LIFE IAP-RISK

Newsletter 3 – October 2017

Introduction

Welcome to the third Newsletter of the LIFE funded project mitigating the threat of **I**nvasive **A**lien **P**lants in the EU through pest **RISK** analysis to support the EU Regulation 1143/2014 – better known as LIFE IAP-RISK,

IAP-RISK aims to mitigate the threat of invasive alien plants to the EU by producing high quality pest risk assessments that meet the requirements of the EU Regulation 1143/2014.

The project is progressing well, and October saw a significant milestone for the project as we have just finished the final expert working group of the project and now all 16 pest risk assessments have been drafted.

In September 2017, four species were approved by the EPPO Council and recommended for Regulation within the EPPO region. These species were *Salvinia molesta*, *Pistia stratiotes*, *Gymnocoronis spilanthoides* and *Cardiospermum grandiflorum*. Two species (*Hygrophila polysperma* and *Cinnamomum camphora*) were not recommended for Regulation as the expert working group considered these species currently have a low phytosanitary risk to the EPPO region.

Looking forward, the final months of 2017 and the first half of 2018 will be a busy period. We have ten more risk assessments at various stages of review and we have datasheets and leaflets to produce for each of the 16 species.

View our website for more details on the project www.IAP-RISK.eu

If you have any questions please do not hesitate to contact the Project Manager:

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New publication

The prioritization of a short list of alien plants for risk analysis within the framework of the Regulation (EU) No. 1143/2014

In June 2017, as an output of the project, the team published the paper: A prioritization process for invasive alien plant species incorporating the requirements of EU Regulation no. 1143/2014. This paper, which is a direct result of the project details the prioritization process and the species selected for risk assessment.

Abstract

Thirty-seven alien plant species, pre-identified by horizon scanning exercises were prioritised for pest risk analysis (PRA) using a modified version of the EPPO Prioritization Process designed to be compliant with the EU Regulation 1143/2014. In Stage 1, species were categorised into one of four lists – a Residual List, EU List of Minor Concern, EU Observation List and the EU List of Invasive Alien Plants. Only those species included in the latter proceeded to the risk management stage where their priority for PRA was assessed. Twenty-two species were included in the EU List of Invasive Alien Plants due to a medium or high spread potential coupled with high impacts and proceeded to Stage 2. Four species (*Ambrosia trifida*, *Egeria densa*, *Fallopia baldschuanica* and *Oxalis pes-caprae*) were assigned to the EU Observation List due to moderate or low impacts. *Albizia lebbeck*, *Clematis terniflora*, *Euonymus japonicus*, *Lonicera morrowii*, *Prunus campanulata* and *Rubus rosifolius* were assigned to the residual list due to a current lack of information on impacts. Similarly, *Cornus sericea* and *Hydrilla verticillata* were assigned to the residual list due to unclear taxonomy and uncertainty in native status, respectively. *Chromolaena odorata*, *Crypostegia grandiflora* and *Spagneticola trilobata* were assigned to the residual list as it is unlikely they will establish in the Union under current climatic conditions. In the risk management stage, *Euonymus fortunei*, *Ligustrum sinense* and *Lonicera maackii* were considered low priority for a PRA as they do not exhibit invasive tendencies despite being widely cultivated in the EU over several decades. Nineteen species were identified as having a high priority for a PRA (*Acacia dealbata*, *Ambrosia confertiflora*, *Andropogon virginicus*, *Cardiospermum grandiflorum*, *Celastrus orbiculatus*, *Cinnamomum camphora*, *Cortaderia jubata*, *Ehrharta calycina*, *Gymnocoronis spilanthoides*, *Hakea sericea*, *Humulus scandens*, *Hygrophila polysperma*, *Lespedeza cuneata*, *Lygodium japonicum*, *Pennisetum setaceum*, *Prosopis juliflora*, *Sapium sebiferum*, *Pistia stratiotes* and *Salvinia molesta*).

The publication is available via: https://neobiota.pensoft.net/article/12366/

Risk assessments

Below are some key detailed on the four-species recommended for Regulation in the EPPO region.

Salvinia molesta

In the EPPO region, *S. molesta* has been found in Austria, Belgium, France (Corsica), Germany, Italy, Israel, the Netherlands and Portugal, but it is not clear if reports represent established populations. In France, the species was first found in Corsica in 2010, in a water reservoir.

