Ascidians in the succession of marine fouling communities

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To study the succession of marine fouling communities along the Dutch coast, seven grey 14x14 cm PVC plates were deployed in December 2008 at four localities, and 73, 54, and 42 plates respectively, were deployed in March, June and September 2009 at thirteen localities. These localities, which were located at least 10 km apart, varied mainly in current strength and salinity. Each of the plates was photographed underwater in the field in overview and detail, every three months. The succession of the fouling communities on about 200 settlement plates was followed and recorded over periods of three, six, nine and twelve months time. Here we present the preliminary results for the 2008 and 2009 series (ongoing in 2010). More specifically we focus on the role of native and non-native ascidians in the succession of marine fouling communities. Ascidians clearly play a major role in the succession of marine fouling communities in general. The most common sea-squirt species, which showed significantly different succession patterns, were *Ascidiella aspersa* (Müller, 1776), *Botryllus schlosseri* (Pallas, 1766), *Botrylloides violaceus* Oka, 1927, *Ciona intestinalis* (Linnaeus, 1758), *Didemnum vexillum* Kott, 2002, *Diplosoma listerianum* (Milne-Edwards, 1841), *Molgula socialis* Alder, 1863 and *Styela clava* (Herdman, 1881). As a more general result it is concluded that the succession of marine fouling communities in The Netherlands goes relatively fast, i.e. 47% of the plates differed significantly from each other after three months of submersion, while only 13% still differed significantly six months after they were deployed.