

# National Centre for Aquatic Biodiversity & Biosecurity

*protecting our natural heritage*

providing advice on freshwater & marine biodiversity & biosecurity

- biodiversity surveys – what lives in the area, including species new to science & species new to the area
- aquatic pests – identification, prevention, control, eradication
- human impacts on biodiversity
- strategies for sustainable management
- advice on habitat & biodiversity restoration
- toxic algae – identification, spread, potential risks
- practical training, identification guides

[www.niwascience.co.nz/ncabb](http://www.niwascience.co.nz/ncabb)

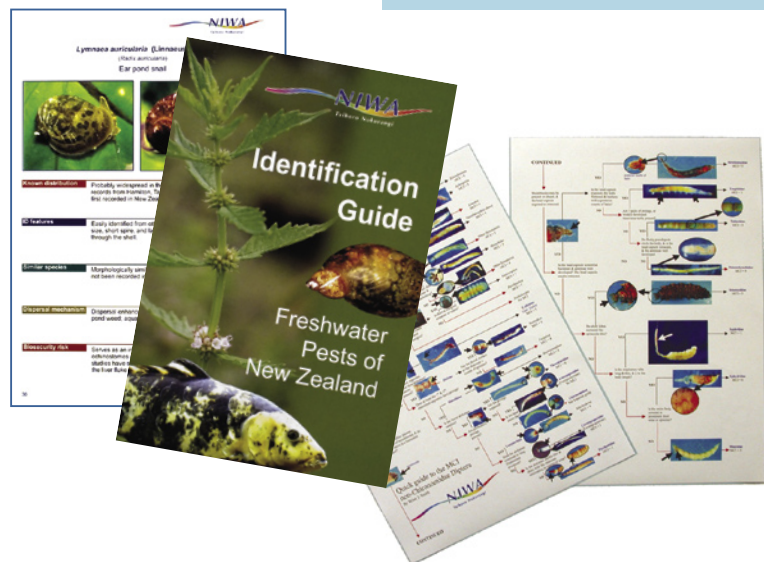
## Step one in saving natives and combating pests

If you want to preserve or restore a lake, stream, or wetland, you need to know what lives there. Species identification is not as easy as it sounds – even experienced researchers can find it daunting.

The National Centre for Aquatic Biodiversity & Biosecurity has published handy guides to help conservation, regional council, and other staff to identify freshwater species. The set covers identification at basic levels (e.g., guides to freshwater fish families and major groups of freshwater algae), as well as detailed guides for genus and species level identification of particular groups. The detailed guides cover native fish species, aquatic plants, various algal groups, and oligochaete worms.

A separate pest identification guide covers 57 freshwater pest fish, invertebrates, and plants, and we also produced pictorial plant guides to help aquarium hobbyists select and culture alternatives to illegally imported pest plants.

Funding was provided through DOC's Terrestrial and Freshwater Biodiversity Information System (TFBIS) programme, and the Foundation for Research, Science & Technology.



## A salty solution to stop spread of aquatic pests

Fishing nets can spread pests, especially fish eggs, fry, and bits of weed, from infested to pristine waterways, unless the nets are properly sterilised. The standard method is air drying, but this usually requires nets to be laid out in a dry spot overnight – not ideal for damp conditions or when nets have to be re-used quickly.

NIWA scientists have been working with the Department of Conservation, commercial fishers, and regional council staff to find other ways to effectively and conveniently sterilise freshwater fishing nets. We identified and tested potential treatments, thanks to funding from DOC and the Foundation for Research, Science & Technology.

The winning 'recipe': soak nets for one hour in concentrated saltwater (70 grams of salt per litre, or 1 part salt to 14 parts water by volume).

We found the treatment worked well for many pest fish species, including catfish, goldfish, koi carp, gambausia, perch, rudd, and tench, and a range of aquatic weeds, including curly pondweed, elodea, egeria, hornwort, hydrilla, and lagarosiphon.



NIWA scientists working with Auckland Regional Council staff to sterilise and clear gill nets at Lake Wainamu.

great services