# USACE MONITORING OF PISCIVOROUS BIRDS IN THE COLUMBIA RIVER ESTUARY 2024 – RESULTS OF MONITORING AND DISSUASION EFFORTS

**Fisheries Field Unit**
**Portland District**
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# AUTHORITY & SCOPE

## East Sand Island (ESI) :

2020 CRSO BiOp – O&M per Caspian Tern (CATE) Management Plan.

- Provide one acre of quality CATE habitat.
- Monitor CATE abundance and use of the colony
- Dissuade satellite colonies outside the one acre.

2020 CRSO BiOp – O&M per Double Crested Cormorant (DCCO) Management Plan.

- Provide quality DCCO habitat.
- Monitor to ensure there are no more than 5,939 breeding pair.

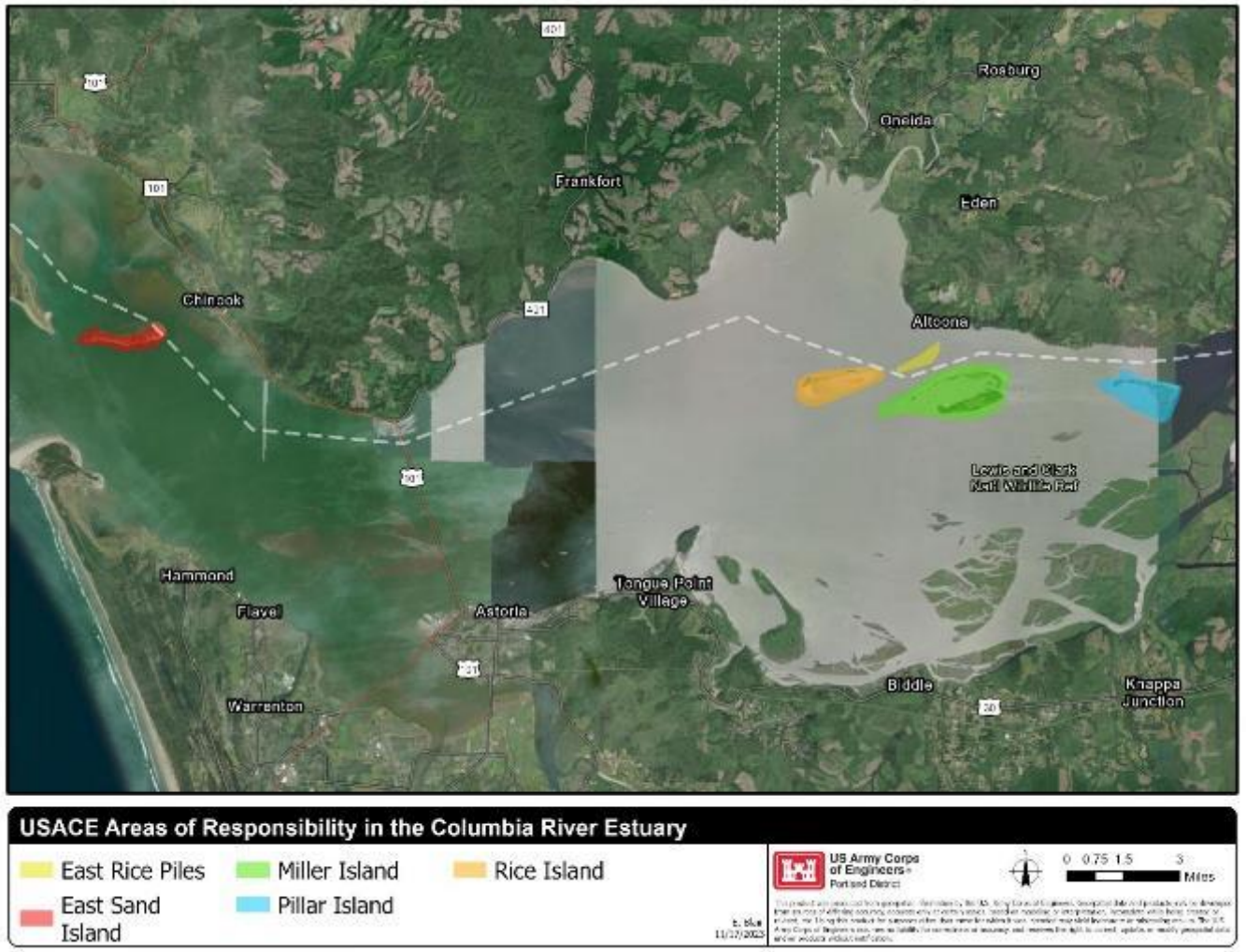
## Rice, Miller Sands, and Pillar Rock Islands:

2012 Navigation BiOp – Deter piscivorous bird nesting attempts on dredge material islands.

-Monitor and deter all nesting attempts on Rice, Miller, and Pillar Rock islands.

# LONG TERM O&M OF USACE AVIAN ISLANDS

**The management of USACE owned and operated islands in the Columbia River estuary is executed by the Fisheries Field Unit. This season we implemented avian monitoring and dissuasion to our full authority to satisfy the requirements of two BiOps (2020 CRSO and 2012 Navigation).**



