

2022 BPA/GPUD Avian Monitoring Report

06/06 – 06/12/2022

WEEKLY ACTIVITIES & UPCOMING EVENTS

ACTIVITIES	DATE
Survey of site in Potholes Reservoir	06/06
Survey of sites in Lake Lenore	06/06
Survey of site in Sprague Lake	06/06
Aerial survey of sites in Columbia River Basin	06/06-06/07
Survey of sites in McNary Pool below the Snake River confluence	06/07
Survey of site in John Day Pool	06/07
UPCOMING EVENTS	
Survey of Astoria-Megler Bridge	06/13-06/19
Survey of site in The Dalles Pool	06/13-06/19

FIXED-WING AERIAL SURVEY

Columbia River – Miller Rocks to Priest Rapids Pool and interior Washington: Sites were surveyed on June 6.

Aerial images are being processed from our fixed-wing survey of the Columbia River Plateau region from Miller Rocks to Priest Rapids Pool and interior sites in Washington within foraging range of the Columbia River. Preliminary counts of adult Caspian terns on June 6 are provided in *Table 1*.

Table 1. Preliminary adult Caspian tern counts from upriver and interior colony sites from fixed-wing aerial imagery on June 6, 2022. Two observers conducted counts and values presented are the average count. [Note: Counts of loafing Caspian terns (if any) from Miller Rocks, Hanford Reach, Priest Rapids Pool, and Sprague Lake were not available at time of this week's report].

Caspian Terns	
Site	06/06
Blalocks	19
Crescent ¹	179
Badger ¹	299
Potholes - Goose ¹	33
Lenore - Shoal ¹	93
Banks Lake	2
Total	625

¹ Nesting confirmed

Columbia River Estuary – East Sand Island to Troutdale Towers: Sites were surveyed on June 7.

Aerial images are being processed from our fixed-wing survey of the Columbia River estuary from East Sand Island to Troutdale Towers. Preliminary counts of adult Caspian terns on June 7 from 2022 breeding colonies are provided below. Counts from other colony locations and species will be provided later.

East Sand Island

63 Caspian terns (preliminary estimate) were counted by two observers from aerial imagery of East Sand Island on June 7. The colony is vacant except for terns attempting to nest on the east side of the designated colony area (*Figure 1*). No terns were observed amongst the passive dissuasion outside of the designated colony area. No successful breeding by Caspian terns has been confirmed on East Sand Island this year.



Figure 1: East Sand Island Caspian tern colony from an aerial survey on June 7, 2022.

21 attended double-crested cormorant nests (preliminary estimate) were observed on East Sand Island from the aerial survey on June 7. This observation was similar to 2021 when double-crested cormorants also attempted to nest on East Sand Island beginning in June.

Rice Island

49 Caspian terns (preliminary estimate) were counted by two observers from aerial imagery of Rice Island on June 7. All terns were observed loafing on the shoreline. No terns were observed on the interior of the island where a colony was previously reported on May 8, 2022.

COLONY MONITORING & WATERBIRD SURVEYS

Potholes Reservoir: Sites were visited on June 6.

Goose Island

Preliminary analysis of drone imagery identified nesting Caspian terns on the historic colony area (n=24) and Southwest Main (n=6, *Table 2, Figure 2*). 3 loafing Caspian terns were observed on the south spit and no Caspian terns were observed at any other location on Goose Island and its surrounding islets (*Table 2*). Active and passive dissuasion appears to be limiting sustained nesting in any one location as Caspian terns observed from the latest drone imagery were in a new location on the historic colony. 70% of dissuasion flagging appears to evenly spaced throughout the array. Missing flagging was observed in the eastern portion of Southwest Main (*Figure 3*).

Table 2. Caspian tern counts by location at Goose Island from 4/12 – 6/06. [NA: Not Available]

LOCATION	04/12	04/18	04/27 ²	5/03	5/17	5/24 ³	6/01	6/06 ³
Northwest Main	0	0	0	0	2	0	0	0
Northeast Main	0	0	0	0	1	0	0	0
Southeast Main	0	0	0	0	0	0	0	0
South Spit	0	0	0	2	1	0	0	3
South Beach	0	0	0	0	0	0	4	0
Colony Area ¹	NA	NA	NA	NA	NA	2	NA	24
Southwest Main	0	0	0	0	0	0	5	6
West Main	0	0	0	0	0	0	0	0
North Beach	0	0	0	0	0	0	0	0
East Rocks	0	0	0	4	0	0	0	0
Northeast Rocks	0	0	0	0	0	0	0	0
Northwest Rocks	0	0	0	0	4	0	0	0
Total	0	0	0	6	7	2	9	33

¹ Complete obstruction from boat vantage.

² Nesting dissuasion activities occurred during counts.

³ Counts conducted from aerial imagery.



Figure 2: Caspian terns nesting on Goose Island Southwest Main on June 7, 2022.

28 double-crested cormorants and 3 attended nests were observed in the trees on the main island.

~5,820 nesting gulls observed on island.



Figure 3: Dissuasion flagging on Goose Island on June 7, 2022. Southwest Main, the area without passive nest dissuasion (i.e., flagging) where Caspian terns were observed nesting, is on the eastern portion of the island (shown above on the right side of the photo).

McNary Pool below the Snake River Confluence: Sites were visited on June 6 and 7.

