


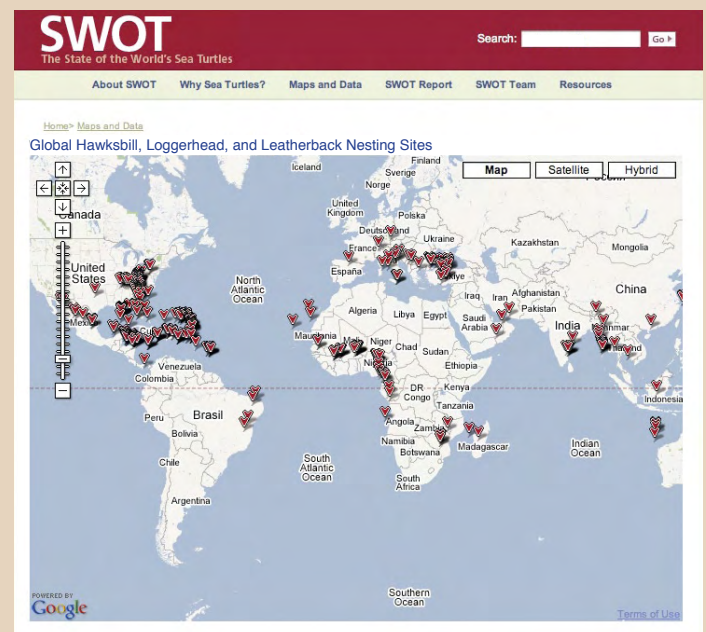
# The State *of the* World's Hawksbills

A hawksbill turtle propels itself through waters off the coast of Israel. © DAVID DOUBILET 

The hawksbill sea turtle has been one of the most persecuted of the world's sea turtles; hunted not only for its meat and eggs like other sea turtle species, it is further cursed by its beauty. The mottled, translucent shell plates—called *scutes* by scientists and *bekko* by Japanese artisans—have been coveted for centuries as raw material for jewelry, spectacle frames, spurs for fighting roosters, and furniture embellishments.

The 2007 IUCN Red List of Threatened Species assessment of global hawksbill populations reveals that hawksbills still endure this menace and many others. They are especially threatened in the Indian and Pacific oceans and along the mainland Caribbean Coast. Historic and recent accounts indicate extensive declines—estimated at 90 percent globally—in all major oceans during the past 100 years. Much of the decline occurred in the 20th century, driven by intense international trade in *bekko*. (See “Trade Routes for Tortoiseshell,” p. 24–25.) Although the volume of international trade has declined significantly in the past 10 to 15 years, it remains an active menace, especially in Southeast Asia and the Americas.

A relatively new threat is the massive trade in large stuffed hawksbills, intentionally netted in Southeast Asian waters, preserved with formaldehyde aboard Chinese vessels, and sold intact as adornments in Asia. Accidental capture in fisheries is another major concern. Meanwhile, hawksbills continue to suffer intense levels of



In addition to mapping the hawksbill nesting sites of the world, the SWOT Team has added another year of data (2006) to the global maps of leatherback and loggerhead nesting sites that were featured in volumes I and II of *SWOT Report*. These maps are now featured in interactive and downloadable formats on the SWOT website, [www.SeaTurtleStatus.org](http://www.SeaTurtleStatus.org).



egg exploitation in many areas; in Southeast Asia, egg take often approaches 100 percent.

Habitat destruction may turn out to be an even greater threat. Hawksbills nest in some 60 of the 108 countries whose waters they ply—mostly on tropical beaches—with unregulated coastal development, especially for tourism, becoming a huge problem. Oil exploration and seaborne pollution threaten hawksbill habitats in the Middle East and other parts of the Indo-Pacific. Likewise, the global scourge of climate change looms large, given hawksbills' dependence on coral reefs vulnerable to altered water temperatures and the potential loss of nesting beaches to rising waters.

Because much of the available data on global hawksbill populations come from protected sites, the actual rate of their decline is likely underestimated. What we do know is that hawksbill populations continue to decline at many sites, including important rookeries in eastern Mexico, northeastern Australia, and Indonesia.