# ESI: CATE - 2024

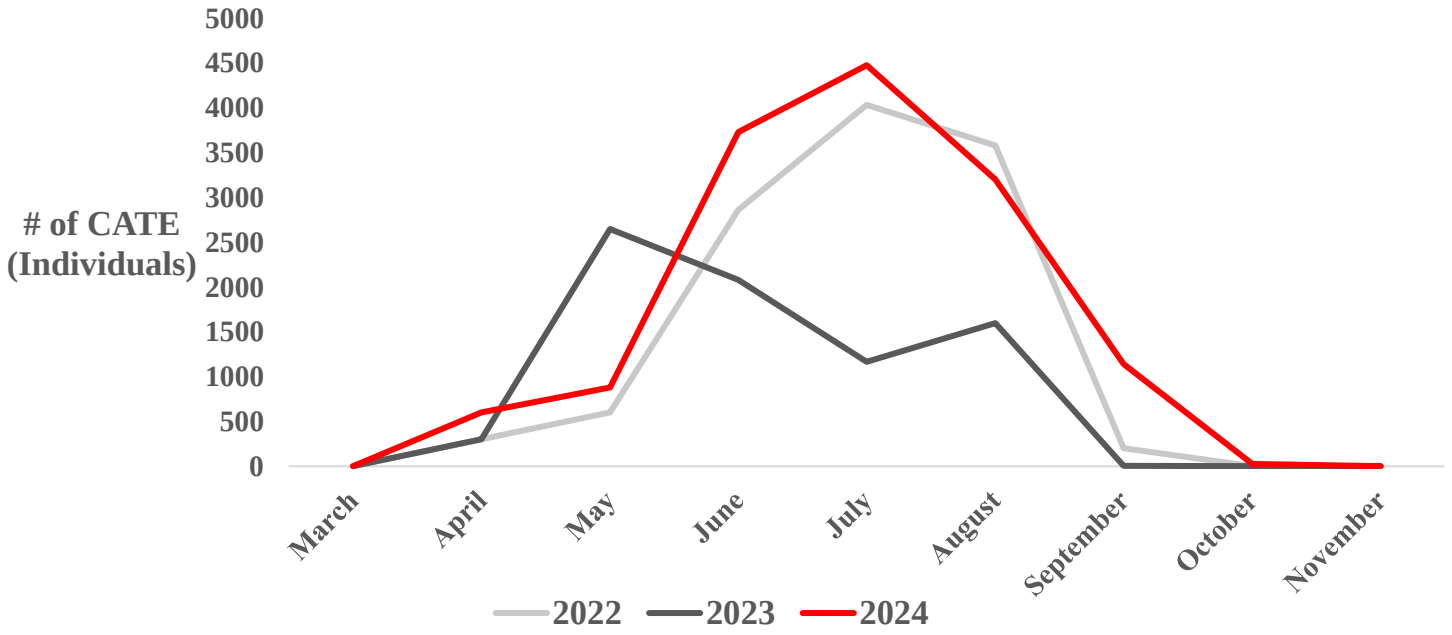
- First-Last Observation: April 17 – October 3
- Observation Period: *n* = 20
- CATE (colony-mean): 1783 +/- 1519 S.D.
- CATE (Total max): 4,477 (July 26, 2024)
- No off-colony nesting, no dissuasion

**CAP Flight Enumeration:**

| MMDDYY | # of Individuals |
|---|---|
| 04/16/24 | 0 |
| 05/09/24 | 879 |
| 06/06/24 | 1729 |
| 07/17/24 | 2987 |
| 08/27/24 | 1172 |
| 09/20/24 | 1251 |
| 09/26/24 | 32 |

- At least 143 chicks hatched

- PIT-Tag recovery operations completed on October 24, 2024.
- Colony De-mob completed: November 7, 2024



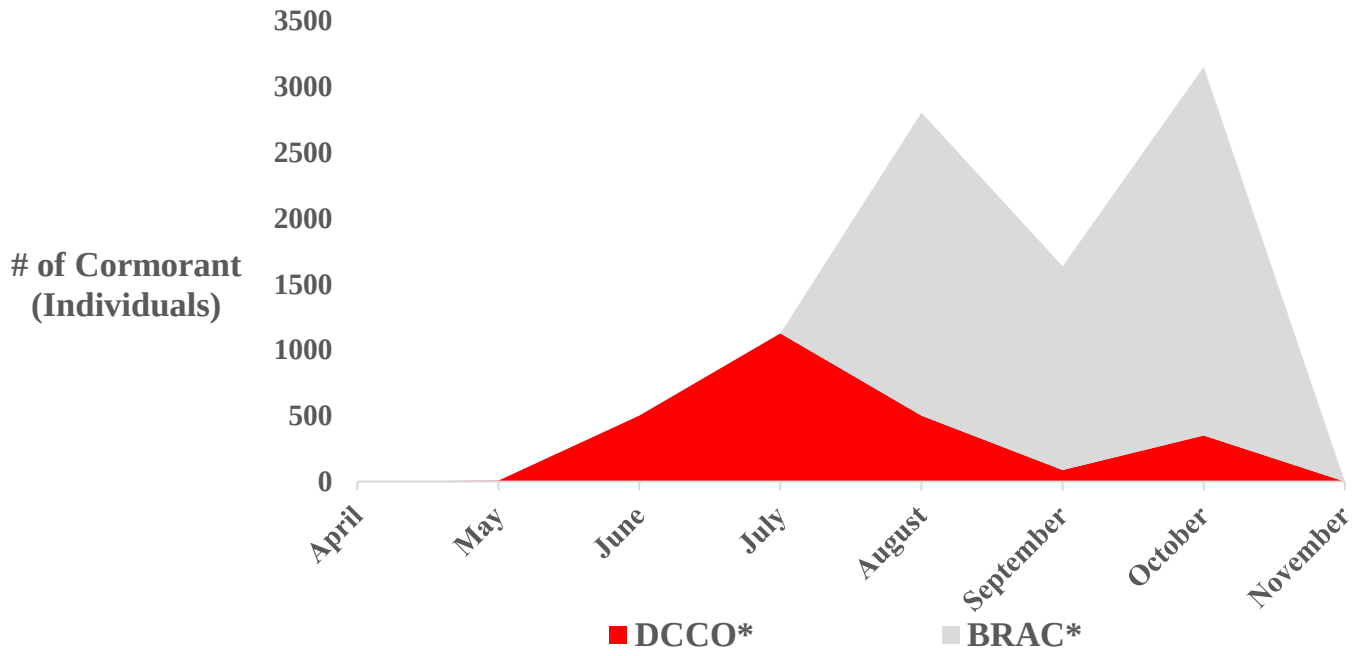
# ESI: CORMORANT - 2024

- First-Last Observation: May 29 – October 3
- Observation Period: *n* = 20, Colony: *n* = 9
- Cormorant (Mean): 487 +/- 692 S.D.
- Cormorant (Max): 3,300 (October 3, 2024)
  - 500 *est*. DCCO, 2800 *est*. BRAC

**CAP Flight Enumeration:**

| MMDDYY | # of Individuals |
|---|---|
| 04/16/24 | 0 |
| 05/09/24 | 61 |
| 06/06/24 | 694 |
| 07/17/24 | 556 |
| 08/27/24 | 947 |
| 09/20/24 | 173 |
| 09/26/24 | 595 |

