

Pacific Seabird Group Aleutian Tern Technical Committee

2023 Annual Report

Assembled by Jill Tengeres and Susan Oehlers (U.S. Forest Service)

Co-Chairs

IN THE FIELD

Surveys and observations

- **Robin Corcoran (USFWS Kodiak NWR)** During the 2023 breeding season we collected count data for Aleutian and Arctic terns at 29 known nesting sites in the Kodiak Archipelago and searched for new colonies. We observed behavior consistent with nesting of Aleutian terns at four of the 24 colonies where they previously nested. We did not locate any new tern nesting locations in 2023. Aleutian terns varied in the maximum number of adult individuals from 1-130 per colony. We conducted counts every 7-10 days at accessible tern colonies along the Kodiak road system and visited remote colonies once or twice in June and July using the Refuge research boat.
- **Susan Oehlers and Reyna Abreu-Vigil** (U.S. Forest Service) monitored the Black Sand Spit colony in the Yakutat area for general colony phenology, abundance, and breeding success. Ground surveys at Black Sand Spit and other Yakutat area colonies were conducted by multiple observers and associated with the Southcoastal Region survey described below.
- A subset of committee members (representing **USFWS, USFS, ADF&G, OSU, Audubon, Tern Again Consulting**) in collaboration with **Trent McDonald** (McDonald Data Sciences) and **Anne Schaefer (Prince William Sound Science Center)**, and support from National Fish and Wildlife Foundation, developed and implemented the first year of a planned multi-year statewide survey, in Southcoastal Alaska. From May 31-June 19, 2023, aerial and ground surveys were conducted between Glacier Bay National Park and Prince William Sound. We used double-observer aerial line transect survey and distance analysis to determine detectability and estimate the number of colonies present. Ground surveys were conducted to estimate colony abundance. We estimated a total of 58 tern colonies (including Arctic Tern and mixed Arctic and Aleutian Tern), and 3,665 Aleutian tern (95% CI: 1,726 to 6,068) individuals were present in the 4,075 km² study area during our sampling period. A final report for this region is expected in February of 2024. Planning is underway for surveys in 2024.

Tracking

- **Robin Corcoran (USFWS Kodiak NWR) and Katie Stoner (Oregon State University)** completed the final year of a study initiated in 2019 satellite tagging Aleutian terns in Kodiak and Nome, AK. On June 18, 2023, we deployed the final two 2-g solar satellite telemetry tags (Microwave Telemetry, Inc.) purchased with funding from the National Fish and Wildlife Foundation Pacific Seabird Program. The two Aleutian terns were nest trapped at the Middle Bay colony in Kodiak. Tags provided data throughout the breeding season indicating the terns continued nesting for up to two weeks after tagging but then moved to a large tern colony at the head of Pasagshak Bay, 20 km south of Middle Bay, where they may have re-nested. Both terns had working tags at the time of migratory departure and displayed steady long-distance

migrations to Southeast Asia. Initial wintering locations placed one tern near the Strait of Malacca and the second tern on southwest Mindanao Island in the Philippines.

Acoustic Monitoring

- **Susan Oehlers and Reyna Abreu-Vigil (USFS).** Six song meters were deployed at the Black Sand Spit tern colony. Data are archived for future analysis.

Conservation

- **Robin Corcoran (USFWS Kodiak NWR)** and staff (volunteers) continued a conservation program initiated in 2019 to reduce human disturbance by installing a rope fence around the tern colony on the Kalsin Spit. In 2019-2020, Aleutian and Arctic terns experienced higher than average nest and fledgling success at this colony compared to previous nesting seasons without the fence; however, that was not the case in 2021-2023. Like the 2022 breeding season, Aleutian tern numbers at the site were very low in June 2023, and no Aleutian tern or short-billed gull fledglings were seen. However, in 2023 Aleutian terns nested in high numbers (high count was 130 adult terns) at the head of Pasagshak Bay approximately 14km south of the Kalsin Spit. Unfortunately, the colony is located on State of Alaska Department of Natural Resources land that is leased for grazing and the lessee moved his herd of over 300 cattle to the tern nesting area on July 8-9. We documented one Aleutian tern nest being trampled by cattle using a nest camera, and noted several others that appeared destroyed from trampling. While nesting persisted into August only about ten fledglings were observed during weekly surveys.

MANUSCRIPTS

- **Tengeres, J. E., K. Dugger, R. Corcoran, and D. E. Lyons** “Factors influencing daily nest survival rates of Aleutian terns in the Kodiak Archipelago, Alaska” (manuscript in prep)
- **Tengeres, J. E., R. Corcoran, and D. E. Lyons** “Foraging niche of pre-laying and juvenile Aleutian terns in the Kodiak Archipelago, Alaska” (manuscript in prep)

PRESENTATIONS AND OUTREACH

- **Corcoran et al.:** Investigating Aleutian Tern Breeding Season Movements Using Satellite Telemetry. **Poster.** Pacific Seabird Group, Feb 14-17, 2023, La Jolla, CA.
- **Corcoran et al.:** Investigating Aleutian Tern Breeding and Migration Season Movement Using Satellite Telemetry 2019-2023. **Poster.** Alaska Bird Conference, Dec 12-14, 2023, Anchorage, AK
- **McDonald et al.:** “Two-stage Double-observer Aerial Line-Transect Surveys for Aleutian Terns in Southeast Alaska. **Oral presentation.** The Wildlife Society Meeting, Nov. 5-9, 2023, Louisville, KY.
- **Oehlers:** “Aleutian Terns.” **Oral presentations** to Yakutat High School Students. April 12, 2023, Yakutat, AK.
- **Oehlers:** “Aleutian Terns.” **Oral presentations** to Yakutat Tern Festival Participants. June 3, 2023, Yakutat, AK.
- **Oehlers et al.:** “Partnering for Aleutian Tern (*Onychoprion Aleuticus*) conservation in Alaska: Implementing a Statewide Colony Census Protocol. **Poster.** Pacific Seabird Group, Feb 14-17 2023, La Jolla, CA; Kachemak Bay Shorebird Festival, May 3-7, Homer, AK; World Migratory Bird Day, King Salmon, AK; Yakutat Tern Festival, June 1-4, Yakutat, AK.
- **Pacific Birds Habitat Joint Venture.** 2023. **Off the Land: The Yakutat Forelands, Yakutat, Alaska.** Short film produced by Eden McCall. [youtube.com/watch?v=D5-u6SS-S3I](https://www.youtube.com/watch?v=D5-u6SS-S3I)

- **Stremple, Claire.** 2023. [A study to monitor the potentially imperiled Aleutian tern kicks off in Alaska - Alaska Beacon](#)
- **Tengeres et al.:** What factors influence the daily nest survival rates of Aleutian Tern nests on Kodiak Island, Alaska? Oral presentation. Pacific Seabird Group, Feb 14-17, 2023, La Jolla, CA.
- **Tengeres et al.:** Shifts in diet niche space of pre-laying Aleutian Terns through time using museum specimens. Poster. Pacific Seabird Group, Feb 14-17, 2023, La Jolla, CA.