

**Dimorphism in males of *Zaops ostreum* (Say)  
(Crustacea, Decapoda, Pinnotheridae)**

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**ABSTRACT.** A case of dimorphism among the males of the pinnotherid crab, *Zaops ostreum* (Say, 1817), is reported. The morphological features of the two types of males are also given.

**KEY WORDS.** *Zaops ostreum*, dimorphism, males

A study being carried out to determine the diversity of carcinofauna of the estuaries of the State of Rio Grande do Norte has recorded *Zaops ostreum* (Say, 1817) associated with the oyster *Crassostrea rhizophorae* in the estuary near Macau, Rio Grande do Norte, Brazil. Though *C. rhizophora* is not uncommon in the other estuaries under investigation, the presence of *Z. ostreum* has not been recorded so far.

Though sexual dimorphism is a common phenomenon among the pinnotherid crabs necessitating separate keys for males and females for the identification of the species (RATHBUN 1918; WILLIAMS 1984; MANNING 1993), the existence of two types of males within the same population is not common.

Of the four estuaries under investigation (Macau, Galinhos, Potengi and Guaraira), the oysters attached to the mangrove vegetation are common in the first three of them. However, the material for this report was obtained only from the estuary of Macau – a total of 39 females and 26 males. The table I shows how they were distributed within the oysters.

Table I. Distribution of *Zaops ostreum* within the oysters.

Dates of collection	Single occupancy		Double occupancy		Triple occupancy	
	Female	Male	Femlae	Male	Female	Male
July 1996	2	–	3	3	–	–
September 1996	3	2	–	–	–	–
December 1996	4	1	–	–	–	–
January 1997	8	4	3	3	–	–
March 1997	6	1	3	3	–	–
April 1997	1	2	3	3	1	2

A detailed examination of the males revealed the existence of two distinct types of males (Fig. 1) within the same population. The principal differences are in the shape of the carapace, the shape of the frontal lobe and the shape and size of the

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propodus of the walking legs. Type A (Fig. 1A) has globose and soft carapace with the frontal margin a little concave and the propodus of the walking legs narrow and deprived of long setae. Type B (Fig. 1B) has a flattened and hardened carapace, having a distinctly bilobed front, broadened propodus of walking leg with a distinct longitudinal row of long setae – a characteristic feature of *Z. ostreum*. While type A is more common (58 %), type B represents 42 % of males collected. Only once both types of males were observed within the same oyster.

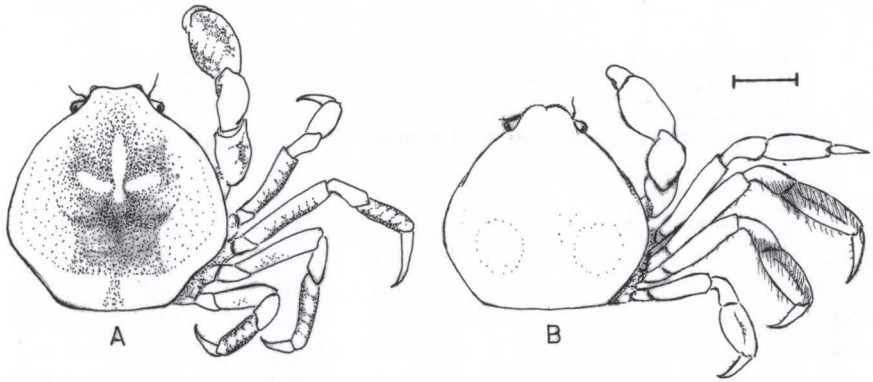


Fig. 1. Male specimens of *Zaops ostreum*. (A) Type A; (B) Type B.

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