The **Pacific Loggerhead**, So Excellent a Connector

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It has been 20 years since the satellite track of Adelita hit the mainstream media and newly birthed internet, sharing the real-time migration of a loggerhead sea turtle from Baja California, Mexico to Japan with millions of people worldwide. Captured in Mexico's Gulf of California as a small juvenile and reared in captivity for more than a decade, Adelita couldn't wait to return home once released. Up to that point, nobody could have imagined that a turtle could swim more than 11,500 kilometers (7,145 miles) in only 368 days.

Satellite telemetry was still in its early years, and having a track of this magnitude highlighted the value of this technology for visualizing ocean connectivity and for revealing obscure aspects of sea turtle life histories. Moreover, Adelita became a *spokesturtle*, showing the world just how magnificent Pacific loggerheads could be. In fact, hers was the first track of *any* animal swimming across *any* ocean, and the simplicity of that remarkably straight path slicing across the vast Pacific was inspiring. Adelita not only demonstrated the value of satellite telemetry for understanding sea turtles; her odyssey also reminded conservationists of the power of using captivating animal stories to create enthusiasm among local and international audiences through media, children's books, and more. Her name was Adelita—not tag #07667—and she became one of the world's most famous living sea turtles.

Today, Pacific loggerheads are by far the most satellite-tracked creatures on Earth. Nearly 400 loggerheads have been followed in the North Pacific using satellites since Adelita's maiden track, and at least 200 more have been tracked in the South Pacific. We now have a stunning map resembling a network of crisscrossed circuits connecting the furthest stretches of the eastern and western North Pacific—a level of connectivity rarely observed in the natural world—as well as a huge swath of loggerhead tracks on both sides of the South Pacific (see pp. 16–17). This map is derived from the largest collection of Pacific loggerhead tracks ever assembled, and, when combined with overlays of oceanography and fisheries data, the priority areas for conservation action nearly leap off the screen.

The Pacific is the largest, most dynamic ocean basin in the world, and that makes the migrations of these turtles so amazing. From the time hatchling loggerheads depart nesting beaches in Japan, Australia, and New Caledonia to some 30 years later when they return as adults, each individual will have traveled tens of thousands of kilometers, interacting with countless habitats and dodging myriad human threats. From east to west, the Pacific stretches roughly 17,000 kilometers (10,563 miles) at its widest. It's an enigmatic sea: its submarine trenches are deeper (10,994 meters/36,069 feet) than the highest mountains. The Kuroshio Current off Japan can rage at nearly 11 kmph (7 mph). And in the abnormally cold eastern tropical equatorial waters, penguins swim with green turtles and iguanas. Taking this all in helps us understand the fascinating story of Pacific loggerheads.

There are two distinct loggerhead populations in the Pacific: (1) a northern group that nests almost exclusively in Japan, with many young traversing the North Pacific to U.S. and Mexican waters, and (2) a southern group that nests in Australia and New Caledonia and spans the South Pacific all the way to Peru and Chile. These two populations mirror each other across the equator. During the 1970s and 1980s, Pacific loggerheads in both hemispheres were declining fast because of threats on nesting beaches and in the sea. The conservation outlook was very bleak for both populations, and by the 1990s some scientists were forecasting that they would be functionally extinct within less than one human lifetime.

The alarming declines in annual loggerhead nesting throughout the western Pacific put conservation biologists on red alert, and both the eastern and western Pacific populations became the focus of important research and conservation efforts. Pioneers such as George Balazs, Jeffrey Polovina, and Don Kobayashi began studying loggerheads in the open ocean, while others such as Colin Limpus and Naoki Kamezaki were expanding protection on nesting beaches and in coastal foraging areas and conducting massive flipper-tagging and recapture programs. Later, Brian Bowen, Alberto Abreu-Grobois, Peter Dutton, and Michelle Boyle began to establish the east-west genetic links for loggerheads on both sides of the equator. The combined work of these early luminaries built a foundation of biological information that revealed the population structures of the North and South Pacific loggerhead subpopulations long before satellite telemetry studies provided indisputable proof of transoceanic migrations.

Significant progress has been made in understanding the ecology and movements of loggerheads in the northern and southern hemispheres since, but each question answered seems to yield a dozen more. What proportion of turtles in the North Pacific eventually makes it from Japan to Mexico's Baja California Peninsula? What is the age of maturity for loggerheads in the Pacific, and is it different in the north and south? Why has the return of subadult loggerhead turtles to coastal habitats of the southwest Pacific declined markedly over the past two decades? Why do adult loggerheads in the North Pacific feed in both oceanic and coastal habitats whereas those in the South Pacific are almost all coastal foragers? Is ingestion of plastic debris an important threat for juvenile loggerheads? What is the impact on loggerheads of illegal, unreported, and unregulated (IUU) fishing in the high seas? How will climate change affect nesting beaches and sex ratios of emerging hatchlings?

We don't have all the answers, but it's clear that the more we look, the more we learn. For example, new discoveries in the eastern North Pacific have revealed that loggerheads are present in a wider range of areas than previously known. They occur in the tens of thousands along the U.S. coast of southern California during El Niño periods, and they gather in the Gulf of California more than we knew just a few years ago. Long-term tracking of individual loggerheads in Australia has also revealed that they mature later and live longer than we realized. And, to the north in Japan, research has shown that the environment within which loggerheads forage can dramatically affect their size and reproductive outputs.

There is still much to learn about Pacific loggerhead biology, and many hurdles remain for their conservation. Clearly a huge challenge to their survival is bycatch mortality in fisheries. Given their delayed maturity, their transpacific movements, and the fact that fishing occurs almost everywhere, it is a near certainty that huge numbers of turtles will interact with fishing gear during their lives. But what then is their probability of survival? Intuition would suggest that it's low, but recent research has shed a sobering light on just how low survivorship can be. For example, the Gulf of Ulloa along the Pacific coast of

A loggerhead turtle that has been seen for three consecutive years on the same reef patch off the shores of Amami-Oshima, Japan. © KATSUKI OKI; PREVIOUS SPREAD: A barnacle-encrusted loggerhead exhales as it surfaces off the coast of Baja California Sur, Mexico. © WEDGE CREATIVE I WEDGECREATIVE.COM

the Baja California Peninsula is the site of the highest bycatch mortality rates among artisanal fisheries worldwide (see *SWOT Report*, vol. III, p. 14). Today, the predicted survivorship of loggerheads spending more than 20 years in that area is less than 10 percent, emphasizing the urgent need for conservation measures.

Thankfully, several bright spots appear in this literal sea of bycatch. The use of circle hooks in place of J hooks is a perfect example; whereas circle hooks don't always stop turtles from interacting with hooks, they can lower mortality among turtles by reducing the incidence of deep hooking. Illuminating gillnets with LEDs has proven to reduce turtle bycatch by more than 60 percent in Peru. And in the South Pacific, the compulsory use of turtle excluder devices has coincided with an increase of nesting females at index beaches. In the North Pacific, TurtleWatch—a mapping tool that integrates fisheries effort and loggerhead habitat preferences to give real-time estimates of loggerhead hotspots (see *SWOT Report*, vol. IV, pp. 36–37)—has improved predictive abilities and allowed fishers to avoid bycatch in the Hawaii-based longline fisheries. Those are just a few of the many technological advances in bycatch reduction that most fishers are eager to adopt, because they too look to minimize interactions with turtles that can ruin their gear and slow their operations.