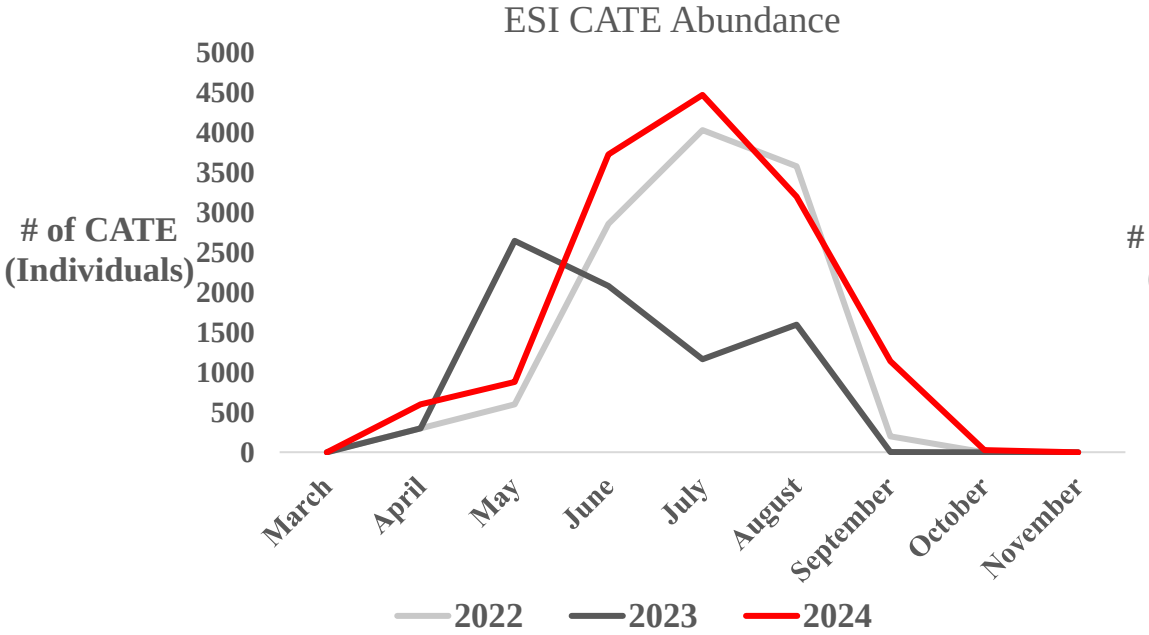
- No DCCO eggs/chicks
- 32 BRAC nests, Uncounted fledged chicks
- PIT-Tag deposition/recovery operations completed on November 6, 2024.

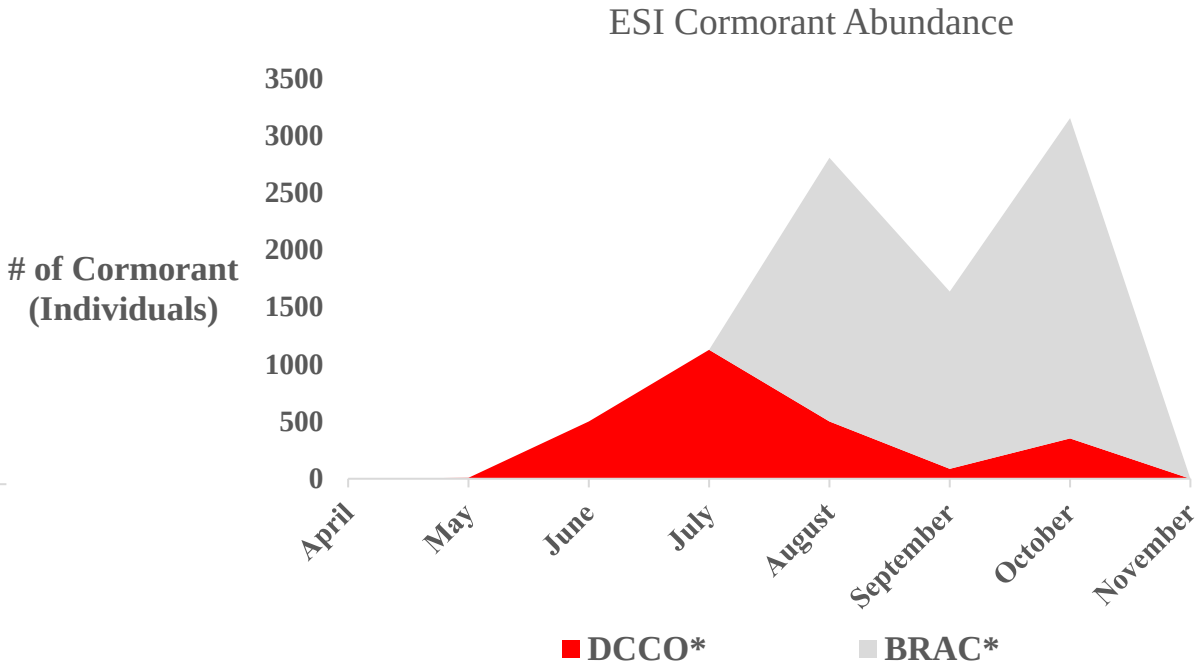


# ESI PIT TAG ESTIMATE

PIT data provided by USACE & BPA funded Project :1997-024 Avian Predation on Juvenile Salmonids

| Location | Bird Colony | 2024 Migration Year (MY) Smolt Tags | | | | 2024 MY | 2023 MY | 2022 MY | 2021 MY | 2020 MY |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Chinook | Coho | Steelhead | Sockeye | ALL | ALL | ALL | ALL | ALL |
| East Sand Island | DCCO/BRAC | 15 | 0 | 2 | 0 | 19 | 50 | 99 | 117 | 38 |
| | CATE | 415 | 46 | 697 | 8 | 1,190 | 3,221 | 1,636 | 4,218 | 3,705 |

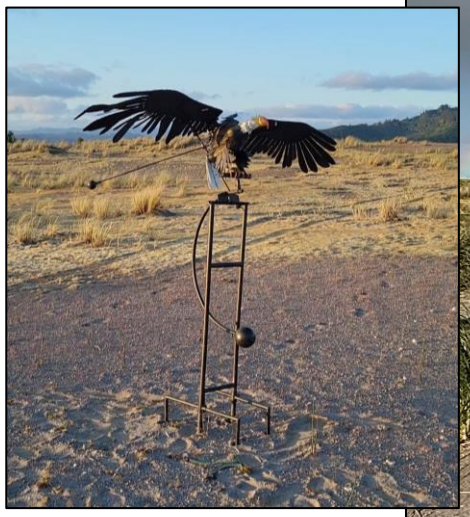


# RICE, MILLER SANDS, & PILLAR ROCK ISLAND

# RICE ISLAND DISSUASION

- Enhanced hazing tactics (Audio Deterrence, Kinetic Eagle Decoys, Gull Effigies/Mock-Take)
- 115 days monitoring | 46 nights on island
- SHLA considerations | hazing constraints

