

Invasive alien species (IAS) and their impacts represent a growing concern for the managers of natural areas. That is particularly true for aquatic environments where an array of stakeholders are now taking action. Public policies on the French and European levels are also coming into play.

What is the status of current knowledge on biological invasions? What is the applicable legal framework and what recommendations should be made? In the field, which species are managers attempting to address? Which techniques are used, where and how, and what are the objectives and the results achieved?

For these two volumes of the *Knowledge for action* series, almost 100 experts collected the information required to clearly present the situation and propose a scientifically based approach to assist water managers in setting up management projects.

This first volume, titled *Practical information*, presents the current situation concerning the management of invasive alien species in aquatic environments. Though no "cure alls" currently exist, this volume offers highly useful information while attempting to address the specific aspects of each situation.

The second volume, titled *Management insights*, illustrates the situation discussed in the first volume with feedback from management projects in continental France and Europe.

Emmanuelle Sarat, a scientific officer for invasive alien species at the IUCN French committee, has managed the Biological invasions in aquatic environments (IBMA) work group since 2014.

Emilie Mazaubert, a research engineer at Irstea from 2009 to 2013, participated extensively in the work at IBMA over the period, drafting a large number of research reports and promoting the work, while managing the work group and acting as group secretary.

Alain Dutartre, an independent hydrobiologist (formerly at Irstea), has worked for almost 40 years on aquatic plants (native and alien) and their management. As a founding member of the IBMA work group, he has contributed to research work and efforts to assist water managers in improving the management of invasive alien species.

Nicolas Poulet, a scientific officer at the Onema Research and development department, has worked to establish research and management projects on both invasive and patrimonial species and participated in managing the IBMA work group.

Yohann Soubeyran, a scientific officer for invasive alien species at the IUCN French committee, has managed a special project on IASs in the overseas territories since 2005. In 2014, he joined the management team at the IBMA work group.



www.gt-ibma.eu



www.onema.fr



www.iucn.fr



www.irstea.fr



Invasive alien species in aquatic environments

Practical information and management insights

Vol. 1

Practical information

Emmanuelle Sarat, Emilie Mazaubert,
Alain Dutartre, Nicolas Poulet
and Yann Soubeyran (editors)

The French National Agency for Water and Aquatic Environments

Onema is a public agency operating under the supervision of the Ecology ministry. It was created by the 2006 Water law and launched in April 2007. Onema is the principle technical organisation in France in charge of developing knowledge on the ecology of aquatic environments and monitoring water status. Its mission is to contribute to comprehensive and sustainable management of water resources and aquatic ecosystems. The agency contributes to restoring water quality and attaining the goal of good chemical and ecological status, the objective set by the European water framework directive. Onema, with a workforce of 900, is present throughout continental France as well as in the overseas territories in the framework of the national interbasin solidarity policy. In carrying out its mission, Onema works closely with all stakeholders in the water sector.

The French committee of the International union for the conservation of nature

The French committee constitutes the network of French organisations and experts working for the IUCN and serves as a knowledge base and platform for discussion on biodiversity issues. This novel partnership comprises two ministries, 13 public organisations, 41 NGOs and over 250 experts grouped in special commissions and topical work groups. The committee addresses biodiversity issues in France and promotes French research and know-how internationally.

The IBMA work group

This book was drafted by the Biological invasions in aquatic environments (IBMA) work group that Onema and Cemagref (now Irstea) launched jointly in 2009. Its mission is to assist all water stakeholders working on the topic of invasive alien species (IAS) by facilitating access to new knowledge on IASs and developing management tools. Since 2014, the work group has been managed by the IUCN French committee and Onema.

This book continues the *Knowledge for action* series that makes new research findings and science-advice work available to professionals in the water and aquatic-environment sector (scientists, engineers, managers, instructors, students, etc.).

The book is available on the Onema site (www.onema.fr), in the Resources section, on the IBMA site (www.gt-ibma.eu) and at the national portal for "Water technical documents" (www.documentation.eaufrance.fr).



ISBN: 979-10-91047-40-1
Printed in France by CFI in March 2015.
This document was produced using plant-based inks
and printed on 100% PEFC paper from sustainably managed
forests and verified sources, by a printer compliant
with all environmental standards.

