{rokbox title=|Ejemplar de langosta roja (Palinurus elephas) :: Foto: David Díaz (COB-IEO)| thumb=|images/stories/ieo/imagenespublicaciones/langosta_640_thumb.jpg|}images/stories/ieo/imagenespublicaciones/langosta_640.jpg{/rokbox}

Salud Deudero, Ariadna Tor, David Díaz, Sandra Mallol, and Raquel Goñi, (2012). **Isotopic fractionation in wild and captive european spiny lobsters (*Palinurus elephas*)**. Journal of crustacean biology, 32(3), 421-424, 2012

Abstract: Differences in tissue specific fractionation have important practical implications for ecological studies. We have examined isotopic fractionation δ13C and δ15N among four different tissues in the spiny lobster *Palinurus elephas* (Fabricius, 1787). Two sets of individuals differing on diet-quality (captive animals with monospecific diet and wild lobsters) were studied to determine the best tissue to be used as a proxy of feeding ecology: muscles of the pleon, muscles of the legs, telson, and hemolymph. We observed significant differences in isotopic fractionation δ13C and δ15N among the analyzed tissues. In both captive and wild specimens leg muscle was the most δ15N enriched tissue, followed by pleonal muscle, hemolymph, and telson. For δ13C the sequence in isotopic discrimination was pleonal muscle > leg muscle > hemolymph telson. Lower intra-individual variability was observed in captives compared to wild individuals, as expected from a constant diet. Finally, we conclude that leg muscle is the best tissue for studying *P. elephas* trophism since it presents the lowest variability at isotopic level for N. The sampling of leg muscle, a regenerating tissue, is therefore suitable as a non lethal technique for trophic assessment at lobsters.

Keywords: hemolymph, lobsters, muscle, stable isotope fractionation, telson