



Photo: Forest and Kim Starr, USFWS

Seabirds

Pākālakala or Gray-backed Tern

Sterna lunata

SPECIES STATUS:

State recognized as Indigenous

NatureServe Heritage Rank G3/G4 - Vulnerable/ Apparently secure

North American Waterbird Conservation Plan - Moderate concern

Regional Seabird Conservation Plan - USFWS 2005

SPECIES INFORMATION: The pākālakala or gray-backed tern (Family: Laridae) is endemic to the central Pacific and breeds on small and remote islands and atolls, however, its historical and current distribution are poorly known. Adults are mostly slate gray above and white below with a black crown and nape. Forehead has a narrow white patch that is continuous with white eye-brow that extends above and past eye and is completely bordered with black. Flight is direct and graceful and body appears to move up and down with each wing beat. Outside the breeding season, may remain in flight continuously. Often forages with 'ewa'ewa or sooty terns (*S. fuscata*) and 'ua'u kani or wedge-tailed shearwaters (*Puffinus pacificus*). Pākālakala (gray-backed terns) feed mainly by plunge diving or by dipping the surface while hovering. Diet primarily consists of fish, especially five-horned cowfish, juvenile flyingfish, goatfish, herring, and dolphinfish, but also eats squid, crustaceans, mollusks, and marine and terrestrial insects. Pākālakala (gray-backed terns) nest in shallow depressions in sand or gravel, and like most seabirds lay a single egg per season. In Hawai'i, nesting season varies from year to year, but most eggs are laid in February and March and most nestlings fledge by late July. Both males and females incubate egg, and brood and feed the chick. Oldest known bird was 25 years old.

DISTRIBUTION: Pākālakala (gray-backed terns) breed throughout NWHI, and a few pairs have been recorded breeding on Moku Manu off of the island of O'ahu. Outside of Hawai'i, pākālakala (gray-backed terns) nest on the Marianas, Howland and Baker, Johnston, Wake, Jarvis, Line Islands, American Samoa, the Marquesas, and Tuamotu. Non-breeding distribution includes the central Pacific Ocean.

ABUNDANCE: In Hawai'i, population estimated at 44,000 breeding pairs, with largest populations occurring on Lisianski (20,000 pairs), Nihoa (12,000 pairs), and Laysan (10,000 pairs). Worldwide population unknown but likely on the order of 70,000 breeding pairs.

LOCATION AND CONDITION OF KEY HABITAT: **Terrestrial:** Pākālakala (gray-backed terns) breed on remote islands and atolls. Nests are constructed in a variety of habitats (e.g., rocky ledges, open, sandy beaches) but usually at the base of shrubs or refuse. On Midway and Kure, individuals nest on runways. Nests are typically shallow depressions in sand or gravel and in surf zones, making them vulnerable to storm tides. **Marine:** Pelagic.

THREATS:

- Introduced predators. Like all seabirds, adults and nests are susceptible to predation by rats (*Rattus* spp.), and feral cats (*Felis silvestris*). All sites in NWHI are free of rats and cats.
- Human disturbance. Pākālakala (gray-backed terns) are sensitive to nest disturbance, and flush from nests when humans approach. Exposed eggs and chicks are vulnerable to predation by 'iwa or great frigatebirds (*Fregata minor*), 'akekeke or ruddy turnstones (*Arenaria interpres*), kioea or bristle-thighed curlews (*Numenius tahitiensis*), and Laysan (*Telespiza cantans*) and Nihoa (*T. ultima*) finches.
- Manmade structures. On Kure, collisions with man-made structures have resulted in mortality.

CONSERVATION ACTIONS: The following management goals are important to Pacific seabird conservation: maintain, protect, and enhance habitat; eradicate or control non-natives; minimize bycatch and other negative effects of fishing; improve the effectiveness of oil spill response efforts; identify contaminants and hazardous substances; and minimize the effects of powerlines, towers, wind turbines and lights (USFWS 2005). The goal of these management actions is not only to protect seabird populations and their breeding colonies, but also to re-establish former breeding colonies thereby reducing the risk of extinction. In addition to these efforts, future management specific to Hawaiian populations of pākālakala (gray-backed terns) should include the following:

- Eradicate cats, mice (*Mus musculus*), and rats from islets off MHI.
- Protect colonies from human disturbance.
- Continue protection and management of wildlife sanctuaries and refuges.

MONITORING: Continue surveys of population and distribution in known and likely habitats.

RESEARCH PRIORITIES: Most research priorities for seabirds are related to determining the most appropriate methods for achieving the above goals. Research priorities specific to the pākālakala (gray-backed tern) include the following:

- Long-term demographic studies are needed to determine population trends, survival rates, and reproductive success.

References:

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- NatureServe. 2003. Downloadable animal data sets. NatureServe Central Databases. Available at: <http://www.natureserve.org/getData/vertinvertdata.jsp> (March 10, 2005).
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