

## 2021 Grant PUD / BPA Avian Monitoring Weekly Report 06/28 – 07/04

### WEEKLY ACTIVITIES & UPCOMING EVENTS

ACTIVITIES	DATE
Survey of McNary Pool: Badger, Crescent and Foundation Islands	06/28
Survey of Miller Rocks	06/29
Survey of Blalock Islands	06/29
Survey of Island 20	06/30
Survey of Potholes Reservoir: Goose Island and North Potholes	07/01
Survey of Priest Rapids Pool: Goose and Mud Islands	07/01
UPCOMING EVENTS	
Survey of McNary Pool: Badger, Crescent and Foundation Islands	07/05-07/11
Survey of Sprague Lake	07/05-07/11
Survey of Potholes Reservoir: Goose Island and North Potholes	07/05-07/11
Survey of Lenore Lake	07/05-07/11
Survey of Banks Lake	07/05-07/11
Survey of Island 20	07/05-07/11

### COLONY MONITORING & WATERBIRD SURVEYS

**McNary Pool:** McNary Pool was visited on June 28.

Badger Island:

76 Caspian terns, 14 attended nests, 2 mid-sized chicks, 5 black-mask chicks, and 5 black-cap chicks were observed on the sandy shoreline on the northeast side of Badger Island. Nest and chick counts were an underestimate due to obstructions from our vantage on the water.

53 Caspian terns and 9 black-cap chicks were also observed loafing on the island's west shoreline. The observed tern chicks are presumably from the interior nesting colony.

The interior Caspian tern nesting colony was obstructed by vegetation from our vantage on the water. Peak nest counts will be conducted from fixed-wing and drone imagery in subsequent weeks.

~380 American white pelicans, nesting and loafing, were observed. Most interior nesting colonies were obstructed by vegetation from our vantage on the water. Peak nest counts will be conducted from fixed-wing and drone imagery in subsequent weeks.

~1,090 gulls and 66 fledglings were observed along the island's west shoreline. While most chicks have fledged, <5% of gulls had visible chicks with age estimates of 5 - 6 weeks old. ~80% of gulls observed were California gulls, while the remaining 20% were ring-billed gulls. Gulls were also

observed in the island's interior. Peak nest counts will be conducted from fixed-wing and drone imagery in subsequent weeks.

Crescent Island:

2 Caspian terns with 1 black-cap chick were observed loafing on the shore of Crescent Island (see *Figure 1* below). Our vantage on the water obstructed our view of the interior historical colony. Peak nest counts will be conducted from fixed-wing and drone imagery in subsequent weeks.



*Figure 1. Caspian tern with black-cap chick loafing on rocky shore of Crescent Island on June 28<sup>th</sup>.*

~390 gulls, 20 fledglings, and 7 chicks (estimated at 4-6 weeks old) were observed on the island's shoreline. ~60% of gulls were California gulls and ~40% were ring-billed gulls. Most gulls and attended gull nests were obstructed by vegetation from our vantage on the water. Peak nest counts will be conducted from fixed-wing and drone imagery in subsequent weeks.

Foundation Island:

83 double-crested cormorants, 21 attended nests, 13 chicks (estimated at 5-6 weeks old), and 31 fledglings were observed. Attended nest counts continued to decline compared to previous weeks.

49 double-crested cormorants (adults and fledglings) were also observed loafing on the shoreline below the tree-nesting colony.

**Miller Rocks:** Miller Rocks was visited on June 29.

2 Caspian terns were observed flying over Miller Rocks. Auditory detections indicated that Caspian terns were loafing on Miller Rocks before departing.

Breeding activity at the main nesting islands at Miller Rocks are summarized in relation to the key below (see *Figure 2*).



Figure 2. Island key for nesting islands at Miller Rocks.

Upstream Island:

~440 adult and 130 fledgling gulls were observed. ~95% were California gulls and ~5% were ring-billed gulls. Nesting behaviors were not observed, indicating that all incubation efforts have concluded. Due to obstructions observing the entire colony, chick counts were unavailable. ~15% of adults attended chicks that were estimated to be 3-4 weeks old.

Middle Island:

25 double-crested cormorants were observed on Middle Island. Of these, one adult attended a single nest (see *Figure 3* below).



Figure 3. Double-crested cormorants and gulls on Miller Rocks - Middle Island. One double-crested cormorant nest was observed on rightmost rocky outcropping.

~80 adult and 12 fledgling California gulls were observed. Nesting behaviors were not observed, indicating that all incubation efforts have concluded. No chicks were observed at this location.

Downstream Island:

1 double-crested cormorant was observed loafing.

