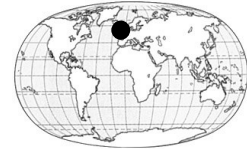


Bruce OSBORNE, Margherita GIORIA

University College Dublin, Dept. of Botany, UCD, Belfield, Dublin 4, Ireland



GUNNERA INVASIONS: A GLOBAL PERSPECTIVE

Based on current evidence all *Gunnera* invasions globally are restricted to one species, *Gunnera tinctoria* (Molinia) Mirbel. Analysis of these invasions suggests that their history, as well as the habitats occupied by this species today, are broadly comparable across different geographic regions, with a strong climatic dependence. In Britain and Ireland this species was introduced into cultivation around 1850, but was not recorded in the wild until the early 1900 indicating an establishment phase of 60 years. Significant records of this species in the wild were not, however, found until the 1950 indicating a further lag phase of 40 years before any significant spread. This is broadly consistent with pollen analysis and sediment dating using isotopes. The possible reason for these lag and establishment phases will be discussed. The primary impact of *G. tinctoria* on ecosystems appears to be a consequence of shading effects, with the greatest impact on the performance of native grasses. Future projections suggest a significant range extension in response to changes in global climate, particularly rainfall, although the possible role of genetic modifications should not be discounted.

keywords: *Gunnera tinctoria*, climatic links, habitats