

Short Communication

A stranding of *Balaenoptera borealis* (Lesson 1828) from Patagonia, Argentina, with notes on parasite infestation and diet

MS Leonardi^{1,2*}, MF Grandi^{1,2}, NA García^{1,2}, G Svendsen^{2,3}, MA Romero^{2,3}, R González³ and EA Crespo^{1,2}

¹ Laboratorio de Mamíferos Marinos, Centro Nacional Patagónico (CONICET), Boulevard Brown 2915, CP U9120ACV Puerto Madryn, Argentina

² Consejo Nacional de Investigaciones Científicas y Técnicas, CONICET, Boulevard Brown 2915, CP U9120ACV Puerto Madryn, Argentina

³ Instituto de Biología Marina y Pesquera Almirante Storni, Universidad Nacional del Comahue, San Antonio Oeste, Argentina

* Corresponding author, e-mail: leonardi@cenpat.edu.ar

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Strandings of baleen whales are uncommon in Patagonia, Argentina. We report on a stranding of an individual sei whale *Balaenoptera borealis* on the east coast of San Antonio (40°43.5' S, 64°55.8' W), Río Negro province, Argentina. It was the eighth reported stranding of this species along the Argentinean coastline. The stomach content of the whale was dominated by crustaceans. Three parasite species were also recovered, namely *Ogmogaster antarcticus* (Trematoda), *Anisakis simplex* (Nematoda) and *Tetrabothis affinis* (Cestoda). This was the first record of a host carrying the latter two species in the South-West Atlantic Ocean.

Keywords: diet, new record, parasites, sei whale

The sei whale *Balaenoptera borealis* (Lesson 1828) has a worldwide distribution, but it most commonly occurs in temperate and subtropical waters (Horwood 2009). There is little information on sei whales in the South-West Atlantic Ocean and there have been only a few reported strandings of this species along the Argentinean coastline. The first of these was from 1899 in Buenos Aires province (Lichter and Hooper 1983). Since then, there have been five other recorded strandings of this species, principally along the Patagonian coast, and several sightings (Table 1, Figure 1). However, the condition of the individuals in all of these previous stranding events was too poor for necropsies to be performed.

Here, we present another record of a *B. borealis* stranding, the first that was found in a fresh enough condition to allow sampling for diet and internal parasite infestation. The individual was a young female that was found stranded on the east coast of San Antonio in the Río Negro province, Argentina (Figures 1, 2) in November 2008. Another specimen of *B. borealis* was found a month later in Caleta Olivia, Santa Cruz, Argentina (Figure 1), but it was in an advanced state of decomposition (D Ferreira, Escuela de Biología Marina, Caleta Olivia, pers. comm.).

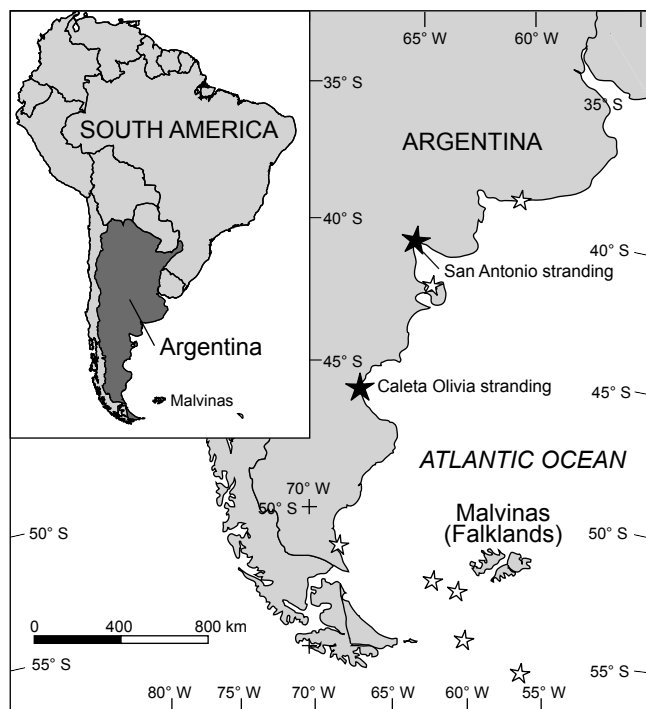
A complete necropsy on the stranded whale was conducted in the field. Morphometric data (Table 2) and photographs of the specimen were made available to the

collection of the Marine Mammal Laboratory (LAMAMA), Centro Nacional Patagónico, Puerto Madryn, Argentina. Parasites were recovered from the stomach and the intestine, fixed in 70% ethanol, and identified according to reference material. Cestodes were fixed without further treatment, whereas nematodes were cleared in lactophenol and digeneans stained with boracic carmine before identification. Crustacean species were identified from exoskeletons using the reference collection of the LAMAMA and published catalogues (Boltovskoy 1981).

The stomach contained several crustaceans. Megalopas of *Peltarion spinosulum*, zoeas of Brachyura, and adults of *Cyrtograpsus* were the most abundant prey groups (Figure 3). Unidentified gastropods were also recorded. Three species of parasite were identified: *Ogmogaster antarcticus* Johnston 1931 (Trematoda: Notocotylidae) and *Anisakis simplex sensu lato* (s.l.), according to Mattiucci et al. (1997) (Nematoda: Anisakidae), from the stomach; and *Tetrabothis affinis* Lönnberg, 1891 (Cestoda: Tetrabothisidae) from the intestine (Figure 4). It was not possible to determine the total number of parasites, because only a small sample could be collected during the field examination. It is noteworthy, however, that there was a very high density of *O. antarcticus* in the stomach, with about 3 000 individuals counted.

