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INTERNATIONAL WHALING COMMISSION

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Two winter calving grounds of southern right whales (SRW), *Eubalaena australis* (Desmoulins, 1822), have been identified in the South West Atlantic Ocean (SWAO): one in Argentina around Peninsula Valdés (42°S) hosting the highest concentration of individuals of this species; and one in Brazil between 8°S and 32°S (IWC, 2001). Little is known about the migratory routes of the animals calving in these areas to and from their summer feeding grounds, as well as the current locations of such sites. Based on distribution of catch positions of this species during XIX and XX centuries (Townsend, 1935; Tormosov *et al.*, 1998), two feeding grounds have been suggested in the SWAO: one located offshore between 30-55°S and west of 40°W; and one to the north of Islas Georgias del Sur/South Georgia Islands. Valenzuela *et al.* (2009) using the analysis of stable carbon and nitrogen isotope ratios from skin samples obtained from live whales at Península Valdés indicated three probable feeding grounds at the Polar Front/ Islas Georgias del Sur/ South Georgia Islands, the Patagonian Shelf and Uruguay, respectively. Recent efforts to gather information on migratory routes and feeding locations using satellite telemetry on individuals of the population of SRW calving off Península

Valdés have been made (Zerbini *et al.*, 2015). The study estimated three SRW high-used habitats likely representing feeding grounds: 1) the Patagonian Shelf between 43°S and 47°S and the 100m and 200m isobaths, 2) The South Atlantic Basin off La Plata River, and 3) the shelf break east of Islas Georgias del Sur/South Georgia Islands.

The current study provides data on visual sightings of SRW with the aim of contributing to increase the knowledge on the migratory routes of this species and summer feeding ground locations in the SWAO. Line-transect visual observations were made by dedicated observers on the Argentinean shelf (including the Patagonian Shelf) during three surveys from two Argentinean Coast Guard's vessels used as platforms of opportunity: *SB-15 Tango* and *GC-24 Mantilla*. One survey was made from Buenos Aires port (34°35.95'S, 58°22.28'W) to Ushuaia port (54°48.52'S, 68°18.17'W), Argentina, from 16 to 23 January 2016 and two surveys from Ushuaia to Buenos Aires, one between 8 and 13 February 2016 and the other from 11 to 19 February 2016 (Fig. 1, upper pannel).

A total of 53 SRW in 27 groups were observed. Group size ranged from 1 to 5 individuals ($\bar{x}$=2, SD=1). 91% of the SRW (n=48) were observed aggregated 150nm far from the coast, on the Patagonian Shelf, southeast of Península Valdés, between 43°07.14'S, 60°54.57'W and 45°04.52'S, 61°40.00'W along the 100m isobath, on 19 January 2016 (Fig. 1). The southermost record corresponded to a group of three whales that was registered at 46°39.46'S, 60°58.03W on 16 February, while the northernmost sighting was one individual observed at 42° 37.62'S, 58° 38.25'W on 17 February. Compared to January, in February SRW were observed closer to the outer limit of the continental platform (Fig.1, lower pannel).

Our records were made in an area that according with logbook records of whalers from 1785 to 1913, has been used by SRW from December to May (Townsend, 1935); and also is included within a region where more than 1,000 SRW where illegally hunted by the Soviet fleet between 1960-1971 (Tormosov *et al*., 1998). SRW were almost depleted to extinction because of commercial whaling during late XIX and early XX centuries (IWC, 2001) and despite the species has been recovering after receiving full protection in 1931, recent records in this area are scarce. Zerbini *et al.* (2015) reported four tagged whales that moved through this region some time after leaving breeding areas in Península Valdés, and estimated that it constitutes a high-use habitat for SRW and likely represents a portion of this species' feeding grounds. The present study provides data that are in line with findings made by Zerbini *et al.* (2015) and Valenzuela *et al.* (2009) for the

Patagonian Shelf. More efforts should be allocated to this area, as well as the remaining Argentinean shelf, in order to monitor the presence of the species along the year and assess possible seasonal trends in the distribution and habitat use within the area.

