Topic 1:

**Biology and host specificity of an Asian box tree moth parasitoid, candidate for classical biological control**

The box tree moth (BTM), *Cydalima perspectalis*, is an insect of East Asian origin that was first found in Europe in 2007 and quickly spread to most European countries up to the Caucasus and Iran. In North America, it was first detected in 2018 in Toronto, Canada and in the following years also in nurseries of boxwood plants to six US states. In a joint project with partners from the US and Canada, CABI collaborated with the Kyungpook National University in Daegu, South Korea, to do some first prospections for natural enemies of the BTM in its native range to identify candidates for classical biological control. Several parasitoids were found and in 2022, two of them, a larval parasitoid (Hymenopter: Ichneumonidae) and an egg parasitoid (Hymenoptera: Trichogrammatidae), were brought to the high security quarantine laboratory of CABI in Delémont, Switzerland, for further studies. Laboratory colonies of both parasitoids were established. Especially the larval parasitoid is seen as a candidate for classical biological control in Europe and North America, although it may be a new species with an unknown biology. Thus, the project concentrates to studying the biology and host specificity of the parasitoid to determine if it is suitable for releases against the BTM. Some experiments on the egg parasitoid would also be possible to conduct within the project. Because they are foreign species, the work will be conducted in CABI’s quarantine laboratory in Delémont, Switzerland.

Applicants for this project should have an interest and experience in entomology (e.g. insect rearing) and at least a theoretical background in biological control. CABI Switzerland offers a friendly multilingual (English, French, and German) work environment with the possibility to exchange with students and researchers. The scientists will profit from learning different methods and approaches of biological control (classical biocontrol for Europe, augmentation biocontrol for East Asia), as well as of risk assessments and biosafety.  Project supervisors (Dr Marc Kenis and Dr Lukas Seehausen) are experts in invasion ecology and biological control.

Hosting team:

Dr Lukas Seehausen, Dr Marc Kenis