory Committee, TNAU, Coimbatore, India	From 2020
India	Pandit, Vinod	IPPC working group to develop IPPC guide of wood packaging material	From 2021
Kenya	Mudumba, Tutilo	Expert Advisor, Research and Monitoring for the Uganda Wildlife Authority	From 2019
Kenya	Mudumba, Tutilo	Executive Chairperson, Advisory Board of Embaka 'Saving the golden cat', Community Based Conservation Organization	From 2021
Kenya	Oronje, MaryLucy	Member of the STDF P-IMA Practitioner Group	From 2020
Kenya	Oronje, MaryLucy	Member to the Minor Crops Technical Working Group for Kenya	From 2023
Kenya	Oronje, MaryLucy	Member to the Technical Working Group on Plant Protection Products for Trade for Kenya	From 2023

Location	Name	Honour/role	Date(s)
Kenya	Rwomushana, Ivan	Member of the Locust Drone Technology Advisory Group	From 2022
Malaysia	Annamalai, Sivapragasam	Member of Panel of Reviewers, *The Planter* journal of the Incorporated Society of Planters, Malaysia	Ongoing
Malaysia	Annamalai, Sivapragasam	Member, Editorial Board, Vietnam Academy of Agricultural Sciences	Ongoing
Malaysia	Annamalai, Sivapragasam	Member, International Advisory Board, *Journal of Tropical Agriculture and Food Science (JTAFS)*, MARDI	Ongoing
Pakistan	Farooq, Muzammil	Global Outreach Member, American Society of Microbiology (ASM)	From 2015
Switzerland	Babendreier, Dirk	Visiting Professorship, Chinese Academy of Agricultural Sciences – Institute of Plant Protection	From 2018
Switzerland	Eschen, René	Member of the International Forest Quarantine Research Group	From 2010
Switzerland	Eschen, René	Coordinator, Working Group 7.03.12 – Alien invasive species and international trade, International Union of Forest Research Organizations (IUFRO)	From 2014
Switzerland	Haye, Tim	Member of the Swiss Committee for Biosafety	From 2015
Switzerland	Haye, Tim	Member of the PhD Council in Agri-Food Sciences, Technologies and Bio-Technologies (STEBA), University of Modena and Reggio Emilia (UNIMORE), Italy	From 2019
Switzerland	Hinz, Hariet	Affiliated Professor, Department of Plant, Soil and Entomological Sciences, University of Idaho, USA	From 2002
Switzerland	Hinz, Hariet	Member of the IOBC Global Commission on Access and Benefit Sharing	From 2021
Switzerland	Hinz, Hariet	Member of the Inter-Agency Liaison Group on Invasive Alien Species under the CBD	From 2022
Switzerland	Hinz, Hariet	Chair of the Global IOBC Working Group on Classical Weed Biological Control	From 2023
Switzerland	Kenis, Marc	Member of the Scientific Committee of the Swiss Biological Records Center	From 2012
Switzerland	Kuhlmann, Ulrich	Convenor, International Working Group of *Ostrinia* and other maize pests (IWGO) – a global working group of the International Organisation for Biological Control	From 2005
Switzerland	Kuhlmann, Ulrich	Visiting Professorship, Chinese Academy of Agricultural Sciences – Institute of Plant Protection	From 2013
Switzerland	Kuhlmann, Ulrich	Member, International Advisory Board of the Chinese Academy of Agricultural Sciences – Institute of Plant Protection, China	From 2018
Switzerland	Schaffner, Urs	Affiliated Professor, Department of Plant, Soil and Entomological Sciences, University of Idaho, USA	From 2008
Switzerland	Seehausen, Lukas	Deputy Coordinator, Working Group 7.03.13 – Biological control of forest insects and pathogens, International Union of Forest Research Organizations (IUFRO)	From 2020
Switzerland	Weyl, Philip	Affiliated Professor, Department of Plant, Soil and Entomological Sciences, University of Idaho, USA	From 2020
Switzerland	Weyl, Philip	Chair of the biological control committee for the North American Invasive Species Management Association	From 2020
Switzerland	Weyl, Philip	Member of the IOBC Global Commission on Access and Benefit Sharing	From 2021
Trinidad and Tobago	Ramnanan, Naitram	Chair, Regional Pest Prioritization Technical Working Group of the Caribbean Plant Health Directors Forum (CPHD)	From 2014

Location	Name	Honour/role	Date(s)
Trinidad and Tobago	Ramnanan, Naitram	Member of the Regional Project Steering Committee: Strengthening Coastal and Marine Climate Resilience through Upland and Coastal Ecosystem Based Adaptation and Country Engagement	2021–2024
UK	Allan, Melissa	Member of the Coalition for Soil Information Systems in Africa	From 2024
UK	Buddie, Alan	Member Cup-fungi, Truffles and their Allies SSC Specialist Group (International Union for Conservation of Nature)	Ongoing
UK	Buddie, Alan	Member Steering Committee Darwin Tree of Life Project	From 2022
UK	Cock, Matthew	Honorary Life Member of the International Organisation for Biological Control	From 2012
UK	Cock, Matthew	Member Invasive Species Specialist Group (International Union for Conservation of Nature)	Ongoing
UK	Day, Roger	Member of the International Plant Protection Convention Steering Group on Pest Outbreak Alert and Response Systems	From 2023
UK	Djeddour, Djamila	Honorary Lecturer in the School of Biological Sciences, Royal Holloway, University of London	From 2016
UK	Djeddour, Djamila	Member of the National Floating Pennywort Management Strategy Group	From 2022
UK	Edgington, Steve	Visiting Research Fellow, Reading University	From 2016
UK	Edgington, Steve	Programme Secretary for the Association of Applied Biologists	From 2023
UK	Flood, Julie	Fellow of the Royal Society for Biology	From 2014
UK	Flood, Julie	Honorary Life Member of the British Society of Plant Pathology	From 2018
UK	Godwin, Julien	Member of the Global Centre for Biodiversity and Climate Science support network	From 2024
UK	Kadzamira, Mariam	Member, NIHR Imperial Clinical Research Facility (ICRF) Patient and Public Involvement (PPI) Strategic Advisory Group (PPI SAG)	From 2024
UK	Kadzamira, Mariam	Member of the International Science Council's Global Roster of Experts	From 2024
UK	Murphy, Sean	Honorary Lecturer in the School of Biological Sciences, Royal Holloway, University of London	From 2016
UK	Neave, Suzanne	STDF Working Group	From 2021
UK	Parr, Martin	Member of the Coalition for Soil Information Systems in Africa	From 2024
UK	Pratt, Corin	Invited lecturer, Harper Adams University, UK	From 2022
UK	Ryan, Matthew	Board of Directors, International Alliance for Phytobiomes Research	From 2019
UK	Ryan, Matthew	Member of Innovate UK Business Connect Microbiome Innovation Expert Group & Lead, Microbiome Biobanking	From 2019
UK	Ryan, Matthew	Member of BBSRC EDI Expert Advisory Group	2021–2025
UK	Ryan, Matthew	Steering Committee – United States Culture Collection Network (USCCN)	From 2022
UK	Seier, Marion	Lead of the European Weed Research Society Working Group Biological Control	From 2023
UK	Shaw, Richard	Member of the Association of Applied Biologists' Biological Control and Integrated Pest Management Specialist Group	From 2010
UK	Shaw, Richard	Member Invasive Species Specialist Group (International Union for Conservation of Nature)	From 2014
UK	Shaw, Richard	Member of the European Commission Expert Working Group on Invasive Alien Species	From 2014
UK	Shaw, Richard	Science Advisory Board Member for the UK Animal and Plant Health Agency	From 2019

Location	Name	Honour/role	Date(s)
UK	Shaw, Richard	Fellow of the Royal Society for Biology	From 2022
UK	Smith, David	Fellow of the Royal Society for Biology	From 2011
UK	Taylor, Phil	Editor of *New Disease Reports*, BSPP publication	From 2015
UK	Taylor, Phil	Member of the Quadripartite Technical Group on Antimicrobial Resistance and Use Integrated Surveillance (QTG-AIS) of the Quadripartite Joint Secretariat on Antimicrobial Resistance (AMR)	2022–2026
UK	Taylor, Phil	Member of the FAO working party on Antibiotic use in crop production	From 2023
UK	Thomas, Sarah	Ambassador for the British Society of Plant Pathology	From 2023
Zambia	Kasoma, Chapwa	Member of the Institutional Biosafety Committee of the Centre for Infectious Disease Research in Zambia	From 2023
Zambia	Kasoma, Chapwa	Vice Chairperson of the Scientific Advisory Committee of the National Biosafety Authority in Zambia	From 2023
Zambia	Kasoma, Chapwa	Publicity Secretary for the Zambian Women in Agricultural Research and Development	From 2024
Zambia	Kasoma, Chapwa	Technical Advisor for the Technical Committee of the Zambian Women in Agricultural Research and Development	From 2024

2.2. Support to international scientific meetings

CABI staff have played significant roles in the organization of several scientific meetings in 2024:

Meeting	Staff member	Role
3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica	Ulrich Kuhlmann, Yelitza Colmenarez	Overall organization and local organizing support
	Feng Zhang, Ulrich Kuhlmann, Yelitza Colmenarez	Panel organizers
	Hariet Hinz	Panellist
	Belinda Luke, Feng Zhang, Ivan Rwomushana, Justice Tambo, Kate Constantine, Léna Durocher-Granger, Malvika Chaudhary, Ulrich Kuhlmann, Yelitza Colmenarez	Session organizers and moderators
10th National Conference on Agro-Ecological Farming System to Promote Sustainable Agriculture, organized by Pushkaram College of Agriculture Sciences (PCAS) and National Research Centre for Banana (NRCB), 18–19 August 2024, Trichy, India	Manju Thakur	Key speaker and panel member
XXIX Brazilian Congress of Entomology (CBE), 22–26 September 2024, Uberlândia, Brazil	Yelitza Colmenarez	Session moderator and panellist
2024 International Multi-Disciplinary Conference, 18–20 December 2024, Lusaka, Zambia	Chapwa Kasoma	
'Climate change and agriculture: Adaptation strategies for farmers – *A discussion on innovative farming techniques and technologies that can help farmers adapt to the impacts of climate change*'		Panellist
'Paper presentations – Agriculture and Natural Sciences'		Session co-chair
'African Food System Forum Roundtable on the Soil Initiative for Africa'. Africa Food Systems Forum (AFS), 2–6 September 2024, Kigali, Rwanda	Martin Parr	Panellist
Agricultural Development and Climate Change Unit's 2nd Experts Meeting on Agricultural Statistics, Economic Commission for Latin America and Caribbean (ELCAC), 10 September 2024, Mexico City, Mexico	Anna Szyniszewska	Panellist
'Strengthening National Soil Information Systems – A Framework for Sustainable SIS Intervention Design'. Africa Fertilizer and Soil Health (AFSH) Summit 2024, 7–9 May 2024, Nairobi, Kenya	Martin Parr	Session organizer, moderator
'Biocontrol – setting the scene'. Open-ended Workshop on Biological Control Agents and Biostimulants, 23–24 September 2024, FAO, Rome, Italy	Ulrich Kuhlmann	Panel moderator
BioSummit, 28–29 May 2024, Campinas, Brazil	Yelitza Colmenarez	Panellist
'The Emergence of Biocontrols: Environmental Benefits and Regulatory Hurdles'. Global Minor Use Summit IV, 5–8 February 2024, Madrid, Spain	Ulrich Kuhlmann	Panellist
Global Development Conference 2024 (GDC) organized by the Global Development Network (GDN): Workshop 6 'Engaging women and youth in climate policy', 26–28 November 2024, Suva, Fiji	Mariam Kadzamira	Ideation of and initial session co-organizer

Meeting	Staff member	Role
International Pest Risk Research Group (IPRRG) Meeting, 17–20 September 2024, Torre del Mar, Malaga, Spain	Tim Beale	Organizer of side session on Earth Observation (EO) and Pest Risk
International Phytobiomes Conference, 19–21 November 2024, St. Louis, Missouri, USA	Matthew Ryan	Session chair and conference organizing committee
IUFRO Division 7 Forest Health Joint Meeting of Working Parties 7.03.06, 7.03.12 and 7.03.13: Theory and Practice to Address Defoliating Insects, Invasive Pests and Biological Control of Insects and Pathogens in Forests, 21–23 August 2024, Tokyo, Japan	René Eschen, Lukas Seehausen	Co-organizers
European Weed Research Society (EWRS) joint workshop of 'Invasive Alien Plant' and 'Biological Control' working groups, 30 October–2 November 2024, Antalya, Turkey	Marion Seier, Phil Weyl	Co-organizers
Market Standards and SPS Regulations at the Kenya Fresh Produce Conference & Exhibition 2024, 'Enhancing market access for Kenya's fresh produce', 2–4 October 2024, Kenya School of Monetary Studies (KSMS), Nairobi, Kenya	MaryLucy Oronje	Member of the organizing committee
Microbiome Data Sciences, Biobanking and Standards Panel, One Health Microbiome Conference, 11 September 2024, Microbiome Innovation Centre, Liverpool, UK	Matthew Ryan	Panellist
Microbes4Climate Ethics and Regulatory Workshop, 25–27 November 2024, Vienna, Austria	Matthew Ryan	Co-organizer
Session on 'Entomopathogenic nematodes: Commercial use and future targets'. Conference on the 100th anniversary of the first description of the entomopathogenic nematode *Steinernema kraussei*, 10–12 April 2024, Logrono, Spain	Stefan Toepfer	Session organizer
'Shifting policy and enforcement parameters towards reducing agricultural chemicals and plastics'. FARM Global Child Project Inception Meeting, 12–15 March 2024, Nairobi, Kenya	Ulrich Kuhlmann	Roundtable facilitator
Strengthening the capacity on ISPM 38: International Movement of Seeds, July–August 2024, Webinar series	Manju Thakur	Organizer and moderator
United States Culture Collection Network, 18 November 2024, St. Louis, Missouri, USA	Matthew Ryan	Panellist
Workshop on ASEAN Pest Database: Action Planning & Moving Forward, 7–10 October 2024, Putrajaya, Malaysia	Sathis Sri Thanarajoo, MaryLucy Oronje, Roger Day	Co-organizers
Workshop on Biopesticides and IPM, 3–4 December 2024, Putrajaya, Malaysia	Feng Zhang	Co-organizer

