

First Record of a Gravid Marine Turtle from Chile

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There are more than a hundred records of sea turtles on the Chilean coast. According Frazier and Salas (1982) the occurrence of marine turtles registered over the last two centuries in Chile is greater than any place in the Eastern Pacific, except the Galapagos Islands and the *arribada* areas in Mexico and Costa Rica. Of the four marine turtle species recorded on the coast of Chile, *Chelonia mydas* and *Lepidochelys olivacea* have been noted relatively frequently (Frazier and Salas, 1982; Ibarra-Vidal and Ortiz, 1990). Both are listed as Endangered by the IUCN Red List.

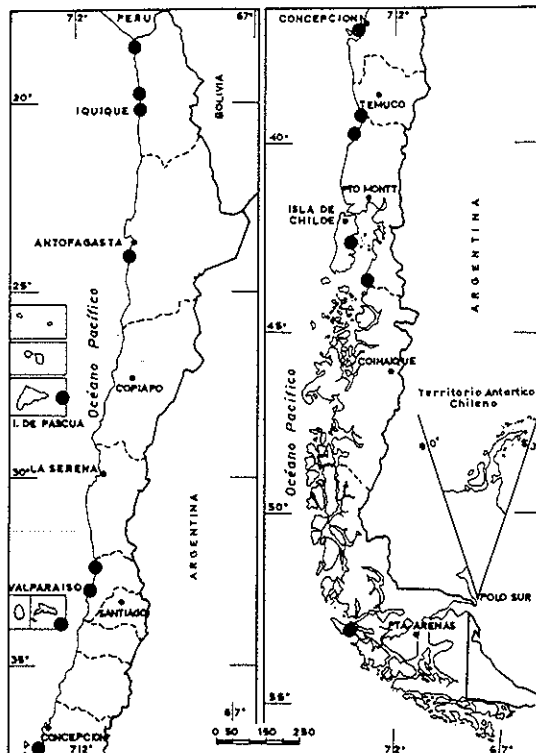


Figure 1. Map of Chile (left: northern half; right: southern half) showing localities mentioned in text. Solid dots represent records of marine turtles.

A population of *C. mydas* has been known since 1999 in Antofagasta (II Region), its presence possibly due to warming coastal waters produced by power generation plants in the area (Donoso and Dutton, 1999). The more numerous records of *L. olivacea* are from the Norte Grande coast, San Antonio (central Chile), and Arauco Gulf (VIII Region) (Frazier and Brito, 1990).

Despite the large number of records of marine turtles in Chilean waters, there has been little local work on the biology of these reptiles (Ibarra-Vidal and Ortiz, 1990). To date there is no clear evidence of breeding of any species of marine turtle on the Chilean coast. In this short communication, we report the first record of a gravid sea turtle from the coast of Chile, a female *L. olivacea*.

Results. — We found two stranded dead *L. olivacea* in July 2000, one at Laraquete (37°09'S; 73°11'W) and one at Caleta Lengua (36°47'S; 73°07'W), both near Concepción in central Chile (Fig. 1).

The first specimen was a female with a curved carapace length of 65 cm and carapace width of 57 cm. Necropsy revealed 96 eggs in the oviducts, in the final stage of development, with a mean diameter of 22.8 mm (± 4.1 mm SD). Stomach content analysis failed to identify any dietary items. The epibiotic fauna on its carapace included Hydrozoa, Cirripedia, and Bryozoa. This is the first time that members of Bryozoa have been noted to occur on marine turtles in Chile (H. Moyano, *pers. comm.*).

The second specimen was a male with a curved carapace length of 67.5 cm and carapace width of 69 cm. Stomach contents were primarily phaeophytas algae, which are abundant along the Chilean coast (Santelices, 1989). This may be a secondary dietary item because this species is thought to be carnivorous (Márquez, 1990). Epibiotic fauna on the flippers included Cirripedia and Hydrozoa. A fishhook was present in the esophagus, which was probably the cause of death.

Discussion. — This paper provides the first report of a gravid female marine turtle in Chile. Although this does not prove the occurrence of local breeding of *L. olivacea*, it does suggest that it may be possible. However, other sea turtles with eggs have stranded dead in non-nesting areas far from their normal nesting grounds; Rhodin and Schoelkopf (1982) recorded a leatherback turtle (*Dermochelys coriacea*) with eggs stranded dead in New Jersey, far north of the northernmost recorded nesting sites for the species.

It is not uncommon to find sea turtles with fishhooks in their digestive tracts, such as the specimen reported here and by Bjorndal et al. (1994). In Chile this occurs frequently on the Valparaíso coast (33°02'S), San Antonio (33°35'S), and in south-central Chile (VIII Region, 36°47'S; 73°04'W), associated with the artisanal fishery of *Xiphias gladius*, *Merluccius gayi*, and *Genypterus* sp. (Brito, 1998).

Acknowledgments. — We are grateful to Christopher Lusk for his help with suggestions and translation of this paper and to Franklin Troncoso for facilitating the gravid female turtle material.

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Received: 22 October 2001

Revised and Accepted: 24 September 2002