Invading European shores: First European record of the acorn barnacle *Balanus glandula* Darwin, 1854

Kerckhof Francis, Ilse De Mesel and Steven Degraer

Marine Ecology and Management, Operational Directorate Natural Environment, Royal Belgian Institute of Natural Sciences, 3De en 23ste Linieregimentsplein, 8400 Oostende, Belgium
E-mail: francis.kerckhof@naturalsciences.be

Balanus glandula Darwin, 1854 is a sessile (acorn) barnacle native to the Pacific coast of North America ranging from the Aleutian Islands to Bahia de San Quintín (Baja California). During the past half century this barnacle successfully invaded subsequently the coasts of Argentina, Japan and South Africa. Recently, we discovered specimens during surveys of hard substrata biofouling communities in Belgian marine waters. This invasive species is new to the European marine fauna. We encountered specimens first in July 2015. In October 2016, the species proved to be common on navigational buoys from Belgian coastal waters and we discovered large numbers of *B. glandula* on many groynes all along the Belgian coast and in the harbour of Zeebrugge. We identified the species both morphologically and genetically. We found two generations, indicating that *B. glandula* had settled in 2015 (probably the first year of its presence) and also in 2016 and 2017. Given its invasion history elsewhere, we forecast that *B. glandula* is at the brink of invading other European shores.

In its native and also introduced ranges *B. glandula* is a common rocky intertidal barnacle, found in the middle to high intertidal zone. Along the Belgian coast, *B. glandula* lives in the high and mid intertidal zone, where it co-occurs with the introduced New Zealand barnacle *Elminius (Austrominius) modestus* and the indigenous barnacle *Semibalanus balanoides*. *Balanus glandula* is well adapted to survive in the highest intertidal zone as it is able to withstand desiccation over a long period of time. Since *B. glandula* grows to a larger size and is physically more robust than native and already introduced European species such as *S. balanoides*, *E. modestus* and *Chthamalus* spp., we expect this new invader to successfully compete with the other intertidal barnacle species and hence impact rocky intertidal biodiversity. Competition with *Balanus crenatus* and the indigenous blue mussel *Mytilus edulis* seems less likely since both species live lower in the intertidal zone. *Balanus glandula* contributes to a growing number of introduced species that colonize the artificial hard substrata along the southern North Sea coasts. Since the species might be difficult to distinguish from other, similar looking Western European intertidal barnacles, we provide identification characters.

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