Table 1: Records of sei whale strandings and sightings along the Argentinean coast from 1899 to the present

Year	Locality	Observation	Source
1899	Tres Arroyos, Buenos Aires province	Stranding	Lahille (1899), cited in Lichter and Hooper (1983)
1902	Tierra del Fuego province	Stranding	Dabbene (1902), cited in Lichter and Hooper (1983)
1911	South Georgias, Malvinas Islands and Patagonian coast	Sightings	Mörch (1911), cited in Lichter and Hooper (1983)
1940	Río Gallegos, Santa Cruz province	Stranding	Capozzo and Junin (1991)
1952	Malvinas Islands	Stranding	Hamilton (1952), cited in Lichter and Hooper (1983)
1973	San José Gulf, Chubut province	Stranding. Complete skeleton recovered	Würsig (1973), cited in Leatherwood and Reeves (1983)
2004	Mar del Sud, Buenos Aires province	Stranding	DH Rodriguez (Universidad Nacional de Mar del Plata), pers. comm.
2008	San Antonio Oeste, Río Negro province	Stranding. Complete skeleton recovered	Present study
2008	Caleta Olivia, Santa Cruz province	Stranding	D Ferreira, pers. comm.

**Figure 1:** Locations of strandings and sightings of sei whales along the Argentinean coast**Table 2:** Selected measurements taken of the sei whale stranded in San Antonio Oeste, Argentina, in November 2008

Character	Measurement (cm)
Total length	1 070
Snout to blowhole	145
Snout to dorsal fin ¹	680
Snout to gape	218L
Snout to eye	195L
Snout to flipper	307L
Snout to umbilicus	560L
Snout to genital aperture	728
Snout to anus	756
Girth at axilla ²	350
Flipper length anterior insertion to tip	140L
Flipper length axilla to tip	90L
Maximum width of flipper	28L
Dorsal fin higher length	81
Dorsal fin lower length	39
Dorsal fin high	43
Base of dorsal fin length	80
Caudal fin higher length	149L/150R
Caudal fin lower length	122L/127R
Caudal fin total length	240
Blubber thickness throat	3.8
Blubber thickness umbilicus	3.2

L = left; R = right

¹ Taken up to the anterior insertion of the dorsal fin² Taken on the left side, and doubled (175 cm × 2)**Figure 2:** Full view of the sei whale that stranded in San Antonio Oeste in November 2008 (photo courtesy of M Brunella)

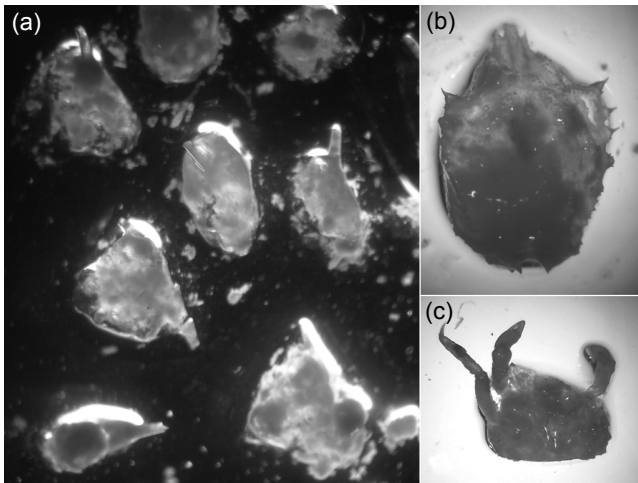


Figure 3: Food items found in the stomach of the sei whale stranded in San Antonio Oeste in November 2008: (a) zoeas of *Bachyura*, (b) megalopa of *Peltarion spinosulum*, and (c) *Cyrtograpsus* sp.

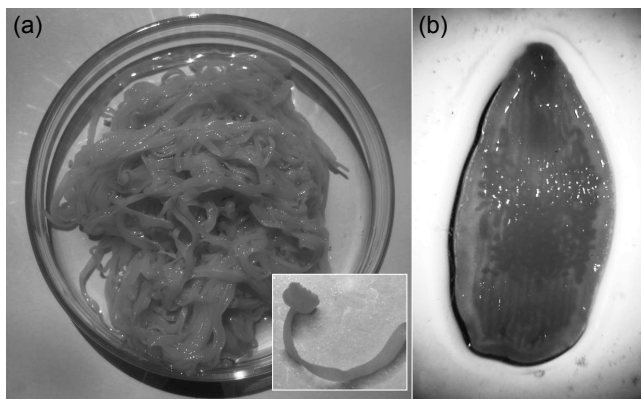


Figure 4: Internal parasites recovered from the stranded sei whale: (a) *Tetrabothrius affinis* with details of a scolex and (b) *Ogmogaster antarcticus*

Tetrabothrius affinis has previously been found in the fin whale *B. physalus* (Delyamure 1955) and the blue whale *B. musculus* in Antarctic waters (Baylis 1932), but this was its first record for the South-West Atlantic Ocean. To our knowledge, this is the first report of this species in a sei whale in the South-West Atlantic Ocean. *Ogmogaster antarcticus* has previously been reported in the same host species in Brazil (Muniz-Pereira et al. 1999).

Strandings of baleen whales are unusual along the coasts of Patagonia on account of its wide and shallow shelf and the fact that the rorquals migrate over through the continental slope between the Antarctic Ocean and their tropical breeding areas (Stern 2009). Sei whales, in particular, favour the open ocean and are very uncommon in coastal waters (Horwood 2009). Finding a fresh specimen is very unusual, and our investigation has contributed to knowledge of the host–parasite relationships among cetaceans. An improved understanding of

the helminth fauna of sei whales around their southern-most distribution may provide useful natural markers for understanding aspects related to their phylogeny, local migration, distribution, disease, stock identity and social behaviour (Raga et al. 2009).

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