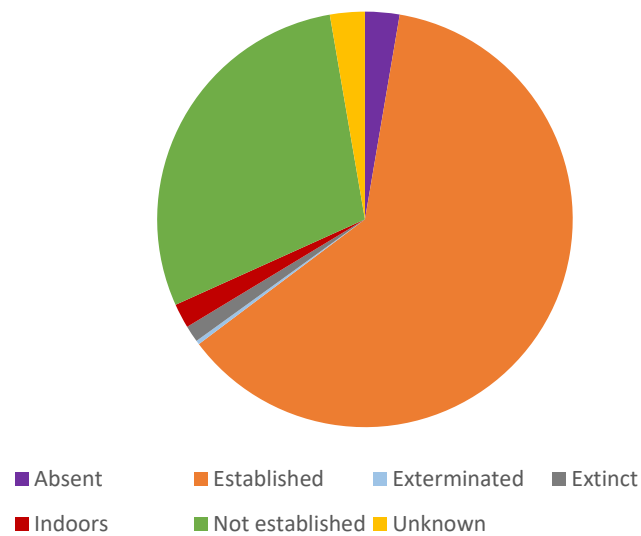


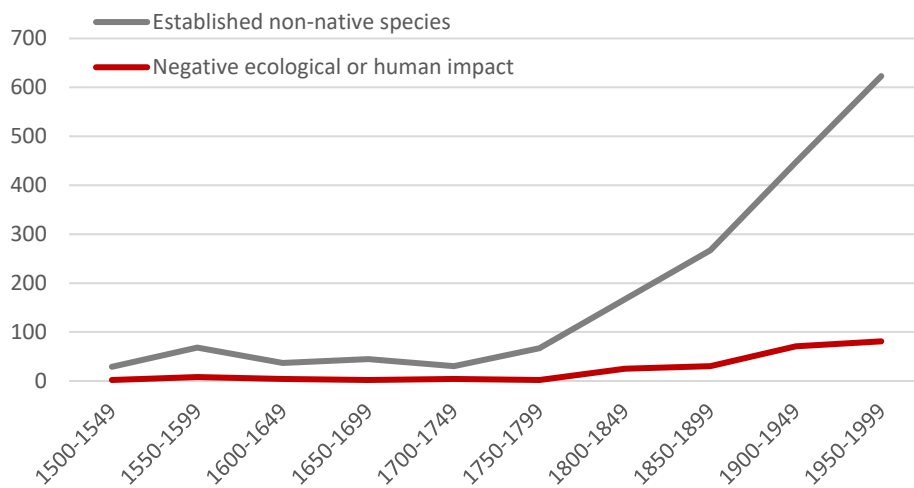
GB Non-Native Species Report Card 2020

Confidence assessment: High confidence, medium confidence and low confidence

- More than 3248 non-native species on the species register
- 2016 established (self-sustaining populations) non-native species comprising 1513 established non-native plants and 498 established non-native animals and 5 other species
- Total of 10 non-native species are known to have been eradicated from GB
- 303 established non-native species have been designated as having a negative ecological or human impact: 188 established non-native animals, 113 established non-native plants and 2 other species

