

{rokbox title=|Ejemplar de langosta roja (*Palinurus elephas*) :: Foto: David Díaz (COB-IEO)|
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Hamdi Elphie, **Goñi Raquel**, **Díaz David** and Planes Serge, (2012). [Detecting immigrants in a highly genetically homogeneous spiny lobster population \(*Palinurus elephas*\) in the northwest Mediterranean Sea](#)
. Ecology and Evolution 2012; 2(10): 2387–2396.

Abstract: We investigated the genetic structure of early benthic juveniles of the spiny lobster *P. alinurus elepha*
s in the northwest Mediterranean Sea by means of ten polymorphic microsatellite markers. Non-metric Multidimensional Scaling coupled with assignment tests were used as a new approach to further delimit a reference population inside a genetically homogeneous pool of individuals and test for the presence of long distance immigrants. From this approach, we found that most early benthic juveniles collected while settling in the northwest Mediterranean Sea originated from a common larval pool. However, 4.2% of the individuals were classified as immigrants from other genetically differentiated populations, with more immigrants in the south than in the north of the sampled basin. Given currents in the northwest Mediterranean Sea and the long pelagic larval phase of *P. elephas*
that lasts several months, this result suggest a restricted homogenized zone in the studied basin with some individuals probably coming from more differentiated populations through the Almeria-Oran Front or the Strait of Sicily.

Keywords: Connectivity, early benthic juveniles, microsatellite, *Palinurus elephas*, population structure, spatial structure.