



Stranding of pygmy sperm whale, *Kogia breviceps* (de Blainville, 1838), in eastern French Guiana

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On 24 March 2017, a small cetacean live-stranded in eastern French Guiana on the mudflat bordering the right bank of the Mahury River estuary (04°51'19" N, 52°14'70" W) (Figure 1). The animal was spotted by the Grand-Connétable Island Nature Reserve crew sailing in this sector. An approach attempt by boat allowed the animal to escape the mud and reach the port access channel where water is much deeper (Figure 2).

The French Guiana Stranding Marine Mammals and Sea Turtles Network (Réseau des Echouages de Guyane) was alerted three days later, via social networks, about the

stranding of this cetacean on an isolated beach of the Mahury river (04°52'32" N, 52°14'42" W), close to the channel. After reaching it, the animal finally died.

In French Guiana, the rate of decay of stranded animals is extremely fast due to high temperatures, sunlight and predators, especially black vultures (*Coragyps atratus*). The corpse was, therefore, decayed upon arrival of the stranding network team. The skeleton was almost entire, apart from teeth and right pectoral fin. Cartilaginous tissues around the remaining pectoral fin and caudal fin were not very decomposed. Part of the spermaceti was still present as well as the inner cranial cavity. No internal organs were retrieved and the sex of the animal could not be determined. Part of the skeleton, including the skull, has been cleaned and prepared. A skin biopsy was collected. All biological materials are stored in the Jaguars tissue collection, in Cayenne, French Guiana, under the reference M2834_JAG, and available for future use.

The animal revealed a poor nutritive condition, indicated by the "peanut head" appearance of emaciated animals with a severe cranial dip associated with fat and muscle loss along the spine. This poor physical condition suggests a deteriorated or pathological health state, to be related to the live-stranding.

Morphological features revealed the specimen to belong to family Kogiidae, with a shark-like head and a narrow lower jaw. Identification of the species has been possible based on the skull. The skull exhibits a lower jaw with 13 pairs of dental sockets (Figure 3). Furthermore, the percentage value of the rostrum length (RL) relative to the condylobasal length (CBL) (as per Ross, 1979) was used as a key instrument for identification. The specimen was identified as a pygmy sperm whale (*Kogia breviceps*). The RL/CBL range for pygmy sperm

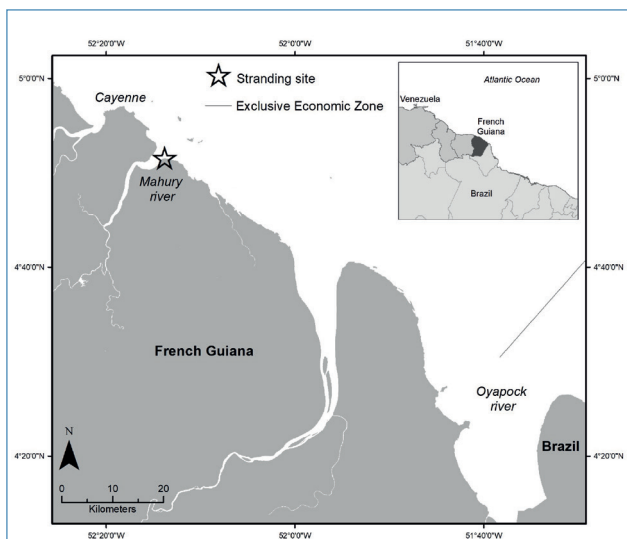


Figure 1. Location of *Kogia breviceps* stranding report (star icon) on the mudflat bordering the right bank of the Mahury River estuary in French Guiana.

