

## Life cycle closure of jellyfish in the North Sea area

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Most scyphozoan jellyfish and hydromedusae have benthic polyp stages which can reproduce asexually. Triggered by environmental conditions, they release medusae and can thus be the driving force behind gelatinous zooplankton blooms, which have been increasingly causing problems in many areas worldwide. Knowledge of the distribution and habitat preference of these polyps could be important for predicting future blooms of jellyfish. For most jellyfish species in the North Sea area, the location of the benthic polyps is unknown and only polyps of the moon jellyfish *Aurelia aurita* are regularly found in coastal areas. We summarise information on the distribution and population structure of benthic and early pelagic stages of jellyfish in the North Sea area obtained on sampling cruises in Dutch coastal waters and the North Sea in 2012-2018, discuss possible locations and habitats where the missing polyps of species might be found, and methods that can be used to find them.

Keywords: jellyfish; North Sea; polyps; life cycle closure; zooplankton