2.3. Journal contributions

CABI staff acted on the editorial boards of the following journals in 2024:

- *Agriculture* – Special Issue on 'Advances in Plant Pathogens for Biological Control of Weeds' (D. Kurose – Guest Editor)
- *BioControl* (D. Babendreier)
- *Biological Control* (F. Zhang)
- *Biology Methods and Protocols* (M. Reeve)
- *Brazilian Journal of Forestry and Environment* (N. Corniani)
- *CABI Agriculture and Bioscience* (R. Eschen, M. Kansiime, M. Ryan, J. Tambo, F. Zhang)
- *CAB Reviews* (M.J.W. Cock)
- *Chilean Journal of Agricultural Research* (S. Edgington)
- *European Journal of Plant Pathology* (A. Szyniszewska)
- *Frontiers in Horticulture* (F. Zhang)
- *Frontiers in Insect Science* (T. Haye)
- *Frontiers in Remote Sensing* (H. Li, Guest Editor)
- *International Journal of Pest Management* (M. Kansiime)
- *International Journal of Tropical Insect Science* (S. Miller, Associate Editor)
- *Journal of Applied Entomology* (S. Toepfer)
- *Journal of Asia Pacific Entomology* (A. Sivapragasam)
- *Journal of Insects as Food and Feed* (M. Kenis)
- *Journal of Oil Palm Research* (J. Flood)
- *Journal of Pest Science* (T. Haye)
- *Journal of Vietnam Agricultural Science and Technology* (A. Sivapragasam)
- *NeoBiota* (R.H. Shaw)
- *New Disease Reports* (A. Buddie, J. Crozier, R. Reeder, P. Taylor)
- *The Planter* (A. Sivapragasam)
- *The Tropical Agriculturist* (V. Pandit)

CABI staff acted on the editorial board of the following CABI product in 2024:

- *Plant Health Cases* (Y. Colmenarez)

CABI staff were also involved in reviewing more than 170 papers for journals as follows:

- *African Journal of Aquatic Science*
- *African Journal of Ecology*
- *African Journal of Entomology*
- *Agrekon*
- *Agriculture*
- *Agriculture and Forest Entomology*
- *Agronomy*
- *Ambio*
- *Aquatic Botany*
- *BioControl*
- *Biological Control*
- *Biological Invasions*
- *Biology Methods and Protocols*
- *CABI Agriculture and Bioscience*
- *Cotton Science*
- *Crop Protection*
- *Ecography*
- *Entomologia Experimentalis et Applicata*
- *Entomologia Generalis*
- *Environmental and Experimental Biology*
- *Environmental and Sustainability Indicators*
- *Environmental Development*
- *Environmental Entomology*
- *European Journal of Agronomy*
- *European Journal of Plant Pathology*
- *European Review of Agricultural Economics*
- *Field Crops Research*
- *Food and Human Journal*
- *Food Security*
- *Forestry*
- *Frontiers in Horticulture*
- *Frontiers in Nutrition*
- *Geology, Ecology, and Landscapes*
- *Heliyon*
- *Industrial Crops and Products*
- *Insects*
- *International Journal of Pest Management*
- *International Journal of Tropical Insect Science*
- *Journal of Agricultural Economics*

- *Journal of Agricultural Science and Technology*
- *Journal of Applied Entomology*
- *Journal of Aquatic Plant Management*
- *Journal of Cotton Research*
- *Journal of General Plant Pathology*
- *Journal of Insects as Food and Feed*
- *Journal of Pest Science*
- *Journal of Plant Growth Regulation*
- *Journal of Soil Science and Plant Nutrition*
- *Journal of the Science of Food and Agriculture*
- *Land Degradation & Development*
- *Management of Biological Invasions*
- *NeoBiota*
- *Neotropical Entomology*
- *New Disease Reports*
- *New Zealand Journal of Crop and Horticultural Science*
- *Pest Management Science*
- *Phytoparasitica*
- *Plant and Soil*
- *Plant Disease*
- *Plants*
- *PLOS One*
- *Potato Research*
- *Qeios*
- *Science of The Total Environment*
- *Scientific Reports*
- *South African Journal of Botany*
- *Springer Nature*
- *Summa Phytopathologica*
- *Tropical Lepidoptera Research*
- *Tropical Plant Pathology*
- *World Development*
- *Zoology*
- *Zootaxa*

2.4. Publications

CABI authors are shown in **bold**, the corresponding author(s) where designated are underlined, 'IF>2' refers to papers in journals with a 2023 impact factor greater than 2.0, and an open access symbol is placed at the end of all open access publications.

2.4.1. Books, proceedings and manuals (3)

O'D. Bourke, D., Fanjul, L. and **Rendell-Dunn, A.J.** (2024) *Spanish–English Horticultural Dictionary – Revised Edition*. CAB International, Wallingford, UK, 160 pp. https://doi.org/10.1079/9781800628496.0000

Witt, A., Kamwendo, J. and Mwafongo, E. (2024) *Guide to the Naturalized and Invasive Plants of Malawi.* CAB International, Wallingford, UK, vi + 364 pp. https://www.cabidigitallibrary.org/doi/10.1079/9781800622258.0000

Witt, A., Picker, M. and Swinnerton, K. (2024) *Guide to the Alien and Invasive Animals of the Caribbean*. CAB International, Wallingford, vi + 395 pp. https://www.cabidigitallibrary.org/doi/book/10.1079/9781800627598.0000

2.4.2. Peer-reviewed papers (137)

Abbas, S., **Fazlullah**, Asghar, A. and Sabir, M. (2024) Comparative efficacy of various dosages of kurtuma (*Citrullus colocynthis*) and akk (*Calotropis gigantea*) as bio-pesticides for pink bollworm (*Pectinophora gossypiella*) control in cotton crops under arid conditions. *Pakistan Journal of Biotechnology* 21(2), 561–564. https://doi.org/10.34016/pjbt.2024.21.02.865

Adhikari, D., **Pandit, V.**, Bhatta, M., Sharma, D.R. and Baral, S. (2024) Plant clinic in Nepal: an overview. *Acta Agraria Debreceniensis* 1, 5–10. https://doi.org/10.34101/actaagrar/1/13643

Adhikari, D., Thapa, R.B., Joshi, S.L., Du, J.J. and **Pandit, V.** (2024) Area-wide control program of Chinese citrus fly, *Bactrocera minax* in Nepal. *Indian Citriculture* 2(1), 1–10. https://iscindia.org.in/issue.php?fn=Indian-CitricultureV-2-I-1.pdf

Akiri, M., **Mbugua, F.**, **Njunge, R.**, **Agwanda, C.**, **Gurmessa, N.E.**, **Phiri, N.A.**, Musebe, R., Kalisa, J.P., Uzayisenga, B., **Kansiime, M.K.** and **Karanja, D.** (2024) Intervention options for enhancing smallholder compliance with regulatory and market standards for high-value fruits and vegetables in Rwanda and Zambia. *Sustainability* 16(14), 6243, 21 pp. https://doi.org/10.3390/su16146243 IF>2

Ali, R.K. and **Cock, M.J.W.** (2024) The life history of *Quadrus tetrastigma* (Sepp) (Lepidoptera, Hesperiidae, Pyrginae) in Trinidad, West Indies. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 137–140. https://ttfnc.org/livingworld/index.php/lwj/article/view/ali_et_al_2024b

Ali, R.K., Maharaj, T.P., Arneaud, L.L., Baksh-Comeau, Y.S., **Yeap, Y.T.** and **Cock, M.J.W.** (2024) Partial life history of *Lophocampa walkeri* (Rothschild) (Lepidoptera, Erebidae, Arctiinae) in Trinidad, West Indies. *Living World, Journal of the Trinidad and Tobago Field Naturalists' Club* 2024, 119–122. https://ttfnc.org/livingworld/index.php/lwj/article/view/ali_et_al_2024/note

Amanor, G.T., Acheampong, M.A., **Luke, B.**, **Smith, D.**, **Ryan, M.**, **Kermode, A.**, Morris, J., Cornelius, E.W., Eziah, V.Y., Fening, K.O., **Clottey, V.A.**, Naretto Rangel, D.E., Tyson, C. and Mikaelyan, A. (2024) Viability and virulence of freeze-dried *Beauveria bassiana*, *Metarhizium acridum*, and *Hirsutella thompsonii* isolates under non-refrigerated conditions in Ghana. *Biocontrol Science and Technology* 34(3), 296–315. https://doi.org/10.1080/09583157.2024.2332337

Antoniou, A., Abergel, M., Akrivou, A., **Beale, T.**, **Day, R.**, Fielder, H., Larenaudie, M., MacLeod, A., Rosace, M.C., Sarakatsani, E., Stinziano, J.R., **Szyniszewska, A.M.**, Suffert, M. and Tramontini, S. (2024) Horizon scanning: tools to identify emerging threats to plant health in a changing world. *EPPO Bulletin* 54(Suppl. 1), 73–88. https://doi.org/10.1111/epp.12988

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Varia, S., **Wood, S.** and **Pratt, C.** (2024) Implementation of a biological control strategy for *Crassula helmsii* using the mite, *Aculus crassulae* – Dŵr Cymru Welsh Water. Unpublished report, CABI, Egham, UK, 3 pp.

Visser, C., Simpson, T., Sim, J., **Maczey, N.** and **Pratt, C.** (2024) DPLUS134 Repelling the Invader: turning the tide on Ascension's Mexican thorn. Final project report, 35 pp. https://darwinplus.org.uk/documents/DPLUS134/27434/DPLUS134%20FR%20-%20edited.pdf

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Weyl, P., **Cloşca, C.**, **Arriaran, E.M.** and **Hinz, H.L.** (2024) Biological control of whitetops, *Lepidium draba, L. chalepense* and *L. appelianum*. Annual Report 2023. Unpublished report, CABI, Delémont, Switzerland, 12 pp.

Weyl, P., **Pessina, A.** and **Humair, L.** (2024) Biological control of Russian knapweed, *Rhaponticum repens*. Annual Report 2023. Unpublished report, CABI, Delémont, Switzerland, 11 pp.

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Wood, S., **Maczey, N.** and **Kurose, D.** (2024) Investigations into the biocontrol of *Elodea nuttallii* and *E. canadensis.* Progress report (April–December 2024). Unpublished report, CABI, Egham, UK, 17 pp.

Wood, S., **Tilling, A.**, **Forbes, P.**, **Berman, C.** and **Djeddour, D.** (2024) Biocontrol of floating pennywort (*Hydrocotyle ranunculoides*) on the River Medway. Annual Report (January 2023–July 2024). Unpublished report, CABI, Egham, UK, 8 pp.

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Wood, S., **Varia, S.**, **Pollard, K.** and **Thomas, S.** (2024) Biological control of Australian swamp stonecrop and Himalayan balsam in Wales. Annual Report (March 2023–March 2024). Unpublished report, CABI, Egham, UK, 21 pp.

Zhang, J.P., **Bai, Y.N.**, **Song, Z.J.**, **Luo, Z.Y.**, **Ali, M.** and **Zhang, F.** (2024) Laboratory ovicidal assays of spotted lantern fly progress report to Zespri. Project report, May 2024, CABI, Beijing, China, 12 pp.

Zhang, J.P., **Bai, Y.N.**, **Song, Z.J.**, **Luo, Z.Y.** and **Zhang, F.** (2024) Nymph field assays of spotted lantern fly progress report to Zespri. Project report, June 2024. Unpublished report, CABI, Beijing, China, 10 pp.

Zhang, J.P., **Bai, Y.N.**, **Song, Z.J.**, **Luo, Z.Y.** and **Zhang, F.** (2024) Nymph semi-field assays of spotted lantern fly progress report to Zespri. Project report, May 2024. Unpublished report, CABI, Beijing, China, 11 pp.

Zhang, J.P., **Song, Z.J.** and **Zhang, F.** (2024) Testing the efficacy of chemicals in the Zespri Crop Protection Standard against SLF nymphs and eggs. Project final report, November 2024. Unpublished report, CABI, Beijing, China, 35 pp.

2.6. Oral presentations at scientific meetings (141)

CABI authors are shown in **bold**, the presenting author is underlined.

Ali, S. and **Ishaq, W.** (2024) Crop management on problematic soil and reclamation of degraded soil. 2nd International Conference on Food Security and Value Chain System, 9 December 2024, MNS University of Agriculture, Multan, Pakistan (invited speaker).

Allan, M., Asamoah, E., **Clottey, V.**, **Gatere, L.** and van der Woude, T. (2024) Applying the SIS Framework to develop a SIS roadmap for Ghana. A Roadmap Development Workshop for Ghana's Soil Information System, 9–10 October 2024, Koforidua, Ghana.

Allan, M., Coley, M., **Gatere, L.**, **Phiri, N.**, van der Woude, T. and **Valverde, A.** (2024) Applying the SIS Framework to develop a SIS roadmap for Zambia. A Roadmap Development Workshop for Zambia's Soil Information System, 17–18 April 2024, Lusaka, Zambia.

Avtzis, D.N., Eleftheriadou, N., Lubanga, U.K., Lefoe, G.K., **Seehausen, M.L.** and **Kenis, M.** (2024) Towards establishing a biological control program against the giant pine scale *Marchalina hellenica* (Hemiptera: Marchalinidae) in Australia. 27th International Congress of Entomology, 25–30 August 2024, Kyoto, Japan.

Cameron, K. (2024) Digital delivery of agricultural advice to smallholder farmers in Ghana and beyond. ICT4D Conference, 19–20 March 2024, Accra, Ghana.