~320 adult and 60 fledgling gulls were observed. ~95% were California gulls and ~5% were ring-billed gulls. Due to obstructions observing the entire colony, chick counts were unavailable. Nesting behaviors were not observed, indicating that all incubation efforts have concluded. ~10 percent of adults attended chicks that were estimated to be 4 weeks old.

Southern Island:

2 double-crested cormorants were observed loafing.

2 American white pelicans were observed loafing.

~90 adult and 20 fledgling California gulls were observed. Due to obstructions observing the entire colony, chick counts were unavailable. ~5% of adults attended chicks that were estimated to be 4 weeks old.

Unnamed Rocky Islands downstream of Miller Rocks:

10 American white pelicans were observed loafing.

~40 adult and 7 fledgling California gulls were observed loafing.

**Blalock Islands:** The Blalock Islands complex was visited on June 29.

Anvil Island:

No Caspian terns were observed.

~880 nesting gulls were observed on Anvil Island. Although nest counts were unavailable this week, 27 gull chicks (estimated to be 3-4 weeks old) were observed along the southern shore. Counts of interior nesting gulls were not conducted due to vegetation obstructions. Gulls were observed flying to and from the island's interior.

Straight Six:

No colonial nesting waterbirds were observed at this location. Shoreline vegetation obstructed interior nesting habitat that was abandoned earlier this season. No gulls were observed flying to or from the island's interior.

Long Island:

34 Caspian terns (see *Figure 4* below) were observed loafing on recently exposed habitat due to lower John Day Pool elevations of ~264 ft (see *Figure 6* below). No active nesting was observed this week.

~320 gulls were also observed loafing. ~80% were California gulls and ~20% were ring-billed gulls.





*Figure 4. Long Island partially submerged at a pool level of 264 feet (above). Caspian terns and gulls loafing on long Island (below).*

Middle Island:

No Caspian terns were observed.

13 ring-billed gulls were observed loafing on recently exposed habitat due to lower John Day Pool elevations of ~264 ft (see *Figure 6* below).

Southern Island:

No Caspian terns were observed, although sandy habitat remains exposed due to lower John Day Pool elevations of ~264 ft (see *Figure 6* below).

7 American white pelicans and 26 ring-billed gulls were observed loafing.

Rock Island:

13 Caspian terns were observed loafing (see *Figure 5* below). Low-lying rocky habitat remains exposed due to lower John Day Pool elevations of ~264 ft (see *Figure 6* below).

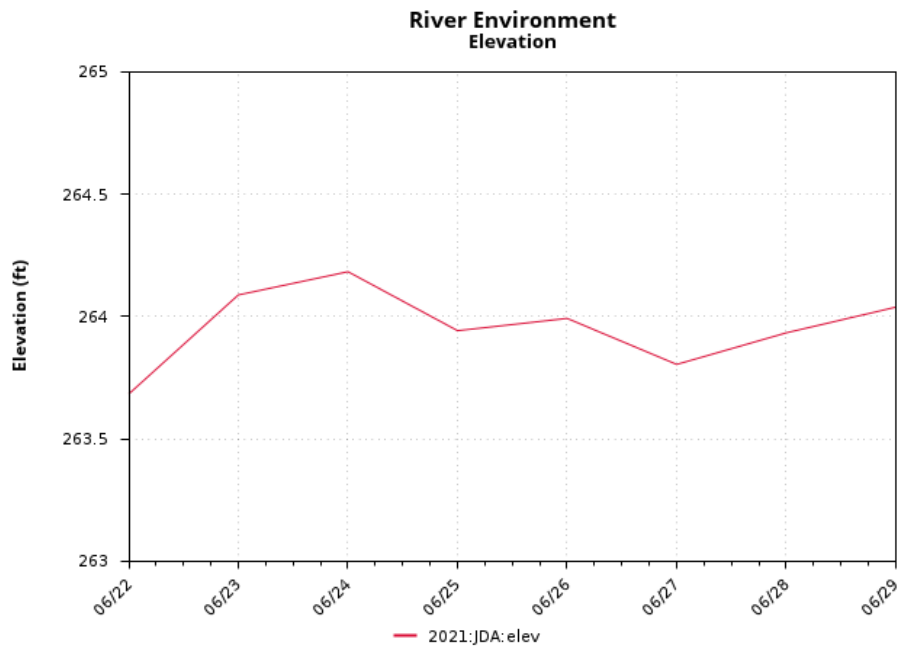
23 American white pelicans and 66 ring-billed gulls were observed loafing on the rocky eastern and western spits (see *Figure 5* below).



Figure 5. American white pelicans and gulls loafing on the east spit of Rock Island (Above). Caspian terns, American white pelicans and gulls loafing on the west spit of Rock Island (Below).

