

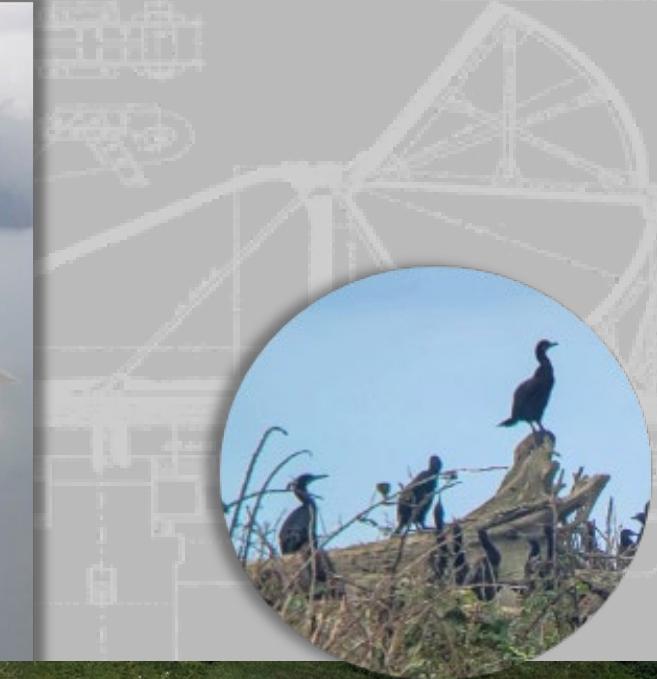
# USACE MONITORING OF PISCIVOROUS BIRDS IN THE COLUMBIA RIVER ESTUARY 2023 – RESULTS OF MONITORING AND DISSUASION EFFORTS

**Fisheries Field Unit  
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**US Army Corps  
of Engineers®**





# AUTHORITY & SCOPE



## East Sand Island :

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

- Provide 1 acre of quality CATE habitat.
- Monitor CATE abundance and use of the colony
- Dissuade satellite colonies outside the 1 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).



USACE Areas of Responsibility in the Columbia River Estuary

East Rice Piles	Miller Island	Rice Island
East Sand Island	Pillar Island	



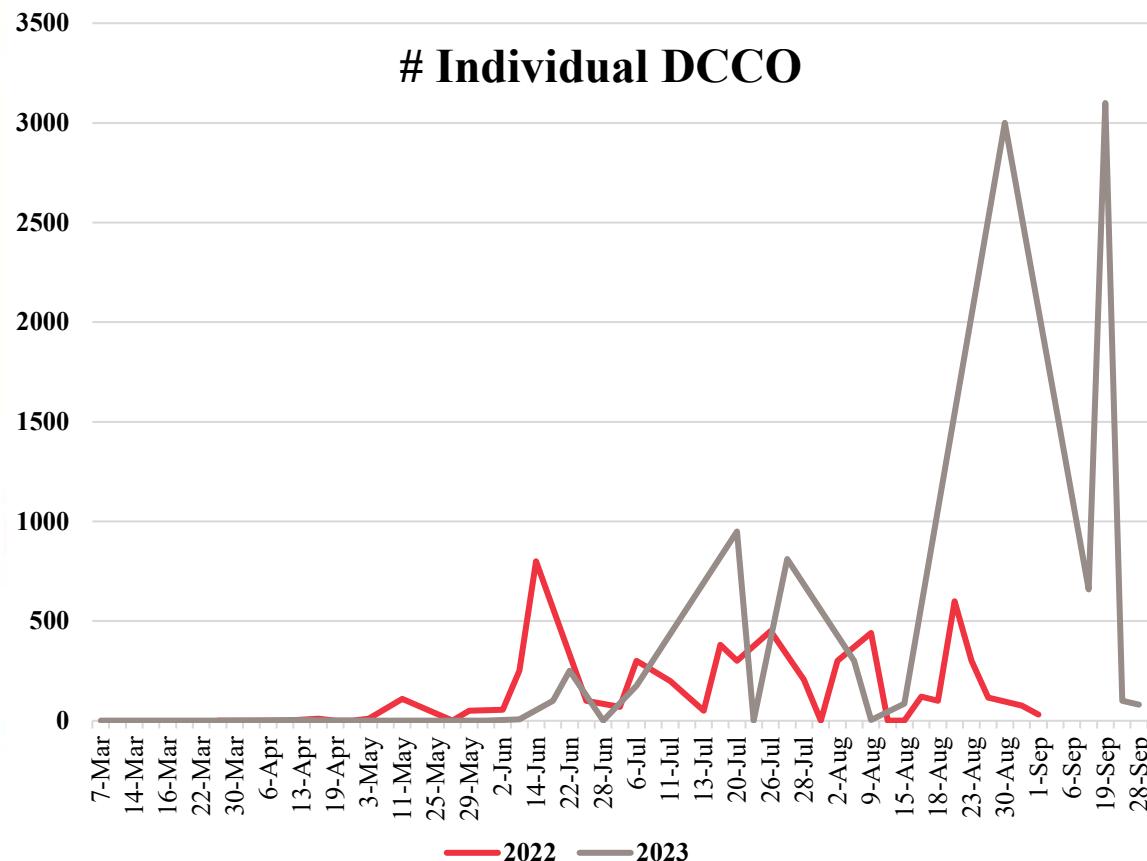
US Army Corps of Engineers  
Portion District  
11/17/2020  
11/17/2020  
0 0.75 1.5 3 Miles