Chaudhary, M. (2024) Strategy and vision for integrating digital tools for farmer advisory. IPPS 2024, 26–27 April 2024, Kathmandu, Nepal.

Chaudhary, M. and **Kadzmira, M.** (2024) Local biopesticide production hubs – insights on business models and evidence of women's empowerment from Bangladesh and India. 3rd International Congress of Biological Control (ICBC3), 24–28 June 2024, San José, Costa Rica.

Chaudhary, M., **Manjari, M.** and **Palmer, C.** (2024) Human centric design approaches for sustainability and scalability of farmers' advisory through CABI PlantwisePlus digital advisory tools. International Conference on Plant Health in Asia: Research Priorities and Partnerships, 17–18 December 2024, Guntur, Andhra Pradesh, India.

Chaudhary, M., **Manjari, M.**, **Sonam, H.** and **Muraguri, K.** (2024) Digital support tools: catalysing the uptake of bioprotection products through technological interventions. 3rd International Congress of Biological Control (ICBC3), 24–28 June 2024, San José, Costa Rica.

Coley, M., **Gatere, L.**, Gudeta, K., Kabiti, R., Kiplagat, L., **Parr, M.**, van der Woude, T. and Witt, C. (2024) A process toward strengthening national Soil Information Services (SIS). Africa Fertilizer and Soil Health (AFSH) Summit, 7–9 May 2024, Nairobi, Kenya.

Colmenarez, Y. (2024) Collaboration platforms and public–private initiatives favouring the uptake of biological control – case studies from Latin America. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Colmenarez, Y. (2024) Estratégias de manejo de mosca branca e redução da incidência dos vírus de plantas transmitidos: casos de estudo na América Latina. 43rd Congresso Paulista de Fitopatologia, 22–24 July 2024, Botucatu, Brazil (invited speaker).

Colmenarez, Y. (2024) Avanços nos métodos de monitoramento de entomofauna no agroecossistema. VII Congresso Brasileiro de Fitossanidade (CONBRAF), 21–23 August 2024, Viçosa, Brazil (invited speaker).

Colmenarez, Y. (2024) Invertebrados: de la investigación a la aplicación práctica y uso. 11th Meeting of the Coordination Table for 'Agricultural Biotechnology in Insects +', 20 September 2024 (online).

Colmenarez, Y. (2024) Uso e produção massiva de *Telenomus rem*us (Nixon, 1937) (Hymenoptera: Scelionidae) no manejo de sustentável do complexo *Spodoptera* spp. na América Latina: potencial, desafios e principais benefícios. XXIX Brazilian Congress of Entomology (CBE), 22–26 September 2024, Uberlândia, Brazil.

Colmenarez, Y. and Vásquez, C. (2024) Control biológico aplicado y factores que favorecen su adopción en América Latina. Simposio Internacional de Bioinsumos para una Agricultura Sustentable, 11–12 September 2024, Universidad de las Américas (UDLA), Quito, Ecuador.

Constantine, K., **Durocher-Granger, L.**, Chiboola, M., Mudenda, S., **Mbugua, F.**, **Rware, H.**, **Luke, B.** and **Williams, F.** (2024) Gendered roles and practices in the household and on the farm: Implications for biological control by maize farmers in Zambia. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Constantine, K., **Makale, F.**, **Mugambi, I.**, **Rware, H.**, **Chacha, D.**, **Lowry, A.**, **Opisa, S.**, **Rwomushana, I.** and **Williams, F.** (2024) Smallholders' knowledge, attitudes, and practices towards biological control of papaya mealybug (*Paracoccus marginatus*) in Kenya. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Djeddour, D. (2024) An introduction to CABI's UK weed biocontrol initiatives, with focus on targets such as floating pennywort, Azolla and Himalayan balsam. Ver Valley Society, 22 February 2024, Bricket Wood, UK.

Djeddour, D. (2024) Progress with weed biocontrol in the UK. Water UK, INNS Conference, 18 April 2024, York, UK.

Djeddour, D. (2024) Sustainable access and benefit sharing of biological control genetic resources – a CABI user example (flash talk). Microbes4Climate Ethics and Regulatory Workshop, 25–27 November 2024, Vienna, Austria.

Djeddour, D. (2024) Progress with biological control of *Hydrocotyle ranunculoides*. Property Care Association International Weed Conference, 27–28 November 2024, Warwick, UK.

Ensing, D.J., Marshall, V., **Humair, L.**, **Weyl, P.S.R.**, **Häfliger, P.** and Bourchier, R. (2024) International collaboration yields biocontrol options for invasive aquatic plants in BC. Invasives 2024, Invasive Species Council of British Columbia Annual Forum and AGM, 26–29 February 2024, New Westminster, British Columbia, Canada.

Eschen, R., Cleary, M., de Groot, M. and Santini, A. (2024) Integrated pest management of fungal pathogens in forestry. 26th IUFRO World Congress, 23–29 June 2024, Stockholm, Sweden.

Eschen, R., Cleary, M., de Groot, M. and Santini, A. (2024) Short- and long-term integrated management of forest pests and pathogens. IUFRO Division 7 Forest Health Joint Meeting of Working Parties 7.03.06 7.03.12 and 7.03.13: Theory and Practice to Address Defoliating Insects, Invasive Pests and Biological Control of Insects and Pathogens in Forests, 21–23 August 2024, Tokyo, Japan.

Fallet, P., Bazagwira, D., Bustos-Segura, C., Kajuga, J., **Toepfer, S.** and Turlings, T.C.J. (2024) Controlling the fall armyworm in Africa with entomopathogenic nematodes. Conference on the 100th anniversary of the first description of the entomopathogenic nematode *Steinernema kraussei*, 10–12 April 2024, Logrono, Spain.

Fazlullah, **Farooq, M.**, **Rashid, K.** and **Zada, N.** (2024) Dietary impacts on *Corcyra cephalonica* rearing: insights for mass production. 8th International Conference on Sustainable Livelihoods: Climate Smart Agriculture for Food Safety, 3–4 July 2024, University of Poonch Rawalakot, Azad Jammu & Kashmir, Pakistan (invited speaker).

Franic, I., Cleary, M., **Eschen, R.** and Prospero, S. (2024) Mycobiome research for safer international tree seed trade. 26th IUFRO World Congress, 23–29 June 2024, Stockholm, Sweden.

Franic, I. and 81 co-authors, including **Li, H.**, **Kenis, M.** and **Eschen, R.** (2024) Climate, host and geography are of similar importance in shaping insect and fungal communities of trees on a global scale. 26th IUFRO World Congress, 23–29 June 2024, Stockholm, Sweden.

Franklin, M., Abram, P., Uriel, Y., Sherwood, J., Gibson, G., Baur, H. and **Haye, T.** (2024) Looking for the 'good' agents – exploration for indigenous and exotic natural enemies for management of the invasive strawberry blossom weevil. Joint Annual Meeting of the Entomological Society of Canada and the Entomological Society of Quebec, 20–23 October 2024, Quebec City, Canada.

Franklin, M., Uriel, Y., Sherwood, J., Gibson, G.A.P., Baur, H. and **Haye, T.** (2024) The search for biological control agents for the management of the invasive strawberry blossom weevil, *Anthonomus rubi*. 27th International Congress of Entomology, 25–30 August 2024, Kyoto, Japan.

Gatere, L. (2024) A framework for sustainable national soil information systems. 19th Comprehensive African Agricultural Development Programme (CAADP) Partnership Platform, 31 October 2024, Harare, Zimbabwe.

Gurmessa, N.E., **Bateman, M.**, **Mugambi, I.**, **Mbugua, F.**, **Bundi, M.**, **Romney, D.**, **Karanja, D.** and **Vos, J.** (2024) Chemical and non-chemical pest management by smallholders and recommendations for low-risk solutions in line with regenerative approaches: insights from desk and field study findings from Ethiopia and Kenya. Veggies 4 Planet & People First International Conference, 28–29 May 2024, Nairobi, Kenya.

Haye, T. (2024) Verbreitung und Regulierung der Marmorierten Baumwanze (*Halyomorpha halys*). Öko-Obstbautagung, 30–31 January 2024, Naumburg/Saale, Germany.

Haye, T. and Gariepy, T.D. (2024) Foreign exploration for candidate biological control agents: 75 years of scientific partnership between Canada and CABI. Joint Annual Meeting of the Entomological Society of Canada and the Entomological Society of Quebec, 20–23 October 2024, Quebec City, Canada.

Haye, T., Häner, N. and Abram, P. (2024) Intraspecific variability in biocontrol agents: comparative studies of two strains of *Trissolcus japonicus*. Annual Meeting of Entomological Society of America, 10–13 November 2024, Phoenix, Arizona, USA.

Hinz, H.L. (2024) Classical biological control of weeds and insects. FAO Open-ended Workshop on Biological Control Agents and Biostimulants, 23–24 September 2024, Rome, Italy.

Hinz, H.L., **Haye, T.**, Herz, A., **Kenis, M.**, Lesieur, V., Marchante, H., Sabbatini Peverieri, G., **Seehausen, M.L.** and **Seier, M.** (2024) Classical biological control in Europe: regulatory constraints and how to move forward. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica (keynote).

Humair, L. (2024) Biological control of tropical weeds in temperate biomes. Doctoral School of Life Sciences, Annual PhD Meeting, 27–28 June 2024, Neuchâtel, Switzerland.

Ivanyi, D., Dorner, Z., **Schaffner, U.**, Zalai, M., Kiss, J., Kontschán, J., Kiss, B., Müller-Schärer, H., Sun, Y. and **Toepfer S.** (2024) A parlagfű olajosbogár (*Ophraella communa*) kockázatelemzése az ürömlevelű parlagfű (*Ambrosia artemisiifolia*) elleni biológiai védekezésben [Risk assessment of *Ophraella communa* for biological control of common ragweed (*Ambrosia artemisiifolia*)]. 19th Carpathian Basin Conference for Environmental Sciences, 3–5 April 2024, Debrecen, Hungary.

Ivanyi, D., Magyar, B.I., Dorner, Z., **Schaffner, U.**, Zalai, M., Kiss, J., Kontschán, J., Modic, S., Nekrep, I., Razinger, J., Leskovsek, R., Müller-Schärer, H., **Toepfer, S.** and Sun, Y. (2024) The ragweed leaf beetle's (*Ophraella communa*) population dynamics under diverse climatic conditions of Central Europe. XXVII Spring Wind Conference, 3–5 May 2024, Óbuda, Hungary.

Kanyumbu, N.M., **Durocher-Granger, L.**, **Nakombe, S.**, **Kasoma, C.** and **Kenis, M.** (2024) First report of *Phthorimaea absoluta* parasitoids in Southern Africa. 25th Biennial Scientific Conference and 45th Sapphire Jubilee Anniversary of the African Association of Insect Scientists (AAIS), 18–22 November 2024, Lusaka, Zambia.

Kanyumbu, N.M., **Durocher-Granger, L.**, **Nakombe, S.**, **Kasoma, C.** and **Kenis, M.** (2024) First report of *Phthorimaea absoluta* parasitoids in Southern Africa. International Multi-Disciplinary Conference, 18–20 December 2024, Lusaka, Zambia.

Kasoma, C. (2024) Biological control and IPM in low- and middle-income countries (LMICs) – CABI's experience on FAW in Africa under the theme: Biocontrol and IPM in uncertain climatic and economic environments. Meeting on Biological Control and Integrated Pest Management in Uncertain Climatic and Economic Environments, 11–12 November 2024, Leicester, UK (keynote).

Kasoma, C. (2024) The role of the Scientific Advisory Committee of the National Biosafety Authority. Meeting to address the Parliamentary Committee at the National Assembly, 4 December 2024, Lusaka, Zambia.

Kasoma, C. (2024) Invasive species: nurturing nature-positive pest management of crop pests. International Multi-Disciplinary Conference, 18–20 December 2024, Lusaka, Zambia (keynote).

Kenis, M. (2024) Le frelon asiatique, Frelon à pattes jaunes, *Vespa velutina nigrithorax.* Rencontres Frelon Asiatique, 10 February 2024, Courtemelon, Switzerland.

Kenis, M. (2024) Importance of host specificity in classical biological control against insect pests threatening livelihoods. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Kenis, M. (2024) Horizon scanning for plant pest prioritization. IPPC Webinar Series: Climate change and phytosanitary measures, 24 September 2024 (online).

Kenis, M., **Seehausen, M.L.**, Valenti, R., **Haye, T.**, Marazzi, C., Meier, M. and Jelmini, L. (2024) Classical biological control of the Japanese beetle, *Popillia japonica*, in Europe using the tachinid fly *Istocheta aldrichi*. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Kermode, A.J. (2024) Managing change within a culture collection: a case study on the challenges within quality, data management and infrastructure within CABI's collection. European Culture Collections' Organisation (ECCO) Meeting XXLI, 18–20 September 2024, Bari, Italy.

Kuhlmann, U. (2024) Introducing the CABI BioProtection Portal. Global Minor Use Summit IV, 5–8 February 2024, Madrid, Spain.

Kuhlmann, U. (2024) The AAFC and CABI partnership. Biodiversity Days and 75 Years Scientific Partnership Celebration, 26–27 November 2024, Ottawa, Canada.

Kurose, D. (2024) Biological control of invasive alien plant species. BSBI England Annual Meeting, 25 February 2024 (online).

Li, H. (2024) Invasive species management and locust sustainable control, 2023–2024. Technical Advisory Group Meeting, 22 March 2024, Beijing, China.

Li, H. (2024) The monitoring and sustainable control of yellow-spined bamboo locust. Training course on Comprehensive prevention and control technology of major diseases and pests of Chinese and old crops, 8–13 September 2024, Vientiane, Laos.

Li, H., **Toepfer, S.**, Wang, G. and **Zhang, F.** (2024) Digital technologies for farm advisory in crop pest management. China–Europe Symposium on Innovation and Development of IPM in Agriculture, 1 November 2024, Guiyang, Guizhou, China.

