

2021 Grant PUD / BPA Avian Monitoring Weekly Report 05/17 – 05/23/2021

WEEKLY ACTIVITIES & UPCOMING EVENTS

ACTIVITIES	DATE
Survey of Potholes Reservoir: Goose Island and North Potholes	05/17
Survey of McNary NWR	05/18
Survey of Island 20	05/18
Survey of Blalock islands	05/19
Survey of Astoria-Megler Bridge	05/19
Drone Survey of Island 20	05/19
Drone Surveys of Badger and Crescent islands	05/20
Survey of McNary Pool: Badger, Crescent, Foundation, and Walla Walla River Delta islands	05/20
Drone Survey of Miller Rocks	05/21
UPCOMING EVENTS	
Survey of Potholes Reservoir: Goose Island and North Potholes	05/24-05/30
Survey of McNary Pool: Badger, Crescent, Foundation, and Walla Walla River Delta islands	05/24-05/30
Survey of McNary NWR	05/24-05/30
Survey of Lake Lenore	05/24-05/30
Survey of Sprague Lake	05/24-05/30
Drone Surveys: Potholes Reservoir, Lake Lenore, Sprague Lake, Island 20, and Blalock islands	05/24-05/30
Fixed-wing Aerial Survey: Columbia River upstream of Dalles and Plateau	05/24-05/30

COLONY MONITORING & WATERBIRD SURVEYS

Potholes Reservoir: Potholes Reservoir was visited on May 17.

Goose Island:

Caspian terns were counted in 11 different locations on Goose Island and its surrounding islets (see *Table 1* below). 109 Caspian terns and 31 attended tern nests were counted in a bare sand area along the southwestern shoreline of the island (i.e. Southwest Main). We observed our first confirmation of Caspian tern eggs at Potholes Reservoir this year (see *Figure 1* below).

Table 1. Caspian tern counts by location at Goose Island from 4/8 – 5/17, 2021.

Caspian terns							
LOCATION	04/08	04/16	04/21	04/27	05/04	05/10	05/17
Northwest Main	0	0	0	0	0	0	0
Northeast Main	0	0	0	0	0	0	0
Southeast Main	0	0	0	0	0	0	0
South Spit	0	0	0	0	0	0	0
South Beach	0	0	0	0	0	0	0
Southwest Main	4	48	34	7	40	21*	109
West Main	0	0	0	0	0	0	0
North Beach	0	0	0	0	0	0	0
East Rocks	3	0	0	0	0	0	0
Northeast Rocks	0	0	0	0	0	0	0
Northwest Rocks	0	0	0	0	0	0	0
Total	7	48	34	7	40	21	109

* Nest dissuasion activities occurred during counts.



Figure 1. First confirmed eggs of Caspian terns (circled) nesting on Goose Island in Potholes Reservoir in 2021.

~2,360 nesting gulls were counted on Goose Island and the surrounding islets. Attended nest counts were unavailable. 12 California gull chicks were observed on South Spit of Goose Island (see Figure 2 below), the first gull chicks of this breeding season.



Figure 2. First confirmed California gull chicks on south spit of Goose Island in 2021.

Northeastern Potholes (Historic Caspian Tern Colony):

10 Caspian terns were observed loafing on NE Potholes Island. There was no evidence of scrapes or active nesting.

22 gulls were observed loafing on NE Potholes Island. There was no evidence of active nesting.

Solstice Island (Historic Caspian Tern Colony):

Solstice Island was not visited this week.

Unnamed Island in SW Potholes:

No piscivorous waterbirds of interest observed this week.

McNary NWR: McNary NWR was visited on May 18.

Burbank Slough:

2 Caspian terns were observed loafing on a land-bridged peninsula during an evening, shore-based survey. Caspian terns, observed on this peninsula, leave each night, presumably to Badger or Crescent islands. Thus, no active Caspian tern nests were observed.

Island 20: Island 20 was visited on May 18 and 19.

