The influence of time since introduction on the population growth of introduced species and the consequences for management

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Supplementary Material 1

Table S1

The demographic properties of introduced species included in the study.

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Supplementary Material 2

Model selection removing the dependence of the multiple populations of the same species on elasticities:

For some species, multiple populations of the same species are included in the analyses. This suggests that data from these species may be correlated violating the assumption of independence in the regression analysis. We conducted an additional analysis in which only one set of population data was used for each species to remove the dependence of the multiple data points for one species. The dataset includes four populations of *Alliaria petiolata* and *Carduus nutans and include two populations of Cytisus scoparius, Heracleum mantegazzianum, and Taraxacum officinale*. There are 128 cases to choose one population for each species. We picked up one population for each species and calculated AIC and BIC values of the 6 models for the 128 cases (The AIC and BIC values are shown in Table S2 in ESM).

The best model selected by AIC includes both years since introduction and matrix dimension for all 128 cases. On the other hand, the best model selected by BIC in 71. 9% of the cases (92 cases) includes only years since introduction and the best model in 28.1% of the cases (36 cases) includes years since introduction and matrix dimension as a covariate. Based on the best models selected by AIC and BIC, it is reasonable to consider that elasticities change with time since introduction.

Table S2

(a) AIC and (b) BIC values of the 6 models for the 128 cases.

Cells of minimum values of AIC or BIC are shaded. Asterisks represent that the populations are selected in the calculations of AIC or BIC.