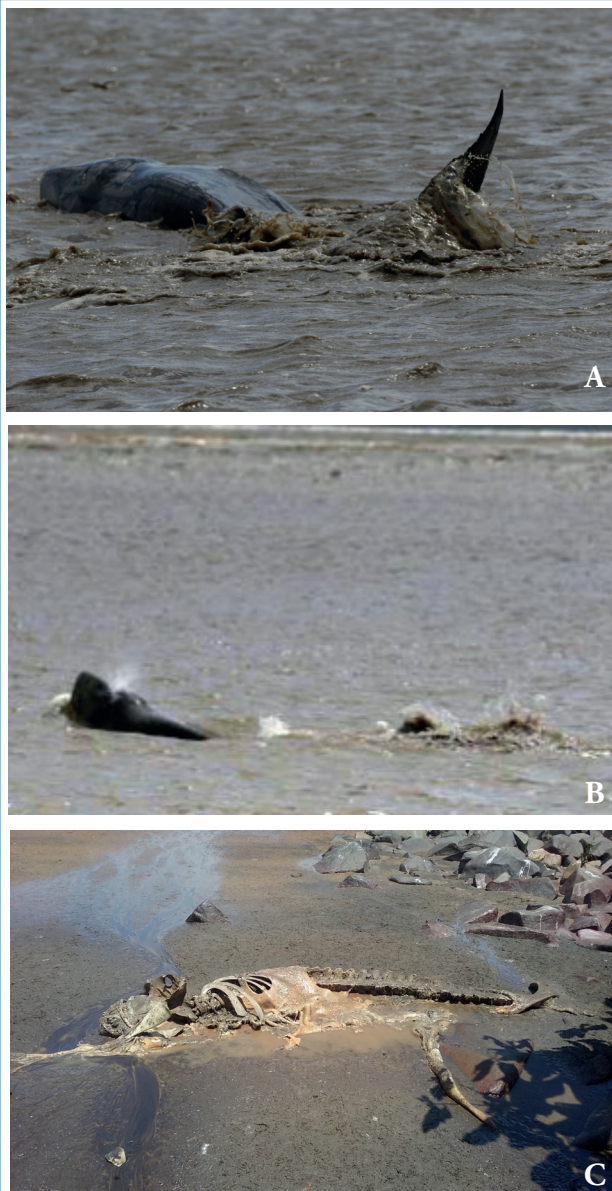


Figure 2. A-B) Beached pygmy sperm whale still alive on a mudflat of the Mahury river, Eastern French Guiana; C) Pigmy sperm whale found dead and decayed on a Mahury River beach few days later (© GEPOG/Grand-Connetable Island Nature Reserve/A.Bordin).

whale is 36.4 – 50.5%; in our case this ratio was 46.2%, which confirmed the species.

The presence of a pygmy sperm whale in the French Guiana waters was unrecorded before this stranding. This is the first data for this area even if the presence of this species was suspected due to multiple strandings in Brazil (Moura *et al.*, 2016). The pygmy sperm whale occurs in temperate and tropical waters and occupies the great depths of the continental slope and oceanic environment (Caldwell and Caldwell, 1989; McAlpine, 2009; Taylor *et al.*, 2012). The animal is notably discrete by virtue of its swim behavior and diet mostly comprised of cephalopods (Caldwell and Caldwell, 1989). In



Figure 3. A) Ventral view of the pygmy sperm whale skull; B) Right lower jaws exhibiting a minimum of 13 dental sockets (© GEPOG/Grand-Connetable Island Nature Reserve/A. Bordin).

French Guiana, the continental slope extends to 130 km off the coast in shallow waters. Therefore, deep waters are not very attended and great divers are not often spotted.

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References

- Caldwell, D.K. and Caldwell, M.C. (1989) Pygmy sperm whale *Kogia breviceps* (de Blainville, 1838): Dwarf sperm whale *Kogia simus* (Owen, 1866). Pages 235-260 in Ridgway, S.H. and Harrison, S.R. (Eds) *Handbook of Marine Mammals: River dolphins and the larger toothed whales*. Academic Press, London, UK.
- McAlpine, D.F. (2009) Pygmy and Dwarf sperm whales. Pages 936-938 in Perrin, W.F., Würsig, B. and Thewissen, J.G.M. (Eds) *Encyclopedia of Marine Mammals*. Elsevier Academic Press, California, USA. <https://doi.org/10.1016/B978-0-12-373553-9.00212-1>
- Moura, J.F., Acevedo-Trejos, E., Tavares, D.C., Meirelles, A.C.O., Silva, C.P.N., Oliveira, L.R., Santos, R.A., Wickert, J.C., Machado, R., Siciliano, S. and Merico, A. (2016) Stranding events of *Kogia* whales along the Brazilian coast. *Plos One* 11(1): 1-15. <https://doi.org/10.1371/journal.pone.0146108>
- Ross, G.J.B. (1979) Records of pygmy and dwarf sperm whales, genus *Kogia*, from southern Africa, with biological notes and some comparisons. *Annals of the Cape Provincial Museums (Natural History)* 11: 259-327.
- Taylor, B.L., Baird, R., Barlow, J., Dawson, S.M., Ford, J.K.B., Mead, J.G., Notarbartolo di Sciara, G., Wade, P. and Pitman, R.L. (2012) *Kogia breviceps*. *IUCN Red List of Threatened Species*. Version 2012: Available online at <http://doi.org/10.2305/IUCN.UK.2012.RLTS.T11047A17692192.en>. Consulted on 6 May 2018.