

A Global Snapshot of Loggerheads and Leatherbacks

“The Unsolved Mysteries of Sea Turtles” (pp. 6–13) underscores one of the greatest challenges that conservationists face in preventing extinctions: insufficient data.

Scientists the world over are working to meet this challenge in their research efforts. The SWOT Team with its global perspective is identifying, collecting, and presenting sea turtle data from around the world—an effort that will ultimately enable the conservation community to take collective actions when sea turtle populations decline and to focus resources on the highest priorities.

The inaugural volume of *SWOT Report* and its presentation of worldwide leatherback nesting beaches was the first step. With plans to tackle one species at a time, one year at a time, the SWOT Team has addressed its next priority for global data collection: the loggerhead sea turtle.

Like leatherbacks, loggerheads are found in almost every ocean. Both species are threatened nearly everywhere they are found by hazards at their nesting beaches and during transoceanic journeys. Listed as Endangered on the *IUCN Red List of Threatened Species*, loggerheads face threats including coastal development, fisheries bycatch, direct hunting (for eggs and meat), pollution, and climate change.

The following two maps document just one slice of the long and complex lives of some of Earth's most widely ranging and mysterious animals. Here we present the loggerhead and leatherback nesting beaches of the world, with the number of nests laid at each site during the 2005 nesting season. Each dot represents the contributions of the patrollers who walk each beach, collecting data day and night, as well as the institutions and donors who make these efforts possible. As such, every data point is numbered to correspond with a citation that acknowledges its source (pp. 42–48). The featured first-year loggerhead data are printed with comprehensive citations, while leatherback data citations are abbreviated. Both sets of data are available in full on the SWOT Web site at www.SeaTurtleStatus.org.

The global snapshot of loggerhead nesting in this report is the first presentation of its kind. The leatherback map presents the SWOT Team's second year of leatherback data, building on the inaugural data presented in *SWOT Report, Volume I*. In total, the 166 SWOT Team data providers have documented 203 loggerhead beaches from 68 sources in 45 countries, and 204 leatherback beaches from 76 sources in 52 countries.

These maps were developed under the guidance of the SWOT Scientific Advisory Board (pg. 2) that has agreed on specific protocols for the development of the maps. The number of nests documented at each beach is used as the display value for each data point. In areas where only a count of nesting females was available, that count was used to estimate the number of nests by applying a conversion—the average number of nests laid per female, per season (the clutch frequency)—from the geographically closest available beach during the same nesting season. Recognizing that these conversions are imperfect, we have chosen to report only the original count values in the citations.



SWOT Team members have also contributed information on the procedures used to gather their data, so that each piece of data may be evaluated for its completeness. Specifically, in each citation we present the techniques used for beach monitoring, the period of beach monitoring, the period of the full nesting season, and the peak period of nesting.

The maps on the following pages represent a momentous second step into the future of data sharing and sea turtle conservation planning. With hawksbill nesting sites of the world on the SWOT Team's horizon, we continue toward our vision of presenting a continually contemporized view of all seven species of sea turtles across the globe.

*This article is written by **Brian J. Hutchinson** and **Alec Hutchinson**, on behalf of the SWOT Team. Brian is program officer of the IUCN Marine Turtle Specialist Group and coordinator of Conservation International's (CI) Sea Turtle Flagship Program. Alec is SWOT data coordinator and associate of CI's Sea Turtle Flagship Program. They are not related. For a comprehensive listing of SWOT Team data contributors, see pages 42–48.*

A young loggerhead turtle swims near its nesting beach off the coast of Florida, U.S.A.
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Worldwide Leatherback Nesting Sites

