

memorandum

DATE: May 1993

REPLY TO
ATTN OF: Refuge Biologist

SUBJECT: 1993 Waterfowl Breeding Pair Survey

TO: Files

The Refuge breeding pair survey was conducted on the evening of April 29 from 5:40 pm until sunset at 7:40 pm. Weather consisted of clear skies, cool temperatures, and a calm breeze. Four FWS staff and six volunteers staffed 10 survey stations (see attached map). A 12' observation platform, which greatly increased visibility, was used on the North Pool dike in front of Deer Island. Vehicles/towers were used at other sites. The survey was conducted according to the attached methodology from the Wildlife Inventory Plan 1992.

Observation of breeding pairs in the Refuge impoundments declined from 67 in 1992 to 41, particularly in Bill Forward and Stage Island Pools. The most prevalent species observed were black duck, mallard, and gadwall, with small numbers of green-winged teal and blue-winged teal. Other species observed include two bufflehead pairs and a red-breasted merganser drake; however, these species do not breed on the Refuge. The survey was complicated by extremely high water levels, from record snowfall this past winter, which flooded fields and vegetation. Additional pairs may have been hidden in this increased available habitat. High tide conditions may have also been a contributing factor. For example, nine pairs, five drakes, and one flock, represented by five species, were observed in the tidal inlet adjacent to the dike at Stage Island Pool.

Refer to the attached breeding pair survey forms and Table 1 for additional information. Breeding pair data will be compared with the follow-up brood survey.

Other observations during the survey included a pair of mute swans in Stage Island Pool. Approximately 20 black-crowned night herons were observed departing North Pool at dusk. A large number of herons were observed last year during the survey as well.

Recommendations: For future breeding pair and brood surveys, the observation platform should be implemented at other survey stations for those staff/volunteer willing to use them.

Table 1. Breeding Pair Survey Summary of Refuge Impoundments: 1993

Species	North	Bill Forward	Stage Island	Total
Black Duck	8	1	5	14
Mallard	2	4	3	9
Gadwall	6	1	5	12
Bl-wngd Teal	3	-	-	3
Gr-wngd Teal	1	-	-	1
Bufflehead	-	-	2	2
Total:	20	6	15	41

Joann Henley