Badger Island

299 Caspian terns (preliminary estimate) were counted from fixed-wing imagery on June 6 (see *Table 1* above). A drone survey was conducted on June 7. Final counts of adult terns and attended nests from aerial imagery will be conducted later. Caspian tern chicks (< 1 week) were observed on the shoreline nesting colony.

Crescent Island

179 Caspian terns (preliminary estimate) were counted from fixed-wing imagery on June 6 (see *Table 1* above). A drone survey was conducted on June 7. Final counts of adult terns and attended nests from aerial imagery will be conducted later.

John Day Pool: Sites were visited on June 6 and 7

John Day Pool elevations have dropped significantly in early June that has exposed previously flooded islands (*Figure 4*).

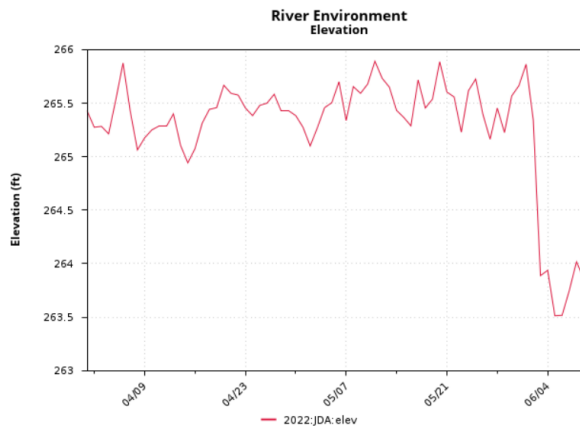


Figure 4. John Day Pool elevations from April 2 – June 10, 2022. Pool elevations below 264 ft expose low-lying islands in the Blalock Island complex where Caspian terns historically nested.

Long Island in the Blalock Island Complex

Long Island has recently been exposed due to lower John Day pool elevations. ~40 loafing Caspian terns were observed (*Figure 5*) during a boat survey on June 7.

10 loafing American white pelicans were observed.

1 loafing double-crested cormorant was observed.

~120 loafing gulls were observed.



Figure 5. Caspian terns, American white pelicans, California gulls loafing on Long Island on June 7, 2022.

Southern Island in the Blalock Island Complex

Water levels still cover the southern island. ~100 gulls were loafing on the water above the island.

Anvil Island in the Blalock Island Complex

Drone survey was conducted. Final counts of adult gulls in the drone imagery will be conducted later.

McNary NWR off the Columbia River: Site was visited on June 10.

Burbank Slough

4 loafing Caspian terns were observed on the western peninsula.

PIT TAGGING OF STEELHEAD AT ROCK ISLAND DAM

Steelhead smolt tagging commenced at Rock Island Dam on April 8. As of June 12, a total of 5,523 steelhead smolts (3,993 hatchery and 1,530 wild) have been captured, PIT-tagged, and released (*Figure 6*). Steelhead are selected for tagging at random, regardless of their size, condition, or rear-type (hatchery, wild) and are tagged in proportion to and in-concert with the run at-large (tagged and untagged) passing Rock Island Dam. Following the 2022 breeding season (August-September), we will scan bird colonies for smolt PIT tags to estimate predation rates on steelhead and on other groups of tagged fish.

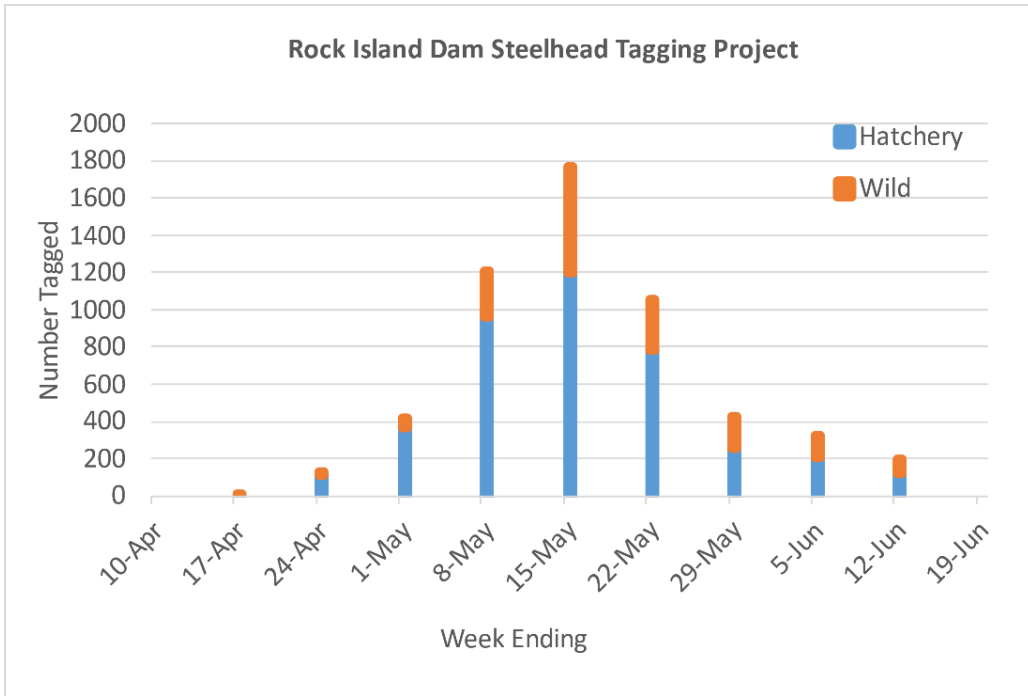


Figure 6. Steelhead smolt tagging at Rock Island Dam in 2022.