Assuring the success of these new technologies requires broad scale buy-in from stakeholders. North Pacific loggerheads may traverse the waters of three or more nations during their lives, and their South Pacific counterparts may pass through a dozen or more countries and territories. This fact has sparked several important cross-border management alliances. The North Pacific Loggerhead Trinational Recovery Team, for instance, brings together policymakers from Japan, Mexico, and the United States to manage a multinational conservation action plan. The Convention on Migratory Species plays a similar role among the South Pacific nations of Australia, Chile, Ecuador, Fiji, New Caledonia, Peru, and Tonga.

Of course, much conservation *planning* occurs at the state, national, and international levels, but a significant amount of conservation action occurs at the community level. Local support is built through field-based collaboration, trust building, artful leadership, and the often-slow shifting of narratives and paradigms. In eastern Australia, for example, more than 50,000 loggerhead hatchlings enter the sea, in addition to those from in situ nests, thanks to hundreds of trained volunteers who rescue doomed eggs and relocate them to safer sand following protocols from the Queensland Department of Environment and Heritage Protection. In Peru, the nonprofit ProDelphinus has used high-frequency (HF) radio to connect Peruvian fishers at sea with biologists on shore to promote the safe release of turtles and to gather and share information on turtle captures (see *SWOT Report,* vol. VII, p. 15). And an international fisher exchange program between Japan, Mexico, and Hawaii led to conservation breakthroughs in Baja California, Mexico, where one major fishing cooperative retired its bottom-set longline gear to adopt adopt bycatch-free fishing methods, thus sparing hundreds of turtles. In Japan, a similar exchange resulted in fishers teaming with scientists to develop turtle-friendly pound nets (see *SWOT Report*, vol. VII, pp. 16–17).

We are at an exciting time in the history of Pacific loggerhead research and conservation. The wealth of new knowledge and early signs of population increases at the nesting beaches after decades of decline are extremely encouraging. These gains can be attributed to a combination of (1) long-term indefatigable nesting beach protection by locals; (2) at-sea efforts led by policymakers and implemented by countless fishers who work the nets and longlines in more than a dozen Pacific countries; and (3) the goodwill and commitment of hundreds of nonprofits, communities, and individuals who care about the future of loggerheads and the health of their habitats. From individuals to organizations to nations, we've seen countless examples of people uniting to study and save this species. ¡Viva Adelita! ■

Loggerhead Turtle Satellite Telemetry Data in the Pacific Ocean

Japan
Taiwan
Hawaii
United States
Mexico
New Caledonia
Peru

N

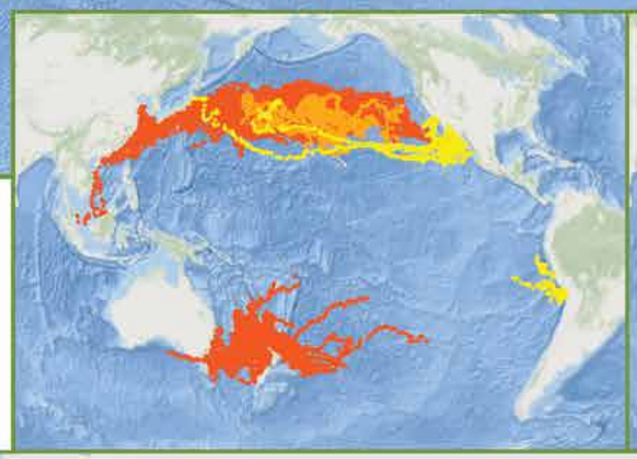
1000 km

scale: 1:40,000,000 **projection:** Winkel-Tripel (central meridian 165W)
data: Telemetry locations and Regional Management Units — the SWOT Team and reviewed literature (see complete data sources and citations on pages 54–55); Ocean Basemap — Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors; country borders — GADM database of Global Administrative Boundaries.
notes: Hexagon height and color is determined by the number of telemetry locations within each feature. Color bins were determined by splitting the count data into quintiles. Visual outliers were removed but telemetry datasets were not otherwise filtered or altered. This map is not intended to be a comprehensive source of all loggerhead telemetry data for the Pacific Ocean or an authoritative source for the studies cited.
produced in partnership with: Oceanic Society, OBIS-SEAMAP, seaturtle.org and the IUCN-MTSG.

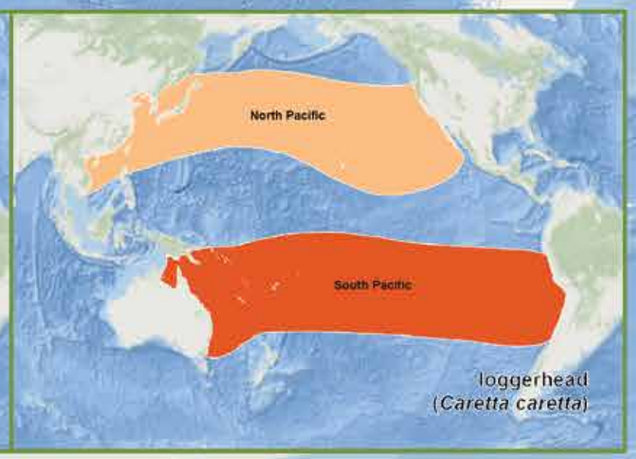
count of locations per hexagon
- ≤ 2812
- ≤ 136
- ≤ 47
- ≤ 16
- ≤ 5

telemetry locations by deployment origin
- Eastern Pacific
- Central Pacific
- Western Pacific
- country borders

Locations by Deployment Origin



Regional Management Units



SWOT Data Citations

NESTING BIOGEOGRAPHY OF SEA TURTLES IN JAPAN

We are grateful to the Sea Turtle Association of Japan, which generously allowed us to re-create its map of 2016 sea turtle nesting in Japan for inclusion in this volume (pages 28–29). We are especially grateful to Yoshi Matsuzawa and Kei Okamoto for their assistance in sourcing data, translating, and developing the maps. Thank you.

GUIDELINES OF DATA USE AND CITATION

The data that follow correspond directly to the map on pages 28–29. To use data for research or publication, you must obtain permission from the data provider

DATA RECORD 1

Data Source: Map data were digitized and adapted from Figures 1 and 2 in: Matsuzawa, Y. (editor), *Proceedings of 27th Japanese Sea Turtle Symposium in Muroto (2016)*. Osaka: Sea Turtle Association of Japan.
Year: 2016
Data Contributors: The following people and institutions provided nesting data used to create the maps: Akaumigame-wo-mamoru-kai, Akabane-juku, Ibaraki Prefectural Oarai Aquarium, Satoshi Asou, Shinpachiro Asaka, Hiroshi Asakawa, Niijima Shizen Aikoukai, Anan-City Office Shimin-bu Bunka-shinkou-ka, Toshihiro Abe, Naoki Abe, Amami Marine Life Research Association, Amami Umigame Jouhou Network, Amami Wildlife Center, Shun Amamiya, Takashi Igarashi, Shigeru Ikemura, Masayuki Ishii, Ishigakijima Umigame Kenkyu-kai, Tohru Izumiguchi, Isumi-City Sea Turtle Conservation Observers, Isen Town Office, Tokunoshima-Amagi Town Office, Ichinomiya Umigame-wo-mimamoru-kai, Ichikikushikino-City Office, Idea Consultants, Inc., Ai Ito, Kotaro Ito, Naoshi Inoue, Nishinoomote-City Office, Turtle Crew, Nishinoomote-City Sea Turtle Conservation Observers, Yumi Iwasaki, Toshitaka Iwamoto, Ayaka Yagi, Kei Uchida, Saori Uchiyama, Umigame Otasuke-tai, Umino-nakamichi Marine Ecological Science Museum Co. 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下記のデータは28〜29ページの地図と一致しています。研究や文献にこれらのデータを用いる場合は、必ず下記のデータ提出者からの許可を取らなければなりません。

