

CRABEATER SEAL (*LOBODON CARCINOPHAGA*) ON THE COAST OF RIO GRANDE DO SUL STATE, BRAZIL

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The crabeater seal is the most abundant pinniped in the world (King, 1983). There is no reliable estimate of the total abundance of the species. According to Bengson (2002), estimates have ranged from two to 75 million seals, although many scientists currently consider a population estimate in the range of 10-15 million more reasonable. This is a gregarious, circumpolar and pelagic species, being found on drifting pack ice (King, 1983).

The observed densities of crabeater seal surveyed in 1983 were lower than densities in the late 1960s and early 1970s (4.3 versus 11.4 seals per nm² in the Weddell Sea and 1.9 versus 4.9 seals per nm² in the Pacific Ocean Sector, respectively). However, it is unclear whether these differences in densities reflected a change in population abundance or a shift in distribution within the sea ice zone (Bengson, 2002).

Its northward movements coincide approximately with those of the pack ice winter, but in the summer they are able to move further south as the ice breaks up. These seals are seen in great numbers in the summer months in the coastal waters west of Graham Land, and in the southern part of the Ross Sea, where this sudden influx is known as semi-migratory in character (King, 1983). Stragglers have been recorded from Australia, New Zealand, Heard Island, South Africa and the Atlantic coast of South America about as far north as Rio de Janeiro (Ross *et al.*, 1976; King, 1983; Pinedo, 1990; Ferreira *et al.*, 1995⁵; Lodi *et al.*, 2005).

Some unusual records of crabeater seals have been reported for Brazil, which represents the northernmost record of the species (Vaz-Ferreira, 1965 cited in Scolaro, 1976; Ferreira *et al.*, 1995). A review of these records

indicates few occasional occurrences of crabeater seals in Rio de Janeiro (Ferreira *et al.*, 1995; Lodi *et al.*, 2005), São Paulo (Pinedo, 1990; Souza *et al.*, 2004⁶), Paraná (Bittencourt and Zanelatto, 1992⁷), Santa Catarina (Cimardi and Carvalho, 1988⁸; Simões-Lopes *et al.*, 1995) and Rio Grande do Sul State coast (Pinedo *et al.*, 1992; Ferreira *et al.*, 1995) (see Figure 1).

This note reports the record of a young female crabeater seal recently found at Rio Grande do Sul State coast. The specimen was recovered from Praia de Curumim, Capão da Canoa (29°43'53"S, 49°59'46"W) on 24 March 2005 and taken to Imbé city (29°58'27"S, 50°08'17"W) at the rehabilitation centre of marine animals (Centro de Reabilitação de Animais Marinhos - CERAM), which is part of the Centro de Estudos Costeiros, Limnológicos e Marinhos from Universidade Federal do Rio Grande do Sul (CECLIMAR-UFRGS). The specimen was 152cm long and had many wounds on the head and flanks, and it was at very thin body condition (Figure 2). It was fed daily with Atlantic sabretooth anchovy (*Lycengraulis grossidens*) and received veterinary care during 19 days at the rehabilitation centre. Afterwards, the specimen was identified with a numbered plastic tag (Allflex junior cattle tags, yellow colour, size 60 X 57mm) (Figure 3), which was placed in the interdigital webbing of the right hind flipper (under license number: 020-04/CMA/IBAMA). The tag was composed of two parts, one with a number (RS 14) in one side and the other with a contact information note in Portuguese (see Figure 3). On 14 April 2005 the specimen was released at the Jardim do Éden beach, 12km south (30°05'17"S, 50°10'1"W) of the rehabilitation centre.

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⁵ Ferreira, H. de O., Zerbini, A.N. and Siciliano, S. (1995) Occurrence of crabeater and leopard seals in Southern Brazil. Page 36 in Abstracts, *Eleventh Biennial Conference on the Biology of Marine Mammals*, 14-19 December. Orlando. USA.

⁶ Souza, S.P., Alvarenga, F. S., Vicente, A. F. de C. and Zampiroli, E. (2004) Revisão e adição aos registros da foca-caranguejeira *Lobodon carcinophagus* (Hombron & Jacquinot, 1842) para o litoral do estado de São Paulo, Brasil. Page 228 in Abstracts, *11a Reunión de Trabajo de Especialistas en Mamíferos Acuáticos de América del Sur y 5º Congreso de la Sociedad Latinoamericana de Especialistas en Mamíferos Acuáticos de América del Sur*, 13-17 September. Quito, Ecuador.

⁷ Bittencourt, M.L. and Zanelatto, R.C. (1992) Registros de Mamíferos Marinhos no litoral do Estado do Paraná entre 07/ 1989 a 04/1992. *5a Reunión de Trabajo de Especialistas en Mamíferos Acuáticos de América del Sur*, 28 Septiembre - 02 Octubre, Buenos Aires, Argentina.

⁸ Cimardi, A.V. and Carvalho, O. (1988) Ocorrência de mamíferos marinhos na costa de Santa Catarina. Page 26 in Abstracts, *3ª Reunión de Trabajo de Especialistas en Mamíferos Acuáticos de América del Sur*, 25-30 July. Montevideo, Uruguay. *de Especialistas en Mamíferos Acuáticos de América del Sur y 5º Congreso de la Sociedad Latinoamericana de Especialistas en Mamíferos Acuáticos de América del Sur*, 13-17 September. Quito, Ecuador.

It returned to the sea and was no longer seen. This specimen was the fourteenth pinniped released by the project of rehabilitation and tagging seals, which started in 2003 with the goal of investigating the movements of pinnipeds along the southern Brazilian coast by tracking tags.