~3,520 nesting gulls were observed on the island. The colony was split into two distinct breeding areas on the south-central end of the island (~2,520 gulls) and the north end of the island (~1,000 gulls). Copulations and active nesting were observed during the survey. ~40% of individuals in both breeding areas were in nesting posture. We estimate that approximately 90% of the colony was visible from our vantage. A drone survey was conducted on May 19, although only the north gull colony was surveyed due to thunderstorms that occurred mid-survey. A complete survey is scheduled for this week.

Blalock Islands: The Blalock islands complex was visited on May 19.

Anvil Island:

No Caspian terns observed.

3 double-crested cormorants were observed loafing on the southern shoreline.

8 American white pelicans were observed loafing on the southern shoreline.

~ 286 nesting gulls were observed on Anvil Island. Nest counts were unavailable this week. Counts of interior nesting gulls were not conducted due to vegetation obstructions, although we did observe gulls flying to and from the island's interior.

Straight Six:

8 gulls were observed flying to and from the interior gull nesting habitat. Shoreline and interior vegetation have significantly leafed out, obstructing the interior nesting habitat from boat observations. Thus, no nest counts were conducted. Drone survey is scheduled this week.

Long Island:

Long Island was submerged in 2-3 feet of water. No colonial waterbirds were observed.

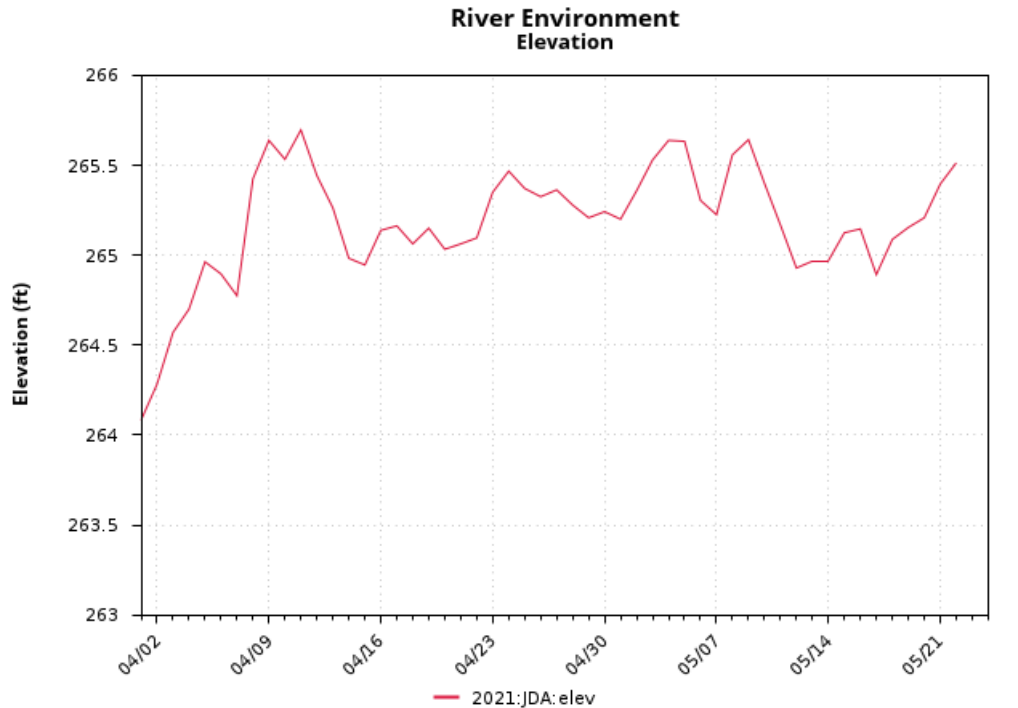
Middle Island:

Middle Island was submerged in 2-3 feet of water. No colonial waterbirds were observed.

Rock Island:

3 Caspian terns and 5 gulls were observed loafing on the only exposed rocky habitat on the eastern spit. We estimated that 50% of the spit was submerged in water compared to earlier surveys. No active Caspian tern nests were observed.

John Day Pool elevations were approximately 265 ft (see *Figure 3* below) and continued to be at elevations that flood most of the former Caspian tern nesting habitat in the Blalock Islands Complex (Long, Middle, and Rock islands).



www.cbr.washington.edu/dart

24 May 2021 00:07:47 PDT

Figure 3. John Day Pool elevation from April 1 – May 23, 2021.

