

Abstract

Recent Records of Newly Described, Rare, and Non-Indigenous Fishes in Galician and Cantabrian Waters (Northern Spain) [†]

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Abstract

Introduction: Records of rare, deep-water, and non-indigenous fish species are of growing interest in marine biodiversity research because they refine regional inventories, improve taxonomic knowledge, and provide valuable evidence of ecological change. In regions supported by long-term monitoring programs, such findings are especially relevant, as they help detect unusual occurrences and document changes in species composition over time. **Objective:** The aim of this communication is to present recent records of fish species new to science and new to Spanish waters, together with a non-indigenous species, all from Galician and Cantabrian waters (northern Spain), while emphasizing the importance of scientific surveys and complementary local observations in their detection. **Methodology:** The material examined was collected during the annual demersal trawl surveys conducted by the Instituto Español de Oceanografía (IEO-CSIC) on the northern Spanish continental shelf (DEMERSALES), as well as during two multidisciplinary surveys carried out on the Galicia Bank in 2010 and 2011. An additional specimen was obtained from a local recreational fisher off Asturias. In all cases, species identification was based on an integrative taxonomic approach combining morphological examination and molecular analyses (COI barcoding). **Results:** Three species new to science were identified: *Gaidropsarus gallaeciae* (Gadiformes: Gaidropsaridae), *Notacanthus arronte* (Notacanthiformes: Notacanthidae), and *Neoscopelus serranoi* (Myctophiformes: Neoscopelidae). In addition, *Lyconus brachicolus* (Gadiformes: Lyconidae) and *Lipogenys hyalovelanum* (Notacanthiformes: Notacanthidae) were recorded for the first time in Spanish waters. A specimen of *Diapterus brevirostris* (Perciformes: Gerreidae), native to the tropical and subtropical Pacific coast of America, was also identified off Asturias. Owing to its small size and to the proximity of the commercial port of Gijón, ballast water is considered the most plausible vector for its introduction into the Cantabrian Sea. **Conclusions:** These records illustrate the value of long-term oceanographic surveys for detecting rare and deep-water fishes and confirm the usefulness of integrative taxonomy for robust species identification. They also highlight the complementary role of fishers and citizen observers in documenting biodiversity change and detecting non-indigenous species in Spanish waters.

Keywords: integrative taxonomy; COI barcoding; deep-water fishes; non-indigenous species; Spanish waters



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