

NOTA BREVE

**THE GIANT HERMIT CRAB *Petrochirus diogenes*
(LINNAEUS, 1758) (CRUSTACEA: ANOMURA) MAXIMUM
SIZE**

J. L. GASPARINI¹ & S. R. FLOETER²

1. UFES, Depto. de Biologia, Vitória, ES - Brazil - 29040-090 e-mail: gaspa.vix@zaz.com.br
 2. UFES, Depto. de Ecologia e Recursos Naturais, Vitória, ES - Brazil - 29060-900 e-mail: floeter@npd.ufes.br

The giant hermit crab *Petrochirus diogenes* (Linnaeus, 1758) is the species that reaches the largest size among the pagurids of the western Atlantic. It is common in mud, sand and around reefs in coastal and oceanic waters. The known distribution range for this species is between Cape Lookout, North Carolina, U.S.A. (Williams, 1984) and Uruguay (Coelho & Ramos-Porto, 1987).

The maximum size of *P. diogenes* was reported by several authors (Table I) as: total length of carapace (L.c.) 75mm (Provenzano, 1959), 75mm (Williams, 1965); length of the anterior shield 36mm (Williams, 1984), 40mm (Bertini, 1997); carapace 75mm and right cheliped 170 mm (Vergara & Silva, in press). The total length was reported as 304.8 mm (Humann, 1996) and 325mm (Vergara & Silva, Op. Cit.).

Table I - The measurements of the specimen collected in Marataízes, ES, Brazil and the maximum sizes from other authors

		Gasparini & Vergara & Bertini, Williams, Provenzano Floeter Silva, in press 1997	1965; 1984	, 1959
Anterior Shield	length:	48.0mm	—	36mm
	width	48.5mm	—	34mm
Carapace	length:	111.3mm	75mm	75mm
	width	82.3mm	55mm	—
Right Cheliped	length:	348.0mm	170mm	—
Left Cheliped	length:	325.0mm	155mm	—

The *P. diogenes* specimen (Figure 1) was inhabiting a "giant tun" shell *Tonna galea* (Linnaeus, 1758) and was collected in 1987 on a shrimp fishing boat with otter trawl net, 15 to 20 meters deep at Marataízes inner shelf, State of Espírito Santo, Brazil (23° S).

The giant hermit specimen was deposited at the Museu de Zoologia da Universidade de São Paulo - MZUSP 12812 and has the following measurements: anterior shield - length: 48.0mm, width: 48.5mm; carapace - length: 111.3mm, width: 82.3mm; right cheliped - length: 348mm; left cheliped - length: 325mm (Table I). Since we do not have the abdomen (the specimen was dehydrated) we can only deduce the total length of our specimen. Based on the carapace length and width/total body length ratio the total length is estimated to be around 480mm.

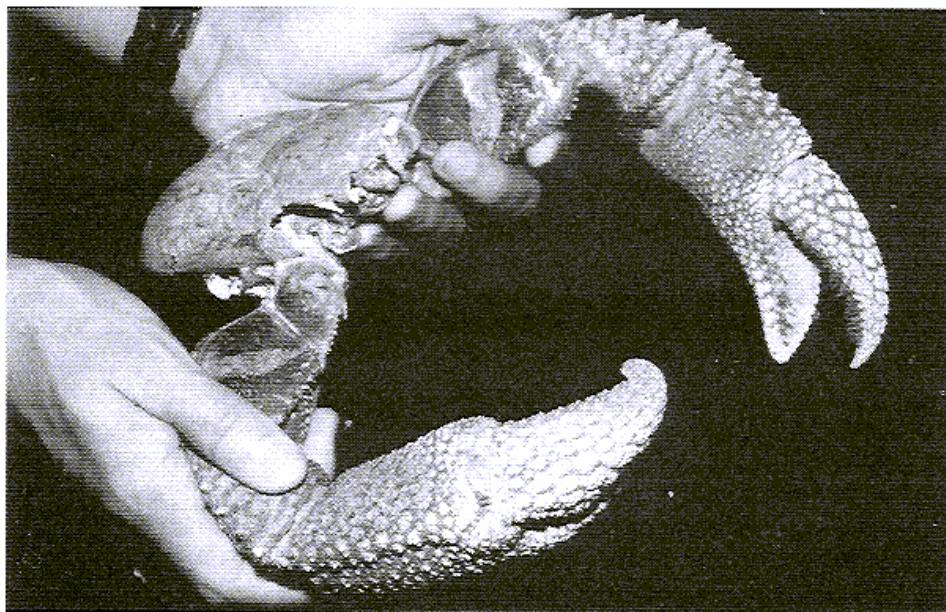


Figure 1 - The giant hermit crab *Petrochirus diogenes*. Photo by João Luiz Gasparini

ACKNOWLEDGMENTS

We wish to thank Dr. Gustavo Augusto S. de Melo for his kindly comments on the manuscript, checking the measurements and for supplying recent literature; Domingos Afonso Jório for the donation of the specimen and additional information; Dahlen Bucher for the helping with the photographic work.

REFERENCES

- BERTINI, G. 1997. Bioecologia de *Petrochirus diogenes* (Linnaeus, 1758) (Crustacea, Anomura, Diogenidae) na região de Ubatuba, São Paulo. Universidade Estadual Paulista - UNESP, São Paulo, 220 p. (Dissertação de Mestrado)
- COELHO, P. A. & M. RAMOS-PORTO. 1987. Sinopse dos crustáceos decápodos brasileiros (famílias Callianassidae, Callianeidae, Upogebiidae, Parapaguridae, Paguridae, Diogenidae), Trab. Oceanogr. Univ. Fed. Pernambuco. 19: 27-53.
- HUMANN, P. 1996. Reef Creature Identification: Florida, Caribbean and Bahamas. 4th edition, Jacksonville: New World Publications, Inc. 320 p.
- PROVENZANO, A. 1959. Hermit crabs. Bull. Mar. Sci. Gulf Caribb. 9 (4): 378-380.
- VERGARA, W. L. & M. SILVA. *in press*. Ocorrência de *Petrochirus diogenes* (Linnaeus, 1758) (Crustacea, Decapoda, Anomura) ao largo das águas da Ilha de Santa Catarina. Biotema.
- WILLIAMS, A. B. 1965. Marine decapod crustaceans of the Carolinas. Fish. Bull., 65 (1): 123-124.
- WILLIAMS, A. B. 1984. Shrimps, Lobsters, and Crabs of the Atlantic Coast of the Eastern United States, Maine to Florida. Washington, D. C. Smithsonian Institution Press. 250 p.