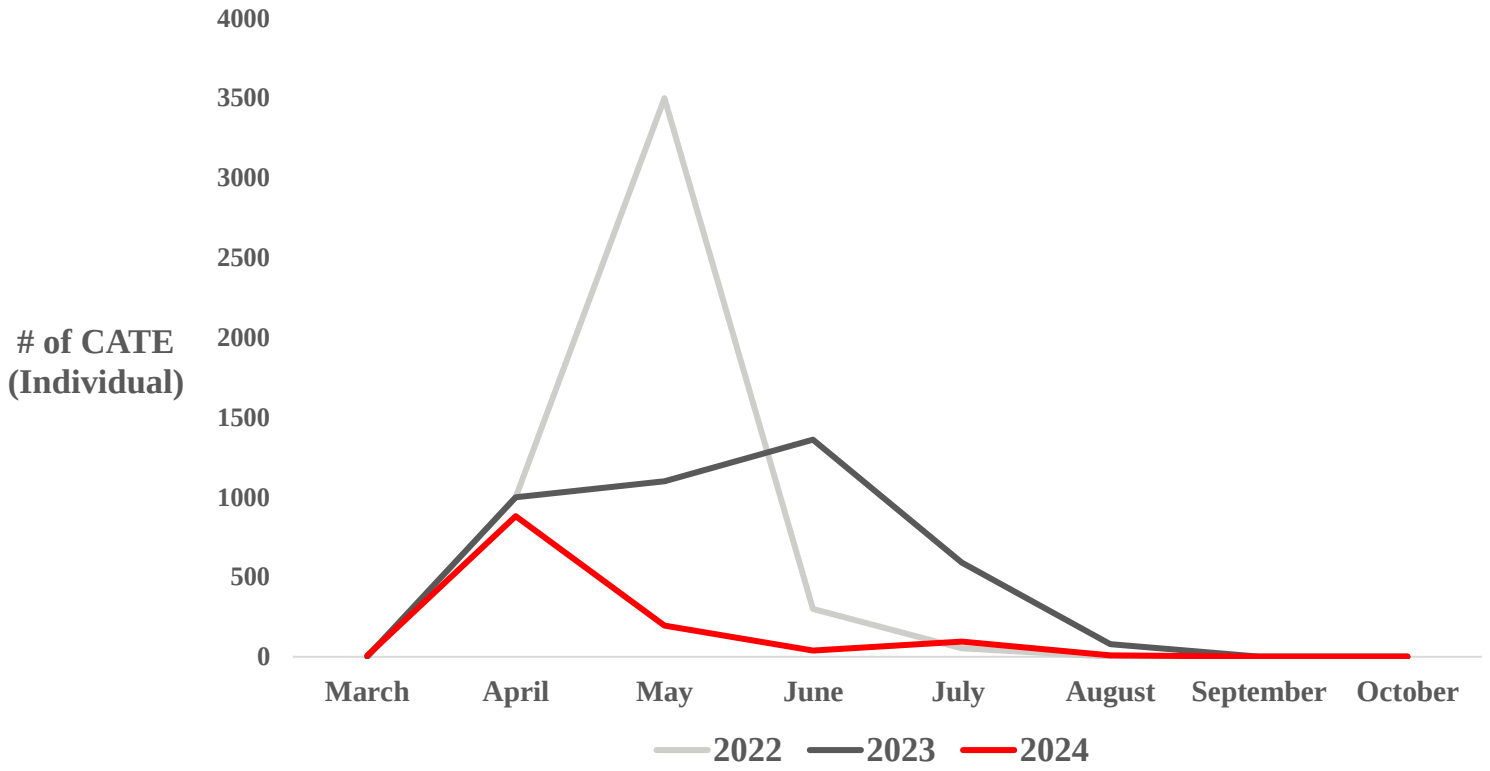



# RICE: CATE

- First-Last Observation: 1 April – 13 August
- Observation Periods: *n* = 157
- CATE (Mean): 40 ± 92 S.D.
- CATE (Max): 880 (23 April 2024)

**CAP Flight Enumeration:**

| MMDDYY | # of Individuals |
|---|---|
| 04/16/24 | 0 |
| 05/09/24 | 14 |
| 06/06/24 | 8 |
| 07/17/24 | 40 |
| 08/27/24 | 0 |
| 09/20/24 | 8 |
| 09/26/24 | 0 |




