

## **Invasive Alien Species in the Belgian part of the North Sea**

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Flanders Marine Institute (VLIZ) and the VLIZ Alien Species Consortium of experts, conduct since 2008 an ongoing effort to maintain the documented list of alien species that have established populations in the Belgian part of the North Sea (BNS) and its adjacent estuaries. The list strives to include all currently known alien and cryptogenic species registered in marine and brackish environments in the Belgian part of the North Sea, the Belgian coastal zone and its adjacent estuaries (Yser, Scheldt, Ostend Sluicedock). This effort scrutinizes both the intentional and accidental introductions by man or by other vectors. Alien species that do not have established and reproductive populations in the area are not included in the list, neither are species whose distribution is limited to the freshwater environment. Newly registered species as a consequence of (expected) natural migrations are also excluded. To date (July 2013), 72 alien species with established populations have been identified in the study area. The taxa Arthropods (28) and Algae (11), count the highest number of alien species.

Based on literature screening and reported evidence, the alien species reported to be invasive either in the BNS or adjacent waters in the Southern North Sea are identified in the invasive species or 'alert' list. Invasiveness may be defined from an ecological or a (socio)economic perspective. To date, 15 species on the list are reported as 'invasive'. Of these, 7 are Arthropods.

The initiative provides an online source of information on alien species for the BNS, as well as on the network of experts for this study area (since 2008). This includes definitions, information sheets, pictures and a fully documented reference list, by species. Each information sheet describes the life cycle and ecology of the species, the introduction pathways and distribution, the potential effects of the species on its environment – including the impact in case of invasive behavior - and the possible mitigation measures. The list provides up-to-date, scientifically validated and policy-relevant information on, and trends in, the presence of alien and invasive species in the Belgian marine and brackish waters.