記録データ1

データの出典：地図データは下記文献の図1と図2のものを用いてデジタル化されたものです。

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年：2016年

これらのデータに関わる産卵調査をされた方々：アカウミガメを守る会、あかばね塾、アクアワールド茨城県大洗水族館、朝生哲、浅香新八郎、浅川 弘、新島自然愛好会、阿南市市民部文化振興課、阿部年博、阿部直樹、奄美海洋生物研究会、奄美大島ウミガメ情報ネットワーク、奄美海洋生物研究会、奄美野生生物保護センター、雨宮俊、五十嵐隆、池村茂、石井雅之、石垣島ウミガメ研究会、泉口透、いすみ市ウミガメ保護監視員、伊仙町役場、徳之島町天城町役場、一宮ウミガメを見守る会、いちき串木野市役所、いであ株式会社、伊藤愛、伊藤幸太郎、井上尚志、西之表市　タートルクルー、西之表市ウミガメ保護監視員、岩崎由美、岩本俊孝、八木彩香、内田桂、内山五織、ウミガメお助け隊、㈱海の中道海洋生態科学館、うみまーる企画、NPO 法人カイフネイチャーネットワーク、NPO 法人おおいた環境保全フォーラム、NPO 法人屋久島うみがめ館、NPO 法人表浜ネットワーク、エビとカニの水族館、えらぶ年寄り組、大磯町郷土資料館、大梅謙治、大木清、大里松原うみがめを守る会、岡垣ウミガメ倶楽部、岡翔太、岡田幸生、沖永良部島ウミガメネットワーク、興克樹、沖縄美ら海水族館、沖永良部ウミガメネットワーク、奥山隼一、御前崎市ウミガメ保護監視委員会、御宿海亀連絡網、恩納読谷ウミガメ調査隊、甲斐靖郎、鹿児島大学ウミガメ研究会、加島祐二、加納知加子、(株) ヤ・シイ、亀崎直樹、亀澤亦、亀田和成、カメハメハ王国、亀人会、鴨川シーワールド、嘉陽宗幸、唐津の海を守ろう市民の会、川内田友紀子、河内洋子、川上孝子、川島道俊、河津勲、紀伊半島ウミガメ情報交換会、菊地ひとみ、北真嘉、北水慶一、紀宝町ウミガメ公園、吉良和夫、串本海中公園センター、九十九里浜の自然を守る会、国東市手と手とまちづくりたい、熊沢佳範、熊野の自然を考える会、黒木豊、黒潮町海亀保護委員、黒島研究所、小石尚眞、公益財団法人しまね海洋館、合田昌平、児玉嘉嗣、児玉達三、小林茂夫、小林淳一、米須邦雄、Science at Sea、阪本登、坂元育男、佐久間朋子、桜井基計、笹川二成、佐野真奈美、座間味ウミガメ会、澤瀬裕介、沢田晨輔、6DORSALS KAYAK SERVICES、志布志市役所市民環境課、島おこしNPO 法人TAMASU、志摩半島野生動物研究会、志村アリサ、下田海中水族館、新江ノ島水族館、新宮市海ガメを保護する会、鈴木清太、須磨海浜水族園、西海区水産研究所、高松明日香、武田明美、竹田洋志、田實涼、龍郷町役場生活環境課、田中雄二、田中宇輝、田中颯、田中優衣、田名瀬英朋、谷口和光、谷崎樹生、玉の浦リップルズクラブ、長楽美保、知覧町ウミガメ保護研究会、堂前康介、徳永幸太郎、徳浜集落区長、利川英樹、百々治、豊田史弥、豊橋市環境部環境保全課、中井真理子、中川道生、中村修、中種子町役場、成ヶ島を美しくする会、成瀬裕昭、西真弘、西奈美、西山桂一、日南市野生動物研究会、野崎清志、延岡市教育委員会、萩野進也、橋口和洋、八丈島インタープリテーション協会、花尻薫、濵川孝久、浜崎敏明、濱田孝、濱野兼吉、浜松市南区役所、原田英祐、春野の自然を守る会、日置市市民生活課、光俊樹、引地秀司、彦坂真、日高末盛、平井航大、平井厚志、広沢俊昭、日和佐うみがめ博物館カレッタ、日向市アカウミガメ研究会、深田和広、福津市うみがめ課、藤田健一郎、藤田健登、ペイン留美、細川隆幸、増山涼子、松浦圭太、松崎文好、松沢慶将、鞠山重子、丸野宏夏、三浦修、三重大学かめっぷり、水谷志津江、水野康次郎、溝渕幸三、みどりの地球大好き会、湊久和、みなべウミガメ研究班、南種子町役場企画課、南知多ビーチランド、嶺崎久郎、宮内貴史、宮城里奈、三宅島自然ガイド キュルル、宮崎光一、宮崎野生動物研究会、宮崎県教育庁文化財課、宮里俊輔、宮園正敏、宮地勝美、宮平聖秀、宮村英伸、村上昌吾、室戸市立元小学校、森てるみ、森下耕成、森誠憲、森谷香取、八木彩香、山口英昌、山下芳也、山本明男、山本斗士江、山本宏幸、雪浦ウミガメ見守り隊、湯舟佳和美、横濱蔵人、吉岡あゆみ、吉田嘉苗、吉田徹、吉村智範、与論町役場環境課、琉球大学ちゅらがーみー、漁師のNPO、若林郁夫、早稲田沙織、若月元樹、渡辺幸久、渡辺督郎、渡辺美佳、渡部明美（敬省略　50 音順）

NESTING BIOGEOGRAPHY OF SEA TURTLES IN THE FRENCH TERRITORIES

GUIDELINES OF DATA USE AND CITATION

The data that follow correspond directly to the map of sea turtle nesting in the French territories on pages 22–23. Every data record is numbered to correspond with its respective point on the map. To use data for research or publication, you must obtain permission from the data provider.

DEFINITIONS OF TERMS

Clutches: A count of the number of nests of eggs laid by females during the monitoring period. **Crawl:** A female turtle's emergence onto the beach to nest. Such counts may include false crawls. **Nesting females:** A count of nesting female turtles observed during the monitoring period. **Year:** The year in which a given nesting season ended (e.g., data collected between late 2015 and early 2016 are listed as year 2016).

Nesting data reported here are for the most recent available nesting season. Beaches for which count data are not available are listed as "unquantified." A reported count of "N/A" indicates no data were reported for that species at the respective site. Additional metadata are available for many of the data records and may be found online at http://seamap.env.duke.edu/swot.

FRENCH GUIANA

DATA RECORD 1

Data Source: Berzins, R., and ONCFS. 2018. Sea turtle nesting in French Guiana: Personal communication. In *SWOT Report—The State of the World's Sea Turtles*, vol. XIII (2018).
Nesting Beach: Kourou
Year: 2016
Species and Counts: *Chelonia mydas*—14 clutches; *Dermochelys coriacea*—55 clutches; *Lepidochelys olivacea*—61 clutches
SWOT Contacts: Rachel Berzins, Marie-Klélia Lankester, Johan Chevalier, Ronald Wongsopawiro, Alain Auguste, Junior Alcine, Mail Thérèse, Damien Chevallier, Marc Bonola, Jordan Martin, Benoit de Thoisy, Sébastien Barrioz, and Rodrigue Crasson

DATA RECORD 2

Data Source: Chevalier, J., and CNRS-IPHC. 2018. Sea turtle nesting in Réserve Naturelle Nationale de l'Amana, French Guiana: Personal communication. In *SWOT Report—The State of the World's Sea Turtles*, vol. XIII (2018).
Nesting Beach: Awala Yalimapo
Year: 2016
Species and Counts: *Chelonia mydas*—770 clutches; *Dermochelys coriacea*—434 clutches; *Lepidochelys olivacea*—9 clutches
SWOT Contacts: Rachel Berzins, Marie-Klélia Lankester, Johan Chevalier, Ronald Wongsopawiro, Alain Auguste, Junior Alcine, Mail Thérèse, Damien Chevallier, Marc Bonola, Jordan Martin, Benoit de Thoisy, Sébastien Barrioz, and Rodrigue Crasson

