

AN EXTANT WHALE BARNACLE (CIRRIPEDIA, CORONULIDAE)  
FROM HOLOCENE DEPOSITS OF BUENOS AIRES (ARGENTINA)

BY

GUIDO PASTORINO and MIGUEL GRIFFIN

Departamento Paleozoología Invertebrados, Museo de Ciencias Naturales, Paseo del Bosque s/n,  
1900 La Plata, Buenos Aires, Argentina

ABSTRACT

*Cetopirus complanatus* is recorded for the first time in the southwestern Atlantic Ocean, viz., as a fossil. It was collected in holocene marine deposits along the coast of Buenos Aires. The species at present lives, attached to specimens of the Right Whale, usually in Subantarctic waters.

RESUMEN

*Cetopirus complanatus* es registrado por primera vez en el Océano Atlántico sudoccidental como fósil. El material fue colectado en depósitos marinos holocenos, presentes en la costa de la provincia de Buenos Aires. Esta especie vive en la actualidad adherida a ejemplares de la ballena franca austral en aguas subantárticas.

INTRODUCTION

Since Darwin's (1854a, b) work on recent and fossil barnacles, few are the records of specimens referable to *Cetopirus* Ranzani, 1817 (type species: *Cetopirus complanatus* Mörch, 1852, by original designation), whether fossil or recent. Darwin (1854a) stated in his monograph that he had only seen nine sets of *Cetopirus complanatus* (which he cited as *Coronula balaenaris* Gmelin, 1791) with precise locality indications, all from the southern hemisphere.

Pilsbry (1916) commented on the recent species *Cetopirus complanatus* mentioning the fact that he had seen only three lots with locality data attached, but all three rather doubtful. While Newman & Ross's (1971) study of the recent Antarctic barnacles did not note the presence of this species, it is included in their version of the balanomorphs (Newman & Ross, 1976). The record from the Norwegian coast reported by Gruvel (1903) was an error (Nilsson-Cantell, 1978). In fact, Gruvel (1903) recorded this species from "Kerguelen Island off the coast of Norway", but Kerguelen is located in the southern Indian Ocean (48°30'S 68°46'E).

In this paper we record the presence of *Cetopirus complanatus* in Holocene coastal deposits along the coast of Buenos Aires. The specimens were collected near the town of San Clemente del Tuyú (36°22'S 56°47'W) and at Estancia Rincón de López (35°46'S 57°24'W), near the coast of Bahía Samborombón. This is the first record of this species in the southwestern Atlantic and also the first time it is recorded as a fossil. The Holocene deposits from where it comes were studied in detail by Aguirre (1993, and references therein) and she estimated their age to be 2000-7500 years.

The species at present lives attached to specimens of the Right Whale (*Eubalaena australis* (Desmoulins, 1822)). This whale lives in Subantarctic waters of South America and usually does not migrate farther north than southern Brazil.

### ***Cetopirus complanatus* Mörch, 1852 (figs. 1-10)**

*Lepas complanata polythalamia* Chemnitz, 1785: 325, pl. 99, figs. 845-846 (rejected by Direction 1 of the ICZN, 1954).

*Ceteopirus* [sic] *complanatus* Chemnitz; Mörch, 1852: 67 (error pro *Cetopirus* Ranzani, 1817).

*Coronula balaenaris* Gmelin; Darwin, 1854a: 415, pl. 15 fig. 2, 2b and pl. 16 figs. 3, 5.

*Coronula complanata* (Mörch); Pilsbry, 1916: 276, figs. 1, 2, 3, 3a.

