

In-person presentation

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**Arguments to consider *Rugulopteryx okamurae* (Dictyotales, Ochrophyta) the potential first seaweed species to be included in the lists of invasive species of European Union concern**

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In 2015 a new exotic seaweed with invasive behaviour was detected at the Strait of Gibraltar (western Mediterranean), which was morphological and genetically identified as *Rugulopteryx okamurae* (Dictyotales, Ochrophyta). Due to its rapid expansion and remarkable ecological, economic, and social impacts, the species was included in the Spanish Checklist of exotic invasive species. However, distribution models of the species identified other European coasts as favourable for this new invader, where, in fact, has recently been reported, like France and Azores, and Northern Africa coasts. In this presentation we provide scientific arguments for the inclusion of *R. okamurae* in the list of invasive species of European Union concern, becoming the first seaweed species to be included in that list.

*Rugulopteryx okamurae* exhibits a strong competitive capacity with native species and communities, like seagrasses as *Posidonia oceanica* and *Cymodocea nodosa*, fucal and kelp forests and gorgonians, producing intense homogenization of seabottoms, thus threatening European marine biodiversity. Efficient and reproductive performance, mainly by parthenogenetic and vegetative structures guarantees the continuous incoming of clonal individuals to the invasive populations with a high dispersal capacity by natural means such as sea currents, but also by means of anthropogenic vectors, like shiphull communities, ballast waters, fisheries and recreational activities. Economic impacts have been estimated to be up to 0,8x10<sup>6</sup> € in nine months in the fishery industry due to reduced captures of several species of economic value, and 0,4x10<sup>6</sup> € in the same period due to removal of drifted material on the beaches. These, additionally, suffer reduction in their recreational value affecting tourism associated incomes. For all these reasons, the presence of *R. okamurae* in several European countries together with Northern Africa, becomes a common threat to Mediterranean and Atlantic native biodiversity, which demands joint efforts for an efficient management to minimize its ecological and economic impacts and expansion. Inclusion of *R. okamurae* in the list of invasive species of European Union concern would enable the necessary legislative support to coordinate efforts.