{rokbox title=|Ejemplar de langosta roja marcada :: Foto: David Díaz (COB-IEO)| thumb=|images/stories/ieo/imagenespublicaciones/langosta_marca_lucia_640_thumb.jpg|}images/stories/ieo/imagenespublicaciones/langosta_marca_lucia_640.jpg{/rokbox}

Lucía González-Vicente, David Díaz, Sandra Mallol, Raquel Goñi, (2012). **Tag loss in the lobster Palinurus elephas (Fabricius, 1787) and implications for population assessment with capture-mark-recapture methods**
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Abstract: Assessments of animal populations by mark-recapture methods rest on the assumption that all marked animals are recognizable, yet a variety of processes, such as molting in crustaceans, can lead to tag shedding. In this paper we estimate the shedding rate of T-bar anchor tags in the European spiny lobster *Palinurus elephas* from double tagging experiments conducted in the wild. During four annual consecutive surveys (1999–2002) lobsters were caught, double-tagged and released. The evolution of the subsequent double- and single-tag recaptures was traced during the following ten years (2000–2009). The estimated instantaneous rate of tag loss was 6.8% year−1 in males and 5.0% year−1 in females tagged during intermolt. These tag-shedding rates are low compared to most published values for similar species. Data also suggested that there is poorer tag retention when tagging immature individuals or during premolt. We simulate and discuss the impact of undetected recaptures on the return rate and the implications for population assessment in the particular case of *P. elephas*.

Keywords: Capture-mark-recapture; Double tagging; Tag loss; Return rate bias; *Palinurus elephas*