Basketball Island:

All nesting habitat at Basketball Island has been flooded (see *Figure 3* above for John Day Pool elevations). No colonial waterbirds were observed on the submerged island.

Astoria-Megler Bridge: Astoria-Megler Bridge was visited on May 19 (Shore Survey).

Astoria-Megler:

We conducted a shore-based survey of the north and south cribs (see *Figure 4* below) and main truss sections on the OR and WA side. Although chick and nest counts were not available this week, the first double-crested cormorant chicks were observed on the north crib with age estimates of 2-3 weeks. Additional nesting by Brandt’s cormorants was observed on the wooden cribbing of the south crib, although the main crib was absent of any significant nesting. Our scheduled boat and drone surveys in the next several weeks are expected to target peak nesting and include early-nesting cormorant pairs on the north crib prior to fledging of chicks.



Figure 4. North crib (panels A and B) and south crib (panel C) of the Astoria Megler-Bridge from a shore-based survey on May 19, 2021.

The main truss section on the Washington side of the bridge has significantly more nesting activity compared to our last boat-based survey on April 20, particularly for Brandt's cormorants (see [Figure 5](#) below). Brandt's cormorants prefer to nest on the lower sections of the concrete supports while double-crested cormorants nest above Brandt's cormorants. This is similar to nesting behaviors and patterns observed in past years, although more Brandt's cormorants appear to be nesting on the Washington side of the bridge compared to years past.



Figure 5. Bridge support on the Washington truss section of the Astoria-Megler Bridge with nesting Brandt's cormorants (lower platform) and double-crested cormorants (upper platform) observed on May 19, 2021.

McNary Pool: McNary Pool was visited on May 20.

Badger Island:

98 Caspian terns were observed loafing on the north end of the island during a mid-day survey (see *Figure 6* below). Copulation attempts were also observed. The incipient, interior tern nesting colony, confirmed by the aerial survey on May 5, was obstructed by vegetation. Thus, counts of individuals and active nests for this interior colony were unavailable. The first drone survey of Badger was conducted on May 20. Drone imagery will be processed in the coming weeks for nest counts of terns and other piscivorous waterbirds (see *below*).



Figure 6. Caspian terns observed on the sandy northeast shore of Badger Island on May 20, 2021 including a copulation attempt (right).

~199 American white pelicans were also observed nesting and loafing. All interior nesting colonies were obstructed by vegetation from the shore.

~885 nesting gulls were observed along the island's west shoreline. Gulls were also observed in the island's interior.

Crescent Island:

No Caspian terns were observed during a mid-day survey to Crescent Island, although vegetation obstructions were present. Nesting was confirmed from aerial imagery on May 5. We will continue to monitor presence or absence of nesting from drone, Civil Air Patrol, and OSU/RTR fixed-wing flight imagery and will have an update next week. The first drone survey of Crescent Island was conducted May 20.

~180 nesting gulls were observed on the island's shoreline. Nest counts were unavailable. Most individual gull counts and attended nests were obstructed by vegetation.

Foundation Island:

~371 double crested cormorants and ~230 attended nests were observed. The presence of cormorant chicks was confirmed from aerial imagery on May 5 and boat surveys on May 20 (*Note: small chicks in tree nesting colonies were difficult to confirm from boat surveys*). As of May 20, 40% of attended nests had visible chicks with age estimates of 2-3 weeks.

Walla Walla River Delta:

9 Caspian terns were observed loafing on the sandy Eastern shore. No nesting was observed.

10 American white pelicans and 47 gulls were observed loafing on the sandy eastern shore.

Miller Rocks: Miller Rocks was visited May 21.

A drone survey was conducted on May 21. No counts of Miller Rocks to report this week. Miller Rocks will be surveyed again during our fixed-wing flight and drone surveys in the coming weeks.

PIT TAGGING OF STEELHEAD AT ROCK ISLAND DAM

Steelhead smolt tagging began at Rock Island Dam on 04/09. As of 05/23, 4,845 hatchery and 1,298 wild steelhead have been tagged. Combined, the total to date is 6,143 tagged steelhead smolts this year (88% of our target of 7,000).