



# Other Verified Observations



## Other Verified Observations of Marine Pests

In 1998, a team of New Zealand marine scientists published a consolidated inventory of the non-native and cryptogenic species that had been recorded from New Zealand marine environments (Cranfield et al. 1998). Since that time, the number of records of non-native and cryptogenic marine species recorded in New Zealand has increased substantially as a result of surveys funded by MAF-Biosecurity New Zealand (now the Ministry for Primary Industries), other biodiversity-related research, and reports made by members of the public. An updated review of these records was completed in 2010.

The updated inventory was compiled from published literature, unpublished technical reports, biosecurity databases, records held by the Marine Invasives Taxonomic Service and research taxonomists. The biosecurity databases included records from the Port Biological Baseline Surveys, Marine High Risk Site Surveillance, and vessel biofouling surveys funded by the Ministry for Primary Industries. The inventory also included review by research taxonomists of all 159 taxa listed in the Cranfield et al. (1998) report using contemporary information on the systematics and biogeography of each species.

Where possible, information was also compiled on the:

- biosecurity status of each species (i.e. non-native, cryptogenic or native)
- criteria for assessing biosecurity status (see Chapman and Carlton 1991)
- date and location of first record in New Zealand
- likely vectors of introduction to, and spread within New Zealand
- national and global distributions

The review turned up records for more than 650 non-native and cryptogenic marine species from New Zealand waters. Of these, 298 are thought to be non-native to New Zealand, with the majority (353 species) being of unknown geographic origins (i.e. cryptogenic).

### Additional reading

Chapman, J.W.; Carlton, J.T. (1991). A test of criteria for introduced species: the global invasion by the isopod *Synidotea laevidorsalis* (Miers, 1881). Journal of Crustacean Biology 11: 386-400.

Cranfield, H.; Gordon, D.; Willan, R.; Marshall, B.; Battershill, C.; Francis, M.; Nelson, W.; Glasby, C.; Read, G. (1998). Adventive marine species in New Zealand. NIWA technical report No. 34. Hamilton, NIWA.