



Ballena Franca Austral (Southern Right Whale)

Photo-identification of individual whales



Photo: Bonafide whale with its calf on El Doradillo beach (Golfo Nuevo, Puerto Madryn) Image obtained in September 2018 through a drone. Credit: Frederik Christiansen

Objectives

Evidence the potential of whale watching boats for whale research, and of citizen science as a form of crowdsourcing for studies on whale habitat and conservation.

Description of citizen participation

Photographs taken by professional photographers from whale watching boats are added to a catalog of identified southern right whale. The photographs allow for the identification of the specimens present in the waters surrounding Puerto Pirámides between June and December, and for recording more information on the same whale while in the Nuevo Golfo area. This photographic evidence supplements that obtained during the annual aerial survey conducted by ICB and Ocean Alliance along the coast of Península Valdés in September, during the peak season of whale population density. The photographs provided by AGB document with sufficient detail the calves' pattern of callosities, hardly visible from a certain height. This allows for their identification in the year of their birth and makes it possible to know their age and the family they belong to.

Type of citizen science project

Contributory project: It is designed by scientists, and citizens participate in data collection.

Participating parties.

Asociación de Guías Balleneros de Puerto Pirámides (Association of Whale Watching Tour Guides of Puerto Pirámides) (AGB, in Spanish) in agreement with Instituto de Conservación de Ballenas (Whale Conservation Institute) (ICB, in Spanish).

Status. In progress.

Status. 10/01/2016 – N/A

Frequency of project execution. Uninterruptedly.

Participation period. On a sustained basis, during the whale watching season, from June to December.

Scope of the initiative. Local (city, province).

Geographic scope. Península Valdés, province of Chubut

Project development members. It has been developed with the collaboration of both scientists and participants without formal training.

Number of participants. From 1 to 50.

Action/s involving citizen participation

- Data collection.
- Dissemination of findings by interacting with whale watching tourists.

Technological device/tool required.

- Professional cameras: to take photographs of whales.
- Computers used by ICB: to analyze the photographs submitted and to identify individual whales.
- Three special computer programs: two of them to photo-identify right whales. And an artificial intelligence algorithm developed with Vates' company to speed up the process by sorting the photographs received and identifying those that include whales.

Recruitment methods. At an annual exchange and updating meeting held at AGB headquarters.

Replicability. It is unknown whether an identical initiative has been implemented in another setting, but there are very similar ones.

Scalability. The number of researchers actively working on this project has upscaled from one to six researchers at the time. Two volunteers have recently been trained and incorporated.

Open access to data. Project findings are made available in scientific publications and pieces of popular science.

Feedback. Findings are reported and guidelines for image capture and photo curatorship are proposed at the annual exchange and updating meeting held at AGB headquarters.



Linkage with state agency/government. –

Institutional funds. Project's own funding sources. Marine Conservation Action Fund.

Awards/distinctions. N/A

Classification of knowledge areas (OECD).

NATURAL SCIENCES / Computer and information sciences
NATURAL SCIENCES / Biological sciences

Project leaders.

Florencia Vilches, Institute of Whale Conservation (ICB, in Spanish).

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