1 Suriname and French Guiana



COTE D'IVOIRE



4 Eastern Caribbean

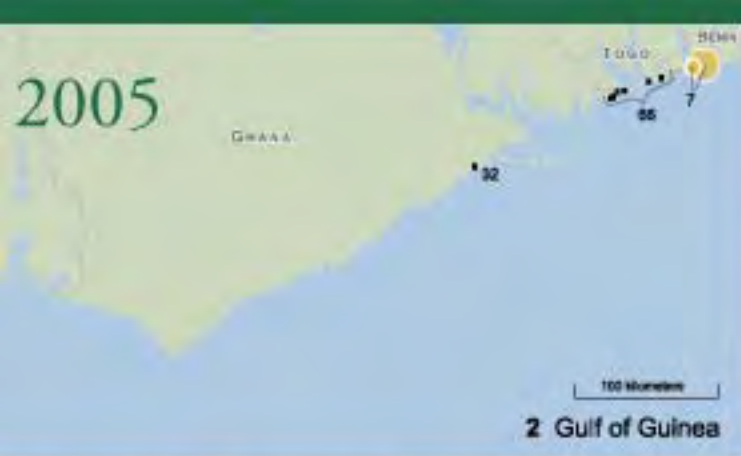


5 Mesoamerica Pacific



6 Mesoamerica Caribbean

2005



2 Gulf of Guinea



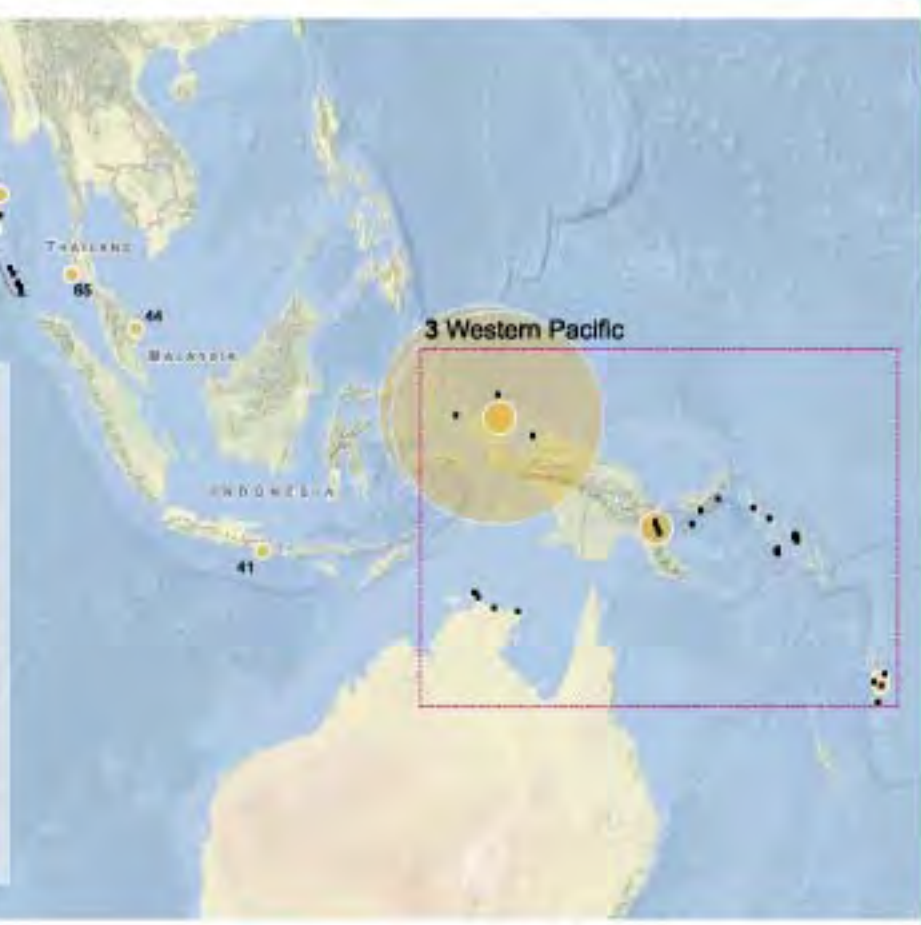
3 Western Pacific



This map illustrates the number of leatherback nests recorded at each nesting site during its 2004–2005 or 2005 nesting season. Where nest counts were not available, counts (or average counts) of nesting females were used to estimate the number of nests by using the clutch frequency from the geographically closest available beach during the same season. These estimations were used at six leatherback sites (in Benin, Guyana, Indonesia's East Java, St. Eustatius in the Antilles, and Venezuela).

If the clutch frequency from a nearby beach was not available, SWOT used that from the most well studied rookery with similar foraging habits. These rookeries are at Sandy Point, St. Croix, U.S. Virgin Islands (for populations with primary foraging grounds in the Northern Hemisphere) and at Playa Grande, Costa Rica (for populations with primary foraging grounds in the Southern Hemisphere). Clutch frequencies during the 2004–2005 or 2005 nesting season at these sites were recorded as 4.03 and 6.44 nests per female, respectively (Garner & Coles 2005; Paladino, pers. comm.).

Map data come from many sources. Each point has a data record number that corresponds to a citation in the back pages of this report.



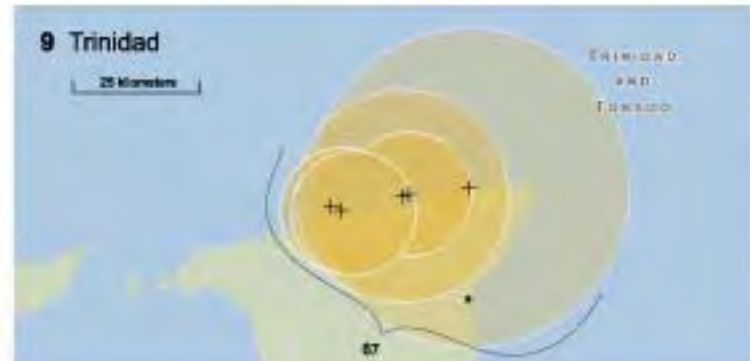
3 Western Pacific



7 Bioko Island



8 Lesser Antilles



9 Trinidad

Leatherback Nests (2005)

