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Invasion history and success of the American blue crab *Callinectes sapidus* Rathbun, 1896 in European and adjacent waters

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Abstract

The first record of the American blue crab *Callinectes sapidus* Rathbun, 1896 from Europe was collected in 1900 on the Atlantic coast of France. Subsequently specimens were detected in the North Sea (1932), Mediterranean Sea (1949, but probably as early as 1935), Baltic Sea (1951), Black Sea (1967), and possibly in the Sea of Azov (1967). It seems that multiple independent introductions may have taken place with ballast water is the most likely introduction vector. In some cases accidental release from holding tanks or intentional release from fishery activities could be involved. Several records may likely be explained also by long-distance migrations of specimens from their primary locations of introduction. But not every introduction was successful over time. Among insufficient habitats and environmental pollution, too low water temperatures seem an important factor for the non establishment of *C. sapidus* especially in northern Europe and in the Black Sea. The American blue crab may benefit from global warming, and there is increasing concern about its ecological and economic impacts. For a definitive assessment an adequate quantification and comparison of documented and potential effects of *C. sapidus* is of considerable importance. Such ambitious task has not been carried out so far.

A reprint of the paper can be obtained as pdf by giving the titel in an email to info@StefanNehring.de