

## **A new Belgian template for invasive species risk analysis: a support for decision makers**

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An increasing number of regulatory tools aiming to impose preventive and control actions against invasive species are currently being developed in Europe. Both species prioritization and the choice of best preventive and potential control actions to reduce the risk require robust and transparent risk assessment. Two different generic tools, available from <http://ias.biodiversity.be>, have recently been developed in Belgium to help decision makers reaching these goals, i.e. a quick screening prioritization process (Harmonia+) and a detailed risk assessment scheme. Both tools may be applied to any non-native organism irrespective its taxonomic affiliation and encompass an evaluation of the probability of organism entry, establishment, spread, and of the potential and magnitude of environmental, economic and social consequences including plant, animal and human health.

Harmonia+ is a quick screening tool that may be used for different purposes (D'hondt et al. 2014): (i) the elaboration of priority lists of invasive species that are established or could potentially establish in an area, (ii) the fulfillment of rapid assessment to help conservation managers to prioritize actions when a new non-native organism is found in the wild and (iii) the identification of non-native species with the highest priority for in-depth and time consuming risk analyses and (iv) the scoring of probability and magnitude of the different elements included in those risk analyses.

The detailed scheme for invasive species risk analysis is based on the recommendations of the international standards for pest risk analysis for organisms of quarantine concern produced by the Secretariat of the International Plant Protection Convention. It follows a process defined by two main stages, i.e. the risk assessment stage itself and the risk management stage, which involves identifying options for reducing the identified risks. This detailed analysis is especially valuable to know whether trade restrictions could be considered as adequate and efficient to reduce the risk.

The output of the risk assessments based on these new tools will be presented and discussed for five emerging non-native species in Belgium (water primrose, red swamp crayfish, American bullfrog, sacred ibis and raccoon dog). Different recommendations and priorities for decision making will be provided for the different species based on the outcome of these analyses.

Potential uses for the selection of species of EU concern in the framework of the new EC proposal of Regulation on the prevention and management of the introduction and spread of IAS in Europe will also be discussed.