## What is an invasive species?

## An invasive species is defined as a species outside of its native range whose

## introduction and/or spread threatens biodiversity <sup>1,2,3</sup>.

Alien species are considered invasive, and included in the indicator, based on:

- 1. Evidence of the impact of the species on biodiversity anywhere in the introduced range of the species.
- 2. Evidence of the spread (wide-ranging or rapid) and abundance (high or rapidly increasing) of the species in its introduced range.

This assessment thus follows commonly used criteria for designating species as invasive.

	Criteria commonly used to infer the status of species as inv Criterion	References
1	Evidence that the species is invasive elsewhere, or has a history of invasiveness (especially under similar climatic and geographic conditions).	4, 5, 6, 7
2	Extent of introduced range.	8, 9
3	Extent of native geographic range.	8, 9, 10
4	Taxonomic relatedness to known invaders.	11, 12, 13

## References

- <sup>1</sup> **UNEP (United Nations Environmental Programme).** (2002). COP 6 Decision VI/23. Alien species that threaten ecosystems, habitats or species. The Hague, 7-19 April 2002.
- <sup>2</sup> Kümpel, N.F. and Baillie, J.E.M. (2007). Options for a global indicator on trends in invasive alien species. Report to the Secretariat of the Convention on Biological Diversity.
- <sup>3</sup> GISP Expert Working Group. (2008). GISP Expert Working Group Meeting on Development of Indicators for Invasive Alien Species. The Park Inn, Heathrow, London, UK, 18<sup>th</sup> and 19<sup>th</sup> March 2008. Summary Minutes.
- <sup>4</sup> Simberloff, D. (1999). The ecology and evolution of invasive nonindigenous species. Global Invasive Species Program Workshop on Management and early warning systems, Kuala Lumpur, Malaysia, March 22-27, 1999.
- <sup>5</sup> Wittenberg, R. and Cock, M. J. (2001). Invasive alien species: a toolkit of best prevention and management practices. Wallingford: CABI.
- <sup>6</sup> Rejmánek, M., Richardson, D.M., Higgins, S.I., Pitcairn, M.J. and Grotkopp, E. (2005). Ecology of invasive plants: state of the art. In *Invasive alien species: a new synthesis*: 104-161. Mooney, H.A., Mack, R.N., McNeely, J.A., Neville, L.E., Schei, P.J. and Waage, J.K. (Eds). Washington: Island Press.
- <sup>7</sup> **Samways, M.** (1996). *Managing insect invasions by watching other countries*. Norway/United Nations Conference on Alien Species, Trondheim, Norway, 1-5 July 1996.
- <sup>8</sup> Scott, J.K. and Panetta, F.D. (1993). Predicting the Australian weed status of southern African plants. *Journal of Biogeography* **20**, 87-93.
- <sup>9</sup> Goodwin, B.J., McAllister, A.J. and Fahrig, L. (1999). Predicting invasiveness of plant species based on biological information. *Conservation Biology* **13**, 422-426.
- <sup>10</sup> de Poorter, M., M., Browne, M., Lowe, S. and Clout, M. (2005). The ISSG global invasive species database and other aspects of an early warning system. In *Invasive alien species: a new synthesis:* 59-83. Mooney, H.A., Mack, R.N., McNeely, J.A., Neville, L.E., Schei, P.J. and Waage, J.K. (Eds). Washington: Island Press.
- <sup>11</sup> Lockwood, J.L. (1999). Using taxonomy to predict success among introduced avifauna: relative importance of transport and establishment. *Conservation Biology* **13**, 560-567.
- <sup>12</sup> Blackburn, T.M. and Duncan, R.P. (2001). Determinants of establishment success in introduced birds. *Nature* **414**, 195-197.
- <sup>13</sup> Lockwood, J.L., Simberloff, D., McKinney, M.L. and Von Holle, B. (2001). How many, and which, plants will invade natural areas? *Biological Invasions* **3**, 1-8.

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