

LIBRO DE RESÚMENES



Turismo



Puerto de Gijón

Autoridad Portuaria de Gijón



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XVIII SIMPOSIO IBÉRICO DE ESTUDIOS DE BIOLOGÍA MARINA
Gijón (España) 2-5 Septiembre 2014

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1.14 A regional study with global impact: recognition of a new genus and two new species among the order Bangiales (Rhodophyta) in the Mediterranean Sea

Un estudio regional con impacto global: reconocimiento de un nuevo género y dos nuevas especies del orden Bangiales (Rhodophyta) en el mar Mediterráneo

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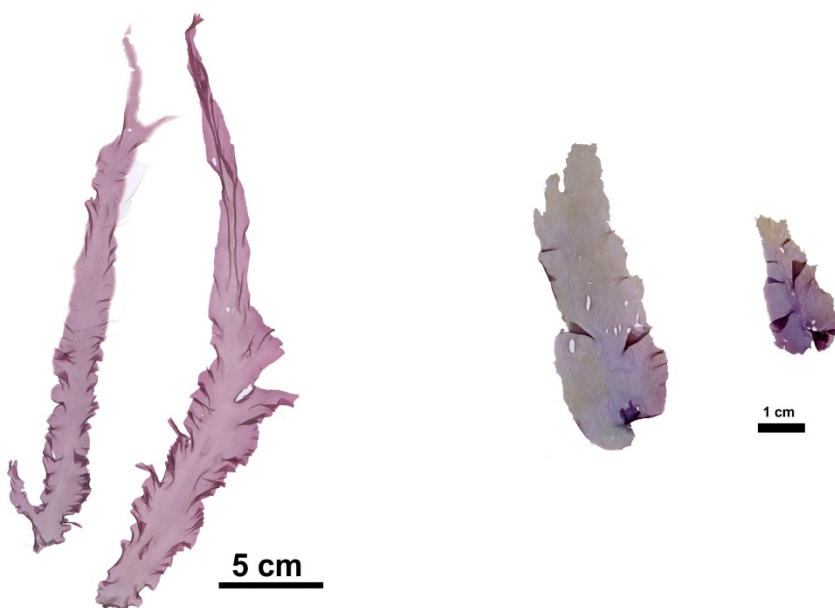
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The Mediterranean basin is considered a hot spot of biodiversity with a high percentage of endemic species; however, no genus or species of bladed Bangiales has been currently described as endemic or with a restricted distribution range in the region although they are a very common group of red algae in the intertidal area. In the frame of the Spanish Governmental project (CGL2008-00932/BOS) and due to the potential interest in the biodiversity of the Mediterranean area, we reassessed the diversity of the Bangiales along the Iberian Mediterranean shores. We carried out an extensive survey from Colera to Tarifa, sampling members of the Bangiales at up to 22 localities distributed along the coast line of the Mediterranean Iberian Peninsula (3381 km). Analysis of nuclear nSSU and plastid rbcL genes, together with exhaustive morphological and karyological studies revealed a new genus and within this genus, two new species were described. Phylogenetic reconstruction with concatenated genes resolved that these new taxa were related to the South Pacific genus *Clymene* but at the same time they were clearly separated, suggesting that these new entities could be considered endemic to the Mediterranean basin. Vicariant processes could account for the presence of these taxa: it is possible that they are Tethyan relics which survived the Messianic crisis due to their capacity to tolerate extreme conditions, although further evidence is required to preclude other scenarios. These findings confirm the importance of the Mediterranean basin, as a significant area for undiscovered diversity. Accordingly, further molecular and morphological exhaustive studies along these shores, and especially in the western basin, are strongly recommended. It is highly probable that diversity of Bangiales is underrepresented in this area and that we also lack adequate knowledge of its diversity at a worldwide level.

Keywords: Bangiales, diversity, Mediterranean, nSSU, rbcL

Palabras clave: Bangiales, diversidad, Mediterraneo, nSSU, rbcL



Graphical abstract: Habit morphology of two new species of new genus



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