- 146 scrapes; 1 egg (Destroyed)
- No breeding success; 0 eggs hatched

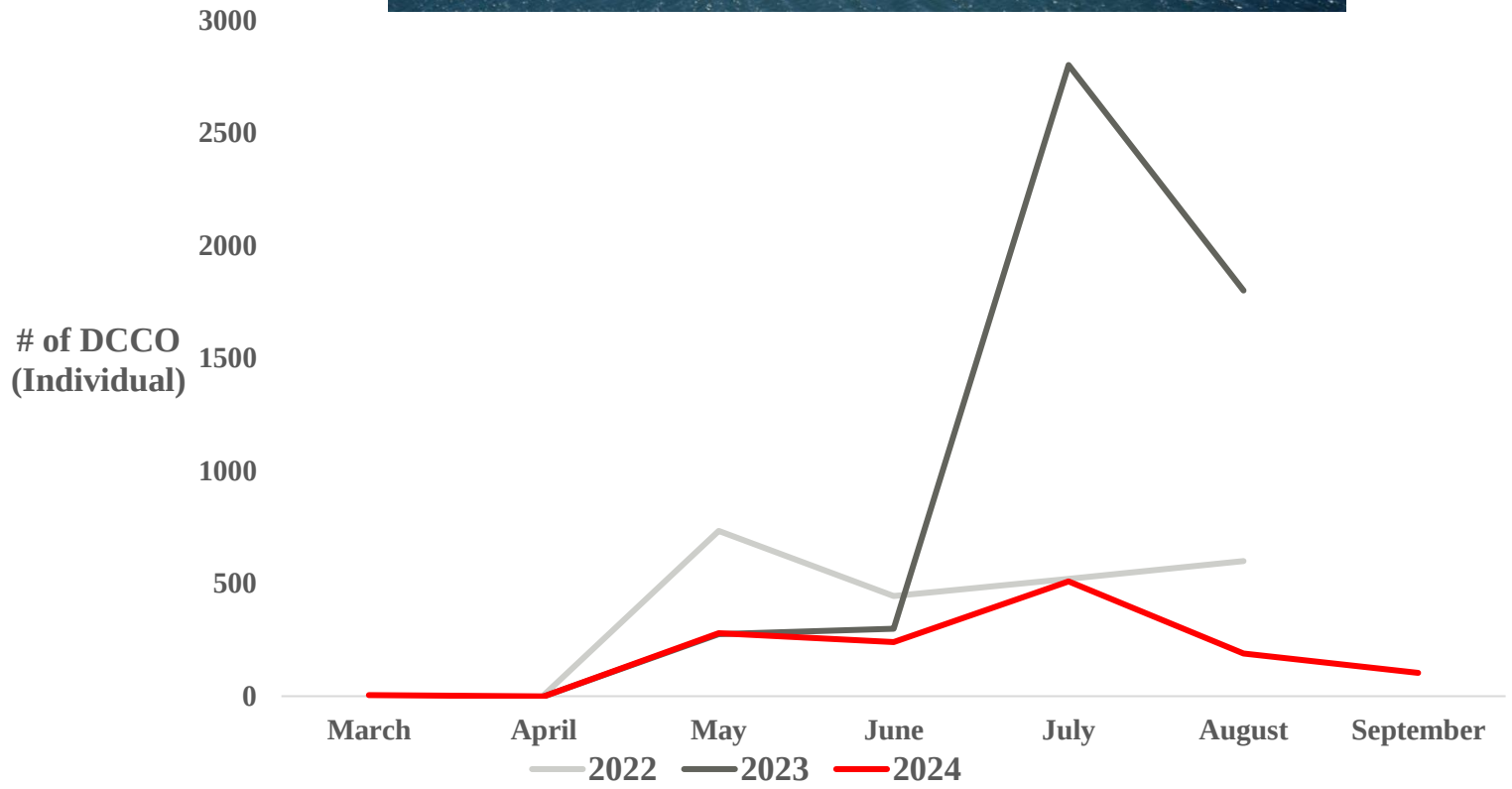
- PIT-Tags collected

# RICE: DCCO

- First-Last Observation: 3 March – 16 September
- Observation Periods: *n* = 157
- Mean: 23.6 ± 79.5 S.D.
- Max: 510 (30 July 2024)

**CAP Flight Enumeration:**

| MMDDYY | # of Individuals |
|---|---|
| 04/16/24 | 0 |
| 05/09/24 | 0 |
| 06/06/24 | 7 |
| 07/17/24 | 1924 |
| 08/27/24 | 1057 |
| 09/20/24 | 44 |
| 09/26/24 | 43 |



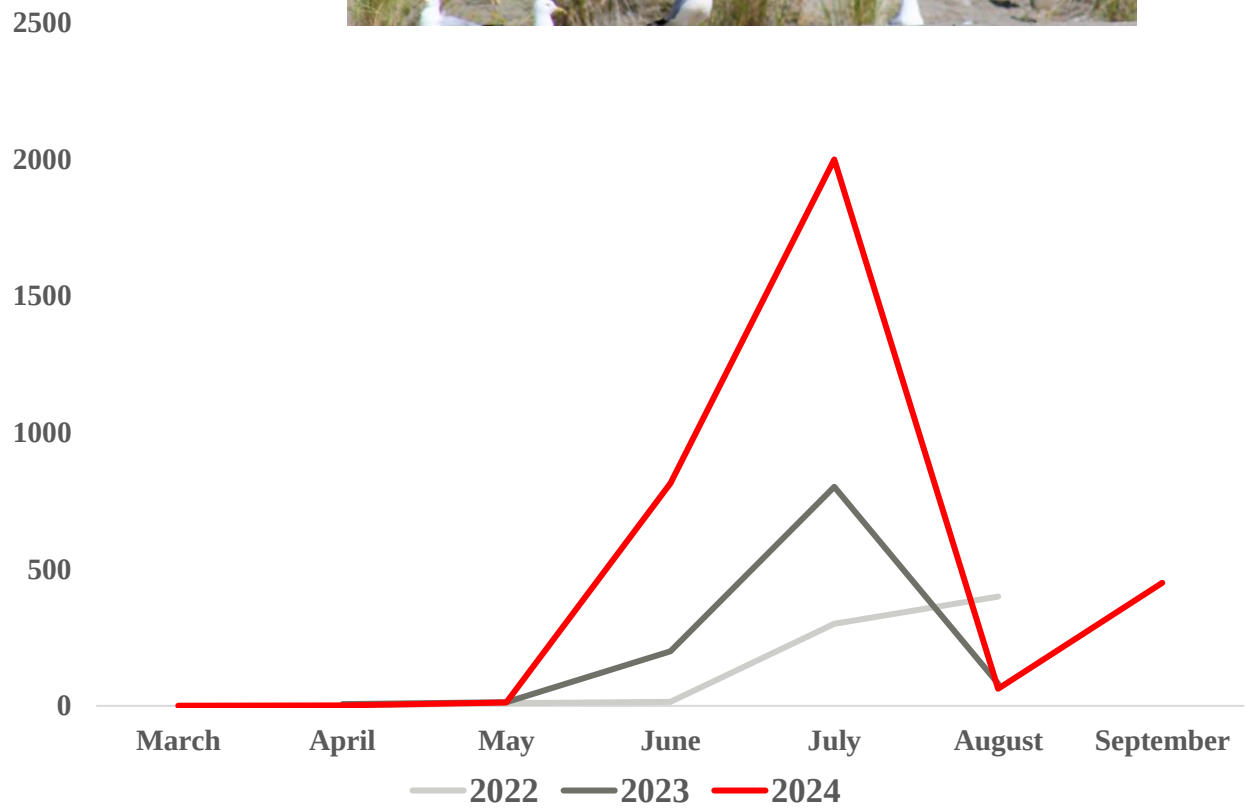

- No breeding attempts
- No BRAC observed

# RICE: AWPE

- First-Last Observation: 2 April – 17 September
- Observation Periods: *n* = 157
- Mean: 52 ± 201 S.D.
- Max: 2000 (8 July 2024)

**CAP Flight Enumeration:**

| MMDDYY | # of Individuals |
|---|---|
| 04/16/24 | 0 |
| 05/09/24 | 14 |
| 06/06/24 | 8 |
| 07/17/24 | 40 |
| 08/27/24 | 0 |
| 09/20/24 | 8 |
| 09/26/24 | 0 |




- No breeding attempts on Rice; but success on Miller Sands Island.