With protection, however, some populations have stabilized, and a few are increasing at protected islands in the Caribbean and Indian oceans. Meanwhile, public awareness is at an all-time high, and international and regional agreements are addressing the issues at the governmental level. These are certainly causes for optimism that bring the solutions for hawksbill recovery into clear focus. If careful attention is paid to preserving beaches, curtailing the trade in bekko and stuffed turtles, stopping egg take, addressing fisheries bycatch, and eliciting the broad human behavioral changes that will reduce pollution and halt climate change, the hawksbill can find its way along the road to resurgence.

*Dr. Jeanne A. Mortimer is a sea turtle biologist and conservationist who has worked in some 20 countries during the past 30 years. She coauthored (with Marydele Donnelly) the forthcoming IUCN Hawksbill Red List Assessment for the IUCN Marine Turtle Specialist Group.*

Globally, hawksbill turtles have declined an estimated 90 percent in the past 100 years, but conservationists retain hope for this species as new solutions are developed. © ERIC MADEJA



## The Global Hawksbill Nesting Map

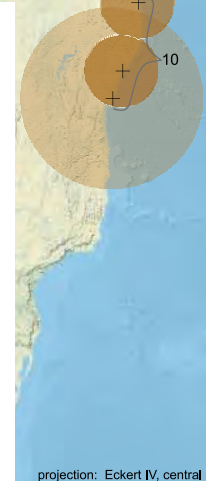
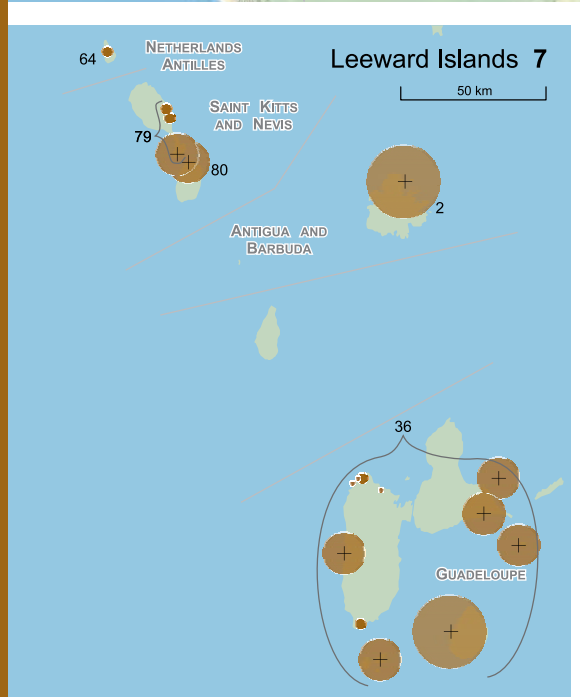
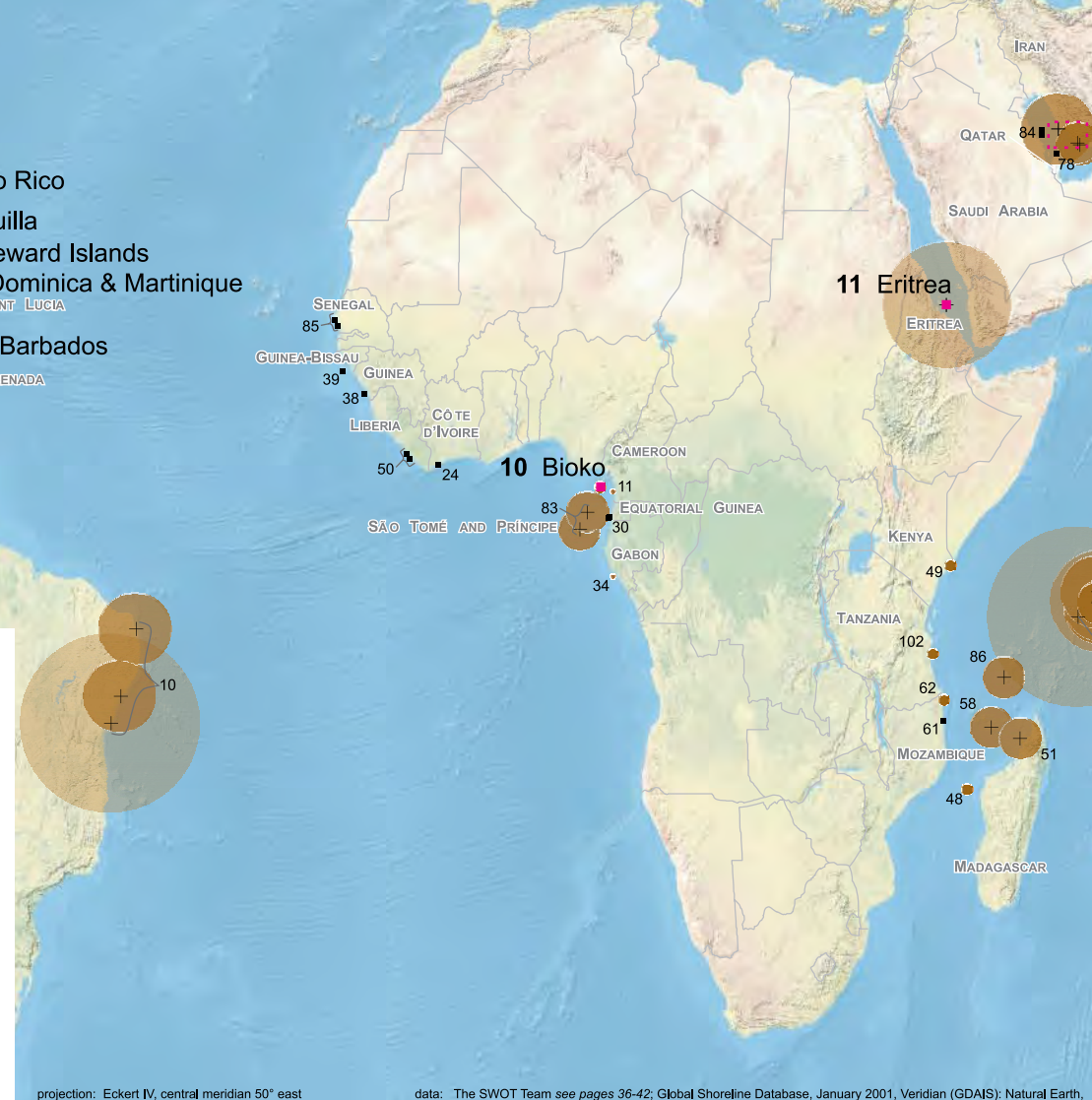
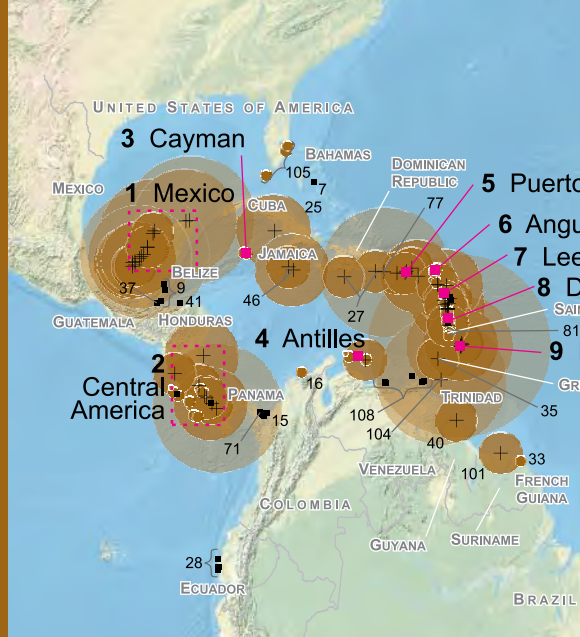
Hawksbills are well known for their tendency to nest on remote and obscure tropical beaches. Perhaps the result of centuries of exploitation, they appear determined to nest wherever humans are not. This presents real challenges to the people who monitor hawksbills' nesting populations or wish to globally map their nesting distribution. Special recognition is therefore warranted for the hundreds of data contributors that are listed in the citations of this publication (pp. 36–42)—not only for their determination to study and protect these animals in all of their remote habitats, but for their willingness to work together as the “SWOT Team.” They have created the linchpin of this report, the foldout map that is SWOT's (and the world's) first global depiction of hawksbill nesting sites, featuring 2006 data.

