
ASSESSMENT AND CONTROL OF BIOLOGICAL INVASION RISKS



*Edited by Fumito Koike, Mick N. Clout, Mieko Kawamichi,
Maj De Poorter and Kunio Iwatsuki*

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Assessment and Control of Biological Invasion Risks

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GLOSSARY

Terminology has developed independently in different sectors that address Invasive alien species (IAS), reflecting their different mandates. Managers, law makers and researchers sometimes have different requirements for terminology. Even within ecological sciences, botanists and zoologists may use terminology differently. This glossary explains the terminology as used in this volume. However, sometimes there is a need to use terminology differently, for example where a particular term has been defined in the national law of a country (e.g. "Invasive Alien Species" in Japanese law or "invasive species" in U.S. law). In such cases, this particular meaning, as used in that case, will be clarified in the text.

native species: a species, subspecies, or lower taxon, living within its natural range (past or present) including the area which it can reach and occupy using natural dispersal out of its natural range even if it is seldom found there.

endemic species: a species that is native to a particular area and ONLY in that area. (Example: the kiwi bird is native to New Zealand, and it is endemic there, while the white fronted tern is also native to New Zealand but is not endemic there because it also is native to Australia).

alien species: a species, subspecies, or lower taxon introduced outside its normal past or present distribution. Synonym in this volume: "introduced species". (Synonyms used elsewhere: non-native, non-indigenous, exotic).

introduction: the movement, by human agency, of a species, subspecies or lower taxon outside its natural range (past or present). This movement can be either within a country or between countries.

- *intentional introduction*: the purposeful movement by humans of a species outside its natural range and dispersal potential (for example: introduction of a species for aquaculture, for fishing, for aquarium use, for use as a crop or a garden plant, for biological control, etc....)
- *unintentional introduction*: an introduction of a species outside its natural range introduced "unwittingly" by humans or human delivery systems (for example: in ballast water, as contamination in soil or seeds, a contamination inside or on a container, as a parasite or pathogen of an intentionally introduced species, etc. It also includes the use, by a species, of tunnels and canals).

introduced species: same as *alien species*

invasive alien species: an alien species whose establishment and/or spread threaten ecosystems, habitats or species with economic or environmental harm. Note: national law and regulations in many countries often contain a legal definition of "invasive alien species" or "invasive species" which can be different from the ecological definition in this glossary. Where this is the case in this volume, the specific meaning will be clarified.

pathway: For the purpose of this manual, a pathway is broadly defined as the means (e.g. aircraft, ship or train), purpose or activity (e.g. agriculture, forestry, fisheries or horticulture), or commodity (e.g. timber, grain) by which an alien species may be transported to a new location, either intentionally or unintentionally.

biodiversity: the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. Synonym: biological diversity.

ecosystem: a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.

habitat: means the place or type of site where an organism or population naturally occurs. The place where an organism is currently absent but potentially viable is included in the context of metapopulation ecology.

pest: This term is sometimes used as synonym to invasive alien species. (Note: many use it in an agricultural context only. Moreover, in the context of International Plant Protection Convention and some other international instruments, it has a well defined meaning, specific to that context).

weed: a plant growing where it is not wanted; Sometimes used as synonym for invasive alien species that is a plant. It includes woody species (e.g. shrubs, trees) and it includes natural and semi-natural environments (i.e. undisturbed environments).

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