Li, H., **Zhang, F.**, Wang, G. and Zhuo, F. (2024) Jointly prevention and control on yellow-spined bamboo locust. China–ASEAN Workshop on Cooperative Management of Major Transboundary Pests, 1 August 2024, Beijing, China.

Li, H., Zhang, Q., **Taylor, B.**, **Luke, B.** and **Zhang, F.** (2024) Application of digital technologies for supporting precision agriculture. Global Tropical Agriculture Innovation Conference, 5–7 December 2024, Sanya, Hainan, China.

Lu, Y.H., **Kuhlmann, U.**, Tian, F. and **Li, H.** (2024) Joint Laboratory Annual Review 2023 & Plan 2024. 16th Joint Lab SC Meeting and 6th Annual Meeting of European Lab, 23–25 March 2024, Hefei, Anhui, China.

Madni, U., **Fazlullah**, **Farooq, M.**, Bahar, G., Anjam, H., Iftikhar, Z. and **Rashid, K.** (2024) Synergistic effects of *Azadirachta indica* and *Telenomus remus* against *Spodoptera frugiperda* control. 8th International Conference on Sustainable Livelihoods: Climate Smart Agriculture for Food Safety, 3–4 July 2024, University of Poonch Rawalakot, Azad Jammu & Kashmir, Pakistan.

Magata, E., **Opisa, S.**, Nyasani, J., Kabole, M., Muvea, A., Kinuthia, W., Achieng, J., **Okello, A.**, **Karanja, J.**, **Chacha, D.**, **Makale, F.**, **Rehman, A.**, **Luke, B.**, **Rwomushana, I.** and **Kenis, M.** (2024) Protocol for mass-rearing and field release of *Acerophagus papayae* parasitoid for the management of papaya mealybug *Paracoccus marginatus*. 25th Biennial Meeting Scientific Conference and 45th Sapphire Jubilee Anniversary of the African Association of Insect Scientists (AAIS), 18–22 November 2024, University of Zambia Graduate School of Business, Lusaka, Zambia.

Mahmood, S., Bebber, D., Dobson, G., **Finegold, C.**, Karlsson, X., Lavender, E., **Oliver, G.**, **Taylor, B.** and **Szyniszewska, A.M.** (2024) Spatio-temporal prediction of maize attainable yield at global scales. American Geophysical Union Annual Meeting, 9–13 December 2024, Washington, DC, USA.

Malek, R. (2024) The CABI BioProtection Portal – increasing awareness and uptake of bioprotection products globally. Advancing Regulatory Harmonisation and Biopesticide Innovation in Africa, 4–8 March 2024, Cape Town, South Africa.

Manjari, M., **Chaudhary, M.**, **Mahesh, H.M.** and **Pandit, V.** (2024) Current scenario and important stakeholders: digital intervention in Nepal-agriculture sector. International Plant Protection Symposium (IPPS), 26–27 April 2024, Kathmandu, Nepal.

Mutumwinka, M., Waweru, B.W., Kajuga, N.J., Ishimwe, P.M., Bazagwira, D., Hategekimana, A., Nyombayire, A., Cadeau, G., Bigirimana, V.P., Yan, X., Fallet, P., Turlings, T. and **Toepfer, S.** (2024) Efficacy of entomopathogenic nematodes compared to local pest management practices against fall armyworm, *Spodoptera frugiperda* in maize. 2nd Rwanda Science and Technology Conference, 23–24 September 2024, Kigali, Rwanda.

Nakombe, S. (2024) Fall armyworm infestation and development and screening of tropical maize genotypes for resistance in Zambia. International Multi-Disciplinary Conference, 18–20 December 2024, Lusaka, Zambia.

Oliver, G., **Szyniszewska, A.**, **Beale, T.**, **Lowry, A.**, Milne, A., Mead, A., Hull, R., Gilhespy, S. and Bebber, D. (2024) Identifying the top damaging pests in country's cropping systems: two case studies. International Pest Risk Research Group (IPRRG) Annual Meeting, 17–20 September 2024, Torre del Mar, Malaga, Spain.

Opisa, S., Achieng, J., Kinuthia, W., Nyasani, J., Kabole, M., Muvea, A., Nankinga, C.M., **Magata, E.**, **Okello, A.**, **Karanja, J.**, **Chacha, D.**, **Agboyi, L.K.**, **Mbugua, F.**, **Makale, F.**, **Rehman, A.**, **Mulema, J.**, **Luke, B.**, **Kenis, M.** and **Rwomushana, I.** (2024) Post release survey on natural enemies of papaya mealybug *Paracoccus marginatus* in Kenya. 25th Biennial Meeting Scientific Conference and 45th Sapphire Jubilee Anniversary of the African Association of Insect Scientists (AAIS), 18–22 November 2024, University of Zambia Graduate School of Business, Lusaka, Zambia.

Opisa, S., **Constantine, K.**, **Makale, F.**, Nyasani, J., Muvea, A., Kabole, M., Kinuthia, W., Achieng, J., Asudi, G., **Chacha, D.**, **Agboyi, L.K.**, **Rehman, A.**, **Kenis, M.**, **Williams, F.**, **Luke, B.** and **Rwomushana, I.** (2024) Economic impact of classical biological control of papaya mealybug in Kenya using its parasitoid *Acerophagus papayae* Noyes and Schauff (Hymenoptera: Encyrtidae). 1st Joint International Scientific Conference, National Museums of Kenya and Association of Kenyan Entomologists, 3–6 June 2024, National Museums of Kenya, Nairobi, Kenya.

Palmer, C. (2024) Digital tools for pest management in horticultural crops. International Conference on Plant Protection in Horticulture (ICPPH-2024), 25 September 2024, Bengaluru, India.

Pollard, K. (2024) Can a rust fungus control Himalayan balsam on the River Ver and beyond? Ver Valley Society, 18 June 2024, Bricket Wood, UK.

Perez Sierra, A. and 21 co-authors, including **Eschen, R.** (2024) EUPHRESCO project COSEPATH, are seeds a potential pathway for pests and pathogens and a risk for future forestry? 26th IUFRO World Congress, 23–29 June 2024, Stockholm, Sweden.

Pratt, C., **Djeddour, D.**, **Kurose, D.**, **Maczey, N.**, **Pollard, K.**, **Seier, M.**, **Shaw, R.**, **Thomas, S.**, **Varia, S.** and **Wood, S.** (2024) Classical biological control of invasive alien plants in the UK and Europe. 17th Meeting of the Joint EPPO/IOBC Panel on Biological Control Agents, 8 October 2024, Helsinki, Finland [remote presentation].

Pratt, C., **Djeddour, D.**, **Kurose, D.**, **Maczey, N.**, **Pollard, K.**, **Seier, M.**, **Shaw, R.**, **Thomas, S.**, **Varia, S.** and **Wood, S.** (2024) An introduction to classical biological control of invasive non-native weeds. MSc Entomology/Integrated Pest, Weed and Disease Management lectures, 22 November 2024, Harper Adams University, Newport, UK.

Rwomushana, I. (2024) Can farmers produce their own biopesticides: a baculovirus for fall armyworm in Kenya and Zambia. Advancing Regulatory Harmonisation and Biopesticide Innovation in Africa, 4–8 March 2024, Cape Town, South Africa.

Rwomushana, I., **Kasoma, C.**, **Shimbwambwa, D.**, **Ochieng, V.** and **Odunga, S.** (2024) CABI's digital tools for biosecurity and plant health. 1st Joint International Scientific Conference, National Museums of Kenya and the Association of Kenyan Entomologists, 3–6 June 2024, National Museums of Kenya, Nairobi, Kenya.

Rwomushana, I., **Miller, S.**, Nayasani, J., Kabole, M., **Makale, F.** and **Luke, B.** (2024) Classical biological control for the sustainable management of papaya mealybug (*Paracoccus marginatus*) in East Africa. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Ryan, M. (2024) CABI's approach to the Nagoya Protocol on ABS – an international perspective. USCCN Workshop, 11 June 2024, Davis, California, USA.

Ryan, M. (2024) Exploiting the potential of the plant microbiome the role of biobanks and supporting infrastructure. Fall meeting, American Chemical Society, 18 August 2024, Denver, Colorado, USA.

Ryan, M. (2024) Securing the future of microbiome research and innovation – the need for biobanking infrastructure in the UK. One Health Microbiome Conference, 11 September 2024, University of Liverpool, UK.

Ryan, M. (2024) CABI's biological collections. United States Culture Collection Network Workshop. Phytobiomes Meeting, 19 November 2024, St. Louis, Missouri, USA.

Sanchez-Presa, L., **Beale, T.**, **Fielder, H.**, **Charles, L.** and **Day, R.** (2024) Modelling invasion risk of plant pests using self-organising maps to support pest risk assessment activities. International Pest Risk Research Group (IPRRG) Annual Meeting, 17–20 September 2024, Torre del Mar, Malaga, Spain.

Schaffner, U. (2024) Towards regenerative, multifunctional landscapes. Sustainable Agriculture Network Annual Conference, 4 June 2024 (online).

Schaffner, U. (2024) Biological control for One Health. FAO Open-ended Workshop on Biological Control Agents and Biostimulants, 23–24 September 2024, Rome, Italy.

Schaffner, U. (2024) The trouble with invasive non-native trees. 3rd International TAFORI Scientific Conference, 11–13 December 2024, Arusha, Tanzania (keynote).

Seehausen, M.L. (2024) Erste Erfahrungen – Freisetzungsversuch mit Schlupfwespen gegen die Kirschessigfliege in der Schweiz. Steinobsttagung SG/TG, 12 January 2024, Gossau, Switzerland.

Seehausen, M.L. (2024) Biologische Regulation und Bekämpfungsstrategie gegen die Kirschessigfliege: Freisetzung der asiatischen Schlupfwespe *Ganaspis brasiliensis* – Eine Chance für unsere Region? Pflanzenschutz und Kirschenhochstamm Veranstaltung, 24 January 2024, Cham, Switzerland.

Seehausen, M.L. (2024) Methoden zum Auffinden von Nestern der asiatischen Hornisse *Vespa velutina nigrithorax*. Schulung Asiatische Hornisse, Kanton Bern, 10 February 2024, Zollikofen, Switzerland.

Seehausen, M.L. (2024) Die asiatische Hornisse *Vespa velutina nigrithorax* – Biologie, Ökologie und Methoden zum Auffinden von Nestern. Schirach-Imker-Convent, 17–18 February 2024, Bautzen, Germany.

Seehausen, M.L. (2024) Die asiatische Hornisse *Vespa velutina nigrithorax* – Biologie, Ökologie und Methoden zum Auffinden von Nestern. Schulung der Bienensachverständigen und Gesundheitswarte der Vereine, Landesverband für Bienenzucht in Tirol, 2 March 2024, Imst, Austria.

Seehausen, M.L. (2024) Die asiatische Hornisse *Vespa velutina nigrithorax* – Biologie, Ökologie und Methoden zum Auffinden von Nestern. Schulung Asiatische Hornisse, Kanton Zürich, 16 March 2024, Zürich, Switzerland.

Seehausen, M.L. (2024) Die asiatische Hornisse *Vespa velutina nigrithorax* – Biologie, Ökologie und Methoden zum Auffinden von Nestern. Schulung Asiatische Hornisse, Imkerverein Lörrach, 28 March 2024, Lörrach, Germany.

Seehausen, M.L. (2024) Die asiatische Hornisse *Vespa velutina nigrithorax* – Biologie, Ökologie und Methoden zum Auffinden von Nestern. Schulung Asiatische Hornisse, Kanton Zürich, 13 April 2024, Zürich, Switzerland.

Seehausen, M.L. (2024) Auffinden von *Vespa velutina* Nestern mittels Dochtgläsern und Radiotelemetrie. Schulung Asiatische Hornisse, Kanton Bern, 20 April 2024, Zollikofen, Switzerland.

Seehausen, M.L. (2024) Recherche des nids primaires de frelon asiatique – Infos et astuces. Soirée d'information pour apiculteurs, 23 April 2024, Courtemelon, Switzerland.

Seehausen, M.L. (2024) Biologische Kontrolle der Kirschessigfliege: Erste Erfahrungen mit Freisetzungen einer asiatischen Schlupfwespe. Hochstamm Suisse Tagung, 27 April 2024, St. Pantaleon, Switzerland.

Seehausen, M.L. (2024) Recherche des nids primaires de frelon asiatique – Infos et astuces. Soirée d'information pour apiculteurs, 7 May 2024, Courtemelon, Switzerland.

Seehausen, M.L. (2024) Détection de nids de *Vespa velutina* à l'aide de pots à mèche et par radio-télémétrie. Soirée d'information pour apiculteurs, 22 June 2024, Courtemelon, Switzerland.

Seehausen, M.L. (2024) Biologie et écologie du frelon asiatique *Vespa velutina nigrithorax*. Soirée d'information pour référents Frelon asiatique, 2 July 2024, Cernier, Switzerland.

Seehausen, M.L. (2024) Natürliche Helden: Biologische Schädlingsbekämpfung mittels Schlupfwespen – Potenzial und Herausforderungen. Bio Beeren Morgen, 19 November 2024, Sulgen, Switzerland.

Seehausen, M.L. (2024) Protection des abeilles et autres pollinisateurs contre le frelon asiatique à pattes jaunes. Groupe de travail Frelon asiatique du Cercle Exotique, 26 November 2024, Bern, Switzerland.

Seehausen, M.L. (2024) Biologische Kontrolle der Kirschessigfliege mit der asiatischen Schlupfwespe *Ganaspis kimorum* – Erste Erkenntnisse aus der Schweiz. Schweizer Steinobstseminar, 4–5 December 2024, Bern, Switzerland.

Seehausen, M.L. and **Kenis, M.** (2024) Nützlinge als universelle Alternative zu Pflanzenschutzmitteln? 8. Tagung Aktionsplan Pflanzenschutzmittel, 2 October 2024, Zollikofen, Switzerland.