**Basketball Island:**

No colonial nesting waterbirds were observed, although additional shoreline habitat was exposed due to lower John Day Pool elevation of ~264 ft (see Figure 6 below).



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Figure 6. John Day Pool elevation from June 22 – June 29.

**Island 20:** Island 20 was visited on June 30.

~1,150 adult and 180 fledgling gulls were observed on and around Island 20 from a shore-based survey. The south-central and northern breeding colony areas have dissipated to the shoreline and immediate surrounding water. 1 gull remained in the northern colony, while the south-central colony was completely abandoned. No chicks or incubating birds were observed. We estimate that approximately 90% of the colony was visible from our vantage.

**Potholes Reservoir:** Potholes Reservoir was visited on July 1.

Goose Island:

Caspian terns were counted in 11 different locations on Goose Island and its surrounding islets (see *Table 1* below). The main colony area continues to be obstructed from our vantage on the water, although we provided counts conducted from aerial imagery on May 25 (see *Table 1*). Peak nest counts of terns on the main colony area will be conducted from fixed-wing and drone imagery in subsequent weeks. 9 Caspian terns (see *Figure 7* below) were observed in the grassy area on the southern spit of the island (i.e. South Spit). Of these, 4 terns were in incubating posture on the South Spit. Obstructions from vegetation and topography limit our vantage of this breeding area during boat-based surveys.

14 American white pelicans were observed loafing on South Spit.

~2,240 adult gulls, 40 fledglings, and 37 gull chicks were observed. ~50% were California gulls and ~50% were ring-billed gulls. Attended nest counts were unavailable, although <5% of gulls were still in nesting posture. Peak nest counts will be conducted from fixed-wing and drone imagery in subsequent weeks.

*Table 1. Caspian tern counts by location at Goose Island from 05/17 – 07/1. [NA: Not Available]*

Caspian terns							
LOCATION	05/17	05/25	06/01	06/09	06/17	06/22	07/01
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	8	9
South Beach	0	0	0	0	0	0	0
Colony Area <sup>1</sup>	NA	33 <sup>3</sup>	NA	NA	NA	NA	NA
Southwest Main	109	19	90	18	9	0	0
West Main <sup>2</sup>	0	0	0	0	0	0	0
North Beach	0	0	0	0	0	0	0
East Rocks	0	0	0	0	0	0	0
Northeast Rocks	0	0	0	0	23	13	0
Northwest Rocks	0	0	0	0	0	0	0
<b>Total</b>	<b>NA</b>	<b>52</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

<sup>1</sup> Complete obstruction from boat vantage.

<sup>2</sup> Partial obstruction from boat vantage.

<sup>3</sup> Counts conducted from fixed-wing aerial imagery.

<sup>4</sup> Nest dissuasion activities occurred during counts.



*Figure 7. Caspian terns nesting on South Spit of Goose Island.*

**Northeastern Potholes (Historic Caspian Tern Colony):**

No colonial waterbird activity was observed at this site. Since our last visit on June 22, an unattended tent has been set up in the usual loafing area.

**2016 Colony Site:**

14 ring-billed gulls, 1 California gull, and 5 gull fledglings were observed loafing.

**Priest Rapids Pool:** Priest Rapids Pool was visited on July 1.

A boat-based, exploratory survey was conducted directly upstream of Priest Rapids Dam near Desert Aire, WA (see [Figure 8](#) below).



*Figure 8. Locations of Mud Island and Cabin Island in the Priest Rapids Pool near Desert Aire, WA.*



Mud Island:

No colonial waterbird nesting activity was observed on Mud Island.

Cabin Island:

3 Caspian terns were observed loafing on a southwest facing islet of Cabin Island.

1 American white pelican and 54 ring-billed gulls were also observed loafing on the rocky and vegetated islet.

Most of the islet was submerged in 1-2 inches of water (see *Figure 9* below).



*Figure 9. Caspian terns, American white pelican, and ring-billed gulls loafing on a rocky and vegetated islet of Cabin Island on July 1<sup>st</sup>.*

## PIT TAGGING OF STEELHEAD AT ROCK ISLAND DAM

Steelhead smolt tagging commenced at Rock Island Dam on 04/09 and ended on 06/13. In total, 5,583 hatchery and 1,655 wild steelhead smolts were tagged, totaling 7,238 steelhead smolts, reaching our target goal of ~ 7,000. Steelhead were selected for tagging at random, regardless of fish size, condition, or rear-type (hatchery, wild) and smolts were tagged in proportion to and in concert with the run at-large (tagged and untagged) passing Rock Island Dam in 2021. We will start to scan bird colonies for smolt PIT tags soon after the dispersal of birds from their breeding colonies.