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

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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 story 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 tap #7667—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 connected circuits connecting the farthest 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. 36–17). This map is derived from the largest collection of Pacific loggerhead tracks yet, and, when combined with overlays of oceanography and fisheries data, the priority areas for conservation action neatly lay 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) long. Beyond the furthest reaches of the North Pacific, loggerheads make 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 subsadult loggerheads to coastal habitats of the southwestern Pacific declined markedly over the past few decades? What factors make it possible for them to travel from Japan to Mexico? Where 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? How can we monitor hatchling Pacific loggerheads’ change in nesting beaches and sex ratios of emerging hatchlings?

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, awful 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 ProDelfínus has used high-frequency (HF) radars to connect Peruvianfishers 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 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

Locations by Deployment Origin

Regional Management Units

Scale: 1:40,000,000

Legend:
- Hexagon size and color determine the number of telemetry locations within each feature. Color bins were determined by splitting the count data into quartiles. Visual outliers were removed but telemetry datasets were not otherwise filtered or altered. This map is not intended to be a comprehensive view of all loggerhead telemetry data for the Pacific Ocean or an authoritative source for the studies cited.
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