DATA RECORD 3

Data Source: Chevallier, D., and CNRS-IPHC. 2018. Sea turtle nesting at Awatèque, French Guiana: Personal communication. In *SWOT Report—The State of the World's Sea Turtles*, vol. XIII (2018).
Nesting Beach: Awatèque
Year: 2016
Species and Counts: *Chelonia mydas*—54 clutches; *Dermochelys coriacea*—6 clutches
SWOT Contacts: Rachel Berzins, Marie-Klélia Lankester, Johan Chevalier, Ronald Wongsopawiro, Alain Auguste, Junior Alcine, Mail Thérèse, Damien Chevallier, Marc Bonola, Jordan Martin, Benoit de Thoisy, Sébastien Barrioz, and Rodrigue Crasson

DATA RECORD 4

Data Source: De Thoisy, B., and Kwata. 2018. Sea turtle nesting at Île de Cayenne, French Guiana: Personal communication. In *SWOT Report—The State of the World's Sea Turtles*, vol. XIII (2018).
Nesting Beach: Île de Cayenne
Year: 2016
Species and Counts: *Chelonia mydas*—39 clutches; *Dermochelys coriacea*—2,816 clutches; *Eretmochelys imbricata*—1 clutch; *Lepidochelys olivacea*—3,666 clutches
SWOT Contacts: Rachel Berzins, Marie-Klélia Lankester, Johan Chevalier, Ronald Wongsopawiro, Alain Auguste, Junior Alcine, Mail Thérèse, Damien Chevallier, Marc Bonola, Jordan Martin, Benoit de Thoisy, Sébastien Barrioz, and Rodrigue Crasson

ÉPARSES ISLANDS

DATA RECORD 5

Data Source: Jean, C., S. Ciccione, J. Bourjea, and M. Dalleau. 2017. Sea turtle nesting in the Éparses Islands: Personal communication. In *SWOT Report—The State of the World's Sea Turtles*, vol. XIII (2018).
Nesting Beaches: Europa, Glorieuses, Tromelin, and Juan de Nova
Year: 2016
Species and Counts: *Chelonia mydas*—16,069, 6,297, 12,443, and 186 crawls, respectively; *Eretmochelys imbricata*—0, 0, 0, and 44 crawls, respectively
SWOT Contacts: Claire Jean, Stéphane Ciccione, Jérôme Bourjea, and Mayeul Dalleau

FRENCH POLYNESIA

DATA RECORD 6

Data Source: Gaspar, C. 2018. Sea turtle nesting in French Polynesia: Personal communication. In *SWOT Report—The State of the World's Sea Turtles*, vol. XIII (2018).
Nesting Beaches: Reao Atoll, Tikehau, Mopelia, and Scilly
Year: 2017
Species and Counts: *Chelonia mydas*—unquantified at Tikehau, Mopelia, and Scilly; *Dermochelys coriacea*—unquantified at Reao Atoll
SWOT Contact: Cécile Gaspar

DATA RECORD 7

Data Source: Petit, M., C. Gaspar, G. Leport, C. Esposito, and V. Stabile. 2016. *Saisons de ponte 2014–2015 et 2015–2016 de la tortue verte* (Chelonia mydas) *sur l'atoll de Tetiaroa*. Moorea, French Polynesia Te Mana o Te Moana.
Nesting Beaches: Onetahi, Tiaraunu, and Oroatera
Year: 2016
Species and Counts: *Chelonia mydas*—65, 155, and 87 clutches, respectively
SWOT Contact: Cécile Gaspar

GUADELOUPE

At the request of the data providers, all count data for Guadeloupe are given as a three-year average (2012–14) of the estimated (modeled) number of crawls at each beach. Average modeled crawl counts are rounded to the nearest whole number. See cited data sources for model details.

DATA RECORD 8

Data Sources: (1) RTMG: Parc National Guadeloupe, Association Le Gaïac, Réseau de Bénévoles Nord Grande Terre / Association Kap Natirel. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 1: Grand Cul-de-Sac Marin
Years: 2012–14
Species and Counts: *Chelonia mydas*—38 crawls; *Dermochelys coriacea*—85 crawls; *Eretmochelys imbricata*—1,105 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 9

Data Source: (1) RTMG: Association Le Gaïac, Association Evasion Tropicale, Association Kap Natirel. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe (incluant ses dépendances et Saint-Martin)—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 2: Basse Terre—Côte sous le vent
Years: 2012–14
Species and Counts: *Chelonia mydas*—48 crawls; *Dermochelys coriacea*—60 crawls; *Eretmochelys imbricata*—515 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 10

Data Source: (1) RTMG: Association Kap Natirel, ONCFS. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 3: Basse Terre—Côte au vent
Years: 2012–14
Species and Counts: *Chelonia mydas*—23 crawls; *Dermochelys coriacea*—82 crawls; *Eretmochelys imbricata*—126 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 11

Data Source: (1) RTMG: Association AEVA, Réseau de Bénévoles Nord Grande Terre / Association Kap Natirel. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beaches: Secteur 4: Façade littorale nord-est de Grande Terre, and Secteur 5: Façade littorale sud-est de Grande Terre
Years: 2012–14
Species and Counts: *Chelonia mydas*—1 and 158 crawls, respectively; *Dermochelys coriacea*—1 and 0 crawls, respectively; *Eretmochelys imbricata*—126 and 52 crawls, respectively
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 12

Data Source: (1) RTMG: Association Tité, ONF. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 6: La Désirade et Petite Terre
Years: 2012–14
Species and Counts: *Chelonia mydas*—701 crawls; *Dermochelys coriacea*—42 crawls; *Eretmochelys imbricata*—399 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 13

Data Source: (1) RTMG: Amicale Ecolambda, Association Kap Natirel. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 7: Marie-Galante
Years: 2012–2014
Species and Counts: *Chelonia mydas*—5 crawls; *Dermochelys coriacea*—less than 1 crawl; *Eretmochelys imbricata*—1,976 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 14

Data Source: (1) RTMG: Conservatoire du Littoral. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 8: Île des Sainte
Years: 2012–2014
Species and Counts: *Chelonia mydas*—4

crawls; *Dermochelys coriacea*—less than 1 crawl; *Eretmochelys imbricata*—33 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

DATA RECORD 15

Data Source: (1) RTMG: Réserve Naturelle de Saint Martin. **(2)** Girard, A., and M. Girondot. 2016. *Analyse des données d'activités de ponte des tortues marines en Guadeloupe* (*incluant ses dépendances et Saint-Martin*)*—Période 2004–2014.* Office National de la Chasse.
Nesting Beach: Secteur 10: Île de Saint Martin
Years: 2012–14
Species and Counts: *Chelonia mydas*—257 crawls; *Dermochelys coriacea*—0 crawls; *Eretmochelys imbricata*—107 crawls
SWOT Contacts: Caroline Cremades, Caroline Cestor, Caroline Rinaldi, Gérard Portecop, Fortuné Guiougou, Eric Delcroix, Laurent Malgaive, Alain Goyeau, Natacha Lamy, Blandine Guillemot, Simone Mege, Julien Chalifour, and Olivier Raynaud

