

'A comprehensive compendium of the major alien plant, animal and pathogen species that threaten riparian, freshwater and brackish ecosystems around the world... this volume provides an outstanding resource for invasion ecologists, freshwater biologists, and catchment scientists.'

Prof. Philip E. Hulme, *The Bio-Protection Research Centre, Lincoln University, New Zealand*

'Freshwater ecosystems are among the most susceptible to invasion by introduced species. This important volume brings together insights from 63 contributors to review available knowledge and define new challenges and priorities for research and management. It is sure to stand as the primary source of information on invasive species in freshwater ecosystems for many years to come.'

Prof. David M. Richardson, *Centre for Invasion Biology, Stellenbosch University, South Africa*

'This Handbook is a must-read for anyone seriously concerned with aquatic invasions. Its detailed yet readable accounts of impacts and management approaches for important introduced plants, animals, and parasites will serve as authoritative references for years to come.'

Prof. Daniel Simberloff, *University of Tennessee and Editor-in-Chief, Biological Invasions*

'This excellent book draws together detailed information on thirty-three freshwater species, and the most effective management methods and strategies... it is a very useful tool to achieve a more effective response to invasions.'

Dr Piero Genovesi, *Chair IUCN SSC Invasive Species Specialist Group*

Invasive non-native species are a major threat to global biodiversity. Often introduced accidentally through international travel or trade, they invade and colonize new habitats, often with devastating consequences for the local flora and fauna. Their environmental impacts can range from damage to resource production (e.g. agriculture and forestry) and infrastructure (e.g. buildings, road and water supply), to human health. They consequently can have major economic impacts. It is a priority to prevent their introduction and spread, as well as to control them. Freshwater ecosystems are particularly at risk from invasions and are landscape corridors that facilitate the spread of invasives.

This book reviews the current state of knowledge of the most notable global invasive freshwater species or groups, based on their severity of economic impact, geographic distribution outside of their native range, extent of research, and recognition of the ecological severity of the impact of the species by the IUCN.

As well as some of the very well-known species, the book also covers some invasives that are emerging as serious threats. Examples covered include a range of aquatic and riparian plants, insects, molluscs, crustaceans, fish, amphibians, reptiles and mammals, as well as some major pathogens of aquatic organisms.

The book also includes overview chapters synthesizing the ecological impact of invasive species in fresh water and summarizing practical implications for the management of rivers and other freshwater habitats.

Robert A. Francis is Senior Lecturer in Ecology at King's College London, UK. He has broad research interests in aquatic, riparian and urban ecology and has been secretary of the British Ecological Society special interest group on invasive species since 2008.

 **Routledge**
Taylor & Francis Group
www.routledge.com

earthscan
from Routledge

ECOLOGICAL / LIMNOLOGY / BIODIVERSITY AND CONSERVATION /
WATER MANAGEMENT / ENVIRONMENT AND SUSTAINABILITY

an informa business

ISBN 978-1-84971-228-6



Cover images: North American Beaver
© G. Martínez Pastor; North American Signal
Crayfish © Neal Haddaway; Water Hyacinth
© RiverNorthPhotography/istockphoto.com;
Parrot Feather © P. Champion; American
Bullfrog © K. D'Amore; Brown Trout
© Marcin Pawinski/istockphoto.com