Compiling these data and mapping the hawksbill's global nesting distribution has provided its own set of challenges and has been as much a lesson in geography as anything. Thoughtful consideration has gone into the preparation of the map, with mapping protocols based on the standards developed by the SWOT Scientific Advisory Board in 2006.

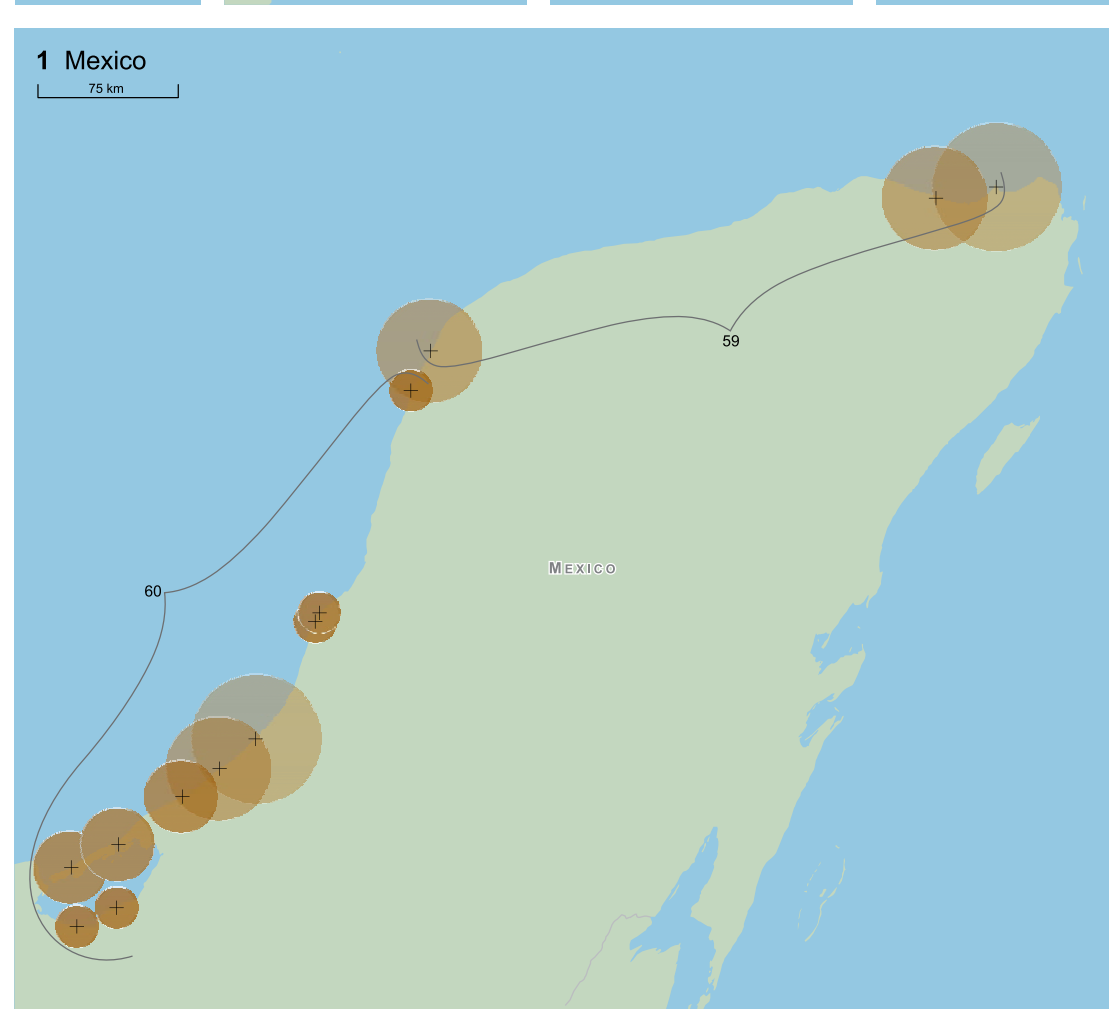
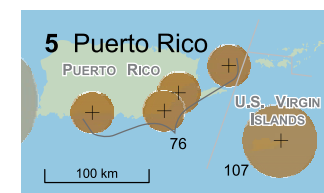
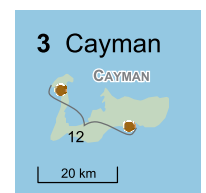
This map demonstrates the number of nests recorded or estimated at every available nesting site in the 2006 or 2005–2006 season. All points are numbered to correspond with their original sources (pp. 36–42). Where nest counts were not available, the number of nesting females was converted into an estimated number of nests using a bracketed conversion figure of 3 to 5 nests per female, taken from Mortimer and Donnelly's forthcoming *IUCN Hawksbill Red List Assessment*. Similarly, when only crawl counts were available they were converted into an estimated number of nests using a conversion figure of 1.8 crawls per nest, also from Mortimer and Donnelly. In total, 348 hawksbill nesting sites were recorded from 110 sources.