MARTINIQUE

DATA RECORD 16

Data Source: Contributors of the Sea Turtle Network of Martinique Island: Association Kawan, Association Reflet d'Culture, association Sepanmar, Association AMEPAS, Office National de la Chasse et de la Faune Sauvage, Office National des Forêts, Association Eco-Civisme, Parc Naturel de Martinique, Association SEVE, DIREN/DEAL. 2018. Sea turtle nesting in Martinique: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018).
Nesting Beaches: (1) Diamant—Grande Anse Diamant; **(2)** Le Precheur—Anse à Voile; **(3)** Le Precheur—Anse Levrier; **(4)** Lorrain—Crabiere; **(5)** Lorrain—Grande Anse Lorrain; **(6)** Sainte-Anne—Anse à Prune; **(7)** Sainte-Anne—Anse Four à Chaux; **(8)** Sainte-Anne – Anse Grosse Roche; **(9)** Sainte-Anne—Anse Laballe; **(10)** Sainte-Anne—Anse Meunier; **(11)** Sainte-Anne—Anse Trabaud; **(12)** Sainte-Anne—Grande Terre; **(13)** Sainte-Marie—Anse Charpentier; **(14)** Vauclin – Grand Macabou; and **(15)** Sainte-Anne Grande Anse Salines
Years: (1) 2014; **(2)** 2011; **(3)** 2011; **(4)** 2016; **(5)** 2014; **(6)** 2013; **(7)** 2011; **(8)** 2014; **(9)** 2014; **(10)** 2014; **(11)** 2014; **(12)** 2016; **(13)** 2014; **(14)** 2014; **(15)** 2016
Species and Counts:* *Chelonia mydas*—**(1)** 1; **(2)** 0; **(3)** 3; **(4)** 0; **(5)** 0; **(6)** 0; **(7)** 0; **(8)** 0; **(9)** 0; **(10)** 7; **(11)** 0; **(12)** 0; **(13)** 0; **(14)** 0; **(15)** 0 crawls. *Dermochelys coriacea*—**(1)** 2; **(2)** 3; **(3)** 2; **(4)** 47; **(5)** 84; **(6)** 111; **(7)** 2; **(8)** 9; **(9)** 18; **(10)** 5; **(11)** 19; **(12)** 22; **(13)** 172; **(14)** 6; **(15)** 150 crawls. *Eretmochelys imbricata*—**(1)** 47; **(2)** 23; **(3)** 22; **(4)** 38; **(5)** 21; **(6)** 91; **(7)** 3; **(8)** 5; **(9)** 9; **(10)** 5; **(11)** 30; **(12)** 21; **(13)** 33; **(14)** 2; and **(15)** 150 crawls
*Counts are estimated (modeled), except from Sainte-Anne—Grande Anse Salines, where average counts were provided. For modeled counts, the mean value is presented here and is rounded to the nearest whole number. Contact data providers for model details.
SWOT Contacts: Marie-France Bernard and Caroline Cremades

MAYOTTE

DATA RECORD 17

Data Source: (1) Quillard, M., and K. Ballorain. 2018. Sea turtle nesting in Mayotte: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018). **(2)** Philippe, J. S., S. Ciccione, J. Bourjea, K. Ballorain, S. Marinesque, and Z. Glenard. 2014. *Plan national d'actions en faveur des tortues marines des territoires français de l'océan Indien: La Réunion, Mayotte et Îles Éparses* (*2015–2020*). *Ministère de l'Écologie, du Développement Durable et de l'Énergie, Direction de l'Environnement, de l'Aménagement et du Logement de La Réunion.* BIOTOPE, Kélonia, IFREMER, Parc Naturel Marin De Mayotte, Taaf, Phaeton Traduction.
Nesting Beaches: Saziley Site and Moya
Years: 2013 and 2015, respectively
Species and Counts: *Chelonia mydas*—1,685 and 3,776 crawls, respectively; *Eretmochelys imbricata*—0 and 9 crawls, respectively
SWOT Contacts: Mireille Quillard and Katia Ballorain

NEW CALEDONIA

DATA RECORD 18

Data Source: Lafage, D., and Association BWÄRÄ. 2018. Sea turtle nesting in New Caledonia: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018).
Nesting Beaches: La Roche Percée and Baie des Tortues
Year: 2016
Species and Counts: *Caretta caretta*—328 and 50 clutches, respectively
SWOT Contact: Dominique Lafage

DATA RECORD 19

Data Source: WWF France in New Caledonia. 2018. Unpublished data from 2006: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018).
Nesting Beaches: (1) Atoll B-Beaupre—Île Beautemps; **(2)** Atoll d'Ouvea—Angemeec; **(3)** Atoll d'Ouvea—Angeu; **(4)** Atoll d'Ouvea—Hnyeekon NW; **(5)** Atoll d'Ouvea—Hnyeekon STH; **(6)** Atoll d'Ouvea—Motu Velioa NW; **(7)** Atoll d'Ouvea—Motu Velioa W; **(8)** Atoll d'Ouvea—Unnamed island STH; **(9)** Atoll d'Ouvea—Unnamed island WEST; **(10)** Atoll du Portail; **(11)** Île Art—Mid Northwest Beach; (**12)** Île de Surprise; **(13)** Île des Pins—Baie de Uamae; **(14)** Île des Pins—Pointe Kutema North; **(15)** Île Dudun—North 1 plage; **(16)** Île Dudun—North 2 plage; **(17)** Île Mare—B de l'Allier 1 plage; **(18)** Île Mare—B de l'Allier 2 plage; **(19)** Île Mare—C Roussin; **(20)** Ile Mouac; **(21)** Île Neba—North Western Beach; **(22)** Île Neba—Northern Beach; **(23)** Île Redika; **(24)** Îlot Ague; **(25)** Îlot Amere; **(26)** Îlot Atire; **(27)** Îlot Bayes; **(28)** Îlot Carrey; **(29)** Îlot Contrariete; **(30)** Îlot de la Table; **(31)** Îlot Deverd; **(32)** Îlot Double; **(33)** Îlot du Ami; **(34)** Îlot du Ana; **(35)** Îlot Gi; **(36)** Îlot Hienga; **(37)** Îlot Hiengabat; **(38)** Îlot Infernal; **(39)** Îlot Kendec; **(40)** Îlot Kie; **(41)** Îlot Koko; **(42)** Îlot Kouare; **(43)** Îlot Leroue; **(44)** Îlot Mato; **(45)** Îlot Mbore; **(46)** Îlot N'da; **(47)** Îlot Ndie; **(48)** Îlot Neangambo; **(49)** Îlot N'ge; **(50)** Îlot Noe; **(51)** Îlot Nombu; **(52)** Îlot Ongombua; **(53)** Îlot Ouao; **(54)** Îlot Pouh; **(55)** Îlot Pumbo; **(56)** Îlot Tere; **(57)** Îlot Thigit; **(58)** Îlot Ti Ac; **(59)** Îlot Tiam'boueme;**(60)** Îlot Totea; **(61)** Îlot Ua; **(62)** Îlot Uaterombi; **(63)** Îlot Uatio; **(64)** Îlot Ugo; **(65)** Îlot Uie; **(66)** Îlot Uo; **(67)** Îlot Verte; **(68)** Îlot Vua; **(69)** Îlot Yan'dagouet; **(70)** Mainland Sth of Cap Gouivain; **(71)** N'digoro; **(72)** Plage de la Roche Percée; **(73)** Pointe De Babouillet—Mid Beach; **(74)** Poum Peninsula—NW Beach 1; **(75)** Poum Peninsula—NW Beach 2; **(76)** Poum Peninsula—Southwest Beach; **(77)** Poum Peninsula—Western Beach; **(78)** Unnamed island; **(79)** Unnamed sandbank 2; and **(80)** Unnamed sandbank 3
Year: 2006
Species and Counts: *Caretta caretta*—**(1–19)** 0; **(20)** 1–10; **(21–23)** 50–100; **(24)** 1–10; **(25)** 50–100; **(26–32)** 1–10; **(33)** 50–100; **(34)** 1–10; **(35)** 50–100; **(36–41)** 1–10; **(42)** 50–100; **(43–45)** 1–10; **(46)** 50–100; **(47–51)** 1–10; **(52)** 0; **(53)** 50–100; **(54–57)** 1–10; **(58–59)** 50–100; **(60)** 1–10; **(61–63)** 50–100; **(64–71)** 1–10; **(72)** 50–100; **(73–76)** 1–10; **(77)** 50–100; **(78)** 1–10; **(79)** 0; and **(80)** 0 clutches. *Chelonia mydas*—**(1)** 100–500; **(2)** 50–100; **(3–5)** 1–10; **(6)** 50–100; **(7–8)** 1–10; **(9)** 50–100; **(10–11)** 1–10; **(12)** 500–1,000; **(13–19)** 1–10; **(20–26)** 0; **(27)** 1–10; **(28–36)** 0; **(37)** 1–10; **(38–51)** 0; **(52)** 50–100; **(53–78)** 0; and **(79–80)** 1–10 clutches
SWOT Contact: Marc Oremus

