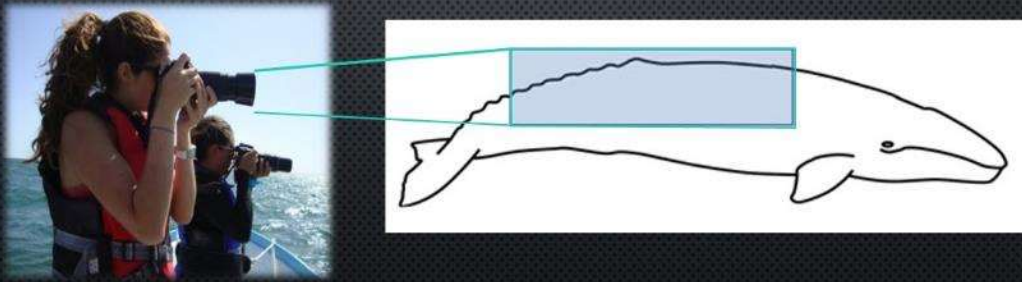


Photographic Identification: A Key to Understanding Gray Whales

Foto-identificación Photo-identification

Técnica basada en las marcas naturales y coloración de los animal es muy utilizada para estudiar mamíferos marinos

Very useful technique to identify individuals based on skin colors and scars



Photographic Identification (Photo-ID) is one of the most powerful and useful tools we use to document, research and understand gray whales that visit Laguna San Ignacio each winter. Fortunately, gray whales have distinctive marking on their skin that change little over time. They also acquire white scars from injuries, barnacles, and killer whale tooth “rake marks” which aid in the identification of individuals. These natural markings are permanent natural “tags” which stay with each whale throughout its life.



Estimating the Age of Gray Whales

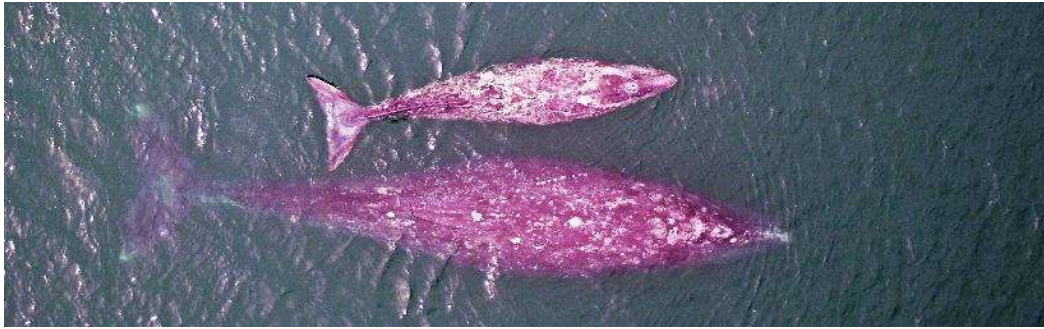


The re-identification of individual whales over time provides information on the number of times a whale returns to the lagoons of Baja California over many years, and can give us a minimum estimate of a whale's age. Some of the whales that Mary Lou Jones and Steven Swartz photographed in the late 1970's and early 1980's were re-photographed in recent years between 2005 and 2017. Their ages can be estimate as the number of years between the first and the most recent year they were photographed. If we know that female gray whales begin reproducing on average at 8 years of age, their age can be estimate as the number of years between the first and the most recent time they were photographed with a calf plus 8 years. The estimated ages of 17 whales re-photographed since 1977 ranged from 26 years to 47 years, and the females continued to reproduce during these time periods. It also indicates that these whales show fidelity for Laguna San Ignacio, and return year after year.

More information here...

<https://www.sanignaciograywhales.org/wp-content/uploads/2017/09/Edad-ballenas-2017-update-WEB.pdf>

Estimating Gray Whale Calving Interval



By photographing breeding female whales each time they come to Laguna San Ignacio with or without a new calf, we can estimate the “calving interval” or the average number of calves produced each year, which is an important index of reproductive health for each individual female whale, and collectively an indication of the overall health of the population over time. The normal reproductive cycle is 2 years for gray whales, when a females can produce a calf every other year. The calving interval for gray whales seen in Laguna San Ignacio was calculated during four time periods. Mary Lou Jones estimated a calving interval of 2.2 years between 1977 and 1982, suggesting gray whales were reproducing a near their optimum rate during those years. Díaz (First name?) estimated an interval of 2.4 years during the population’s decline between 1996 and 2002. Jessica Robles estimated the calving interval as 2.8 years between 2005 and 2011, during the period of recover from the population decline in the late 1990’s. Sergio Martinez recalculated the calving interval for the period 2005 to 2016 as 2.4 years, suggesting that gray whales were beginning to improve their reproductive capacity.



Read more at : <https://www.sanignaciograywhales.org/wp-content/uploads/2017/09/Intervalo-de-nacimiento-LSI-2017-WEB.pdf>



The Laguna San Ignacio Ecosystem Science Program posts on its website Photo-ID catalogs of gray whales from Laguna San Ignacio, Bahía Magdalena and other areas in Baja California to make them available to other gray whale researchers for comparison with photographs taken at their research sites.

Link:

<https://www.sanignaciograywhales.org/research/photo-id-catalogs-draft/>

If you believe you have a photograph that matches a whale in our catalogs, please go to the “**Contact Us**” page on our website and send us an email. We will be able to confirm the match and provide information on the specific whale.