

## FINAL REPORT

### SOCIETY FOR MARINE MAMMALOGY: SMALL GRAND IN AID OF RESEARCH (2020)

**Awardee:** Magdalena Arias

**Mail:** ariasmalala@gmail.com

**Project region:** Argentina

**Project Title:** Population dynamics of southern right whales in the northern Patagonian gulf, Argentina

**Project summary:**

The project aimed to assess how the southern right whales is expanding its distribution in northern Patagonian gulfs during the breeding season, in order to propose the mechanisms that operate in a context of population growth.

**Results of the project:**

1. To determine the relative abundance and distribution of the southern right whales in the recolonization area we perform two coastal aerial surveys in the San Matias gulf during the 2022 breeding season, one in August and the other one during September (Figure 1 and 2)
2. Due to the economic inflation that Argentina is going through and the increase in the cost of renting the aircraft, it was only possible to carry out only two aerial censuses
3. We update the population growth rate of the recolonization area considering the contribution of whales from the gulfs of Chubut province
4. We estimate a population growth rate at a regional scale, including the three northern Patagonian gulfs (Golfo San Matias, Golfo San Jose and Golfo Nuevo), and was estimated at 13.68 % (SE= 3.62%)
5. We explore the proportion of the different group types through the years, and it was observed an increase in the proportion of mothers with calves and breeding groups and a decrease in proportion of solitary individuals in the recolonization area (Golfo San Matias) (Figure 3 and 4)
6. The manuscript is currently being prepared for based on collected data

I would like to thank to The Society for Marine Mammalogy for the financial support given to this project

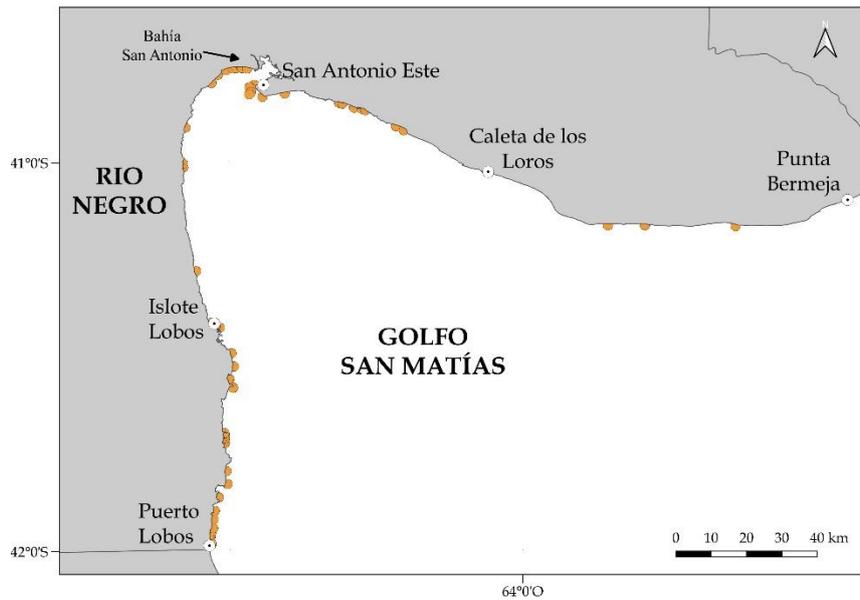


Figure 1. Location of the whales recorded in the coastal aerial survey performed in August 2022. Each circle can indicate more than one right whale