DATA RECORD 20

Data Source: WWF-France in New Caledonia. 2017. Sea turtle nesting in New Caledonia: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018).
Nesting Beaches: (1) Améré; **(2)** Atiré; **(3)** Gi; **(4)** Kié; **(5)** Koko; **(6)** Kouaré; **(7)** Léroué; **(8)** M'bé; **(9)** M'Boré; **(10)** Mato; **(11)** N'Da; **(12)** N'Dié; **(13)** N'Do; **(14)** N'Gé; **(15)** Noé; **(16)** Nouaré; **(17)** Petit Koko; **(18)** Puemba; **(19)** Pumbo; **(20)** Rédika; **(21)** Téré; **(22)** Totéa; **(23)** Ua; **(24)** Uaterembi; **(25)** Uatio; **(26)** Ugo; **(27)** Uié; **(28)** Uo; and **(29)** Vua
Year: 2017
Species and Counts: *Caretta caretta*—**(1)** 9; **(2)** 48; **(3)** 48; **(4)** 14; **(5)** 6; **(6)** 12; **(7)** 8; **(8)** 1; **(9)** 29; **(10)** 1; **(11)** 50; **(12)** 1; **(13)** 8; **(14)** 20; **(15)** 0; **(16)** 0; **(17)** 9; **(18)** 2; **(19)** 0; **(20)** 7; **(21)** 3; **(22)** 4; **(23)** 8; **(24)** 6; **(25)** 21; **(26)** 0; **(27)** 4; **(28)** 1; and **(29)** 25 clutches
SWOT Contact: Marc Oremus

DATA RECORD 21

Data Source: Fretey J., and M. Girondot. 2017. Bilan de 10 années de suivi des pontes de tortues vertes sur les atolls isolés dans le Parc naturel de la mer de Corail (2007–2016). Troyes, France: Chélonée
Nesting Beaches: Entrecastaux, Chesterfield, and Bellona
Year: 2017
Species and Counts: *Chelonia mydas*—50,000, 17,000, and 300 crawls, respectively
SWOT Contact: Marc Girondot

LA RÉUNION

DATA RECORD 22

Data Source: Jean, C., S. Ciccione, J. Bourjea, and M. Dalleau. 2018. Sea turtle nesting in La Réunion: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018).
Nesting Beach: Réunion
Year: 2016
Species and **Count:** *Chelonia mydas*—3 clutches
SWOT Contacts: Claire Jean, Stéphane Ciccione, Jérôme Bourjea, and Mayeul Dalleau

SAINT BARTHÉLEMY

DATA RECORD 23

Data Source: Natural Reserve of Saint Barthélemy, Agence Territoriale de l'Environnement de Saint-Barthélemy. 2018. Sea turtle nesting in Saint Barthélemy: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018).
Nesting Beaches: East Sector and West Sector
Year: 2014
Species and Counts: *Chelonia mydas*—1 and 2 clutches, respectively; *Dermochelys coriacea*—1 and 1 clutches, respectively; *Eretmochelys imbricata*—2 and 3 clutches, respectively,
SWOT Contacts: Sophie Lefevre and Alexandre Girard

LOGGERHEAD SATELLITE TELEMETRY IN THE PACIFIC OCEAN

The following data records refer to satellite telemetry datasets for loggerhead turtles in the Pacific Ocean that were combined to create the map on pp. 16–17. These data, consisting of more than 130,000 locations, were generously contributed to SWOT by the people and partners listed below. We are grateful to Jeffrey Seminoff and T. Todd Jones for their assistance in developing the maps and identifying datasets for inclusion, and we especially thank George Balazs and T. Todd Jones for their efforts collecting and sourcing the data provided by NOAA. In mapping the data, obviously erroneous points (e.g., on land) were removed. Some datasets were filtered prior to being shared with SWOT and those were not filtered further. The map is for illustrative purposes and should not be considered an authoritative source of tracking data for the studies cited. Records that have a SWOT ID can be viewed in detail in the SWOT online database and mapping application at **http://seamap.env.duke.edu/swot**.

For reasons of space, the following abbreviations are used in the data source fields below: (1) "STAT" refers to "Coyne, M. S., and B. J. Godley. 2005. Satellite Tracking and Analysis Tool (STAT): An integrated system for archiving, analyzing and mapping animal tracking data. *Marine Ecology Progress Series* 301: 1–7. (2) "SWOT Online Database" refers to Kot, C. Y., E. Fujioka, A. D. DiMatteo, B. P. Wallace, B. J. Hutchinson, J. Cleary, P. N. Halpin, and R. B. Mast. 2015. The State of the World's Sea Turtles Online Database: Data provided by the SWOT Team and hosted on OBIS-SEAMAP. Oceanic Society, IUCN Marine Turtle Specialist Group, and Marine Geospatial Ecology Lab, Duke University. **http://seamap.env.duke.edu/swot**. (3) "OBIS-SEAMAP" refers to Halpin, P. N., A. J. Read, E. Fujioka, B. D. Best, B. Donnelly, L. J. Hazen, C. Kot, K. Urian, E. LaBrecque, A. DiMatteo, J. Cleary, C. Good, L. B. Crowder, and K. D. Hyrenbach. 2009. OBIS-SEAMAP: The world data center for marine mammal, sea bird, and sea turtle distributions. *Oceanography* 22(2):104–115. When listed, these sources indicate that the dataset was contributed online through STAT, SWOT, or OBIS-SEAMAP.