- No data (2005)
- Inset maps
 - Extent
 - Location only

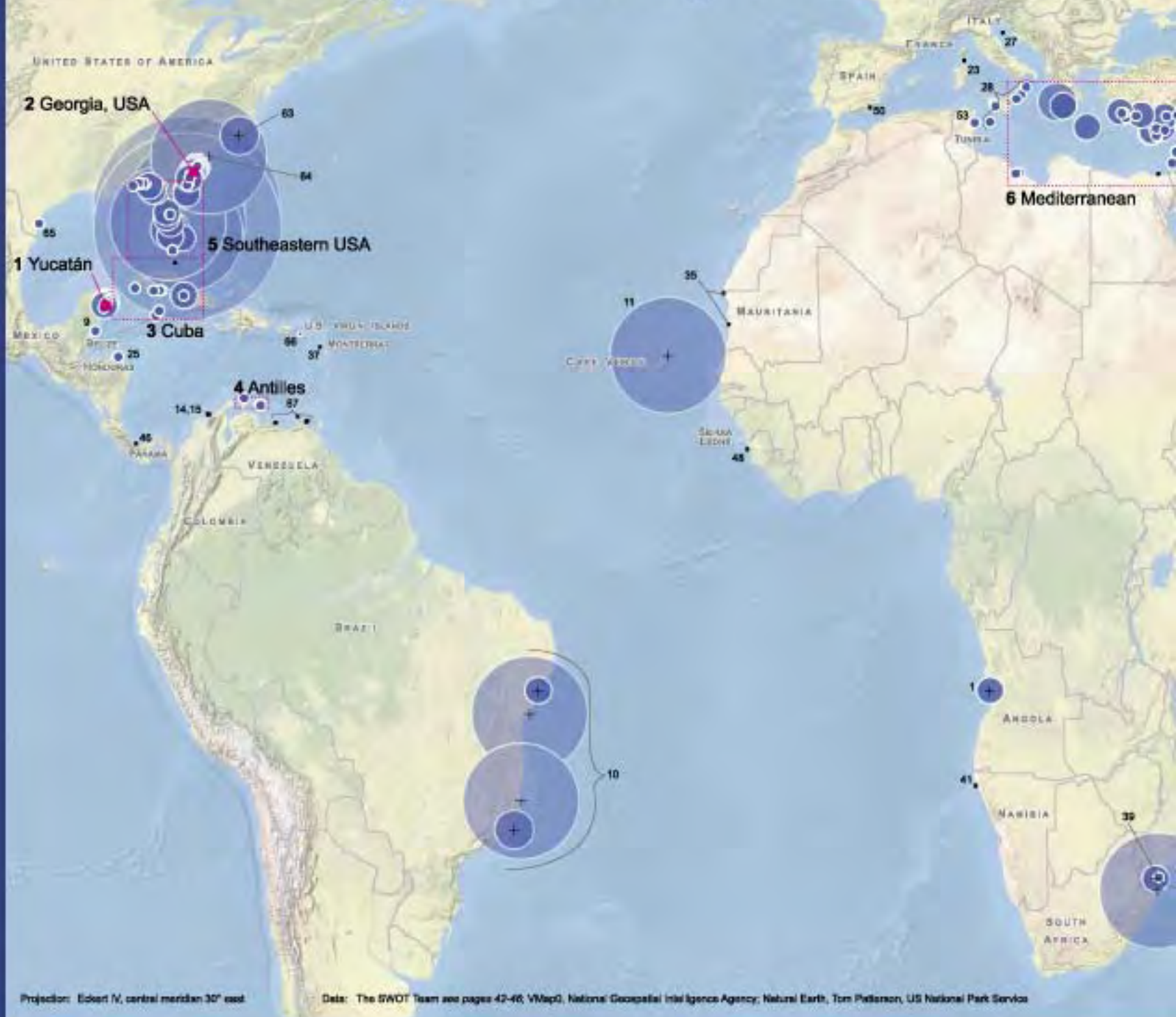
Approximately 10,000
Up to 5,000
2,000
500
200
50
0

Projection: Eckert IV

Data: The SWOT Team see pages 47-48
VMap0, National Geospatial Intelligence Agency
Natural Earth, Tom Patterson, US National Park Service

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Worldwide Loggerhead Nesting Sites 2005



Projection: Eckert IV, central meridian 30° east

Data: The SWOT Team see pages 42-46, VMap0, National Geospatial Intelligence Agency, Natural Earth, Tom Patterson, US National Park Service