# MILLAR SANDS AND PILLAR ROCK - 2024

## Observer Data:

| | CATE | | DCCO | | APWE | |
|---|---|---|---|---|---|---|
| | Miller | Pillar | Miller | Pillar | Miller | Pillar |
| March | 0 | 0 | 0 | 0 | 18 | 0 |
| April | 0 | 0 | 0 | 14 | 8 | 0 |
| May | 0 | 0 | 0 | 11 | 8 | 0 |
| June | 0 | 0 | 0 | 317 | 8 | 29 |
| July | 84 | 0 | 20 | 9 | 250 | 45 |
| August | 0 | 0 | 36 | 11 | 320 | 8 |
| September | 2 | 0 | 119 | 7 | 75 | 0 |

## CAP Flight Data:

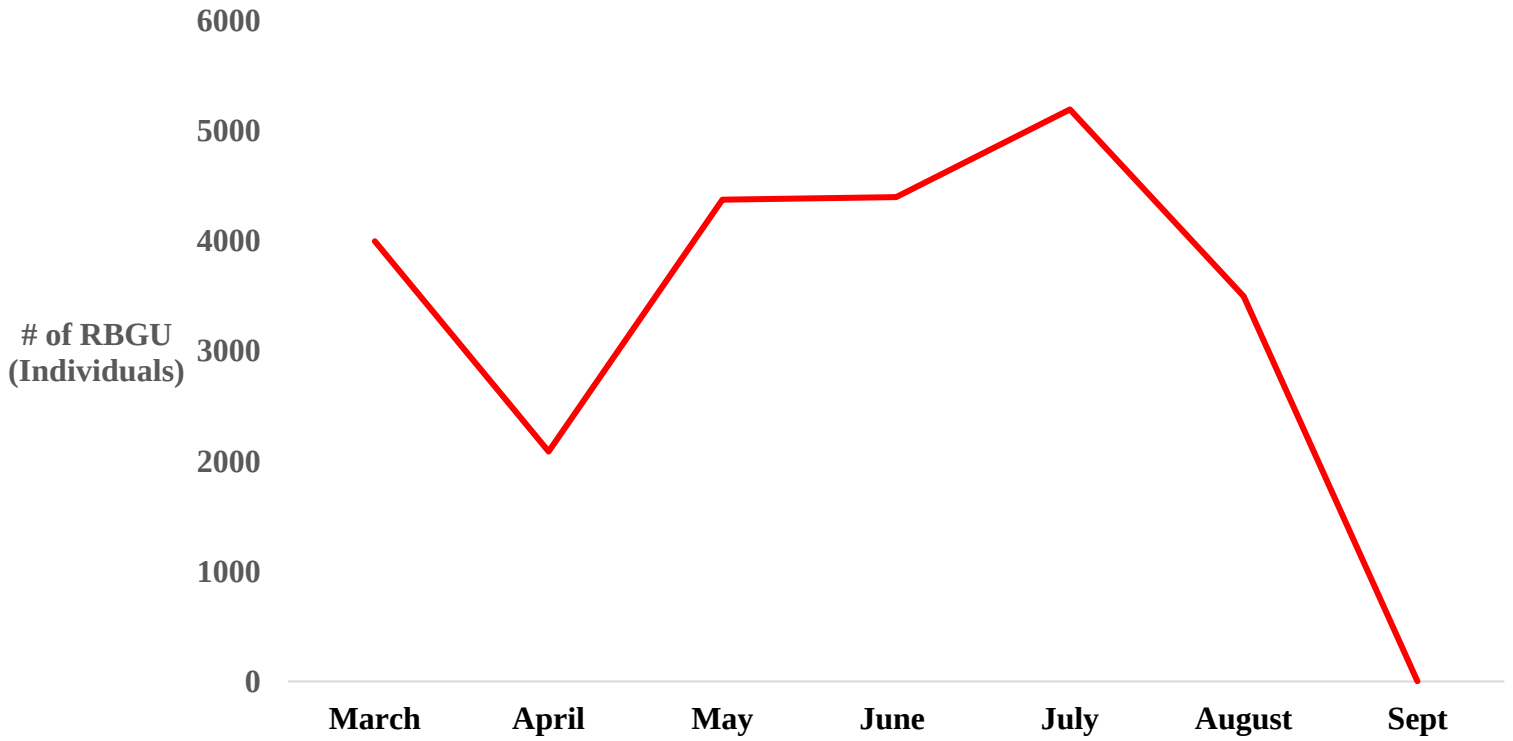
| | CATE | | DCCO | | APWE | |
|---|---|---|---|---|---|---|
| | Miller | Pillar | Miller | Pillar | Miller | Pillar |
| 16-Apr | 0 | 0 | 0 | 0 | 723 | 0 |
| 9-May | 0 | 0 | 0 | 601 | 670 | 27 |
| 6-Jun | 0 | 0 | 0 | 0 | 911 | 0 |
| 17-Jul | 6 | 0 | 390 | 0 | 757 | 0 |
| 27-Aug | 19 | 0 | 75 | 0 | 146 | 29 |
| 20-Sep | 11 | 0 | 60 | 0 | 191 | 0 |
| 26-Sep | 0 | 0 | 60 | 0 | 499 | 0 |

# RICE: RBGU

- First-Last Observation: 5 March – 9 September
- Observation Periods: *n* = 157
- Mean: 1454 ± 1222 S.D.
- Max: 5200 (30 July 2024)

**CAP Flight Enumeration:**

| MMDDYY | # of Individuals |
|---|---|
| 04/16/24 | 63 |
| 05/09/24 | 2748 |
| 06/06/24 | 3266 |
| 07/17/24 | 4620 |
| 08/27/24 | TBD |
| 09/20/24 | TBD |
| 09/26/24 | TBD |