# ESI: DOUBLE-CRESTED CORMORANT



- DCCO PEAK ABUNDANCE: 3,100 INDIVIDUALS (19 SEPT.)
- 241 CONFIRMED NESTING ATTEMPTS
- SOME DCCO EGGS HATCHED ON ESI AND CHICKS FLEDGED
- PIT TAGS WERE COLLECTED

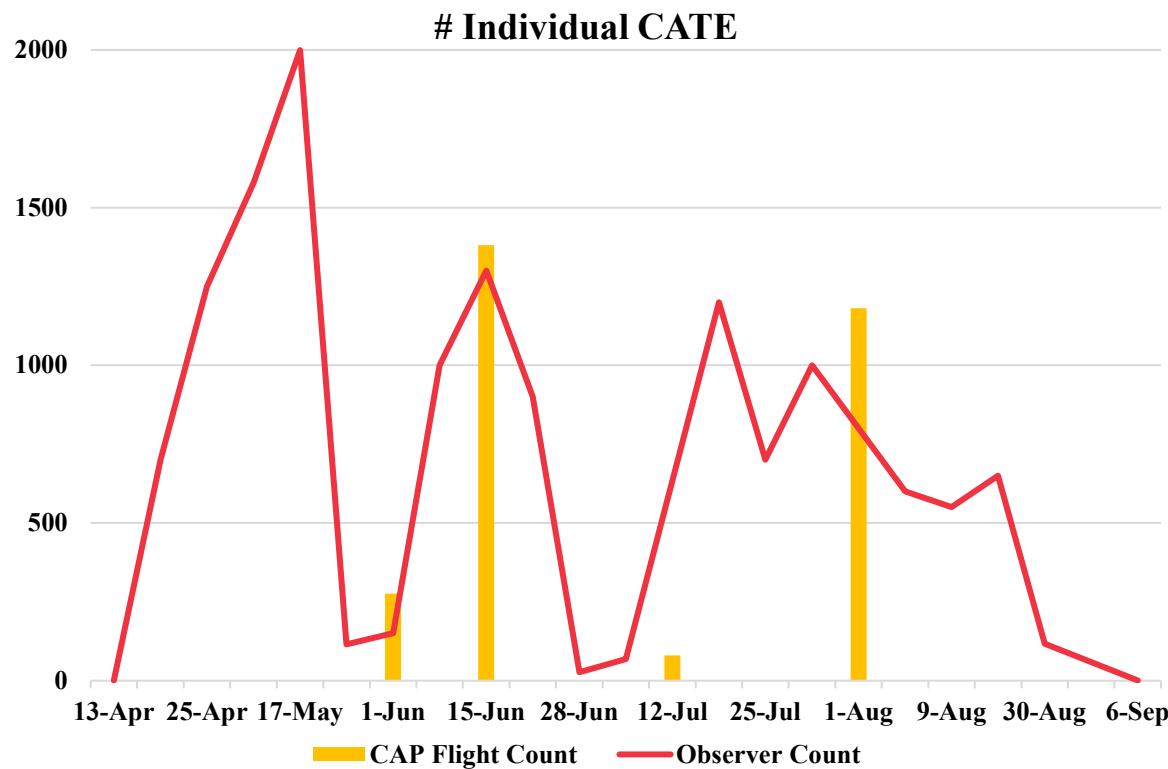




# ESI: CASPIAN TERN



- CATE PEAK ABUNDANCE\*: 524 BREEDING PAIR (15 June)
- COLONY ABANDONMENT
- NO EGGS HATCHED
- PIT TAGS WERE COLLECTED





# RICE, MILLER, PILLAR ROCK ISLAND (RMP)





# RMP: DOUBLE-CRESTED CORMORANT



**DCCO Abundance, 4 April – 14 September.**

Site	<i>n</i> days monitored	$\bar{X} \pm SD$	Range	<i>n</i> days = 0
Rice Island	65	$193.0 \pm 476.4$	0-4898	29
Miller Sands	22	$8.9 \pm 19.9$	0-85	16
Pillar Rock Island	20	$19.8 \pm 32.2$	0-142	2
East Rice pilings	20	$160.4 \pm 170.3$	0-648	2



# RMP: AMERICAN WHITE PELICAN



**AWPE ABUNDANCE, 4 April – 14 September.**

Site	$n$ days monitored	$\bar{X} \pm SD$	Range	$n$ days = 0
Rice	65	$36.0 \pm 107.1$	0-802	28
Miller Sands	22	$52.2 \pm 97.3$	0-995	14
Pillar Rock	20	$0.7 \pm 3.1$	0-14	19



# RMP: CASPIAN TERN



**CATE Abundance, 4 April – 14 September.**

Site	$n$ days monitored	$\bar{X} \pm SD$	Range	$n$ days = 0
Rice Island	65	$322.0 \pm 341.4$	0-1360	3
Miller Sands	22	$4.5 \pm 10.2$	0-35	17
Pillar Rock Island	20	0	0	20