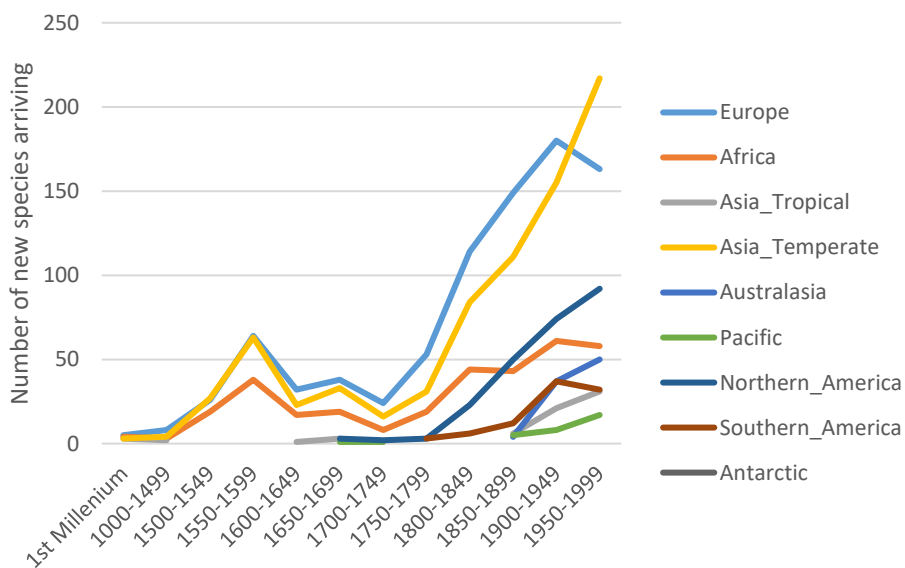


Establishment status of the species within the GB-NNSIP



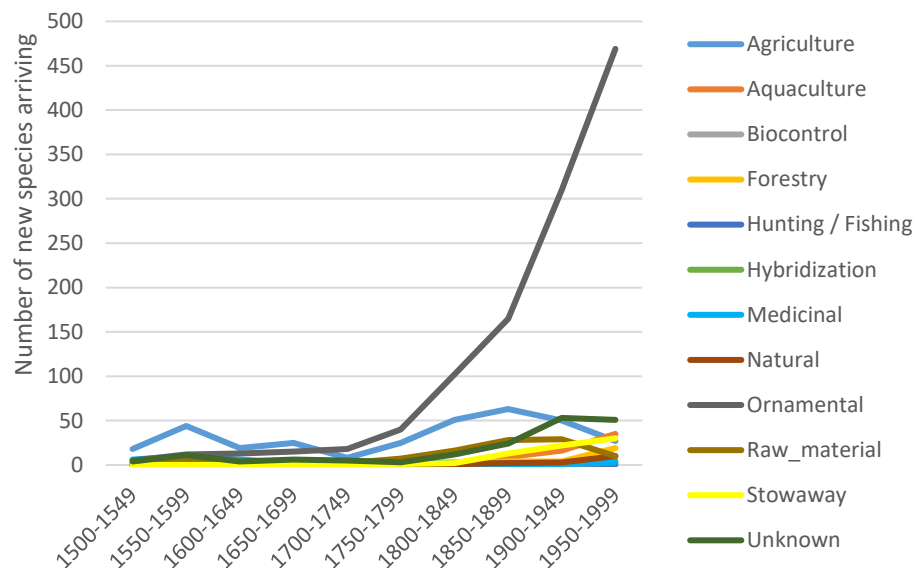
Number of established non-native species and the number that are designated as having a negative ecological or human impact against date of first arrival

There has been a dramatic increase in the number of species arriving and those becoming established over the last 400 years and there is no indication of this trend slowing. Indeed since 1950 there have been 10.7 additional non-native species arriving and establishing per year in contrast to 0.9 additional non-native species arriving and establishing per year from 1600-1799. The number of established non-native species designated as having a negative ecological or human impact is also increasing with two of the new species per year causing an impact since 2000.



Number of established non-native species originating from different regions against date of first arrival

Most of the non-native species that are established within GB originate from Europe. However, in recent decades the rate of new arrivals originating from Europe is slowing and temperate Asia and North America are becoming both major contributors to the non-native fauna and flora of GB.



Number of established non-native species arriving through different pathways against date of first arrival

Most established non-native species in GB have arrived for ornamental purposes usually as garden plants but also for landscape planting and through the introduction of exotic animals. There has been a dramatic increase in species arriving through this pathway since 1800. There are an increasing number of non-native species for which the pathway of arrival is unknown. Many species arrive through multiple pathways. In terrestrial environments 1196 of the established non-native species arrived through ornamental introductions. The dominant pathways for non-native species in freshwater environments are both ornamental (42 species) and aquaculture (30 species). In the marine environment the arrival pathway for many non-native species is unknown but stowaways (75 species) and aquaculture (51 species) are both dominant pathways. Across all environments biocontrol, hunting or fishing and hybridisation are very minor pathways with only two, 14 and 19 species arriving and establishing through these methods respectively.

Footnote: The data compiled within this project are indicative of current knowledge collated by many recognised experts (Roy et al., 2014). However, a database such as the species register will be incomplete both because of the number of new species arriving within GB annually and the species which remain cryptic particularly for groups considered to be difficult, such as parasites. Additionally it is difficult to determine the status of some species with respect to whether they are native or non-native, established and the impact that they may have within the invaded range. The involvement of so many experts has undoubtedly minimised the number of omissions and errors. Reference: Roy, H.E., Preston, C.D., Harrower, C.A., Rorke, S.L., Noble, D., Sewell, J., Walker, K. Marchant, J., Seeley,

B., Bishop, J., Jukes, A., Musgrove, A., Pearman, D., Booy, O. (2014) GB Non-native Species Information Portal: documenting the arrival of non-native species in Britain. *Biological Invasions* <http://dx.doi.org/10.1007/s10530-014-0687-0>