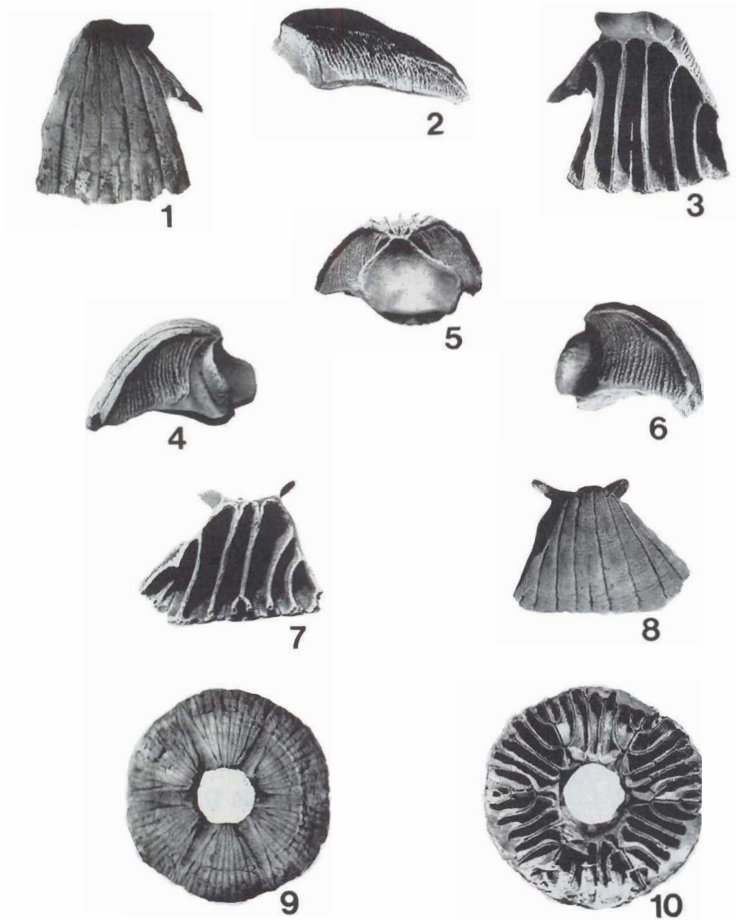
*Coronula complanata* (Mörch); Nilsson-Cantell, 1931: 116.

*Cetopirus complanatus* (Mörch) 1852; Newman & Ross, 1976: 45.

*Cetopirus complanatus* (Mörch, 1852); Scarff, 1986: 7.

Material. — MLP 26499: carina from San Clemente del Tuyú; MLP 26500: left lateral from San Clemente del Tuyú; MLP 26501: left lateral from Estancia Rincón de López; MLP 26502: right lateral from Estancia Rincón de López.

Remarks. — Although the available material is scarce, a number of features allow us to refer it to *Cetopirus complanatus*. Among these are (1) the thick and narrow radii which virtually fill the cavity between neighbouring compartments (figs. 2, 4, 6); (2) the estimated diameter of the body chamber orifice being smaller than the basal opening; (3) the symmetrical sutural ridge branches, in addition to presenting loops internally filled by septa, are characteristic of Mörch's species; and (4) the conspicuous flatness of the shell compared to the other species of whale barnacles. We agree with Newman & Ross (1976) that the distinct morphology of *Coronula diadema* (Linnaeus, 1767) and *C. reginae* (Darwin, 1854a) should grant these species a generic placement different from *Cetopirus*. Other fossil specimens from South America can be referred to *Coronula* and come from the Pliocene of Ecuador (Pilsbry & Olsson, 1951). Philippi (1887) described *Diadema antiquum* from the Tertiary of Arauco (Chile). Schneider (1936) mentioned this species but did not add further diagnostic features. We agree with Pilsbry & Olsson (1951) and Fleming (1959) that this species belongs to *Coronula diadema* (insofar as Philippi's figure is correct). Thus, the present



Figs. 1-10. *Cetopirus complanatus* Mörch, 1852. 1-3, MLP 26500, left lateral,  $\times 0.9$ ; 1, outer view; 2, lateral view; 3, bottom view; 4-8, MLP 26499, carina,  $\times 0.9$ ; 4, 6, lateral views; 5, inside view; 7, bottom view; 8, outer view; 9-10, recent unnumbered specimen belonging to the Carcinology Section, Invertebrate Zoology Department, Museum of La Plata, without locality data,  $\times 0.6$ ; 9, outer view; 10, bottom view.

material constitutes the first record so far of *C. complanatus* in this area. A discussion on the relationship between the barnacle and its host as well as on the data concerning the records of recent specimens can be found in Scarff (1986).

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