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**Ecological energetics of forage fish from the Mediterranean Sea: seasonal dynamics and interspecific differences**

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**ABSTRACT**

Small and medium pelagic fishes play a central role in marine food webs by transferring energy from plankton to top predators. In this study, direct calorimetry was used to analyze the energy density of seven pelagic species collected over four seasons from the western Mediterranean Sea: anchovy *Engraulis encrasicolus*, sardine *Sardina pilchardus*, round sardinella *Sardinella aurita*, horse mackerels *Trachurus trachurus* and *T. mediterraneus*, and mackerels *Scomber scombrus* and *S. colias*. Inter-specific differences in energy density were linked to spawning period, energy allocation strategies for reproduction and growth, and feeding ecologies. Energy density of each

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