Seehausen, M.L., Afonso, C., Queffelec, J., Allison, J., Jactel, H. and **Kenis, M.** (2024) What influences the success of classical biological control of insect pests? 27th International Congress of Entomology, 25–30 August 2024, Kyoto, Japan.

Seehausen, M.L., Buhari, A., Qin, D., Pirelli, M. and **Kenis, M.** (2024) Studying BTM parasitoids from South Korea for classical biological control. Second Semi-annual Euphresco BTM Research Update Meeting, 23 January 2024 (online meeting).

Seehausen, M.L., Park, I., Kim, S., Lee, S., Lee, M., Buhari, A.K., Qin, D., Ohshima, I., Dodge, C., Gould, J. and **Kenis, M.** (2024) Assessing Asian parasitoids for classical biological control of the invasive box tree moth in Europe and North America. IUFRO Division 7 Forest Health Joint Meeting of Working Parties 7.03.06, 7.03.12 and 7.03.13: Theory and Practice to Address Defoliating Insects, Invasive Pests and Biological Control of Insects and Pathogens in Forests, 21–23 August 2024, Tokyo, Japan.

Seehausen, M.L., Vogel, C., Manzinalli, J. and Cherix, D. (2024) The invasion of Switzerland by the Asian yellow-legged hornet, a threat to honeybees and other pollinators. European IUSSI Congress, 7–11 July 2024, Lausanne, Switzerland.

Seier, M.K. and **Weyl, P.** (2024) Biological control of invasive alien plants in Europe – opportunities and challenges. EWRS workshop 'Biological control as a tool for managing invasive alien plants', 31 October–2 November 2024, Antalya, Turkey.

Seier, M.K., **Djeddour, D.**, **Kurose, D.**, **Pollard, K.**, **Pratt, C.**, **Shaw, R.**, **Thomas, S.**, **Varia, S.** and **Wood, S.** (2024) An overview of the classical biological control programme against invasive non-native plant species in the UK. EWRS workshop 'Biological control as a tool for managing invasive alien plants', 31 October–2 November 2024, Antalya, Turkey.

Shimbwambwa, D., **Kasoma, C.**, **Odunga, S.**, **Ochieng', V.**, **Chacha, D.** and **Rwomushana, I.** (2024) Participatory development and deployment of lower-risk pest management for fall armyworm in Zambia. International Multi-Disciplinary Conference, 18–20 December 2024, Lusaka, Zambia.

Szomszor, M., **Bird, D.**, **Li, H.**, **Zhang, F.**, **Toepfer, S.** and **Kuhlmann, U.** (2024) Bibliographic analyses of Joint labs, subcentres and CABI. Project development meeting of MARA-CABI Joint Lab and Subcenters from China and CABI, 12–14 November 2024, Delémont, Switzerland.

Szyniszewska, A.M. (2024) Measuring and understanding the global burden of crop loss: data requirements and opportunities on yields, pest presence, and economic burden of the hazards. Agricultural Development and Climate Change Unit's 2nd Experts Meeting on Agricultural Statistics, Economic Commission for Latin America and Caribbean (ELCAC), 10 September 2024, Mexico City, Mexico (invited speaker).

Szyniszewska, A.M., **Mahmood, S.**, **Oliver, G.**, Lavender, E., Bebber, D., Milne, A., Pounder, N., **Finegold, C.** and **Taylor, B.** (2024) Approaches to estimating factors contributing to yield losses in the Global Burden of Crop Loss project. International Pest Risk Research Group (IPRRG) Annual Meeting, 17–20 September 2024, Torre del Mar, Malaga, Spain.

Szyniszewska, A.M., Rodriguez, D.Z., **Oliver, G.**, **Mahmood, S.**, **Beeken, J.**, Bebber, D., Simpkins, K., **Finegold, C.** and **Taylor, B.** (2024) Assessing crop losses in maize in the Global Burden of Crop Loss: lessons from Kenya and South Africa. Africa Plant Health Systems Forum, 23–24 October 2024, Nairobi, Kenya.

Tambo, J.A. (2024) Recognizing farmers' indigenous innovations in Africa. Workshop on Indigenous Peoples' Knowledge and the Sciences, 14–15 March 2024, The Pontifical Academy of Sciences, Casina Pio IV, Vatican City.

Tambo, J.A. (2024) Towards sustainable crop protection: the role of PlantwisePlus. Visions for a Sustainable Agriculture, 15–17 May 2024, University of Neuchâtel, Neuchâtel, Switzerland.

Tambo, J.A. (2024) Towards sustainable pest management: the role of the global PlantwisePlus programme. International Conference on Sustainable Solutions, Shared Futures: Development Research for the 21st Century, 30 September–2 October 2024, Bonn, Germany.

Tambo, J.A., **Holmes, K.**, **Alaganthiran, J.R.**, **Faisal, S.**, **Ahmed, S.M.**, Akter, K. and **Luke, B.** (2024) Adoption and impact of biopesticides in Bangladesh. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Tambo, J.A., **Holmes, K.**, **Aliamo, C.**, **Mbugua, F.**, **Alokit, C.**, Muzira, F., Byamugisha, A. and Mwambu, P. (2024) Do agro-input dealers care about pesticide risk reduction: evidence from a choice experiment in Uganda. 98th Annual Conference of the Agricultural Economics Society, 18–20 March 2024, University of Edinburgh, UK.

Tambo, J.A., **Holmes, K.**, **Pandit, V.**, **Faisal, S.** and Sharma, D.R. (2024) Pesticide retailers' preferences for sustainability standard attributes: evidence from Nepal. 32nd International Conference of Agricultural Economists, 2–7 August 2024, New Delhi, India.

Tarigan, S.I., Kiss, J., Turoczi, G., Doan, P.Y.N. and **Toepfer, S.** (2024) Potential effects of microbial biostimulants on maize crop performance and *Diabrotica v. virgifera* larvae under semi field conditions. 21st European Young Cereal Scientists and Technologists Conference, 3–5 June 2024, School of Agriculture University of Lisbon (ISA) (Instituto Superior de Agronomía), Lisbon, Portugal.

Tarigan, S.I., Turóczi, G., Kiss, J., Doan, N.P.Y. and **Toepfer, S.** (2024) Effects of microbial biostimulants on maize and its pest the western corn rootworm, *Diabrotica virgifera*. IX Congress of Plant Protection, Plant Protection Society of Serbia (PPSS), 25–28 November 2024, Zlatibor, Serbia.

Taylor, B., **Bodevin, P.**, **Day, C.**, Styles, J., Shaw, A., Kriticos, D., **Beale, T.**, **Lowry, A.**, **Sanchez-Presa, L.**, Lopez-Saldana, G., Cornelius, A., Mahoney, J. and **Beeken, J.** (2024) Using Earth Observation to improve decision making in pest management. EO for Agriculture Under Pressure Workshop, 13–16 May 2024, European Space Agency, Frascati, Italy.

Thakur, M. (2024) Agroecological farming systems and the role of plant clinics and digital tools in promoting sustainable agriculture and farmer resilience. 10th National Conference on Agro-Ecological Farming System to Promote Sustainable Agriculture, Pushkaram College of Agriculture Sciences (PCAS) and National Research Centre for Banana (NRCB), 18–19 August 2024, Trichy, India.

Thakur, M. (2024) CABI decision support tools and interventions for strengthening plant biosecurity. Training Programme on Diagnosis of Pests, Pest Risk Analysis, Pest Surveillance and Phytosanitary Treatments for NPPO Uzbekistan, 17 September 2024, NIPHM, Hyderabad, India.

Thakur, M. and **Nagpal, A.** (2024) Plant clinic approach and CABI digital tools. Digitalization of Agriculture: Current Challenges, Responses and Opportunities for Smallholders, 4 March 2024, NIBIO and MSSRF, New Delhi, India.

Tilling, A., **Djeddour, D.** and **Wood, S.** (2024) Biological control and floating pennywort on the Medway. Medway Catchment Partnership meeting, 15 March 2024, Kent, UK.

Tilling, A., **Pratt, C.**, **Kurose, D.** and **Varia, S.** (2024) Investigating the potential for biological control of the invasive aquatic plant, *Myriophyllum aquaticum*. Neobiota – 13th International Conference on Biological Invasions, 3–6 September 2024, Lisbon, Portugal.

Toepfer, S., **Eliason, P.**, **Zhang, F.**, **Li, H.**, **Schaffner, U.** and **Kuhlmann, U.** (2024) The BioProtection Portal: a source for biocontrol-based IPM practitioners. China–Europe Symposium on Innovation and Development of IPM in Agriculture, 1 November 2024, Guiyang, Guizhou, China.

Toepfer, S., Yan, X., Vandenbossche, B., Fallet, P., Turlings, T.C.J., Rasmann, S., Waweru, B.W., Kajuga, J. and Tang, R. (2024) Applications of entomopathogenic nematodes for the control of below- and above-ground maize pests. Invited Symposium. Conference on the 100th anniversary of the first description of the entomopathogenic nematode *Steinernema kraussei*, 10–12 April 2024, Logrono, Spain.

Toepfer, S., **Zhang, F.**, **Li, H.** and **Schaffner, U.** (2024) The BioProtection Portal: a source for biocontrol-based IPM practitioners. China–Europe Symposium on Innovation and Development of IPM in Agriculture, 1 November 2024, Guiyang, Guizhou, China.

Varia, S., **Pollard, K.**, **Thomas, S.**, **Wood, S.**, **Lawson-Hale, N.** and **Seier, M.** (2024) Use of the rust fungus *Puccinia komarovii* var. *glanduliferae* for the management of *Impatiens glandulifera* in the UK. Neobiota – 13th International Conference on Biological Invasions, 3–6 September 2024, Lisbon, Portugal.

Wan, M. and **Zhang, F.** (2024) Plantwise/PlantwisePlus supports policy implementation of the Green Plant Protection Strategy in China. Graduation Ceremony of Plant Doctor Advanced Training Course, 25 October 2024, Southwest University, Chongqing, China.

Wan, M. and **Zhang, J.** (2024) PlantwisePlus digital tools and e-learning courses. 5th China National Pesticide Innovation Conference, 11–12 July 2024, Bengbu, Anhui Province, China.

Weyl, P. (2024) Innovative classical biological control research – the big picture. 1st National Forum on Biological Control, 11–14 March 2024, Annapolis, Maryland, USA.

Weyl, P. and **Schaffner, U.** (2024) Classical biological control of weeds: dealing with misconceptions and conflicts of interests. 32nd Annual North American Invasive Species Management Association Conference (NAISMA), 30 September–3 October 2024, Missoula, Montana, USA.

Wood, S., **Djeddour, D.**, **Kurose, D.**, **Pollard, K.**, **Pratt, C.**, **Seier, M.**, **Thomas, S.** and **Varia, S.** (2024) Updates on biocontrol initiatives for Great Britain. 15th Non-native Species Local Action Group Workshop, 30–31 January 2024, Shrewsbury, UK.

Xaverey, D., Mbwambo, J.R., Faustin, Z., Ehrensperger, A., Kiswaga, S., Looloitai, L., **Nunda, W.**, **Schaffner, U.** and **Eschen, R.** (2024) Integrated landscape management to address woody invasion around Lake Natron. 3rd International TAFORI Scientific Conference, 11–13 December 2024, Arusha, Tanzania.

Zhang, F. (2024) Development of nature-based solutions for sustainable pest management in agroecosystems. 9th International Agriculture Congress, 3–5 September 2024, Putrajaya, Malaysia (invited plenary speaker).

Zhang, J.P., Li, W.J., Chen, J.H., Avila, G.A., Ali, M.Y., Luo, Z.Y., Gao, L.P., **Zhang, F.** and Shi, S.S. (2024) Fecundity evaluation of *Trissolcus japonicus* and *Trissolcus cultratus*. 27th International Congress of Entomology, 25–30 August 2024, Kyoto, Japan.

2.7. Poster presentations at scientific meetings (28)

CABI authors are shown in **bold**, the presenting author is underlined.

Ali, M.Y., **Bai, Y.N.**, **Gao, L.P.**, **Luo, Z.Y.**, **Zhang, J.P.** and **Zhang, F.** (2024) Is *Anastatus japonicus* an effective biological control agent against brown marmorated stink bug? 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Bennet, R., Boundy-Mills, K., Eversole, K., Gallagher, D., Pontis, N. and **Ryan, M.** (2024) The U.S. Culture Collection Network – a central resource for microbe culture collections and their users. International Phytobiomes Conference, 19–21 November 2024, St. Louis, Missouri, USA.

Bonnin, J.M., Kostic, T., Overmann, J., Pipponzi, S. and **Ryan, M.J.** (2024) Underpinning phytobiomes research: the first insights from a European soil microbiome cryopreservation experiment. International Phytobiomes Conference, 19–21 November 2024, St. Louis, Missouri, USA.

Charles, T., Eversole, K., Gallagher, D. and **Ryan, M.** (2024) Microbes 4 Climate: Microbial services addressing climate change risks for biodiversity, agricultural and forestry ecosystems. International Phytobiomes Conference, 19–21 November 2024, St. Louis, Missouri, USA.

Cobb, E., **Stewart, H.**, **Bonnin, J.M.**, **Buddie, A.G.**, **Kermode, A.J.** and **Ryan, M.J.** (2024) The CABI collection: how modern culture collections evolve to meet the changing needs of their users. European Culture Collections' Organisation (ECCO) Meeting XXLI, 18–20 September 2024, Bari, Italy.

Constantine, K., **Makale, F.**, **Mugambi, I.**, **Rware, H.**, **Chacha, D.**, **Lowry, A.**, **Rwomushana, I.** and **Williams, F.** (2024) Smallholders' knowledge, attitudes, and practices towards biological control of papaya mealybug (*Paracoccus marginatus*) in Kenya. 3rd International Congress of Biological Control (ICBC3), 24–27 June 2024, San José, Costa Rica.