*Alec Hutchinson is data coordinator for SWOT and director of nesting beach projects for PRETOMA. Brian J. Hutchinson is program officer of Conservation International's (CI) Sea Turtle Flagship Program and of the IUCN Marine Turtle Specialist Group. Kellee Koenig is GIS specialist and outcomes mapping cartographer for the CI Center for Applied Biodiversity Science.*

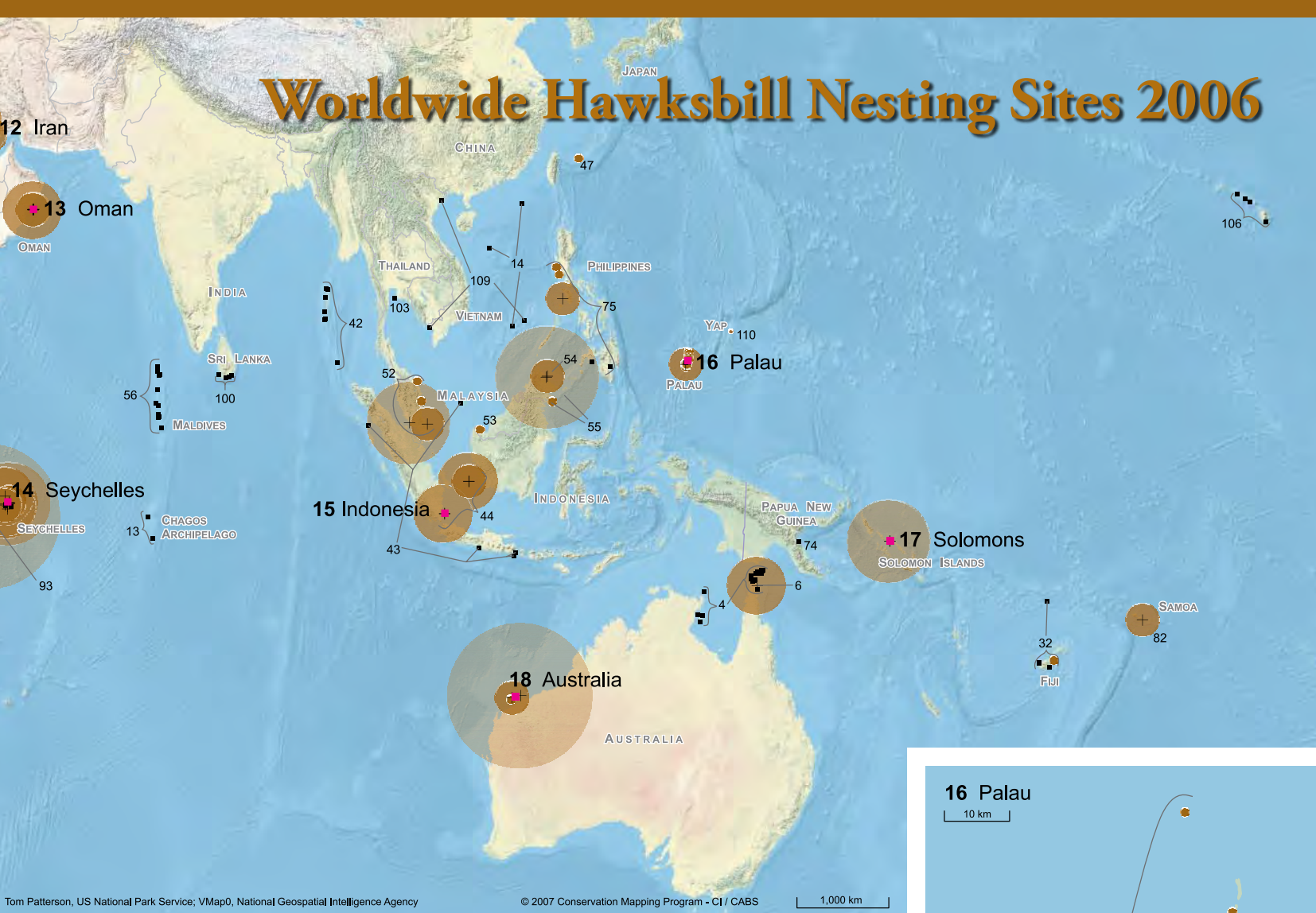




projection: Eckert IV, central meridian 50° east      data: The SWOT Team see pages 36-42; Global Shoreline Database, January 2001, Veridian (GDAIS); Natural Earth,