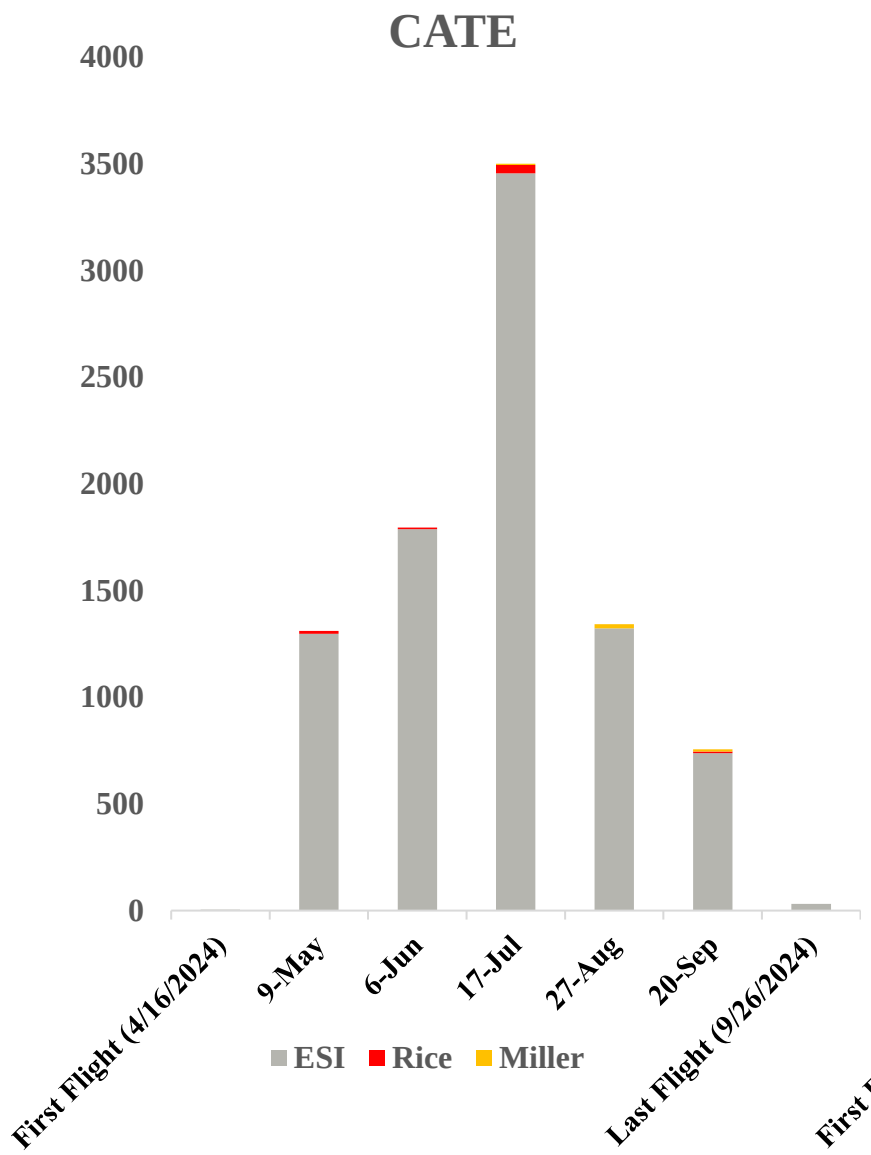

- Successful breeding, # of chicks/nests unknown

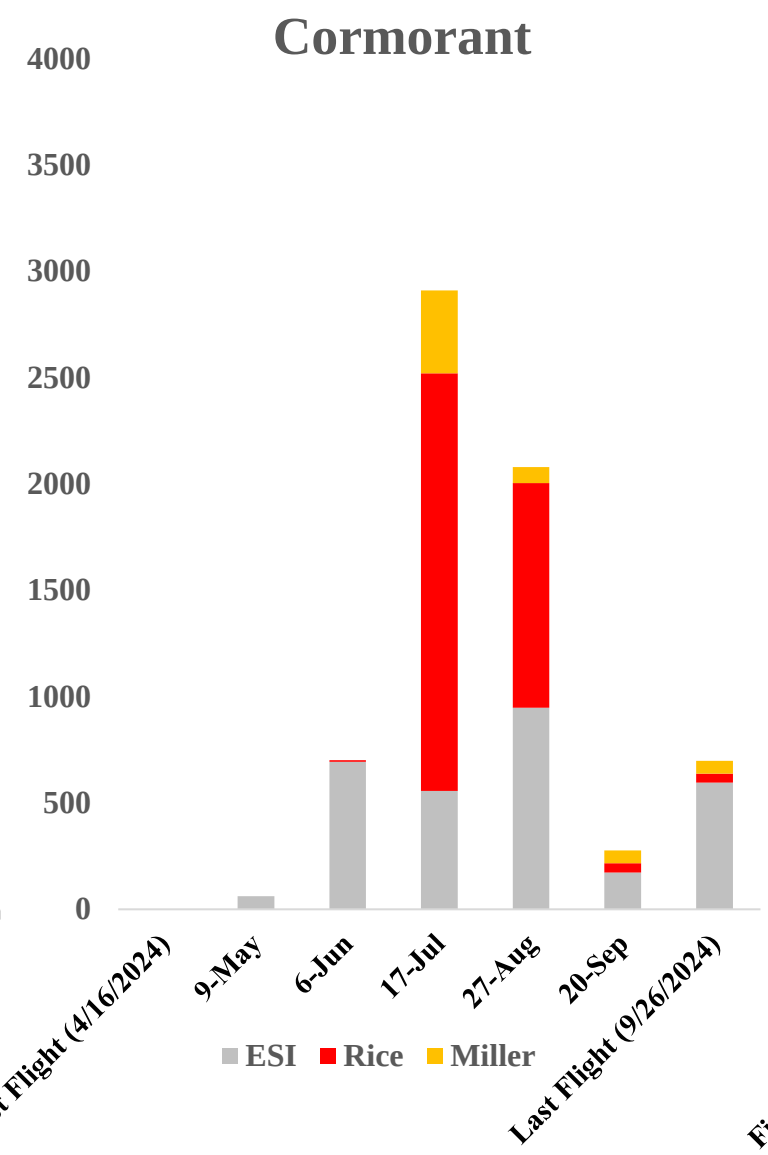
# RICE PIT TAG ESTIMATE

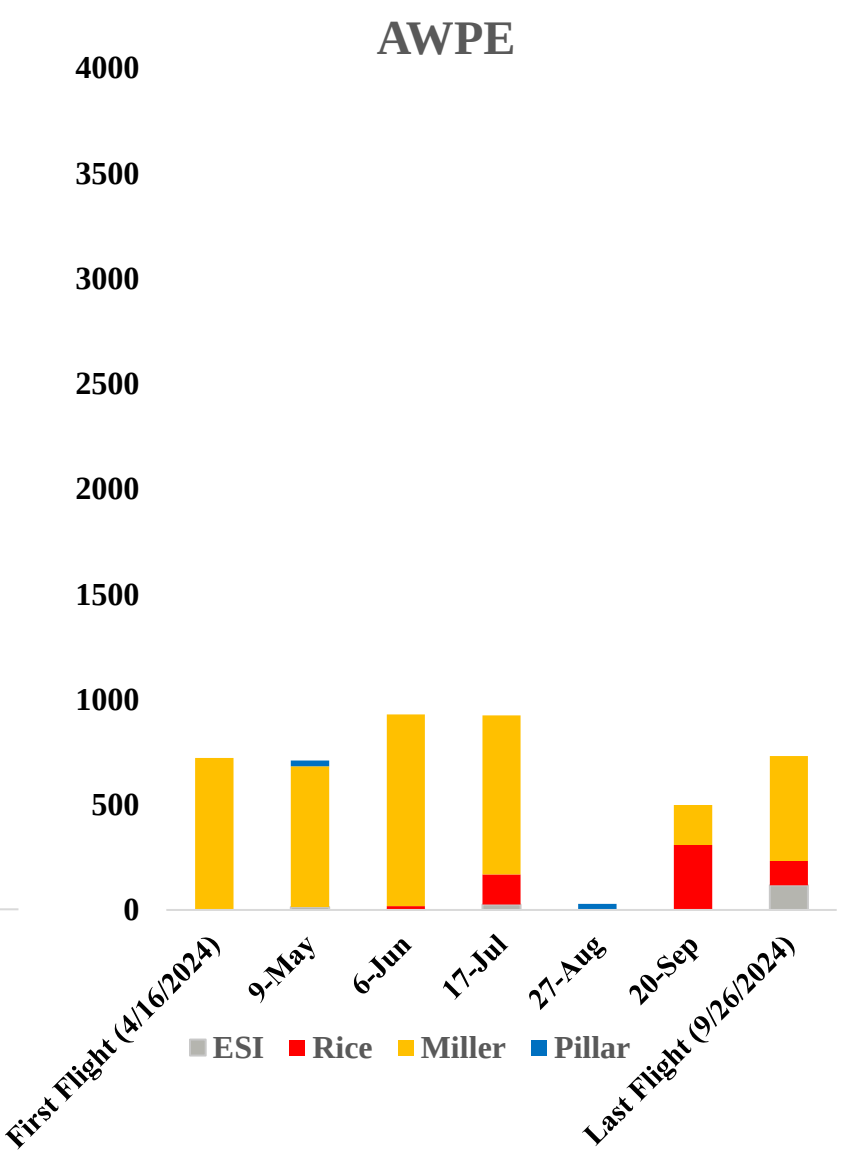
PIT data provided by USACE & BPA funded Project :1997-024 Avian Predation on Juvenile Salmonids