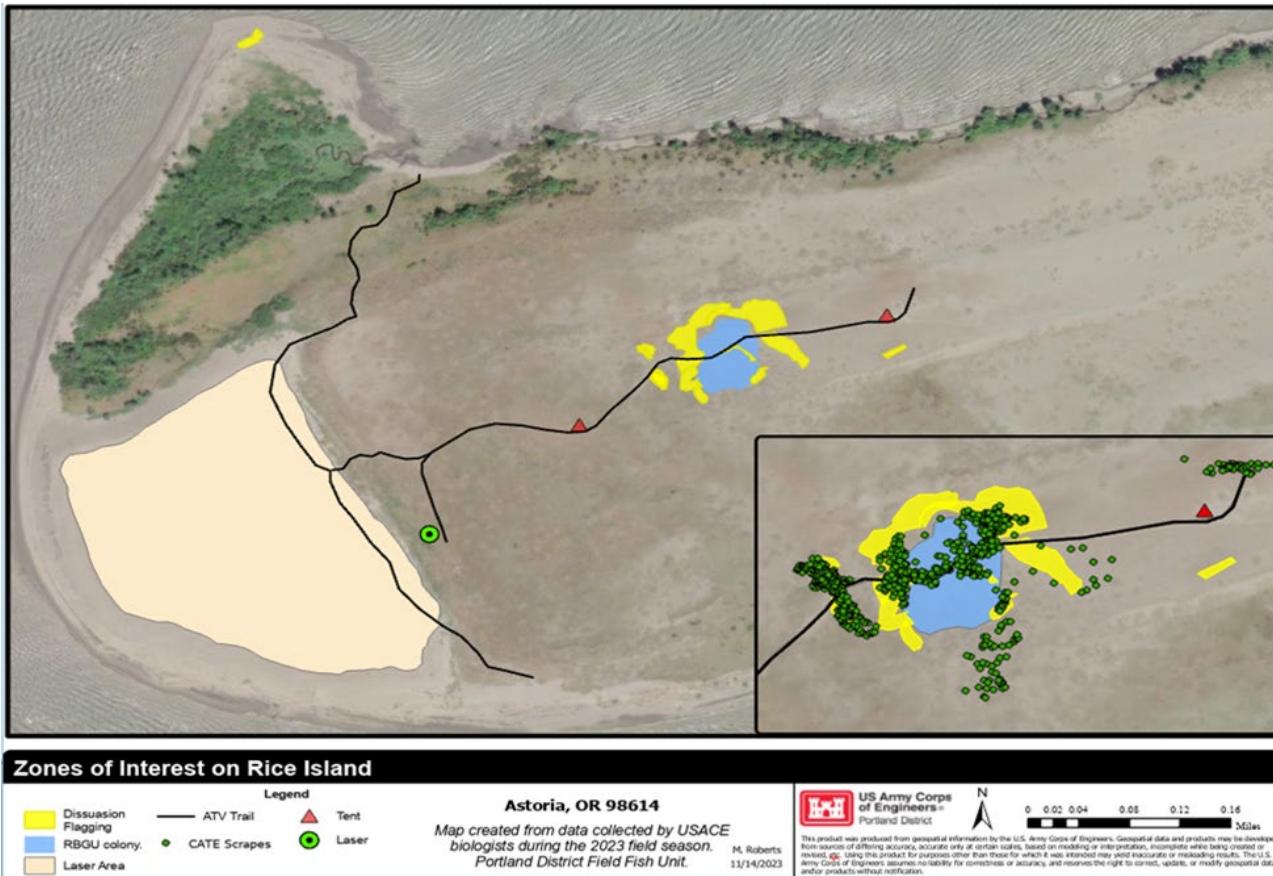


# RICE ISLAND: CATE, RBGU, SHLA

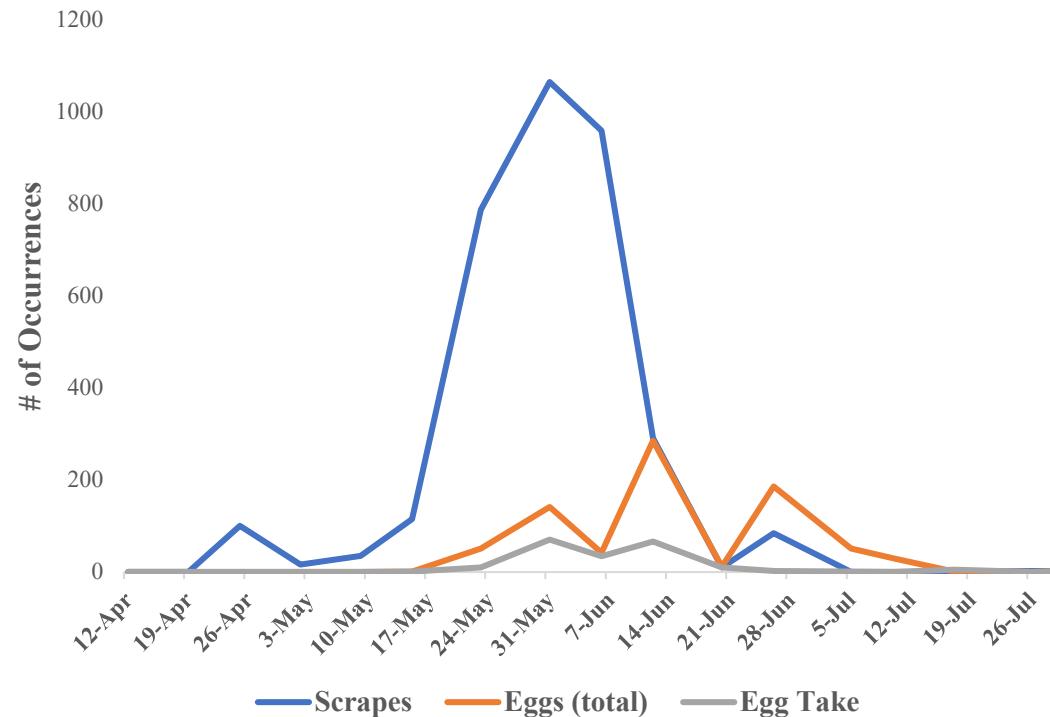
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- CATE PEAK ABUNDANCE: 1,360 INDIVIDUALS (JUNE 26)
- ASSOCIATION WITH RING-BILLED GULL:  $n = 3,174$
- NO CATE EGGS HATCHED
- PIT TAGS WERE COLLECTED



