



**TCS** Paris – FRANCE  
JULY 7-10<sup>th</sup> 2025  
**SUMMER  
MEETING**

THE CRUSTACEAN SOCIETY



# The Crustacean Society TCS Summer Meeting



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SPP 2205  
Evolutionary optimization  
of neuronal processing



The Crustacean Society  
**TCS Summer Meeting**

**Poster Session July 8th 2025**



# Poster Abstract

# The Crustacean Society TCS Summer Meeting



## Poster Session July 8th 2025

**P04 - MARINE BIODIVERSITY AND BIOGEOGRAPHY**

**Tuesday July 8th 2025 – 17:10-18:30**

### Mediterranean biodiversity assessment through the Italian amphipod fauna

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Understanding species distribution is essential for analysing global biodiversity patterns. Amphipods are among the most abundant and diverse macroinvertebrates in the oceans. They belong to several trophic and ethological categories and are an important food source for many other animal species, playing a key role in the ecology of marine habitats. Despite their ecological importance, information on amphipods is lacking in many cases. In this context, the updating of species checklists can be considered a fundamentally important tool for better understanding ecological research and species monitoring, providing essential data for assessing species richness, population trends, and changes that biodiversity may undergo. The last Italian inventory of amphipod fauna dates back almost 15 years. A comprehensive manual on the geographic distribution and ecology of Mediterranean benthic amphipods was edited by Ruffo in 1982-1998. It included about 450 species, while the information on pelagic amphipods came only from a few articles. Later, in 2010, Ruffo built the first Italian checklist of marine amphipods which included 457 species (388 benthic and 69 pelagic). The aim of this work was to provide updated information on the amphipod fauna of the Italian seas and to demonstrate whether it is representative of the Mediterranean Sea. A review of the available literature was conducted. Unpublished data were combined with lists found in scientific articles. More than 100 articles were consulted for data covering the Italian territory and more than 60 updated articles from the Mediterranean region, outside Italian waters. The preliminary updated checklist of amphipods in Italy (considering taxonomic revisions) counts 500 species, while the one for the Mediterranean lists 646. The division of Italian waters into nine biogeographical sectors was applied, while the Mediterranean was analysed by dividing it into two basins (western and eastern). As for Italy, 352 records reported species in sectors where they had not previously been recorded. Updating the Italian checklist has helped expand our knowledge of the entire Mediterranean fauna, which currently counts 581 species in the western basin and 525 in the eastern basin. Overall, the included species in the Italian seas checklist, representing 76.7 % of the species found in the Mediterranean Sea, indicate that the Italian seas play a central role in the diversity assessment of amphipods of the Mediterranean Sea.

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