| Location | Bird Colony | 2024 Migration Year (MY) Smolt Tags | | | | 2024 MY | 2023 MY | 2022 MY | 2021 MY | 2020 MY |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Chinook | Coho | Steelhead | Sockeye | ALL | ALL | ALL | ALL | ALL |
| Rice Island | CATE | NA | NA | NA | NA | NA | 1,124 | 2,385 | 1,344 | 1,048 |
| | LAXX | 24 | 0 | 9 | 0 | 34 | NA | NA | NA | NA |
| | Mix | 30 | 1 | 43 | 1 | 78 | NA | NA | NA | NA |

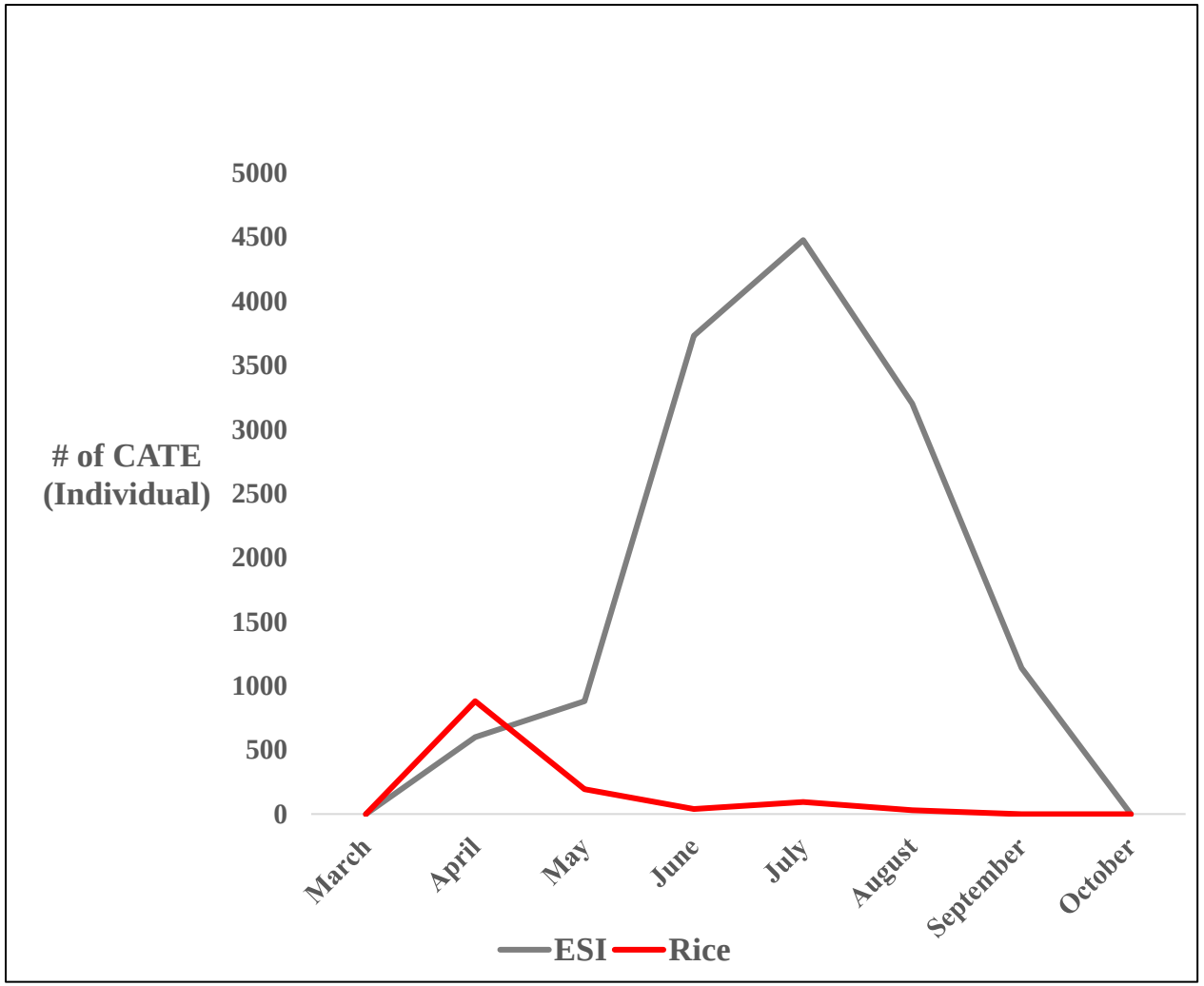
# CAP PHOTO ANALYSIS “SNAPSHOT” - 2024



# CATE IN THE ESTUARY - 2024




# CLOSING REMARKS

- **Met management objectives and maintained compliance with both BiOp requirements across all USACE owned and operated islands.**
  *Required intense dissuasion efforts.*

- **Rice Island management of incipient CATE colony is dynamic and has an impact on fish.**
  *Continuing to pursue enhanced hazing tactics. The increased staffing this year was successful, but arduous. RBGU make it hard.*

- **CATE colony on ESI produced first chicks in five years. Late breeding contribute to success?**
  *Early breeding efforts failed but late attempts were successful. Perhaps explains the reduced fish impact.*

- **Cormorants on ESI continues to be inconsistent. The late season attempt was a success this year.**
  *Continue to manage land and prepare for birds to return.*

# QUESTIONS?

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