Corniani, N., **Colmenarez, Y.** and Vasquez, C. (2024) The role of digital technologies in promoting biological control – case studies from the PlantwisePlus program. XXIX Brazilian Congress of Entomology (CBE), 22–26 September 2024, Uberlândia, Brazil.

Costa, M.M., Sandoval-Denis, M., Kandemir, H., **Kermode, A.**, **Buddie, A.G.**, **Ryan, M.J.**, Becker, Y., Maier, W., Pfenning, L.H., Groenewald, J.Z. and Crous, P.W. (2024) Defining species in the *Fusarium lateritium* species complex. 12th International Mycological Congress (IMC12), 11–15 August 2024, Maastricht, Netherlands.

Doan, N.P.Y., **Schaffner, U.**, Tarigan, S.I., Philias, M.O., Dorner, Z., Sundusin, A.I.B. and **Toepfer, S.** (2024) Testing different integrated weed management options against the invasive ragweed, *Ambrosia artemisiifolia*, including biological control. IX Congress of Plant Protection, Plant Protection Society of Serbia (PPSS), 25–28 November 2024, Zlatibor, Serbia.

Humair, L., Pessina, A., **Weyl, P.**, **Seehausen, M.L.** and Rasmann, S. (2024) Demystifying classical biological control. Biology 24, 18–19 January 2024, Zürich, Switzerland.

Iványi, D., Magyar, B.I., Dorner, Z., **Schaffner, U.**, Zalai, M., Kiss, J. Kontschán, J., Modic, S., Nekrep, I., Razinger, J., Leskovsek, R., Schaerer, H.M., **Toepfer, S.** and Sun, Y. (2024) Population dynamics of the ragweed leaf beetle (*Ophraella communa*) in different climatic regions of Central Europe. 70th Hungarian Plant Protection Days, 20–21 February 2024, Budapest, Hungary.

Kaiser-Grolimund, A., Heitz-Tokpa, K., **Savilaakso, S.**, Petrovan, S., Crump, L., Kinengyere, A.A., Ssenono, R., **Alokit, C.**, Tschopp, R., Mutiira, M., Chepkorir, K., **Porciello, J.**, **Danielsen, S.** and Zinsstag, J. (2024) One Health operationalization in Kenya, Uganda and Ethiopia: what helps and what hinders? 8th Global Health Congress [organized by the Global One Health Community], 20–23 September 2024, Cape Town, South Africa.

Kajuga, N.J., Waweru, B.W., Hategekimana, A., Mukundiyabo, C.G., Ndereyimana, A., Nyombayire, A., Mutumwinka, M., Bazagwira, D., Ingabire, G., Ishimwe, P.M. and **Toepfer, S.** (2024) Scaling up the production and use of biological control products (entomopathogenic nematodes) for improved food security, safety and nutrition. RIM Annual Symposium, 9–11 December 2024, Kampala, Uganda.

Kajuga, N.J., Waweru, B.W., Nyombayire, A., Mutumwinka, M., Hategekimana, A., Ndereyimana, A., Umulisa, C., Ishimwe, P.M., Bazagwira, D., Bigirimana, V.P., Cadeau, G., Fallet, P., Turlings, T.C.J., Yan, X., Tang, R. and **Toepfer, S.** (2024) Dose response of entomopathogenic nematodes in controlling fall armyworm and preventing maize damage. 19th Meeting of the IOBC/WPRS Working Group Microbial and Nematode Control of Invertebrate Pests, 8–11 September 2024, University of Azores, Ponta Delgada, Portugal.

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Toepfer, S. and Sabotic, J (2024) Do entomotoxic protease inhibitors and lectins from higher fungi affect entomopathogenic nematodes? 19th Meeting of the IOBC/WPRS Working Group Microbial and Nematode Control of Invertebrate Pests, 8–11 September 2024, University of Azores, Ponta Delgada, Portugal.

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Yeap, Y.T., **Nakombe, S.B.**, **Durocher-Granger, L.**, **Phiri, N.**, **Bonnin, J.M.**, **Luke, B.** and **Buddie, A.G.** (2024) Characterizing the entomopathogen, *Metarhizium rileyi*, for its use in the control of fall armyworm in Zambia. 12th International Mycological Congress (IMC12), 11–15 August 2024, Maastricht, Netherlands.

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Zhang, J.P., Li, W.J., Song, Z.J., Shi, S.S. and **Zhang, F.** (2024) Egg parasitoids fecundity and cold storage of *Halyomorpha halys* (Stål). CEC, 11–14 November 2024, Chongqing, China.

3. Other outputs

3.1. Classical biological control agents in 2024: releases and applications supported by CABI

For many years, CABI has been known for its work supporting national agencies to implement classical biological control programmes against insect and weed pests. Here we list those classical biological control agents for which applications to release have been made, or which have been released, in 2024, based on CABI's research and technical support.

Biological control agent studied	Target weed/ insect pest	Name of authority and year when release was permitted	Status end 2024	Released in 2024	Country of release or intended release
Aceria angustifoliae (Eriophyidae)	*Elaeagnus angustifolia* (Russian olive)	-	USDA Technical Advisory Group (TAG) recommended release in 2022, but release permit has not yet been granted	No	USA
Aceria angustifoliae (Eriophyidae)	*Elaeagnus angustifolia* (Russian olive)	Canadian Food Inspection Agency (CFIA), 2022	Field releases made in British Columbia and Alberta	Yes	Canada
Acerophagus papayae (Encyrtidae)	*Paracoccus marginatus* (papaya mealybug)	Kenya: Kenya Plant Health Inspectorate Service (KEPHIS), nationwide, 2024 KEPHIS, selected regions, 2021 and 2023 South Sudan: Ministry of Agriculture and Food Security (MAFS), 2022 Uganda: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), 2023	Countrywide releases – all target counties	Yes	Kenya, South Sudan and Uganda
Aculus crassulae (Eriophyidae)	*Crassula helmsii* (Australian swamp stonecrop)	UK Department for Environment, Food & Rural Affairs (Defra), permit for England and Wales, 2018	Field releases made across England and Wales	Yes	UK
Aculus crassulae (Eriophyidae)	*Crassula helmsii* (Australian swamp stonecrop)	-	Application to release in Netherlands submitted in 2024	No	Netherlands

Biological control agent studied	Target weed/ insect pest	Name of authority and year when release was permitted	Status end 2024	Released in 2024	Country of release or intended release
Aphalara itadori (Aphalaridae)	*Fallopia japonica* (Japanese knotweed) / *F.* × *bohemica* (bohemian knotweed)	UK: Kyushu line in 2010 – Defra (England and Wales), Murakami line in 2021 – Defra (England only) Canada: CFIA, Kyushu line in 2014, Murakami line in 2021 USA: USDA-APHIS, Kyushu and Hokkaido lines in 2020 and Murakami line in 2023 Netherlands: RVO (Rijksdienst voor Ondernemend Nederland), Murakami line in 2020	Field release made in Canada, UK and USA	Yes	Canada, Netherlands, UK and USA
Bagous nodulosus (Curculionidae)	*Butomus umbellatus* (flowering rush)	-	USDA Technical Advisory Group (TAG) recommended release in 2022, but release permit has not yet been granted	No	USA
Bagous nodulosus (Curculionidae)	*Butomus umbellatus* (flowering rush)	CFIA, 2022	Permission for release granted by CFIA, Canada	Yes	Canada
Dactylopius opuntiae (Dactylopiidae)	*Opuntia ficus-indica* (prickly pear)	KEPHIS, 2021	Permit granted to mass rear and release in Central Kenya	Yes	Kenya
Dichrorampha aeratana (Tortricidae)	*Leucanthemum vulgare* (oxeye daisy)	CFIA, 2022	Field releases made in British Columbia and Alberta	Yes	Canada
Dichrorampha aeratana (Tortricidae)	*Leucanthemum vulgare* (oxeye daisy)	-	USDA Technical Advisory Group (TAG) recommended release in 2022, but release permit has not yet been granted	No	USA
Eiphosoma laphygmae (Ichneumonidae)	*Spodoptera frugiperda* (fall armyworm)	Plant Protection and Regulatory Services Directorate (PPRSD), 2024	Field releases in Ghana	Yes	Ghana
Eiphosoma laphygmae (Ichneumonidae)	*Spodoptera frugiperda* (fall armyworm)	-	Application for release in Zambia submitted. Awaiting approval from the Zambia Environmental Management Agency (ZEMA)	No	Zambia
Evippe sp.# 1 (Gelechiidae)	*Prosopis juliflora* (Mexican thorn)	Ascension Island Government, 2024	Field releases made on Ascension Island	Yes	Ascension Island (UK Overseas Territory)

Biological control agent studied	Target weed/ insect pest	Name of authority and year when release was permitted	Status end 2024	Released in 2024	Country of release or intended release
Ganaspis kimorum (Figitidae)	*Drosophila suzukii* (spotted wing drosophila)	Swiss Federal Office for the Environment, 2023	Field releases in the cantons Jura and Ticino, Switzerland	Yes	Switzerland
Listronotus elongatus (Curculionidae)	*Hydrocotyle ranunculoides* (floating pennywort)	Defra (permit for England only), 2021	Field releases made across England	Yes	UK
Listronotus elongatus (Curculionidae)	*Hydrocotyle ranunculoides* (floating pennywort)	-	Application to release in the Netherlands submitted in 2024	No	Netherlands
Listronotus setosipennis (Curculionidae)	*Parthenium hysterophorus* (parthenium weed)	Pakistan Agricultural Research Council (PARC), 2021	Field releases made in the provinces of Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan and state of Azad Jammu and Kashmir	Yes	Pakistan
Mogulones borraginis (Curculionidae)	*Cynoglossum officinale* (houndstongue)	-	USDA Technical Advisory Group (TAG) recommended release in 2021, but release permit has not yet been granted	No	USA
Neoramulariopsis unguis-cati (Mycosphaerellaceae)	*Dolichandra unguis-cati* (cat's claw creeper)	-	Application to release leaf-spot in Australia compiled and submitted in 2024	No	Australia
Phymastichus coffeae (Eulophidae)	*Hypothenemus hampei* (coffee berry borer)	-	First shipment made to Hawaii for mass rearing for release	No	USA
Puccinia komarovii var. *glanduliferae* (Pucciniaceae)	*Impatiens glandulifera* (Himalayan balsam)	Defra approval for England and Wales Nature Scot for Scotland Release of a rust strain from India, 2010 Release of a rust strain from Pakistan, 2017	Field releases made across England, Scotland and Wales	Yes	UK
Puccinia lantanae (Pucciniaceae)	*Lantana camara* (lantana)	Plant Protection Research Institute (PPRI), 2024	Rust undergoing biotype testing in containment facility, initial small scale field releases undertaken	Yes	South Africa
Puccinia lantanae (Pucciniaceae)	*Lantana camara* (lantana)	-	Document prepared for application to release in Queensland	No	Australia

3.2. Extension material

CABI staff contributed to 42 new or updated extension materials in the PlantwisePlus Knowledge Bank in 2024. This included Video Factsheets, Pest Management Decision Guides and Manuals, all which can be seen here.

Crozier, J. and **Holmes, K.A.** (2024) Course companion for training on lower-risk plant protection products: Reducing the risk of highly hazardous pesticides. PlantwisePlus Uganda.

KS 1758: Horticulture Code of Practice – Illustration Manual. https://ks1758.afa.go.ke/media/resources/Horticulture_code_of_practice_007.pdf

3.3. CABI Bioscience Identification Service and Genetic Resources Collection

During 2024, the CABI Bioscience Microbial Identification Service processed more than 1,800 sequences. In accordance with our move away from commercial identifications to supporting CABI's mission, only a minority were for 'commercial' identifications. A total of 25 identification reports were issued on 51 microbial samples. Of these, Member Country identifications were Malawi (17), Kenya (11), Barbados (4) and Jamaica (3). A further 11 samples were received from Nigeria, but these could not be processed due to the presence of mites in the samples. Most of these Member Country identifications were processed via the CABI Diagnostics and Advisory Service (DAS). More than 190 sequences were obtained for the St Helena Project (including for the current project activities). The Service also provided 879 sequences for identifications for CABI projects, of which 307 were for the Darwin Tree of Life (DToL) Project, 71 were for the CABI Culture Collection (GRC), and 150 were for the DAS and PlantwisePlus, of which 115 were insect identifications. Finally, a characterization study of the Centre for Crop Health and Protection's National Reference Collection generated 247 sequences, while 237 insect barcodes were obtained for taxonomic studies. The Service also facilitated the processing of almost 400 sequences by CABI scientists in the UK working on invasive species management projects.

Three bespoke training courses were delivered covering Culture Collection Management and Preservation Methods and Isolation and Identification of Fungi, all involving UK-based participants, and a one-week training attachment was provided for a trainee from Ghana.

The GRC sent out 60 cultures in response to 30 orders from external organizations during 2024. Thirty-six of these cultures originated from ten Member Counties (the UK, Australia, Canada, China, Ghana, India, Kenya, Malaysia, Pakistan and Papua New Guinea), 33 of which were sent to one Member Country (the UK). Twenty-three strains that originated from non-Member Countries were sent to one Member Country (the UK).

GRC staff also preserved 442 cultures, 424 of which were cultures from Member Countries, (the UK, St Helena, Australia, Canada, Chile, Colombia, India, Kenya, Malaysia, Nigeria, Pakistan, Sierra Leone, South Africa, Sri Lanka and Switzerland).

