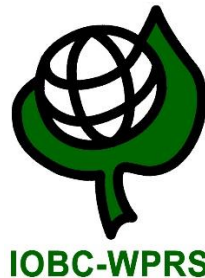
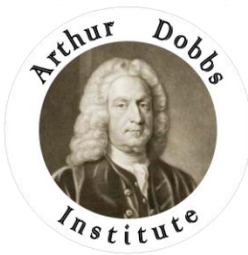


A New Joint Study/Working Group (WG) for IOBC and ICPPR -- Using Managed Pollinators to Disseminate Biological Control Agents & Natural Products for Crop Protection and Pollination

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Peter Kevan, School of Environmental Sciences, University of Guelph, Canada
pkevan@uoguelph.ca

CroProPol



The aim of CroProPol is to bring interested parties together to develop concepts and to conduct Research and Development in using managed pollinators and other flower visitors to disseminate biological control agents and, perhaps, other products, such as botanicals and medicaments, to crops for the suppression of insect pests and crop diseases while simultaneously improving yields and crop quality through pollination.

CroProPol will also help the exchange of ideas for testing and developing using control agents that are disseminated by managed pollinators into their nests for suppression of their own pests and diseases. The potential that predators, parasitoids, and macroparasites may also disseminate microbial biological control agents against pests and diseases of crops will also be explored.

CroProPol has been initiated through the co-operative efforts of the International Commission for Plant Pollinator Relations (ICPPR) and the International Organisation for Biological Control (IOBC) under the umbrella of the International Union of Biological Sciences (IUBS <https://www.iubs.org/>). Both ICPPR and IOBC are scientific members of the IUBS.

In 2016, IUBS funded (through the Arthur Dobbs Institute in Canada) the three-year programme “Managed pollinators: a case study Ecological Intensification in agroecosystems” which embraces the

general concepts shared within CroProPol and the FAO's (2013) promoting "Ecological Intensification" in agriculture. That IUBS programme boasts collaborations in North, South and Central America, Europe, Africa and Asia. The collaborations include academic and government laboratories, working with private sector companies through various funding sources (public and private) made possible by using the IUBS programme for leverage. In the European Union BICO POLL (www.bicopoll.net) is part of an EU-ERA-NET project "CORE-ORGANIC II", combining the two key ecosystem services: biocontrol and pollination.

An expanding body of literature explains the concepts of the using managed pollinators to disseminate biological control agents and natural products for crop protection and pollination (Kevan et al. 2003, 2007, 2009, Mommaerts & Smagghe 2011, Hokkanen et al. 2015, Kevan & Shipp 2017).

The Canadian Pollination Initiative (NSERC-CANPOLIN <http://www.uoguelph.ca/canpolin/>) working with the IUBS produced a webinar on the technology in late 2014 "Using Pollinators to Disseminated Biocontrol Agents" (<https://www.youtube.com/watch?v=QdKbm7EGtfg>).

Proofs of concepts, from the first days of R & D in the late 1980s, are known to apply to soft and tender fruits, orchard crops, oilseed crops, and in greenhouse production for suppression of diseases and pests. Research and development in various countries around the world and in almost all trials have had positive results.

The technology is expected to expand into biological protection of managed pollinators and even to embrace the use of arthropods as biological control agents acting as secondary vectors of other biocontrol agents. A major, factual, review is in preparation by Kevan and Shipp. Once that is complete, it will be shared with CroProPol.

Ongoing activities of CroProPol include work within the IUBS-funded programme noted above (www.iubs.org) which plans a course on using managed pollinators to disseminate biological control agents and natural products for crop protection and pollination to be held in Serbia through the University of Belgrade in spring 2018.

CroProPol is working closely with the ICPPR to have a first organisational meeting in conjunction with its bee protection and health working group in Valencia, Spain in October 2017 (to register: <http://bpg-meeting.julius-kuehn.de>).

The ICPPR is planning its International Pollination Symposium to take place in Berlin in spring, 2018 at which a session on CroProPol is expected.

The CroProPol listserv will soon be updated and upgraded as the operations for the ICPPR web site are moved from Canada to the Julius Kühn Institute in Germany (<https://www.julius-kuehn.de/darmstadt/>).

From those activities, CroProPol has in mind to prepare a handbook on the technology of using managed pollinators to disseminate biological control agents and natural products for crop protection and pollination. CroProPol will support individuals and organisations in preparation of grant proposals in soliciting private sector funds to further develop the technology.

The open subscription LISTSERV to exchange news and ideas, and to seek advice is now operational at CroProPol@listserv.uoguelph.ca. Please join by sending an e-mail to listserv@uoguelph.ca with your message “subscribe CroProPol your name”.

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