



The following information has been prepared by Stephen G. Dunbar and Lidia Salinas of the Protective Turtle Ecology Center for Training, Outreach, and Research, Inc. (ProTECTOR) for the Board of Directors of the Roatán Marine Park. The information below provides benchmarking links to other NGO's and researchers utilizing similar methods to those proposed by ProTECTOR, Inc. in collaboration with the Roatán Marine Park (RMP), to be used in the RMP area. While there are many more examples in the published literature, these examples highlight the work of just a few of the many protected area managers and NGOs working to understand and protect sea turtles in protected areas around the world. Many of the examples provided below are tracking, monitoring, and sampling sea turtles in MPA's to provide data to MPA managers for improved protected area management and collaboration among managers, fishers, government, NGOs, and private industry.

Satellite Tagging and Tracking

1. French Frigate Shoals, Hawaii

Much of the work of research and conservation in the Marine Protected Area of the Shoals is done by George Balazs

<http://www.turtles.org/ffs/migrate/ffsmigrt.htm>

2. EcoMar, Belize

In this example, you will find that as part of in-water monitoring by Linda Searle at EcoMar, they hand capture the turtles, and fix satellite tags to some individuals through the use of marine epoxy.

<http://www.ecomarbelize.org/robinson-point.html>

3. Sea Turtle Conservancy

This section of the STC demonstrates that many projects are satellite tagging sea turtles. These projects use the same methods proposed and used by ProTECTOR.

<http://www.conserveturtles.org/seaturtletracking.php?page=trackingprojects#caribbean>

4. Te Mana O Te Moana

Satellite tagging of hawksbill turtles in French Polynesia is also described.

<http://www.temanaotemoana.com/research/turtles/>

Flipper Tagging and Dive or Snorkeling Monitoring

1. French Frigate Shoals, Hawaii

In this example, you will see weekly reports of monitoring sea turtles in the area Maui. These include initial flipper tagging and re-sightings of turtles on a regular basis.

<http://www.turtles.org/whoswho.htm>

<http://www.turtles.org/summer00.htm>

2. EcoMar, Belize

In these example, you will find that as part of in-water monitoring by EcoMar, they hand capture the turtles, flipper tag, and biopsy individual turtles for genetic analyses.

<http://www.ecomarbelize.org/gallows-point.html>

<http://www.ecomarbelize.org/in-water-scientific-surveys.html>

3. Sea Turtle Conservancy

At this site, you can see some of the continuing work of Dr. Archie Carr, as well as current Director, Emma Harrison in continuing to flipper tag individual turtles caught in-water.

<http://www.conserveturtles.org/costarica.php?page=tort-tag-returns>

4. USGS

This page describes work done by Dr. Kristen Hart on satellite tracking for understanding sea turtle use of MPA's.

http://www.usgs.gov/newsroom/article_pf.asp?ID=3575

5. Research Center for Environmental Management and Development (CIMAD), Columbia

FAQ on satellite telemetry.

<http://www.cimad.org/prog-telem-satel-ing.htm>

6. Te Mana O Te Moana

A description of the "manta tow" technique is given at this website. Satellite tagging of hawksbill turtles in French Polynesia is also described.

<http://www.temanaotemoana.org/research/turtles/>

Blood Sampling for Genetic and Heavy Metal Analyses

1. Blood sampling instruction video with Dr. George Balazs

In this video, Balazs draws a blood sample from a juvenile hawksbill.

<http://www.youtube.com/watch?v=vvwBErBCvBg> \

2. This article describes how blood sample is obtained from turtles for analysis.

<http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCYQFjAA&url=http%3A%2F%2Fiacuc.ufl.edu%2Fanimaluseguides%2Fbiolsampcoll.doc&ei=CWn5UvCDBKSG2gW194AI&usg=AFQjCNFB4tQmkqXo0glAhNPwxDd13bX5aA&bvm=bv.61190604,d.b2I>

3. The Hermon Slade Foundation

This website describes the results of conservation efforts of the endangered loggerhead turtle (*Caretta caretta*) in Western Australia.

http://www.hermonslade.org.au/projects/HSF_07_8/hsf_07_08.html

In-Water Captures, Gastric Lavage

1. See this article for brief description of methods for a survey of sea turtles at Buck Island Reef National Monument, US Virgin Islands.

<http://link.springer.com/article/10.1007%2Fs00227-013-2249-x>

For Additional Reading of Methods and Techniques;

1. Southeast Fisheries Science Center – Sea Turtle Research Techniques Manual

http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCYQFjAA&url=http%3A%2F%2Fwww.sefsc.noaa.gov%2Fturtles%2FTM_579_SEFSC_STR_TM.pdf&ei=bGH5UsGeOMer2AXglIC4CA&usg=AFQjCNF5iP_xnnJiY36f61nwbGM8VzJifA&bvm=bv.61190604,d.b2I

2. Marine Turtle Research Group

This paper briefly describes use of TDR's and sonic tags for tracking movements of turtles at Bloody Bay, Little Cayman, Cayman Islands.

<http://link.springer.com/article/10.1007/s00338-008-0416-1>