

Inshore spawning grounds of the squid *Doryteuthis gahi* suggest the consistent use of defoliated kelp *Lessonia trabeculata* in Central Chilean waters

Carrasco, S. A., & Pérez-Matus, A. (2016). Inshore spawning grounds of the squid *Doryteuthis gahi* suggest the consistent use of defoliated kelp *Lessonia trabeculata* in central Chilean waters. *Marine Biology Research*, 12(3), 323-328. <10.1080/17451000.2015.1136064> Accessed 23 Dec 2020.

Abstract

Coastal spawning grounds of the squid *Doryteuthis gahi* were identified for the first time at three sites in Central Chile during 2014 and 2015. A total of 15 egg masses were collected from between 10 and 15 m depth and brought to the laboratory for evaluating capsular, embryonic and when possible, paralarval characters. Egg capsules from all spawning areas were similar in size (~25 mm in length) and number of embryos per capsule (~15). Egg-laying patterns, in addition to field observations, suggest that relatively small *D. gahi* may be using shallow waters in semi-protected environments to reproduce and spawn. Additionally, the differential use of healthy versus defoliated kelp *Lessonia trabeculata* suggests that egg-laying females selectively choose substrata that limit mechanical damage to the fragile egg capsules and that also allow for adequate water flow, which could be reduced in a mass of kelp fronds. These findings highlight the opportunistic behaviour of *D. gahi* which use overgrazed *L. trabeculata*, a condition that is widespread in areas with high herbivory pressure..

Keywords

Defoliation, Loliginidae, Omar Hernando Ávila-Poveda, Egg size, Egg-laying, Kelp, Paralarvae.