4. CABI staff, students and associates

4.1. Scientific staff

Location	Family name	First name	Highest degree
Austria	Valverde	Alvaro	MA
Bangladesh	Ahmed	Md. Saleh	PhD
Bangladesh	Sharmin	Dilruba	PhD
Bangladesh	Sonom	Homaira	MSc
Brazil	Colmenarez	Yelitza	PhD
Brazil	Corniani	Natália	PhD
China	Li	Hong-Mei	PhD
China	Wan	Min	PhD
China	Zhang	Feng	PhD
China	Zhang	Jin-Ping	PhD
Ethiopia	Gurmessa	Negussie	PhD
Ghana	Agboyi	Lakpo	PhD
Ghana	Boafo	Hettie Arwoh	PhD
Ghana	Clottey	Victor	PhD
Ghana	Duah	Solomon Agyeman	MA
Ghana	Hevi	Walter	MPhil
Ghana	Oppong-Mensah	Birgitta	MSc
Hungary	Toepfer	Stefan	DnatSc
India	Chaudhary	Malvika	PhD
India	Handiganala Munireddappa	Mahesh	PhD
India	Jadhav	Arun	BTech
India	Khanna	Kritika	MA
India	Manjari	Madhu	MBA
India	Nagpal	Akanksha	MTech
India	Pandit	Vinod	PhD
India	Rajendran	Ganeshamoorthy	MBA
India	Thakur	Manju	PhD
Kenya	Akiri	Morris	PhD
Kenya	Bundi	Mary	MSc
Kenya	Chacha	Duncan	BSc
Kenya	Chege	Florence	MSc
Kenya	Gatere	Lydia	PhD
Kenya	Gnonlonfin	Benoit	PhD
Kenya	Kansiime	Monica	PhD
Kenya	Karanja	Daniel	PhD
Kenya	Karanja	Joseph	BSc
Kenya	Karanja	Lucy	MSc
Kenya	Khonje	Makaiko	PhD
Kenya	Kouko	Edith	MSc

Location	Family name	First name	Highest degree
Kenya	Magata	Ezra	BSc
Kenya	Magero	Deogratius	BSc
Kenya	Makale	Fernadis	MSc
Kenya	Mbugua	Fredrick	MSc
Kenya	Mibei	Henry	MSc
Kenya	Miller	Selpha	PhD
Kenya	Mudumba	Tutilo	PhD
Kenya	Mugambi	Idah	MSc
Kenya	Mulema	Joseph	PhD
Kenya	Mutuku	Benson	PhD
Kenya	Njenga	Maureen	BSc
Kenya	Nunda	Winnie	BSc
Kenya	Ochieng	Violet	MSc
Kenya	Ochilo	Willis	PhD
Kenya	Odunga	Stacey	MSc
Kenya	Onkendi	Edward	PhD
Kenya	Onyango	David	MSc
Kenya	Oronje	MaryLucy	PhD
Kenya	Rangi	Dennis	PhD
Kenya	Romney	Dannie	PhD
Kenya	Rugaita	Geoffrey	BSc
Kenya	Rware	Harrison	MSc
Kenya	Rwomushana	Ivan	PhD
Kenya	Williams	Frances	MSc
Malaysia	Alaganthiran	Jayanthi	MSc
Malaysia	Chan	Fook Wing	BSc
Malaysia	Costa	Arnaud	PhD
Malaysia	Faheem	Muhammad	PhD
Malaysia	Suntharalingam	Chubashini	PhD
Malaysia	Thanarajoo	Sathis Sri	PhD
Malaysia	Haslan Tan	Liza	MSc
Malaysia	Ma	Choon Kwong	MSc
Netherlands	Boerefijn – van Schaaijk	Lieke	MSc
Netherlands	Danielsen	Solveig	PhD
Netherlands	Vos	Janny	PhD
Pakistan	Abbass	Azmat	MSc
Pakistan	Adeel	Muhammad	MSc
Pakistan	Ahmed	Shakeel	PhD
Pakistan	Ali	Kazim	PhD
Pakistan	Ali	Mushtaque	MSc
Pakistan	Ali	Sajjad	MSc
Pakistan	Arshad	Muhammad Awais	PhD
Pakistan	Asad	Habat Ullah	PhD

Location	Family name	First name	Highest degree
Pakistan	Asif	Muhammad	MSc
Pakistan	Aslam	Naeem	PhD
Pakistan	Bajwa	Babar Ehsan	PhD
Pakistan	Farooq	Muzammil	PhD
Pakistan	Honey	Sabyan Faris	PhD
Pakistan	Imran	Muhammad	MSc
Pakistan	Ishaq	Waseem	MSc
Pakistan	Jamshaid	Muhammad	MSc
Pakistan	Khan	Saba	MSc
Pakistan	Khan	Sajila	MSc
Pakistan	Mangi	Sanaullah	MSc
Pakistan	Murtaza	Farwah	MSc
Pakistan	Naheed	Naheed	MSc
Pakistan	Naqvi	Azeem Hayder	MSc
Pakistan	Rasheed	Abdul	MSc
Pakistan	Raza	Hassan	PhD
Pakistan	Raza	Muhammad Ali	PhD
Pakistan	Rehman	Abdul	MSc
Pakistan	Rehman	Hafiz Mahmood	PhD
Pakistan	Saif	Ali	PhD
Pakistan	Shah	Maila Al Saba	MSc
Pakistan	Sher	Alam	MSc
Pakistan	Ullah	Fazal	MSc
Pakistan	Umer	Abeera	MSc
Pakistan	Waseem	Muhammad	MSc
Pakistan	Zada	Naeem	MSc
South Africa	Witt	Arne	PhD
Switzerland	Babendreier	Dirk	DnatSc
Switzerland	Bateman	Melanie	PhD
Switzerland	Bell	Caroline	PhD
Switzerland	Cortat	Ghislaine	MSc
Switzerland	Deiss	Fanny	MSc
Switzerland	Eliason	Pia	MA
Switzerland	Eschen	René	DnatSc
Switzerland	Grossrieder	Manfred	MSc
Switzerland	Häfliger	Patrick	DnatSc
Switzerland	Haye	Tim	DnatSc
Switzerland	Hinz	Hariet	DnatSc
Switzerland	Holmes	Keith	PhD
Switzerland	Humair	Lauréline	MSc
Switzerland	Jenner	Emma	PhD
Switzerland	Jenner	Wade	PhD
Switzerland	Kenis	Marc	DnatSc

Location	Family name	First name	Highest degree
Switzerland	Kuhlmann	Ulrich	DnatSc
Switzerland	Malek	Robert	PhD
Switzerland	Nacambo	Saidou	MSc
Switzerland	Savilaakso	Sini	PhD
Switzerland	Schaffner	Urs	DnatSc
Switzerland	Seehausen	Lukas	PhD
Switzerland	Stutz	Sonja	DnatSc
Switzerland	Tambo	Justice	PhD
Switzerland	Weyl	Philip	PhD
Switzerland	Wood	Anna	PhD
Trinidad and Tobago	Ramnanan	Naitram	MPhil
Uganda	Alokit	Christine	MSc
Uganda	Owembambazi	Lilian	MSc
UK	Day	Roger	PhD
UK (Egham)	Ahmed	Fahad	MSc
UK (Egham)	Ananda	Amrutha	MSc
UK (Egham)	Berman	Chris	MSc
UK (Egham)	Bonnin	Miguel	BSc
UK (Egham)	Buddie	Alan	PhD
UK (Egham)	Caine	Thelma	
UK (Egham)	Cobb	Emma	MSc
UK (Egham)	Constantine	Kate	MSc
UK (Egham)	Crozier	Jayne	PhD
UK (Egham)	Djeddour	Djami	MSc
UK (Egham)	Edgington	Steve	PhD
UK (Egham)	Gerrard	William	BSc
UK (Egham)	Godwin	Julien	PhD
UK (Egham)	Hudson	Ken	MSc
UK (Egham)	Ineson	Judith	MSc
UK (Egham)	Ishii-Adajar	Hideo	MSc
UK (Egham)	Kadzamira	Mariam A.T.J.	PhD
UK (Egham)	Kermode	Anthony	BSc
UK (Egham)	Kurose	Daisuke	PhD
UK (Egham)	Lawson-Hale	Natasha	BSc
UK (Egham)	Luke	Belinda	PhD
UK (Egham)	Maczey	Norbert	PhD
UK (Egham)	Minter	David	PhD
UK (Egham)	Morris	Maisie	BSc
UK (Egham)	Offord	Lisa	BSc
UK (Egham)	Pendlington	Elizabeth	BSc
UK (Egham)	Pollard	Kate	MRes
UK (Egham)	Pratt	Corin	MSc
UK (Egham)	Reeder	Rob	PhD

Location	Family name	First name	Highest degree
UK (Egham)	Reeve	Mike	PhD
UK (Egham)	Ryan	Matthew	PhD
UK (Egham)	Seier	Marion	PhD
UK (Egham)	Shaw	Richard	PhD
UK (Egham)	Smith	Vince	BSc
UK (Egham)	Stewart	Helen	BSc
UK (Egham)	Tapper	Niamh	MSc
UK (Egham)	Taylor	Phil	PhD
UK (Egham)	Thomas	Sarah	PhD
UK (Egham)	Tilling	Anna	BSc
UK (Egham)	Varia	Sonal	PhD
UK (Egham)	Whelan	Rhian	BSc
UK (Egham)	White	Gretel	PhD
UK (Egham)	Wood	Suzy	BSc
UK (Egham)	Yeap	Yuen Ting	MSc
UK (Wallingford/Egham)	Abegunrin	Gideon	MSc
UK (Wallingford/Egham)	Allan	Melissa	MSc
UK (Wallingford/Egham)	Arasah	Rasaki	MSc
UK (Wallingford/Egham)	Beale	Tim	BSc
UK (Wallingford/Egham)	Beddie-Memberr	Boma	MSc
UK (Wallingford/Egham)	Beeken	Joe	MSc
UK (Wallingford/Egham)	Bodevin	Pascale	MSc
UK (Wallingford/Egham)	Cameron	Katherine	MSc
UK (Wallingford/Egham)	Cosford	Chipo	MSc
UK (Wallingford/Egham)	Duffy	Alyssa	MSc
UK (Wallingford/Egham)	Day	Charlotte	MSc
UK (Wallingford/Egham)	Finegold	Cambria	MSc
UK (Wallingford/Egham)	Holland	William	MSc
UK (Wallingford/Egham)	Jauhar	Ameen	MSc
UK (Wallingford/Egham)	King	Elizabeth	MSc
UK (Wallingford/Egham)	Mahmood	Salar	PhD
UK (Wallingford/Egham)	Oliver	Gaby	MSc
UK (Wallingford/Egham)	Page	Anna	PhD
UK (Wallingford/Egham)	Palmer	Claire	MSc
UK (Wallingford/Egham)	Parr	Martin	PhD
UK (Wallingford/Egham)	Sanchez Presa	Libertad	PhD
UK (Wallingford/Egham)	Szyniszewska	Anna	PhD
UK (Wallingford/Egham)	Taylor	Bryony	PhD
UK (Wallingford)	Allen	Uma	MSc
UK (Wallingford)	Antonian	Clara	BSc
UK (Wallingford)	Berthelemy	Mark	BSc
UK (Wallingford)	Bird	Damian	BSc
UK (Wallingford)	Bishop	James	BSc

Location	Family name	First name	Highest degree
UK (Wallingford)	Broom	Fiona	MSc
UK (Wallingford)	Campain	Alice	MSc
UK (Wallingford)	Charles	Lucinda	BSc
UK (Wallingford)	Cole	Steph	BSc
UK (Wallingford)	Cooper	Ward	BSc
UK (Wallingford)	Cullum	James	MSc
UK (Wallingford)	Davis	Tamsin	MSc
UK (Wallingford)	Dicks	Gareth	MSc
UK (Wallingford)	Elger	Daniel	PhD
UK (Wallingford)	Ezeomah	Bookie	PhD
UK (Wallingford)	Fielder	Hannah	PhD
UK (Wallingford)	Grell	Georgina	PhD
UK (Wallingford)	Head	Tracy	BSc
UK (Wallingford)	Hemming	David	PhD
UK (Wallingford)	Holt	Alistair	BSc
UK (Wallingford)	Khan	Shamail	MPP
UK (Wallingford)	Li	Angel	MSc
UK (Wallingford)	Mcgillivray	Lesley	PhD
UK (Wallingford)	Neave	Suz	MSc
UK (Wallingford)	Newton	Erika	PhD
UK (Wallingford)	O'Brien	Tim	BSc
UK (Wallingford)	Palmer	Mark	MSc
UK (Wallingford)	Parfitt	Claire	BSc
UK (Wallingford)	Phelps	Sandra	PhD
UK (Wallingford)	Rendell-Dunn	Alexis	BSc
UK (Wallingford)	Richards	Gareth	PhD
UK (Wallingford)	Robinson	Andy	PhD
UK (Wallingford)	Stubbs	Rebecca	MSc
UK (Wallingford)	Swarbrick	Phil	PhD
UK (Wallingford)	Thay	Jess	BSc
UK (Wallingford)	Weeks	Lalitha	MSc
UK (Wallingford)	Wilford	Shankari	BSc
UK (Wallingford)	Willsher	Neil	MBA
UK (Wallingford)	Wood	Rachel	BSc
UK (Wallingford)	Zhang	Qiaoqiao	PhD
Zambia	Durocher-Granger	Léna	MSc
Zambia	Kangwa	Andela	MPH
Zambia	Kasoma	Chapwa	PhD
Zambia	Mwila	Natasha	PhD
Zambia	Phiri	Noah	PhD
Zambia	Shimbwambwa	Dora	BSc

4.2. CABI staff working towards a research degree

Location	Name of staff member	Degree for which registered	University	CABI supervisor(s)
Ghana	Hevi, Walter	PhD	Kwame Nkrumah University of Science and Technology, Ghana	–
Ghana	Oppong-Mensah, Birgitta	PhD	University for Development Studies, Ghana	–
Kenya	Karanja, Lucy	PhD	University of Nairobi, Kenya	–
Kenya	Makale, Fernadis	PhD	University of Nairobi, Kenya	Ivan Rwomushana
Kenya	Nunda, Winnie	MSc	University of Nairobi, Kenya	–
Netherlands	Durocher-Granger, Léna	PhD	Wageningen University, Netherlands	Marc Kenis
Pakistan	Fazlullah (Fazal Ullah)	PhD	University of Haripur, Pakistan	–
UK	Bonnin, Miguel	PhD	Imperial College London, UK	Matthew Ryan
UK	Constantine, Kate	PhD	Royal Holloway, University of London, UK	Frances Williams
UK	Pollard, Kate	PhD	Royal Holloway, University of London, UK	Marion Seier
Switzerland	Humair, Lauréline	PhD	University of Neuchâtel, Switzerland	Philip Weyl