DATA RECORD 1

Metadata: 4 adult female *Caretta caretta*; tags deployed in Japan. A total of 5 tags were deployed, but only 4 transmitted.
Data Sources: Hatase, H., N. Takai, Y. Matsuzawa, W. Sakamoto, K. Omuta, K. Goto, N. Arai, and T. Fujiwara. 2002. Size-related differences in feeding habitat use of adult female loggerhead turtles *Caretta caretta* around Japan determined by stable isotope analyses and satellite telemetry. *Marine Ecology Progress Series* 233:273–281.
SWOT Contact: Hideo Hatase

DATA RECORD 2 | SWOT ID: 1546

Project Title: Post-nesting migration of loggerhead turtles around Japan 2005
Project Partners: Atmosphere and Ocean Research Institute, University of Tokyo, and Yakushima Sea Turtle Research Group
Metadata: 2 adult female *Caretta caretta*; tags deployed in Japan in 2005.
Data Sources: (1) Hatase, H., K. Omuta, and K. Tsukamoto. 2007. Bottom or midwater: Alternative foraging behaviours in adult female loggerhead sea turtles. Journal of Zoology 273:46–55. **(2)** Hatase, H. 2017. Post-nesting migration of loggerhead turtles around Japan 2005. Data downloaded from OBIS-SEAMAP (http://seamap.env.duke.edu/dataset/1546) on 2017-10-10. **(3)** STAT. **(4)** OBIS-SEAMAP. **(5)** SWOT Online Database.
SWOT Contact: Hideo Hatase

DATA RECORD 3 | SWOT ID: 1265

Project Title: Loggerhead turtle movements in the Southern California Bight
Project Partners: NOAA-NMFS Southwest Fisheries Science Center, NMFS West Coast Regional Office, and Aquarium of the Pacific.
Metadata: 3 *Caretta caretta*; tags deployed in southern California.
Data Source: (1) NOAA Southwest Fisheries Science Center. 2018. Satellite tracking of three loggerhead turtles in Mexico: Personal communication. In *SWOT Report—The State of the World's Sea Turtles,* vol. XIII (2018). **(2)** Seminoff, J., and T. Eguchi. 2016. Loggerhead turtle movements in the Southern California Bight. Data downloaded from OBIS-SEAMAP (http://seamap.env.duke.edu/dataset/1265) on 2017-10-02. **(3)** OBIS-SEAMAP. **(4)** SWOT Online Database. **(5)** STAT.
SWOT Contact: Jeffrey Seminoff

DATA RECORD 4 | SWOT ID: 931

Project Title: Peru Cabezonas
Project Partners: Jeffrey Mangel, ProDelphinus, NOAA Southwest Fisheries Science Center, Peter Dutton, Jeffrey Seminoff, Denise Parker
Metadata: 15 subadult *Caretta caretta*; tags deployed in Ilo and Pucusana, Peru, from 2003 to 2007, on turtles that were bycaught in line fisheries. Only 14 tags transmitted effectively.
Data Sources: (1) Mangel, J. C., J. Alfaro-Shigueto, M. J. Witt, P. H. Dutton, J. A. Seminoff and B. J. Godley. 2011. Post-capture movements of loggerhead turtles in the southeastern Pacific Ocean assessed by satellite tracking. *Marine Ecology Progress Series* 433:261–272. **(2)** STAT. **(3)** SWOT Online Database.
SWOT Contact: Jeffrey Mangel

DATA RECORD 5

Metadata: 12 *Caretta caretta*; tags deployed in Baja California Sur, Mexico, from 1996 to 2005.
Data Sources: Peckham, S. H., D. Maldonado Diaz, A. Walli, G. Ruiz, L. B. Crowder, and W. J. Nicholes. 2007. Small-scale fisheries bycatch jeopardizes endangered Pacific loggerhead turtles. *PLoS ONE* 2(10): e1041.
SWOT Contact: Hoyt Peckham

DATA RECORD 6

Project Title: Adelita
Metadata: 1 *Caretta caretta*; tag deployed in Baja California, Mexico. This turtle, known as "Adelita," was the first loggerhead to be tracked crossing the Pacific Ocean; the tag was deployed on July 19, 1994, on the central Pacific coast of the Baja California peninsula and was recovered, dead in a set net, by a fisherman off the coast of Kyushu, Japan, 478 days later (November 9, 1995) after traveling 10,600 km.
Data Sources: (1) Nichols, W. J., A. Resendiz, J. A. Seminoff, and B. Resendiz. 2000. Transpacific migration of a loggerhead turtle monitored by satellite telemetry. *Bulletin of Marine Science* 67:937-47; **(2)** Resendiz, A., B. Resendiz, W. J. Nichols, J. A. Seminoff, and N. Kamezaki. 1998. First confirmed east-west transpacific movement of a loggerhead sea turtle, *Caretta caretta,* released in Baja California, Mexico. *Pacific Science* 52(2):151–153
SWOT Contact: Wallace J. Nichols

DATA RECORD 7

Project Partners: Data were combined from various studies carried out by the NOAA Pacific Islands Fisheries Science Center (PIFSC) in collaboration with many partners. See cited literature for project partners and other details.
Metadata: 28 *Caretta caretta*; tags deployed at various locations in the Central North Pacific Ocean on turtles caught incidentally in commercial longline fisheries.
Data Sources: (1) Polovina, J. J., D. R. Kobayashi, D. M. Ellis, M. P. Seki, and G. H. Balazs. 2000. Turtles on the edge: Movement of loggerhead turtles (*Caretta caretta*) along oceanic fronts in the central North Pacific, 1997-1998. *Fisheries Oceanography* 9(1): 71–82. **(2)** Polovina, J. J., E. Howell, D. M. Parker, and G. H. Balazs. 2003. Dive-depth distribution of loggerhead (*Caretta caretta*) and olive ridley (*Lepidochelys olivacea*) sea turtles in the central North Pacific: Might deep longline sets catch fewer turtles? *Fisheries Bulletin* 101(1):189–193. **(3)** Chaloupka, M., D. Parker, and G. Balazs. 2004. Modelling post-release mortality of loggerhead sea turtles exposed to the Hawaii-based pelagic longline fishery. *Marine Ecology Progress Series* 280:285–293. **(4)** Polovina, J. J., G.H. Balazs, E. A. Howell, D. M. Parker, M. P. Seki, and P. H. Dutton. 2004. Forage and migration habitat of loggerhead (*Caretta caretta*) and olive ridley (*Lepidochelys olivacea*) sea turtles in the central North Pacific Ocean. *Fisheries Oceanography* 13(1): 36-51. **(5)** Polovina, J., I. Uchida, G. Balazs, E. A. Howell, D. Parker, and P. Dutton. 2006. The Kuroshio Extension bifurcation region: A pelagic hotpot for juvenile loggerhead sea turtles. *Deep Sea Research Pt II: Top. Studies Oceanography* 53(3-4):326–339. **(6)** Kobayashi, D. R., J. J. Polovina, D. M. Parker, N. Kamezaki, I.-J. Cheng, I., Uchida, P. H. Dutton, and G.H. Balazs. 2008. Pelagic habitat characterization of loggerhead sea turtles, Caretta caretta, in the North Pacific Ocean (1997–2006): Insights from satellite tag tracking and remotely sensed data. *Journal of Experimental Marine Biology and Ecology* 356:96–114. **(7)** Howell, E. A., P. H. Dutton, J. J. Polovina, H. Bailey, D. M. Parker, and G. H. Balazs. 2010. Oceanographic influences on the dive behavior of juvenile loggerhead turtles (Caretta caretta) in the North Pacific Ocean. *Marine Biology* 157:1011–1026. **(8)** Abecassis, M., I. Senina, P. Lehodey, P. Gaspar, D. Parker, G. Balazs, and J. Polovina. 2013. A model of loggerhead sea turtle (*Caretta caretta*) habitat and movement in the oceanic North Pacific. *PLoS ONE* 8(9): e73274. **(9)** Parker, D. M., G. H. Balazs, M. R. Rice, and S. M. Tomkeiwicz. 2014. Variability in Reception Duration of Dual Satellite Tags on Sea Turtles Tracked in the Pacific Ocean. *Micronesica* 2014–03. **(10)** Briscoe, D. K., D. M. Parker, S. Bograd, E. Hazen, K. Scales, G. H. Balazs, M. Kurita, T. Saito, H. Okamoto, M. Rice, J. J. Polovina, and L. B. Crowder. 2016. Multi-year tracking reveals extensive pelagic phase of juvenile loggerhead sea turtles in the North Pacific. *Movement Ecology* 4:23.
SWOT Contact: T. Todd Jones