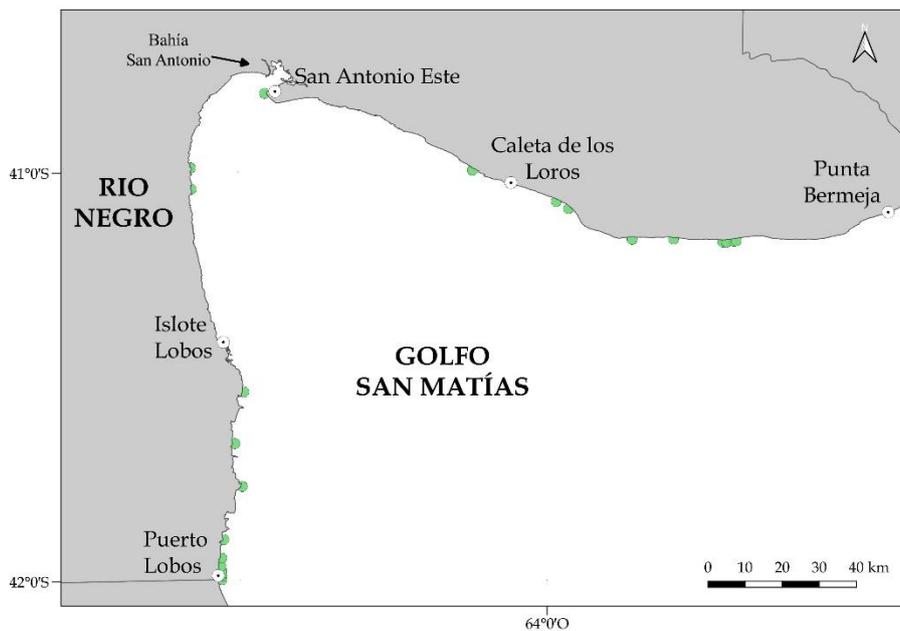


Figure 2. Location of the whales recorded in the coastal aerial survey performed in September 2022. Each circle can indicate more than one right whale

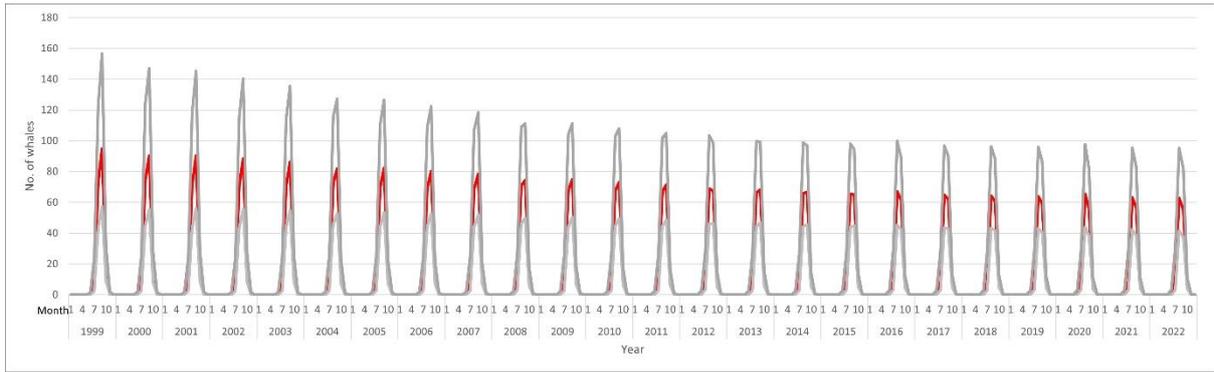


Figure 3. Number of solitary whales predicted by the best-fitted model 1999-2022 (red line) for the recolonization area (Golfo San Matias). The area between the grey lines represents IC 95% for the estimates.

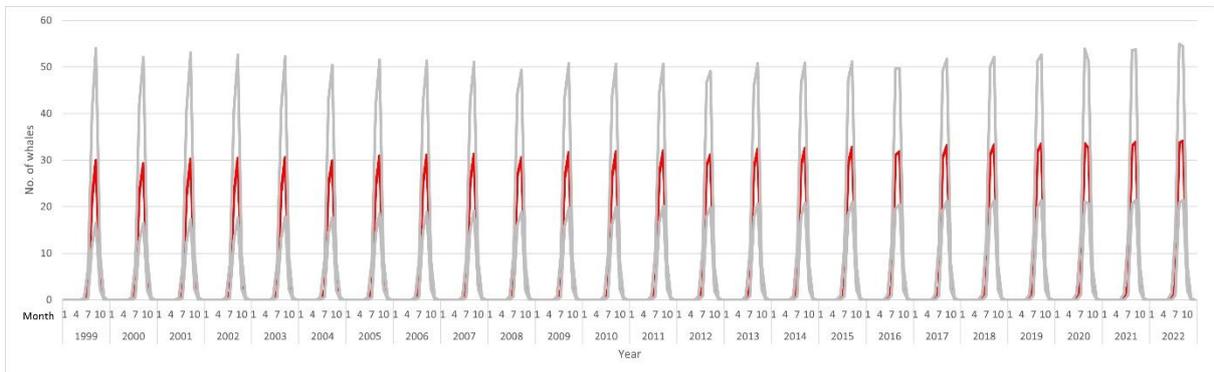


Figure 4. Number of mother calf pairs and breeding groups predicted by the best-fitted model 1999-2022 (red line) for the recolonization area (Golfo San Matias). The area between the grey lines represents IC 95% for the estimates.