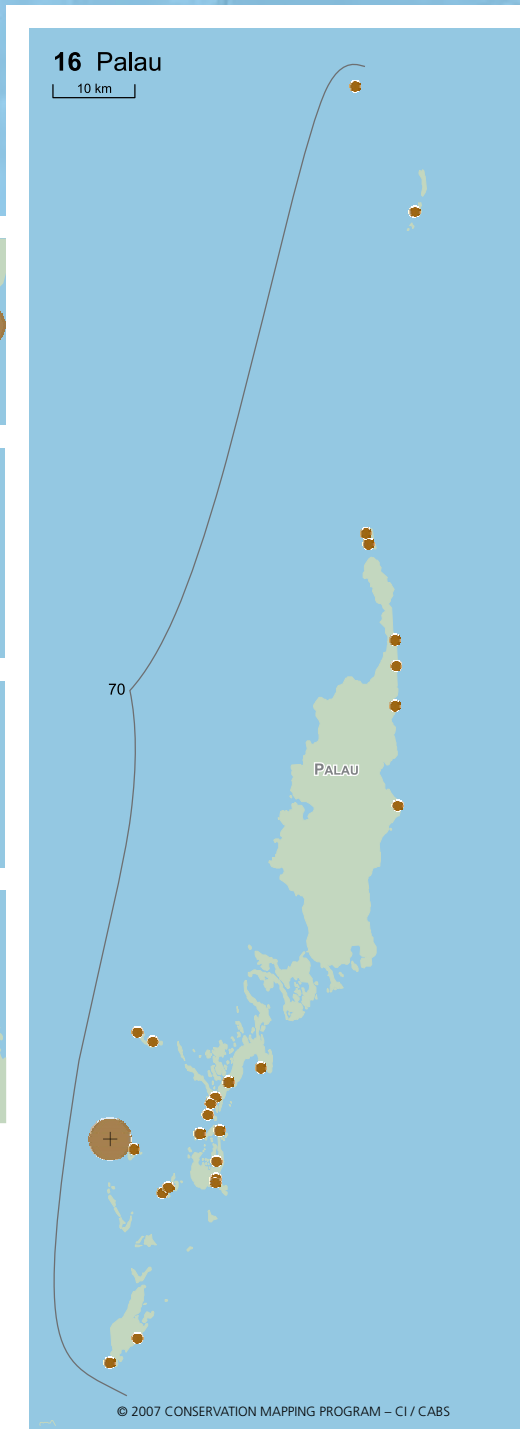
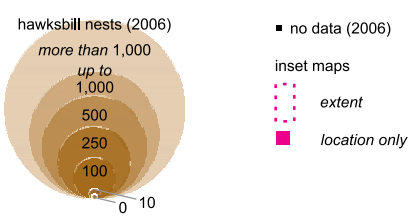
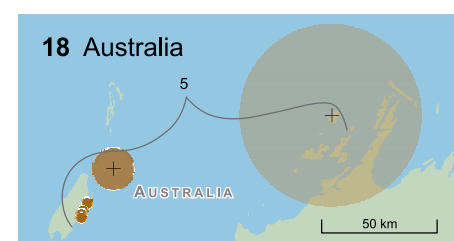
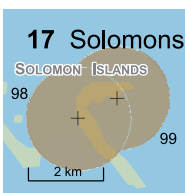
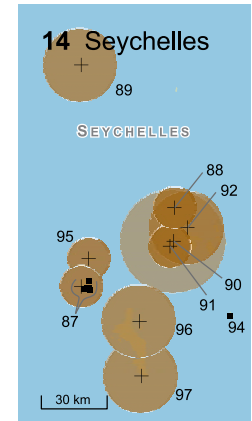
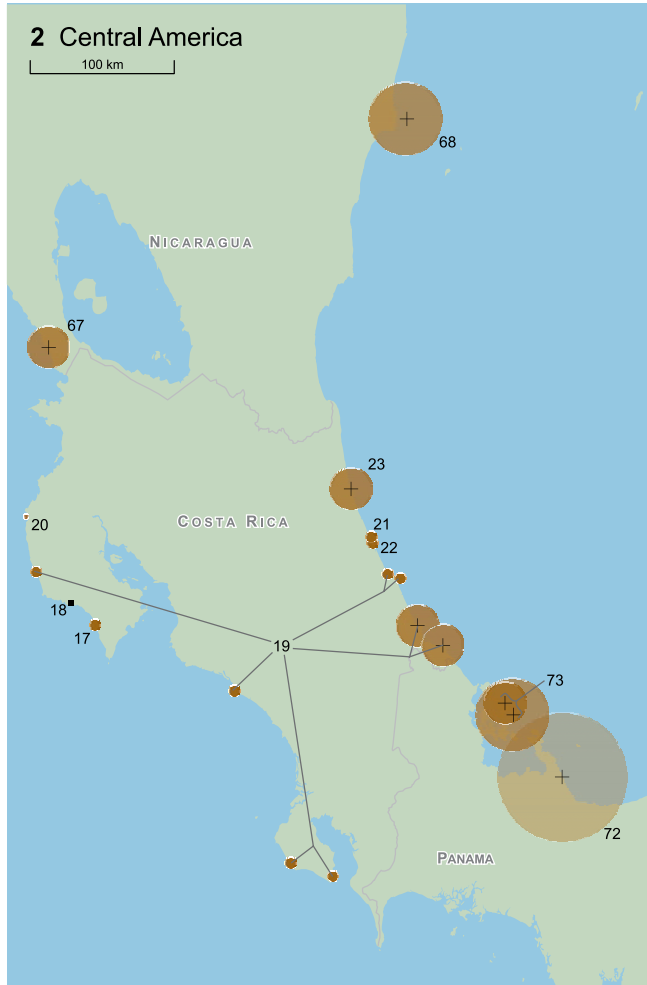
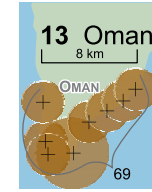
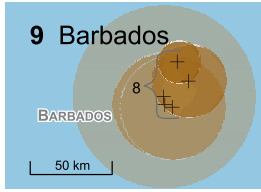
# Worldwide Hawksbill Nesting Sites 2006



Tom Patterson, US National Park Service; VMap0, National Geospatial Intelligence Agency

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1,000 km



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