CATE Nesting Behavior on Rice Island in 2023

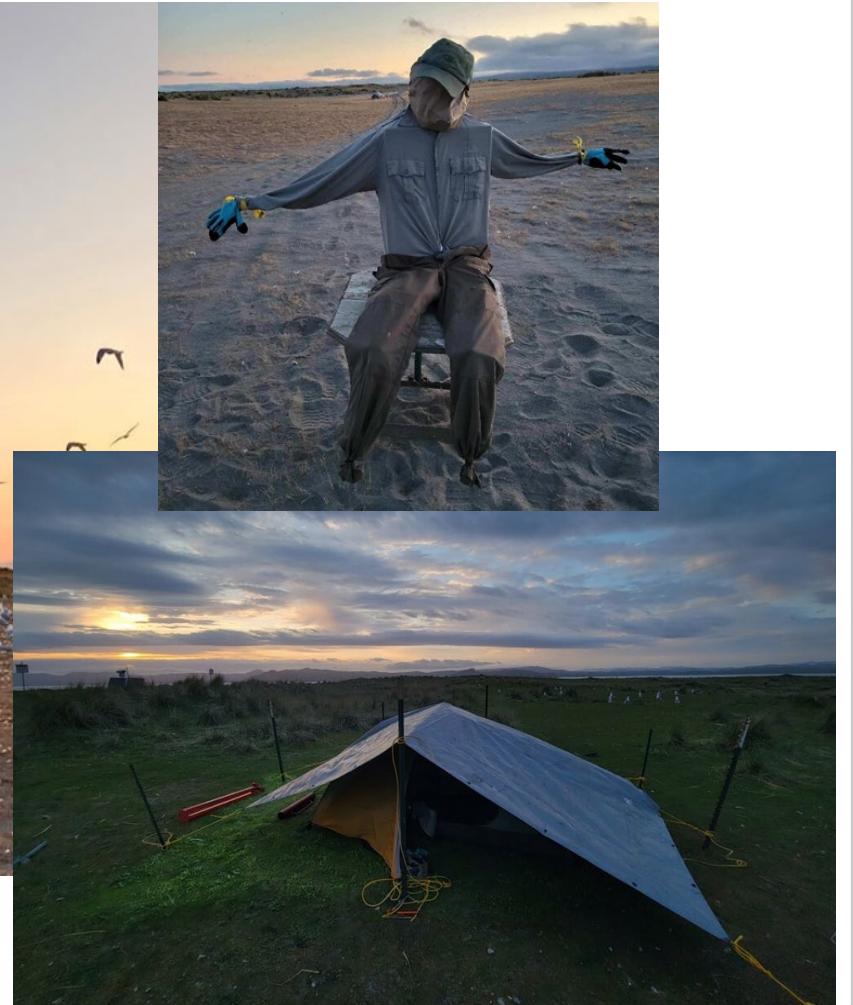




# RICE ISLAND DISSUASION

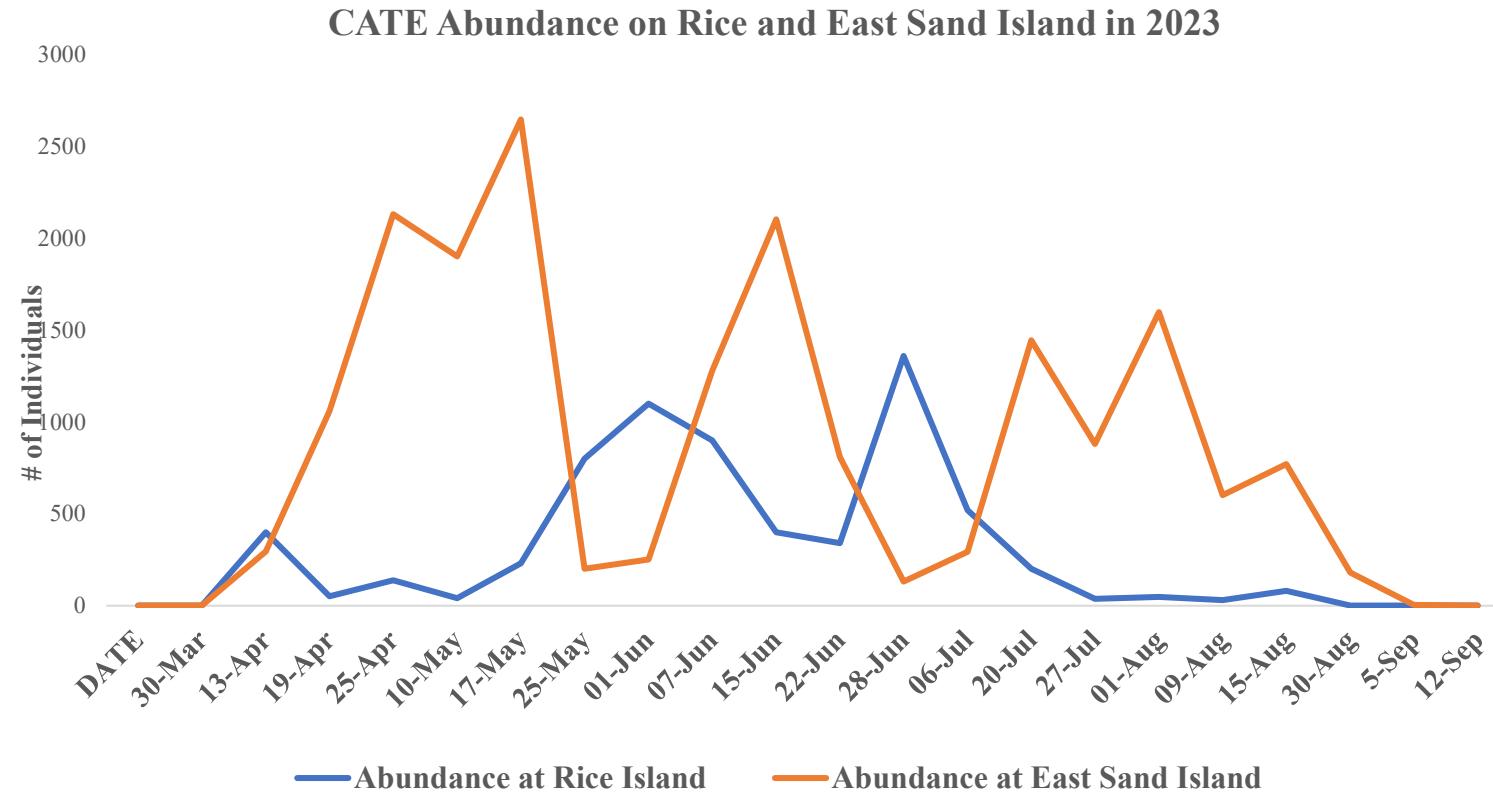


- ENHANCED HAZING TACTICS
- 65 DAYS MONITORING | 24 NIGHTS ON ISLAND
- SHLA CONSIDERATIONS | POPULATION SEEMINGLY UNAFFECTED





# CATE IN THE ESTUARY





# CLOSING REMARKS



- **Met management objectives and maintained compliance with BiOp requirements across all USACE owned and operated islands.**  
*Required intense dissuasion efforts by FFU staff.*
- **Rice Island management of incipient CATE colony is dynamic and has an impact on fish..**  
*Continuing to pursue enhanced hazing tactics and increase staffing to fully implement authority.*
- **CATE colony on ESI continues to decline and has not produced a chick in five years.**  
*Management of the birds and fish continues to be difficult.*
- **DCCO colony 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?



