**Weather**

During the week of 5/13-5/19, the weather was generally overcast with periods of rain. Total precipitation for the week was 1.22 inches and average wind speed was 11 knots, with maximum gusts of 44 knots on 5/17. The average temperature for the week was 56°F with a maximum of 69°F and a minimum of 47°F.

**Caspian Terns**

Due to weather (high winds and rainy conditions) a drone flight to obtain aerial photography of the tern colony was not conducted this week. Instead, a ground-based estimate of the number of Caspian tern individuals on the one-acre colony area was conducted on 5/19, with a resultant estimate of 4,400 individuals on-colony. This estimate is somewhat less than the number of terns counted on-colony the previous week from the photo mosaic (5,194 individuals).

Caspian terns continued to exhibit nesting behaviors on the one-acre colony area, with frequent observations of nest scraping, copulation, territorial disputes, and mate feedings throughout this week. Early in the week, about 75% of the colony area had active tern nests with 1- to 2-egg clutches, excluding the western-most part of the colony, which was devoid of active tern nests. Due to a large number of flushes of the tern colony caused by bald eagles, egg depredation rates by western/glaucous-winged gulls increased later in the week, and the number of tern eggs and active tern nests on-colony declined by the end of the week. By 5/19, most tern nests that were still active contained just 1 egg, although a handful of active tern nests still contained 2 eggs. The majority of tern nests with eggs were concentrated in the central and northern edge of the eastern half of the colony area. During one flush of the tern colony caused by eagles on 5/15, at least 18 tern eggs were depredated by western/glaucous-winged gulls. Caspian terns nesting on the westernmost part of the colony area continued to flush more frequently than terns nesting in the central and eastern portions of the colony. Although terns on the westernmost part of the colony continued to lay eggs, newly laid eggs were quickly taken by western/glaucous-winged gulls during flushes on 5/19.

On 5/19, an estimated 540 tern nests with eggs remained on the Caspian tern colony. The number of tern nests containing eggs was estimated based on the assumption that the 20 study plots on the colony, each measuring 6 m x 6 m, are representative of the colony as a whole.

Salmonids remained the main prey type in the Caspian tern diet again this week, comprising 51% of observed bill-loads, followed by surfperch (29.3%). Gull kleptoparasitism pressure on Caspian terns returning to the colony with fish in their bills was similar to the previous week, with 34.3% of terns with bill-load fish chased by gulls this week. Adult bald eagles continued to be observed chasing Caspian terns multiple times during each visit to the island this week, and adult bald eagles were frequently observed kleptoparasitizing fish from adult Caspian terns.

**Pelicans**

Boat-based brown pelican surveys of the entire shoreline of East Sand Island were conducted in the morning of 5/18 and in the evening on 5/19. A total of 89 brown pelicans were observed on East Sand Island on 5/18; all were roosting on the south beach near the main Caspian tern colony. A total of 226 brown pelicans were counted on East Sand Island during the evening survey on 5/19; these pelicans were also roosting on the south beach adjacent to the Caspian tern colony. Pre-nesting and nesting behaviors by brown pelicans have not been observed on East Sand Island so far this season.

American white pelicans were observed flying over the east end of the island, and roosting on the north beach of East Sand Island on 5/15, 5/16, and 5/19. The high count of American white pelicans on East Sand Island this week was 90 individuals on 5/15. The majority of white pelicans observed on the island this week were in breeding plumage.

**Gulls**

Attendance by large numbers of ring-billed gulls at their breeding colony located on the upper section of the northeast beach on East Sand Island was consistent with the previous week. Individual ring-billed gulls were observed sitting tight on nests this week. The exact number of ring-billed gull individuals has been difficult to estimate, due to high vegetation and topography on the colony. A count will be conducted from aerial photography after an aerial survey, scheduled for this upcoming week. An adult bald eagle was observed causing major disturbances to the ring-billed gull colony on 5/18 while chasing ring-billed gulls and swooping over the area of the gull colony multiple times.

Western/glaucous-winged gulls continued to occupy nesting territories over much of the island, including on the eastern part of the prepared one-acre tern colony area. This part of the one-acre tern colony was used by nesting gulls last year, and not by Caspian terns. The high count of western/glaucous-winged gulls present on the tern colony was 107 individuals this week. Multiple pairs of western/glaucous-winged gulls continue to copulate and defend nesting territories on the eastern edge of the one-acre tern colony. Three pairs of western/glaucous-winged gulls continued to defend territories surrounded by nesting Caspian terns, although by the end of the week none of these gull pairs had laid eggs. There is at least one western/glaucous-winged gull pair with eggs on the eastern edge of the colony, just east of the northeastern observation blind. Western/glaucous-winged gulls were observed depredating Caspian tern eggs on the colony throughout the week, especially during flushes of the tern colony caused by bald eagles.

**Predators**

Bald eagle pressure on the Caspian tern colony increased this week compared to the previous week, with a total of 27 major disturbances to the tern colony observed this week (compared to 15 the previous week). The majority of these disturbances occurred on 5/18 and 5/19, with 9 bald eagle flushes observed on 5/18 and 13 observed on 5/19. The majority of these disturbances were caused by adult bald eagles chasing and kleptoparasitizing fish from Caspian terns. Three adult and 1 subadult bald eagle were consistently observed around the eastern portion of the island during the week, with a total of fourteen bald eagles observed throughout the entire island on 5/18.

The wings and keel of a subadult ring-billed gull were found on the eastern tip of the island on 5/19, high above the high tide line. The gull was likely depredated during the previous week by an avian predator.