4.3. Research students

Location	Name of student	Degree to which attachment will contribute	University of student	CABI supervisor(s)
China	Ali, Muhammad Yasir	PhD	Graduate School of Chinese Academy of Agricultural Sciences (CAAS), China	Zhang Feng, Zhang Jin-Ping
China	Bukero, Abdul Azizi	PhD	Graduate School of Chinese Academy of Agricultural Sciences (CAAS), China	Zhang Feng, Li Hong-Mei
China	Bukero, Ihsan Talal	PhD	Graduate School of Chinese Academy of Agricultural Sciences (CAAS), China	Zhang Feng, Zhang Jin-Ping
China	Bai, Yi-Na	MSc	Jilin Agricultural University, China	Zhang Jin-Ping
China	Cheng, Yuan-yuan	MSc	Gansu Agricultural University, China	Li Hong-Mei
China	Gao, Li-Ping	MSc	Changjiang University, China	Zhang Jin-Ping
China	Li, Pei-Dong	MSc	Jilin Agricultural University, China	Zhang Jin-Ping
China	Liu, Tian-Jie	PhD	Jilin Agricultural University, China	Zhang Jin-Ping
China	Luo, Zheng-Yu	MSc	Changjiang University, China	Zhang Jin-Ping
China	Qian, Ying-Jun	MSc	Changjiang University, China	Li Hong-Mei
China	Song, Zi-Jian	MSc	Jilin Agricultural University, China	Zhang Jin-Ping

Location	Name of student	Degree to which attachment will contribute	University of student	CABI supervisor(s)
China	Wang, Li	MSc	Moutai Institute, China	Zhang Jin-Ping
China	Wang, Mei-Zhi	MSc	Beijing University of Agriculture, China	Li Hong-Mei
China	Zhang, Tao	MSc	Beijing University of Agriculture, China	Li Hong-Mei
Hungary	Iványi, Dora	PhD	Hungarian University of Agriculture and Life Sciences (MATE), Hungary	Stefan Toepfer
Hungary	Nduwayo, Patrice	PhD	MATE, Hungary, and University of Ngozi, Burundi	Stefan Toepfer
Hungary	Tarigan, Sri Ita	PhD	MATE, Hungary, and Universitas Kristen Wira Wacana Sumba, Indonesia	Stefan Toepfer
Kenya	Chepng'eno, Mercy	MSc	University of Nairobi, Kenya	Joseph Mulema
Kenya	Chirchir, Jackline	MSc	Kenyatta University, Kenya	MaryLucy Oronje
Kenya	Gitonga Kaari Christine	MSc	University of Nairobi, Kenya	MaryLucy Oronje
Kenya	Karanja, Lucy Wangari	PhD	University of Nairobi, Kenya	Joseph Mulema
Kenya	Kinusa, Laurent Nyambu	MSc	School of Agriculture and Enterprise Development, Kenyatta University, Kenya	Joseph Mulema
Kenya	Mellon, Florence Kabole	PhD	University of Nairobi, Kenya	Ivan Rwomushana
Switzerland	Boss, Anja	PhD	University of Berne and University of Neuchâtel, Switzerland	Stefan Toepfer
Switzerland	Michels, Olivia	MSc	HAFL, Switzerland	Lukas Seehausen
Uganda	Kafuko, Derrick	MSc	Makerere University, Uganda	Tutilo Mudumba
Uganda	Ruhinirwa, William	PhD	Makerere University, Uganda	Tutilo Mudumba
UK	Dickins, Tatiana	MSc	Imperial College London, UK	Anna Szyniszewska
UK	Karlsson, Xenia	PhD	University of Oxford, UK	Anna Szyniszewska
UK	Kopera, Anita	PhD	University of Reading, UK	Steve Edgington, Jayne Crozier
UK	Rayipudi, Pavan	MSc	Royal Holloway, University of London, UK	Anna Szyniszewska
UK	Spence, Ellie	PhD	University of Warwick, UK	Steve Edgington
UK	Webster, Amy	PhD	University of Birmingham, UK	Norbert Maczey, Phil Taylor
UK	Williams, Tamsin	PhD	Royal Holloway, University of London, UK	Steve Edgington

4.4. Certificates of Advanced Studies in Integrated Crop Management

The Certificate of Advanced Studies (CAS) programme in Integrated Crop Management (ICM) started in 2022 in an entirely digital learning format as a collaboration between CABI's centre in Switzerland, the University of Neuchâtel and the Canton Jura. The first cohort of participants completed the online programme in autumn 2023.

A second cohort of 63 students took part in the programme from September 2023 to September 2024. Each participant chose one of the three Certificate of Advanced Studies in ICM (CAS-ICM) courses offered by CABI and the University of Neuchâtel: 24 students registered for CAS 1 – Sustainable Production Practices; 18 for CAS 2 – Aspects of Implementation; and 21 for CAS 3 – Biological Control and Ecosystem Services. Completion rates were 30%, 50% and 43%, respectively.

Most of the online course fees between 2022 and 2024 were covered through scholarships funded by CABI's PlantwisePlus programme. CABI gave itself the challenge of transitioning to a new funding model for the 2024–2025 academic year, which included identifying new scholarship donors as well as candidates organizing their own financial support through other channels. Despite considerable efforts to meet this challenge, CABI did not secure enough self-paying or otherwise sponsored students. The online CAS courses could therefore not go ahead during the 2024–2025 academic year. Further discussions with the University of Neuchâtel will be required to decide if, and when, the course can be continued.

4.5. CABI Associates

Location	Name	Highest qualification	Role
Afghanistan	Faizi, Zakariya	MSc	CABI Associate, Afghanistan
Bolivia	Florido, Miguel	MSc	CABI Associate, Bolivia
Bolivia	Sainz, Claudia	MSc	CABI Associate, Bolivia
Costa Rica	Delgado, Juan Vicente O.	BSc	CABI Associate, Costa Rica
Ecuador	Vásquez, Carlos	PhD	CABI Associate, LAC
Ghana	Beseh, Patrick	MSc	CABI Associate, Ghana
India	Srinivas, Kavitha	MSc	CABI Associate, India
Kenya	Agwanda, Charles	PhD	CABI Associate, Kenya
Malaysia	Annamalai, Sivapragasam	PhD	CABI Associate, Malaysia
Malaysia	Loke, Wai Hong	PhD	CABI Associate, Malaysia
Malaysia	Soetikno, Sastroutomo S.	PhD	CABI Associate, Malaysia
Nicaragua	Medina, Luis	MSc	CABI Associate, Nicaragua
Pakistan	Ahmad, Rizwan	PhD	CABI Associate, Pakistan
Switzerland	Gassmann, André	DnatSc	CABI Associate, Switzerland
Switzerland	Tosevski, Ivo	PhD	CABI Associate, Switzerland
UK	Cock, Matthew	PhD	Emeritus Fellow
UK	Evans, Harry C.	DSc	Emeritus Fellow
UK	Flood, Julie	PhD	Emeritus Fellow
UK	Gonzalez-Moreno, Pablo	PhD	CABI Associate, UK
UK	Hunt, David	PhD	Emeritus Fellow
UK	Murphy, Sean T.	PhD	CABI Research Fellow
UK	Rutherford, Mike	PhD	CABI Associate, UK
UK	Smith, David	PhD	Emeritus Fellow
UK	Stewart, Janet	BSc	CABI Associate, UK
Vietnam	Dao, Thi Hang	PhD	CABI Associate, Malaysia
Vietnam	Nguyen, Thi Kim Ngan	MSc	CABI Associate, Malaysia

4.6. Visiting scientists

Location	Name	Highest degree	Home institute	Dates (2024)
China	Agboyi, Lakpo Koku	PhD	CABI, Accra, Ghana	September
Switzerland	Kanyumbu, Naomi	BSc	CABI, Lusaka, Zambia	September
Switzerland	Maxwell, Aaron	PhD	Department of Agriculture, Fisheries and Forestry, Australia	September
Switzerland	McConnachie, Andrew	PhD	New South Wales Department of Primary Industries in Orange, Australia	May
Switzerland	Sun, Meng	PhD	Shandong Academy of Science, Subcentre of MARA-CABI Joint Lab, China	September–December
Switzerland	West, Natalie	PhD	USDA-ARS, Montana, USA	September
UK (Egham)	Brown, Bob	PhD	Landcare Research, New Zealand	September–October
UK (Egham)	Sato, Yota	MSc	Chiba University, Japan	August–September

4.7. Technical support

Centre	Name	Qualification
China	Chen, Xin	MSc
China	Yuan, Bo	MSc
Kenya	Karanja, Peter	HNDip
Kenya	Munyasia, Dickson	BT
India	Sharma, Neeraj	MBA
India	Varkey, Roy	MCA, PG in Management
India	Bahuguna, Swati	B.Com
Malaysia	Baki, Haji Razali	Technician
Pakistan	Ahmed, Ejaz	Matric
Pakistan	Ali, Saqib	Graduate
Pakistan	Anjum, Daud Hussain	Matric
Pakistan	Rasheed, Khalid	Intermediate
Switzerland	Cloşca, Cornelia	MSc
Switzerland	Donzé, Quentin	DiplGard
Switzerland	Willemin, Florence	DiplGard
UK (Egham)	Adamin, Tomasz	
UK (Egham)	Webb, Icel	BA
Zambia	Kanyumbu, Naomi	BSc
Zambia	Nakombe, Sihle	BSc
Zambia	Tembo, Nomsa	BSc

4.8. Temporary research students/interns

Location	Name	Highest degree	University	Dates (2024)
China	Dai, Ke	BSc	Jining Normal University, China	January–May
China	Ma, Shuo-Yan	BSc	Jining Normal University, China	August–September
China	Wang, Cheng-Yu	BSc	Changjiang University, China	July–September
Hungry	Doan, Phuong Y Nhu	BSc	University of Szeged, Hungary	May–October
Hungary	Gbenda, Martin	BSc	University of Szeged, Hungary	May
Hungry	Onyekachukwu, Mmaka P.	BSc	University of Szeged, Hungary	June–August
Hungary	Sundusin, Afiqah	BSc	University of Szeged, Hungary	May–December
Pakistan	Abbass, Tehseen	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Ahmad, Muhammad	BSc	Gomal University, Pakistan	February–April
Pakistan	Ali, Ammar	BSc	Hazara University of Mansehra, Pakistan	February–April
Pakistan	Ali, Bilal	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Ali, Usman	BSc	University of Agriculture Faisalabad Pakistan	February–April
Pakistan	Anjum, Hassan	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Bibi, Hifsa	BSc	Hazara University of Mansehra, Pakistan	February–April
Pakistan	Bibi, Maryam	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Bibi, Saba	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Bibi, Sobia	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Fatima, Sundus	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Hafeez, Faria	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Hanif, Arsalan	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Hassan, Mubashir	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Hussain, Nadir	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Idrees, Abeer	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Iftikhar, Zain	BSc	University of Agriculture Faisalabad, Pakistan	February–April
Pakistan	Ikram, Muhammad	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Iqbal, Syed Shayan	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Madani, Ukasha	BSc	University of Agriculture Faisalabad, Pakistan	February–April

Location	Name	Highest degree	University	Dates (2024)
Pakistan	Maqbool, Mohsin	BSc	University of Poonch Rawalakot, Amad Jammu & Kashmir, Pakistan	February–April
Pakistan	Naeem, Farhan	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Naqvi, Ali Zain	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Nazir, Irfan	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Sajjad, Aliza	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Shad, Saqlain	BSc	University of Poonch Rawalakot, Amad Jammu & Kashmir, Pakistan	February–April
Pakistan	Shafique, Sardar Moiz	BSc	Hazara University of Mansehra, Pakistan	February–April
Pakistan	Shakeel, Muqadas	BSc	University of Poonch Rawalakot, Amad Jammu & Kashmir, Pakistan	February–April
Pakistan	Subhan, Muhammad	BSc	University of Agriculture Faisalabad, Pakistan	February–April
Pakistan	Tabassum, Sehar	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Talib, Asma	BSc	University of Poonch Rawalakot, Amad Jammu & Kashmir, Pakistan	February–April
Pakistan	Zaheer, Fatima	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Zahid, Alishba	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Pakistan	Zohaib, Muhammad	BSc	Pir Mehr Ali Shah Arid Agriculture University Rawalpindi, Pakistan	February–April
Switzerland	Bailey, Max	BSc	University of British Columbia, Canada	May–August
Switzerland	Brozzi, Chiara	MSc	University of Bologna, Italy	April–December
Switzerland	Emery, Léa	MSc	University of Neuchâtel, Switzerland	April–September
Switzerland	Holroyd, Madeline	BSc	University of California, Santa Barbara, USA	May–July
Switzerland	Jocius, Lydia	BSc	University of Western Ontario, Canada	May–August
Switzerland	Kuttler, Fanny	MSc	Université de Rennes, France	August–October
Switzerland	Lamoureux, Julia	MSc	University of Sherbrooke, Canada	April–July
Switzerland	Loup, Sébastien	MSc	University of Neuchâtel, Switzerland	April–December
Switzerland	Makovetski, Vika	BSc	University of Victoria, Canada	June–September
Switzerland	Ossola, Alberto	MSc	University of Turin, Italy	May–September
Switzerland	Pirelli, Michela	BSc	University of Basel, Switzerland	August 2023–March 2024
UK	Forbes, Polly	BSc	Sheffield University, UK	June–September
UK	Saunders, Constance	BSc	Queen Mary University of London, UK	June–December
UK	Seton, Ben	BSc	University of Warwick, UK	July–December

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