

A metabarcoding approach to analyse the composition and growth of species on wood panels coated with eight anti-fouling paints in the harbour of 't Horentje, The Netherlands

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Identification of pathways for the introduction of harmful marine species point to shipping and aquaculture as the most critical pathways for marine invasions globally. Biofouling on ships is a significant transport mechanism for the introduction of invasive species in many waters. The use of effective safe anti-fouling systems is important to minimize biofouling and transfer of non-indigenous species. Anti-fouling paints have been developed for preservation of ships and boat hulls. However, many paints showed to be harmful to benthic organisms and persistent in the environment. As a consequence, industries are busy developing new generation anti-fouling paints. The aim of this study was to evaluate the composition and growth of species on wood panels coated with eight anti-fouling paints in marine waters. Experiments were carried out on panels immersed for two months in the harbour of 't Horentje in The Netherlands. Every two weeks, the composition and growth of species on the panels were analysed by photographs, DNA concentration measurements and metabarcoding analysis by pyrosequencing. Results will be presented.