

MNT03

Streamlining High-Volume Data Acquisition, Analysis and Tracking of Marine Mammals with Highly Configurable, Standards-based Software

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To meet the need for all-in-one, user-configurable, user-friendly combined survey/behavioral data collection and analysis software, the Mysticetus Observation Platform (Mysticetus) has been designed, tested and field deployed in numerous aerial, vessel and shore-based surveys for marine mammals around the world. Mysticetus provides real-time distance and bearing to a sighting by synthesizing real-time Global Positioning System (GPS) data with the declination angles (converted to distance) and times of sightings. This feature has been critical to quickly relocating sightings, particularly in higher Beaufort conditions. Relative location of the sighting to the aircraft/vessel is continuously displayed on a map on a laptop, and automatically adapts to changing distances and headings of the platform. Real-time bathymetric data are displayed, and can be used to determine numerous sea-floor characteristics in the survey area (e.g., depth, slope, aspect). Mysticetus also triangulates, in real-time, directional acoustic data received via radio from sonobuoys, allowing correlation of behavior with vocalizations, both in the field and during post-processing. Other post-survey analysis tools include automated tabular summaries of effort and sightings, Google Earth 3-D track display, distance-to-shore calculations, etc., that greatly reduce data, GIS and analysis efforts. Mysticetus is unique from other available similar software because it is easily configured by the user to select data fields/types, units, etc., and can record, summarize, analyze and plot data as indicated by the user.

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ABSTRACT BOOK

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