Ophraella communa, the ragweed leaf beetle, has landed in Europe

U. Schaffner1, S.T.E. Lommen2, M. Rossinelli3, M. Bonini4, M. Boriani5, G. Bosio6 and H. Müller-Schärer2

1CABI, CH-2800 Delémont, Switzerland. u.schaffner@cabi.org
2Département de Biologie/Ecologie & Evolution, Université de Fribourg, CH-1700, Fribourg, Switzerland.
3Servizio fitosanitario Canton Ticino, CH-6501 Bellinzona, Switzerland.
4ASL MILANO 1, Dipartimento di Prevenzione Medica, I-20015 Parabiago (Milano), Italy.
5Regione Lombardia, Laboratorio fitopatologico, Servizio fitosanitario regionale, I-22040 Vertemate con Minoprio (Como), Italy.
6Regione Piemonte, Settore Fitosanitario, I-10144 Torino, Italy.

In 2013, the ragweed leaf beetle, Ophraella communa (Coleoptera: Chrysomelidae), which is native to North America and successfully used as a biological control agent of Ambrosia artemisiifolia (Asteraceae) in China, was found in more than 130 sites in southern Switzerland and northern Italy. At present, it is not clear how O. communa arrived in Europe. At sites where the beetle was present, up to 100% of the plants were attacked with damage levels high enough to completely defoliate and prevent flowering and seed set of most ragweed plants. Despite extensive host specificity tests conducted in different parts of the world, the risk of attack and the level of damage to sunflower and closely related native plant species under field conditions remain unclear. The recently launched COST Action on “Sustainable management of Ambrosia artemisiifolia in Europe (SMARTER)” offers an ideal framework to respond quickly to the recent establishment of O. communa in Europe and to collect data that can help determine whether this event should be considered a troublesome introduction or whether it is likely to become the first case of a successful biological control of an invasive weed in continental Europe.

The 10 Top Invasive Plant Species in Indonesia

Titiek Setyawati*a, Ragil S Irianto1 and Sukisman Tjitrosoedirdjo2

1 Center for Conservation and Rehabilitation Research and Development, Jl. Gunung Batu No. 5, Bogor, Indonesia. Titiek2962@gmail.com
2 SEAMEO-BIOTROP Jl. Raya Tajur Km 6, Bogor 16001, Indonesia

A number of non-native plant species, mostly from Tropical America, were first brought to Indonesian territory for various uses during the 19th century Dutch colonial era, this included a plant specimen collection in the Botanical Garden. A hundred years later, several of these plants have spread massively, are out-competing native plants and are immensely hard to eradicate. For example, water hyacinth Eichhornia crassipes (Pontederiaceae), which was introduced to Asia at the end of the 19th century and grown firstly in the Bogor Botanical Garden in Indonesia as an ornamental plant. It is one of the fastest growing aquatic plant species on earth and causes substantial damage to aquatic ecosystems. Approximately 300 species out of 1,936 non-native plant species recorded from across the Indonesian islands, show indications of some degree of invasiveness. Unfortunately, not many people recognize their presence in the wild and information on their impact on the environment is inadequate. It is recognized, however, that some cause negative impacts to particular habitats. This is illustrated by the invasion of Acacia nilotica (Fabaceae) in the savanna ecosystem in Java and Merremia peltata (Convolvulaceae) in lowland forests of Sumatra. Both species are indirectly linked to the rapid decrease of a number of rare and endangered animals in the respective islands. Many other invasive plant species remain unstudied and there are limited techniques available to control and manage them. Accurate identification is required before control measures can be attempted, this will take time and the number of species requiring intervention is likely to increase. To protect our native ecosystems and prevent more damage to the environment, a feasible strategy needs to be developed by prioritizing or listing species that crucially require proper management. The FORIS (Forest Resources Information System) regional project, funded by GEF/UNEP through CABI. was developed to address issues on invasive alien species management in Southeast Asia. With the available tool of species prioritization, 10 top invasive plant species in Indonesia that immediately require control measures were selected: these include A. nilotica and M. peltata, and also, Chromolaena odorata (Asteraceae), Piper aduncum (Piperaceae), Acacia decurrens (Fabaceae), Calliandra calothyrsus (Fabaceae), Lantana camara (Verbenaceae), E. crassipes, Mimosa pigra (Fabaceae) and Salvinia molesta (Salviniaecae).