

Satellite Tracking and Analysis Tool

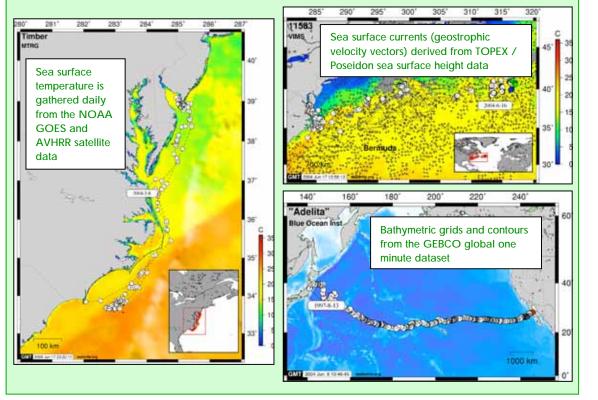




An Integrated System for Archiving, Analyzing and Mapping Marine Vertebrate Satellite Tracking Data

Environmental Data Layers

A variety of environmental data layers can be sampled for all reported locations, as well as, included in tracking maps and animations:



Satellite Tracking Made Easy

SEATURTLE.ORG's Satellite Tracking and Analysis Tool automates the tedious aspects of working with satellite tracking data, provides data storage, backup and mapping, and includes user-friendly data analysis and filtering tools. Access your data and maps from any internet connection and with no need to purchase expensive software.

Manage your data with a number of filtering options, including location class, distance between locations, speed between locations, topography, time between locations, and azimuth between any three consecutive points.

The STAT system adds value to your data by providing all available speed, distance, time and angle calculations in exported data, as well as the topography and sea surface temperature value associated with each location.

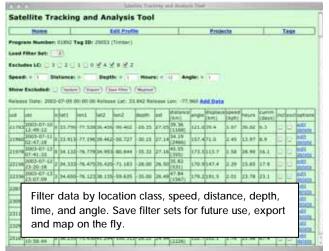
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Satellite Tracking and Analysis Tool

The Satellite Tracking and Analysis Tool (STAT) provides a number of benefits to those tracking marine vertebrates:

- Downloads and updates your ARGOS data while you sleep
- Summarizes, organizes and backs-up your data automatically
- Filters telemetry data through an iterative and intuitive interface, allowing you to see why individual locations were excluded
- Save individual filter sets for future use
- Produces summaries and maps of animal tracks and environmental layers
- Easily share information with colleagues and funding providers
- Contribute summaries of your data for educational use

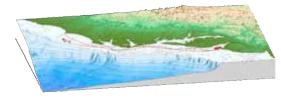


Archive and Import Data

Each day the seaturtle.org server logs into the ARGOS servers and downloads data for all participating programs. New data are added to a relational database and modified data values are updated. Database files are maintained on a RAID array to protect data integrity and backed up daily to an off-site location.

In addition, previously collected data can be imported into seaturtle.org's database so that it can be used in the STAT system.

All archived data can be filtered and exported in commonly used data formats.



Three-dimensional perspective view of satellite track draped over shaded bathymetric relief.

Education and Outreach

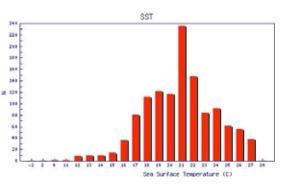
Public website: All, some or none of your tracked animals can be shared on seaturtle.org to inform and educate the public and colleagues about your projects. The tracking website currently receives more than 80,000 hits a month.

Email subscriptions: Visitors to the public website can subscribe to receive daily e-mail updates when project maps are updated.

Education: A limited subset of data from any tagged animal can optionally be shared with registered teachers for use in the classroom.

Automated Mapping

A suite of map products are updated each day that new data are available for each tracked animal. Automatically generated maps and graphs include a variety of print quality maps, animations of tracks through time, animated sea surface temperature, 3-D perspective, location class, distance between locations, time between locations, displacement distance from release and more!



Automagically generated histogram of SST values sampled for all reported locations along a track.

The Satellite Tracking and Analysis Tool was developed in partnership with the Marine Turtle Research Group. http://www.seaturtle.org/mtrg/



Front Photo Credits: Kemp's ridley turtle: Kate Mansfield, Virginia Institute of Marine Science; Northern elephant seal: David Hyrenbach, Duke University