{rokbox title=|Study areas and geographical position of the hauls :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-sensitivity-communities-trait-based-indices-species-selection-sainz-et-al-2024-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-sensitivity-communities-trait-based-indices-species-selection-sainz-et-al-2024.jpg{/rokbox}

Marta Sáinz-Bariáin, Julia Polo, Antonio Punzón, **Manuel Hidalgo**, Encarnación García-Rodríguez, Miguel Vivas, Antonio Esteban, Lucía López-López, 2025.
Sensitivity of communities' trait-based indices to species selection.
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Abstract: Trait-based indicators offer insights into environmental impacts on communities but are often limited by the availability of species traits data, relying on subsets that may omit less studied taxa, leading to bias. To address this, we tested the species selection's influence on trait-based indices using filters based on occurrence, species' distributions, and abundance. Using data from two bottom-trawl surveys, we compiled 15 traits for the 246 most common demersal species in two temperate ecosystems in the North-East Atlantic and Mediterranean Sea. Our analyses revealed that trait data is strongly biased toward abundant and large species, particularly those of commercial importance or conservation concern. While species selection had minimal impact on community traits, excluding invertebrates strongly affected the results, highlighting their key role in community dynamics.

Keywords: Biological traits, Sensitivity, Fishing pressure, Climate change, Bay of Biscay, Mediterranean Sea