Ross *et al.* (1976) reported nine records of crabeater seals in South Africa between 1968 and 1975. According to these authors, the length of most of these wanderers (1.6-1.9m) indicated that they were probably pups of the previous year, of about four to six months of age. Even with the help of the West Wind Drift (WWD), these young seals would have had to swim strongly to reach South Africa in that short time. Most of these young seals stranded in the austral summer (December-March), a time when most of the crabeater seal population would be moving south with the break-up of the winter ice. It has been suggested that younger animals possibly driven by the WWD could get carried away from the Antarctic continent (Ross *et al.*, 1976). Of the seven Australian records, four have been from Victoria and one from Nambuca Heads further north in New South Wales (30°39' E). These strandings have occurred between January and September, so that they were not so markedly seasonal, although half of them were in winter (King, 1983).

Similar to the data presented in the literature, our observations show that most of the crabeater seal records

on the Brazilian coast occurred during the austral summer and autumn, as well as in winter months. The date of the present record of crabeater seal specimen was in early autumn (24 March). Crabeater seals were reported to Argentinean coast during Austral summer (Scolaro, 1976; Goodall and Schiavini, 1987; Lorenzani *et al.*, 1996⁹) and Bastida *et al.* (in press) suggested that during this season vagrants could reach lower latitudes. For the Chilean coast, the species is present during the winter (Olrog, 1950). On the Uruguayan coast the species was reported to Isla de Lobos by Ximenez *et al.* (1972) but there is no information about the period.

The crabeater seals reported in Brazil are vagrants and their presence during autumn and winter months is probably due to post-reproductive dispersal movements of adult individuals and may be highly influenced by the association between the WWD and the cold Malvinas/Falklands (FC) current (Pinedo, 1990; Ferreira *et al.*, 1995). However, the same explanation was attributed to the extralimital records of young crabeater seals from Africa and South America by Castello and Pinedo (1977), suggesting that these vagrants were swept northward by the WWD and FC. In this sense, we recommend more detailed studies about the records of crabeater seals, mainly related to young seals and their sightings during austral summer to better understand these erratic movements in low latitudes during summertime.

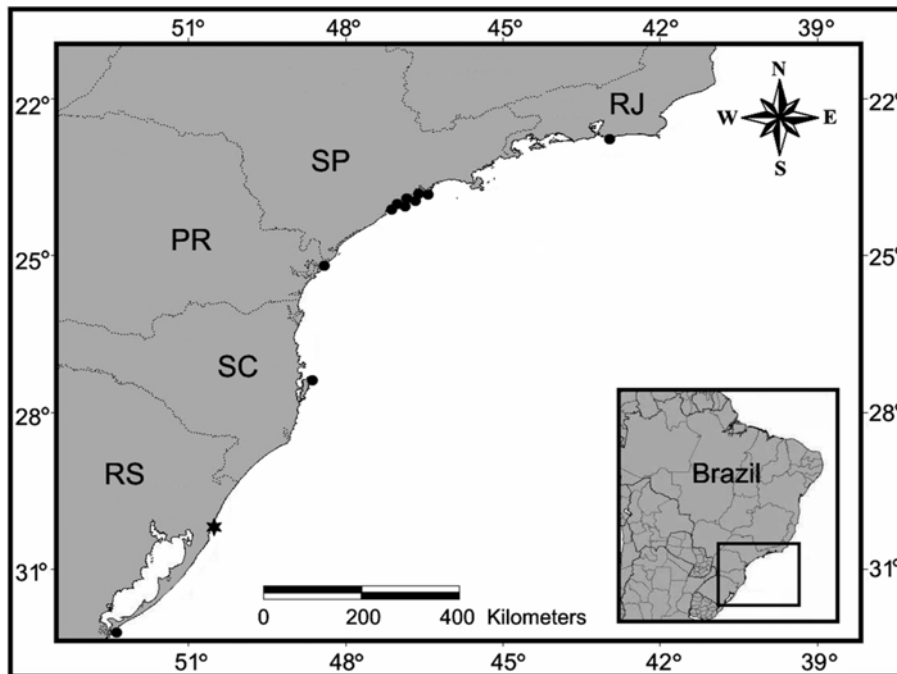


Figure 1. Reported records of crabeater seal, *Lobodon carcinophaga*, on the Brazilian coast. The black asterisk represents the present record and black circles refer to previous published records (see text for further explanation).

⁹ Lorenzani, J.C., Lorenzani, J.A. and Salas, J. (1996) Nuevo registro de foca cangrejera (*Lobodon carcinophagus*) para la provincia de Buenos Aires. *7a Reunión de Trabajo de Especialistas en Mamíferos Acuáticos de América del Sur y 1er Congreso de la Sociedad Latinoamericana de Especialistas en Mamíferos Acuáticos de América del Sur*, 22-25 Octubre. Viña del Mar, Chile.



Figure 2. Female crabeater seal, *Lobodon carcinophaga*, reported in the present note to the northern Rio Grande do Sul state coast, at the Praia de Curumim, Capão da Canoa (29°43'53"S, 49°59'46"W) on 24 March 2005. (Photo: L.R.Oliveira).



Figure 3. Numbered plastic tag placed in the interdigital webbing of the crabeater seal right hind flipper. This tag had two parts: A: number (RS 14) in one side and B: a contact information note in Portuguese in the other, asking the person who finds the tagged animal to warn GEMARS by telephone or e-mail (see details in the text). (Photo: M.E.Menezes).

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