

Pacific Seabird Group and Aleutian Tern Technical Committee

2019 Annual Report

Susan Oehlers and Mike Goldstein, Coordinators

BACKGROUND

During the 2016 PSG Annual meeting, the Aleutian Tern (*Onychoprion aleuticus*, ALTE) Working Group was formalized as a PSG Technical Committee, with co-coordinators Susan Oehlers (U.S. Forest Service, Tongass National Forest, Yakutat Ranger District) and Mike Goldstein (U.S. Forest Service, Alaska Region). This group includes members from multiple government organizations (including U.S. Forest Service, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, and National Park Service), universities, and national and international non-government organizations (including National Fish and Wildlife Foundation, Bird Life International), as well as independent researchers. Initial objectives of this group include; 1) expansion of the committee to include additional resource management agencies including those with marine and coastal jurisdiction, federal research agencies, and additional non-government organizations and international partners, such as the East Asian flyway council; 2) international networking with resource professionals, academic researchers, and local ornithological groups in other countries within the species range; and 3) production of a peer reviewed publication or white paper summarizing current available information on ALTE.

The approximately 40-member committee fosters state, provincial, national, and international collaboration to study the Aleutian Tern, and meets in conjunction with the PSG annual meeting as well as formally and informally throughout the year. Committee membership is not static, and several new technical committee members were added in 2019, primarily as a result of networking through PSG as well as referrals from existing committee members.

This annual report summarizes accomplishments of the technical committee, including highlights of individual member's contributions, during the 2019 calendar year.

MEETINGS

Collaboration between committee members occurred throughout the year. The committee formally met during the annual PSG conference in Kauai, and several additional informal meetings between members took place during the conference. A subset of committee members also attended the Northeast Asia Conservation Committee meeting to discuss opportunities for collaboration.

The committee, with primary financial support from National Fish and Wildlife Foundation, convened an Aleutian Tern Conservation Planning meeting in Anchorage, Alaska, on April 9-10, 2019. The meeting objective was to facilitate a common understanding of alternative sampling and population estimation methods for Aleutian Terns at breeding colonies, including assumptions, advantages, and limitations. Our long-term goal is to develop a standardized approach to population estimation when we have confidence that our colony counts and the sampling approaches can be integrated. We used this time to

refine the methods initiated and pilot tested in 2018 (ground based ocular counts, ground-based photo counts, aerial photos obtained through drones, and acoustic recordings), which set up 2019 field work, and planned subsequent analysis and discussion at the 2020 meeting (tentatively set for March 2020). The technical committee anticipates that refinement of these methods for estimating Aleutian Tern abundance at a single colony will position the group to undertake a statewide or regional survey in the coming years that can use a standardized and rigorous approach to estimate Aleutian Tern population sizes and monitor population trends over broader spatial and temporal scales.

ACCOMPLISHMENT HIGHLIGHTS

A subset of committee members continued to collaborate on a pilot study deploying PTT transmitter tags. Ten PTT tags were deployed on Aleutian Terns at colonies in the Kodiak area.

Colony level monitoring (direct counts) was conducted on the Yakutat, Copper River Delta, and Kodiak area colonies. Nest monitoring via remote cameras continued in the Yakutat and Kodiak regions. Additional cameras were deployed at colonies in Prince William Sound and Copper River Delta. Nest habitat data was collected at Kodiak area colonies.

Alternative methods for estimating colony abundance first pilot tested in 2018 were implemented at a suite of sites, including acoustic monitoring, ground based photos, and aerial (drone) based photos.

29 Aleutian tern and 12 Arctic tern chicks on the Kodiak road system were banded, a record high since banding efforts began in 2017.

Photographic sampling of prey delivery to establish a baseline diet for ALTE chicks, initiated in 2019, continued in 2019, with sampling conducted in Yakutat, Kenai Peninsula, and Kodiak. Comparative opportunistic images of Arctic Tern bill loads were taken at Yakutat, Kodiak, and Anchorage.

While conducting field work in Yakutat, two geolocators from birds tagged in 2010 were recovered and sent to the British Antarctic Survey to ascertain whether the data are recoverable.

Beginning in late fall of 2018, Sanjay Pyare completed 5 months of Aleutian Tern international research and networking with Indonesian researchers, government agencies, and students, supported by a 2018-2019 Fulbright award entitled "Aleutian-tern migration research as a flagship for Indonesian-U.S. collaboration, conservation and education." Dr. Pyare worked with local students, NGOs, agencies, researchers, and community members, promoting migratory bird research, and conducting surveys for wintering terns.

GRANTS

A subset of committee members was approved for a collaborative National Fish and Wildlife Foundation Pacific Seabird Program grant for continued tagging and monitoring work, colony-level methods refinement, development of a statewide monitoring framework, initiation of a database to house tern colony occupancy and abundance data, and initiation of a study on Aleutian tern population genetic structure across Alaska. The grant is being administered through the U.S. Fish and Wildlife Service, Kodiak National Wildlife Refuge, with Robin Corcoran as lead investigator.

PUBLICATIONS

Yordan, K., B. Emmanuel, F.N, Tirtaningtyas, S. Pyare, and M.I. Goldstein. 2019. Locating and identifying non-breeding Aleutian Terns *Onychoprion aleuticus* in Indonesia. BirdingASIA 31: 28–32.

Goldstein, M.I., Duffy, D.C., Oehlers, S., Catterson, N., Frederick, J. and S. Pyare. 2019. Interseasonal movements and non-breeding locations of Aleutian Terns *Onychoprion aleuticus*. Marine Ornithology 47: 67–76.