Salvinia molesta is most often found in stagnant or slow-flowing waters such as lakes, slow-flowing rivers or streams, wetlands, rice paddies, irrigation channels, ditches, ponds and canals.

Mats of *S. molesta* can cause similar problems to those caused by excessive growth of other floating plants; for example, they can reduce access to the water for recreation; interfere with various engineering structures such as weirs, floodgates or locks; block drains and cause flooding; stop livestock reaching water; prevent photosynthesis in the water below the mat; degrade potable water; have negative impacts on native animals and plants more generally by significantly altering aquatic ecosystems and reduce the aesthetic appeal of water bodies.

Pistia stratiotes

In the EPPO region, *P. stratiotes* was first recorded in the Netherlands in 1973 but plants did not become established. First reports from Austria and Germany were made in 1980. Repeated introductions failed to establish in Germany up until 2005, however, since 2008, an established population has been permanently present in thermal sections of the River Erft. In Italy, *P. stratiotes* was found first in 1998. *P. stratiotes* is now considered as established in at least one location in France, in a canal along the Rhône river, where first observations dated back to 2005.

Pistia stratiotes grows in slow moving rivers and reservoirs, irrigation channels, ponds, lakes, canals and ditches. The species often invades rice paddies in Asia as well as other wetland habitats. *P. stratiotes* can survive drying and can reinfest ephemeral waters which are subject to seasonal drying because of seed survival and germination.

Dense mats of *P. stratiotes* block sunlight, reducing primary production, decreasing water turbidity. Furthermore, the water shaded by *Pistia* shows decreased levels of oxygen and increased levels of nitrate, ammonium and phosphorus. As a result of the altered habitat, submerged vegetation has decreased under dense mats along the river Erft in western Germany (Hussner, 2014).

Gymnocoronis spilanthoides

Gymnocoronis spilanthoides has been reported as casual in 1988 in Hungary, occurring in the thermal waters of Lake Héviz and ditches near Keszthely. Two naturalised occurrences have also been reported in North-Western Italy (Lombardia region). The population in Italy stretches along the water body for 519 m, and occupies the whole canal width (1-4 m).

Within its introduced range, *G. spilanthoides* grows in wetlands, particularly degraded waterways forming marginal clumps on the edge of slow flowing or still water bodies, also forming dense sprawling floating mats in rivers (including tidally influenced areas) and reservoirs, irrigation channels, ponds, lakes, canals and ditches. It also grows in marshes and swamps, especially where nutrient enriched. *G. spilanthoides* established but did not persist in a rice field in Italy.

G. spilanthoides can impact on biodiversity and causes other environmental damage. Because *G. spilanthoides* grows very quickly, it can rapidly cover water bodies with a floating mat, excluding other plants and the animals that rely on them. Water quality may decline if large amounts of plant die off and rot under water.

Cardiospermum grandiflorum

In the EPPO region, *C. grandiflorum* has non-native records from France (Landes and Alpes-Maritimes departments, considered a casual species in the process of becoming established), Italy (Liguria, in the mainland and the Catania (Canalicchio) in the island of Sicily), Malta (considered as an invasive species), Portugal (Madeira Island), and Spain (Canary Islands: Gran Canaria, Tenerife, La Gomera, La Palma). In the Alpes-Maritimes department in France, the species was first recorded in Menton in the City of Beausoleil in an urban area.

C. grandiflorum prefers open habitats though it may grow well in forest edges. *C. grandiflorum* thrives in well-drained soil types. Research on invasive populations from Australia found soil types to vary substantially among regions of high-density populations indicating a wide edaphic tolerance by the species.

In its invasive range *C. grandiflorum* typically forms dense draping carpets/mats, smothering large areas of underlying vegetation. For example, in Australia these carpets can cover native vegetation in riparian ecosystems in uninterrupted stands sometimes several kilometres in area, including trees of up to 20 m high. The resultant exclusion of sunlight has negative impacts on photosynthesis, leading to the competitive exclusion of other species, including natives. *C. grandiflorum* therefore has the potential to negatively affect overall ecosystem processes and plant communities.