DATA RECORD 8

Project Partners: Data were combined from various studies carried out by the NOAA Pacific Islands Fisheries Science Center (PIFSC) in collaboration with many partners. See cited literature for project partners and other details.
Metadata: 178 *Caretta caretta*; tags deployed in Japan on animals that were captive reared by the Port of Nagoya Public Aquarium and animals that were caught incidentally in fisheries.
Data Sources: (1) Polovina, J., I. Uchida, G. Balazs, E. A. Howell, D. Parker, and P. Dutton. 2006. The Kuroshio Extension bifurcation region: A pelagic hotpot for juvenile loggerhead sea turtles. *Deep Sea Research Pt II: Top. Studies Oceanography* 53(3-4):326–339. **(2)** Kobayashi, D. R., J. J. Polovina, D. M. Parker, N. Kamezaki, I.-J. Cheng, I. Uchida, P. H. Dutton, and G.H. Balazs. 2008. Pelagic habitat characterization of loggerhead sea turtles, *Caretta caretta*, in the North Pacific Ocean (1997–2006): Insights from satellite tag tracking and remotely sensed data. *Journal of Experimental Marine Biology and Ecology* 356:96-114. **(3)** Abecassis, M., I. Senina, P. Lehodey, P. Gaspar, D. Parker, G. Balazs, and J. Polovina. 2013. A model of loggerhead sea turtle (*Caretta caretta*) habitat and movement in the oceanic North Pacific. *PLoS ONE* 8(9): e73274. **(4)** Parker, D. M., G. H. Balazs, M. R. Rice, and S. M. Tomkeiwicz. 2014. Variability in Reception Duration of Dual Satellite Tags on Sea Turtles Tracked in the Pacific Ocean. *Micronesica* 2014–03. **(5)** Saito, T., M. Kurita, H. Okamoto, I. Uchida, D. Parker, and G. Balazs. 2015. Tracking male loggerhead turtle migrations around southwestern Japan using satellite telemetry. *Chelonian Conservation and Biology* 14(1):82–87. **(6)** Briscoe, D. K., D. M. Parker, G. H. Balazs, M. Kurita, T. Saito, H. Okamoto, M. Rice, J. J. Polovina, and L. B. Crowder. 2016. Multi-year tracking reveals extensive pelagic phase of juvenile loggerhead sea turtles in the North Pacific. *Movement Ecology* 4:23.
SWOT Contact: T. Todd Jones

DATA RECORD 9

Project Title: Loggerhead turtle movement off the coast of Taiwan
Project Partners: Data are from the NOAA Pacific Islands Fisheries Science Center (PIFSC) in collaboration with many partners. See cited literature for project partners and other details.
Metadata: 34 *Caretta caretta*; tags deployed on turtles caught as bycatch in the Taiwanese coastal poundnet fishery from 2002 to 2008, Taiwan.
Data Sources: (1) Kobayashi, D. R., J. J. Polovina, D. M. Parker, N. Kamezaki, I.-J. Cheng, I. Uchida, P. H. Dutton, and G.H. Balazs. 2008. Pelagic habitat characterization of loggerhead sea turtles, *Caretta caretta*, in the North Pacific Ocean (1997–2006): Insights from satellite tag tracking and remotely sensed data. *Journal of Experimental Marine Biology and Ecology* 356:96–114. **(2)** Kobayashi, D.R., I.-J. Cheng, D.M. Parker, J.J. Polovina, N. Kamezaki, and G.H. Balazs. 2011. Loggerhead turtle (*Caretta caretta*) movement off the coast of Taiwan: characterization of a hotspot in the East China Sea and investigation of mesoscale eddies. *ICES Journal of Marine Science* 68(4): 707–718. **(3)** Parker, D., G. Balazs, and J. Polovina. 2015. Loggerhead turtle movement off the coast of Taiwan. Data downloaded from OBIS-SEAMAP (http://seamap.env.duke.edu/dataset/1304) on 2017-02-23. **(4)** OBIS-SEAMAP.
SWOT Contacts: Denise Parker, George Balazs, Jeffrey Polovina, and T. Todd Jones

DATA RECORD 10

Project Partners: NOAA Pacific Islands Fisheries Science Center (PIFSC) and Aquarium des Lagons, Noumea, New Caledonia
Metadata: 52 juvenile *Caretta caretta*; tags deployed in 2008 and 2012 on animals that were captive reared by the Aquarium des Lagons in Noumea, New Caledonia.
Data Sources: (1) Kobayashi, D. R., R. Farman, J. J. Polovina, D. M. Parker, M. Rice, and G. H. Balazs. 2014. "Going with the flow" or not: Evidence of positive rheotaxis in oceanic juvenile loggerhead turtles (*Caretta caretta*) in the South Pacific Ocean using satellite tags and ocean circulation data. *PLoS ONE* 9(8): e103701. **(2)** Christiansen, F., N. F. Putman, R. Farman, D. M. Parker, M. R. Rice, J. J. Polovina, G. H. Balazs, and G. C. Hays. 2016. Spatial variation in directional swimming enables juvenile sea turtles to reach and remain in productive waters. *Marine Ecology Progress Series* 557:247–259.
SWOT Contact: T. Todd Jones

DATA RECORD 11 | SWOT ID: 126

Project Title: Pacific turtle tracks: Turtle-Safe Seas Project
Project Partners: Blue Ocean Institute
Metadata: 1 *Caretta caretta*; tag deployed in Baja California, Mexico.
Data Sources: (1) Nichols, W. 2014. Pacific turtle tracks: Turtle-Safe Seas Project. Data downloaded from OBIS-SEAMAP (http://seamap.env.duke.edu/dataset/126) on 2017–02-17. **(2)** OBIS-SEAMAP. **(3)** SWOT Online Database.
SWOT Contact: Wallace J. Nichols

DATA RECORD 12

Project Title: Pacific Turtle Tracks: Grupo Tortuguero
Project Partners: Grupo Tortuguero
Metadata: 12 *Caretta caretta*; tags deployed in Mexico from 1996 to 2001.
Data Sources: (1) Nichols, W. 2016. Pacific Turtle Tracks: Grupo Tortuguero. Data downloaded from OBIS-SEAMAP (http://seamap.env.duke.edu/dataset/317) on 2016-07-07. **(2)** OBIS-SEAMAP. **(3)** STAT.
SWOT Contact: Wallace J. Nichols

DATA RECORD 13 | SWOT ID: 1176

Project Title: Tortugas Marinas del Golfo de California
Project Partners: Instituto Politécnico Nacional CIIDIR Sinaloa, Red Tortuguera A.C., Grupo Tortuguero de las Californias A.C., Smithsonian Mason School of Conservation, Instituto de Ciencias del Mar y Limnología/UNAM, and the local fishing communities of La Reforma and Angostura.
Metadata: 6 *Caretta caretta* adults and subadults; tags deployed in the Gulf of California, Mexico.
Data Sources: (1) Zavala, A. 2016. Tortugas Marinas del Golfo de California. Data downloaded from OBIS-SEAMAP (http://seamap.env.duke.edu/dataset/1176) on 2016–07-07. **(2)** OBIS-SEAMAP. **(3)** STAT. **(4)** SWOT Database Online.
SWOT Contact: Alan Zavala

DATA RECORD 14

Metadata: 12 loggerheads; tags deployed in Baja California Sur, Mexico.
Data Source: Animal Telemetry Network. 2018. 12 loggerhead turtle tracks in Baja California Sur, Mexico. Accessed January 11, 2018 at http://oceanview.pfeg.noaa.gov/ATN/. ATN POC: Dr. Scott Eckert.
SWOT Contact: Animal Telemetry Network