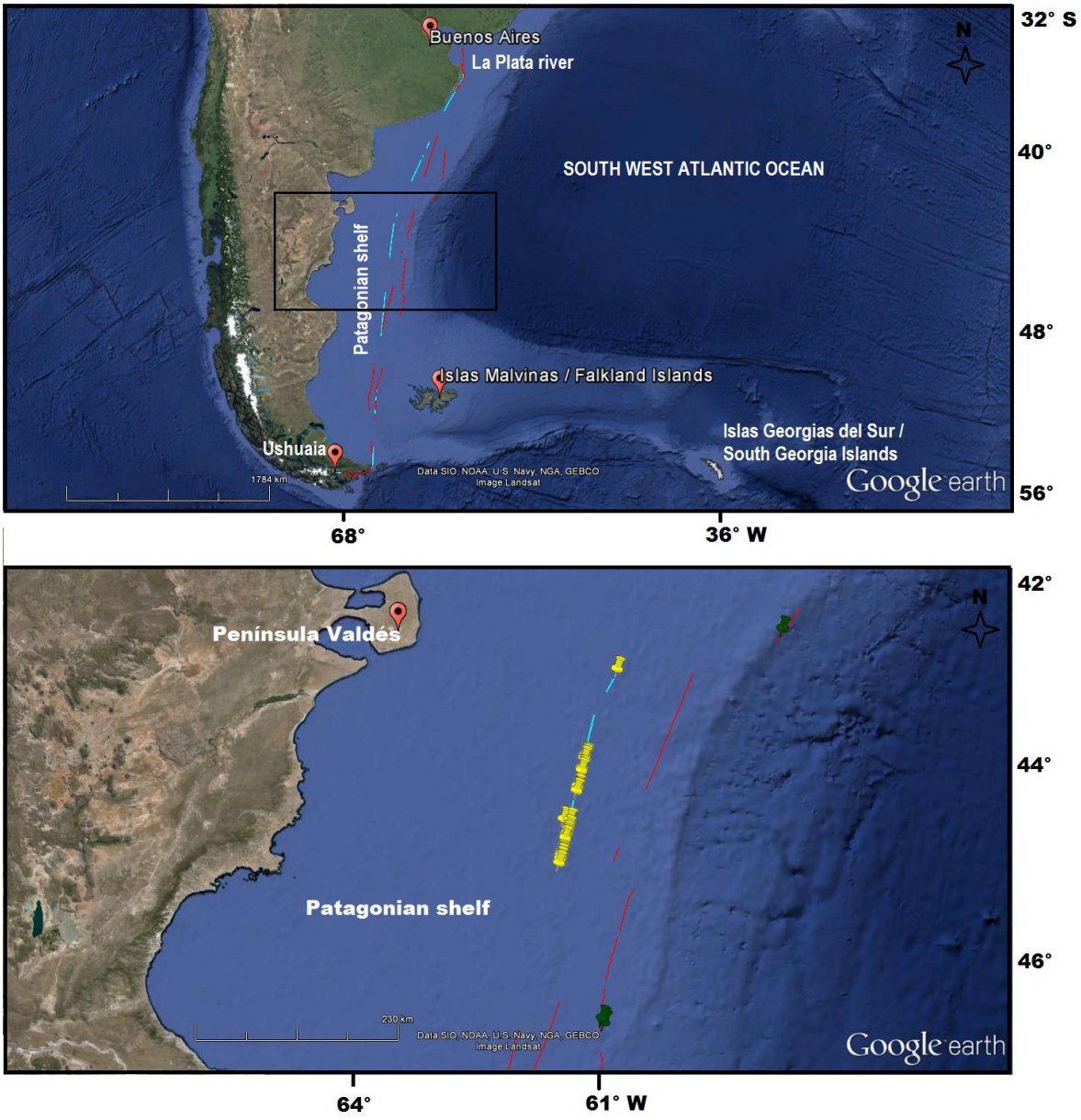

Figure1. On effort tracks surveyed in January (cyan) and February (red) 2016 (upper panel); and location of visual sightings of southern right whales in January (yellow marks) and February (green marks) (lower panel).

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REFERENCES

Desmoulins. 1822. *Eubalaena australis* in Boryde St.-Vincent. Dict. Class. Hist. Nat. (Paris) 2:161+unnumbered plate.

International Whaling Commission. 2001. Report of the workshop on the comprehensive assessment of right whales: a worldwide comparison. *J. Cetacean Res. Manage.* (Special Issue) 2, 1–60.

Tormosov, D.D., Mikhaliev, Y.A., Best, P.B., Zemsky, V.A., Sekiguchi, K. and Brownell, R.L.J. 1998. Soviet catches of southern right whales *Eubalaena australis* 1951-1971. Biological data and conservation implications. *Biol. Cons.* 86: 185-197.

Townsend, C.H. 1935. The distribution of certain whales as shown by logbook records of American whaleships. Zoologica 19: 1-50.

Valenzuela, L.O., Sironi, M., Rowntree, V.J. and Seger, J. 2009. Isotopic and genetic evidence for culturally inherited site fidelity to feeding grounds in souther right whales (*Eubalaena australis*). *Mol. Ecol.* 18(5):782-792.

Zerbini, A.N., Mendez, M., Rosenbaum, H., Sucunza, F., Andriolo, A., Harris, G., Clapham, P.J., Sironi, M. and Uhart, M. 2015 Tracking southern right whales through the southwest Atlantic: New insights into migratory routes and feeding grounds. SC/66a/BRG22rev presented to the International Whaling Commission Scientific Committee, San Diego, USA. [Available from the IWC Office]. 9pp.