

1991

## Osprey Population Studies

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PERFORMANCE REPORT

STATE: VIRGINIA

PROJECT TITLE: NONGAME & ENDANGERED SPECIES INVESTIGATIONS      PROJECT NO: EW-2-3

STUDY TITLE: OSPREY INVESTIGATIONS      STUDY NO: VII

JOB TITLE: OSPREY SURVEY & PRODUCTIVITY      JOB NO: A-D

DURATION: JULY 1, 1990 - JUNE 30 1991

**SUMMARY:**

Nesting surveys were conducted on selected river systems by boat. Detailed reproductive data were obtained from a sample of 341 nests from the west side of Chesapeake Bay. Production for this sample was 1.02 young per active nest. Young ospreys were transferred to West Virginia for hacking.

**JOB VII-A OBJECTIVE:** To make a complete aerial and ground survey of active osprey nests in Virginia to determine total breeding population size.

**RESULTS:**

Nest surveys for ospreys were conducted in 1991 only by boat and only to determine the number of active pairs observable from the water in the primary study areas. These numbers, hence, are not complete and do not reflect the state population numbers.

An active nest was defined as one in which there was a bird in incubation position. Nests were located and plotted on 7 1/2 minute topographic sheets. Total number of breeding pairs in this restricted survey by area are presented in Table 1.

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Table 1. Breeding pairs of ospreys in Virginia by river system or area as determined by boat survey, 1991

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Area	Number of Breeding Pairs
York River Drainage	94
Mobjack Bay	142
Rappahannock River	190
Potomac River	212
Fleets Bay	76
James River	42
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TOTALS	756

The 756 nests are comparable to the 862 nests located by both aerial and boat survey in 1990.

**JOB VII-B OBJECTIVE:** To measure hatching and fledging success of a sample of osprey nests representative of all of the major estuaries as well as the Eastern Shore of Virginia.

**RESULTS:**

The productivity of ospreys in Virginia has been followed for the past 20 years. In 1991, nests were monitored only on the York River, Rappahannock River, and Potomac River. All known nests in these areas were not monitored for productivity. Data on nests monitored are shown in Table 2.

The productivity of ospreys from a sample of three study areas revealed an average of 1.02 young per active nest. Production for a larger sample of nests for the past four years has ranged from 0.77 to 1.16 fledglings per active nest. Production rates of 1.50 per active nest as observed in the late 1970's no longer seem to occur under existing food regimes.

Table 2. Productivity of ospreys from a sample of nests on the western side of Chesapeake Bay for selected years, 1985-1991, from three study areas.

Study Area	No. of Active Nests			No. of Young Fledged			No. of Young Fledged per Active Nest								
	1985	1986	1989	1990	1991	1985	1986	1989	1990	1991					
York River	50	50	65	79	83	52	92	65	79	90	1.48	1.84	1.00	1.00	1.08
Rappahannock River	98	109	152	136	142	106	107	121	144	147	1.08	0.98	0.80	1.06	1.04
Potomac River	84	77	65	103	116	87	100	55	71	110	1.04	1.29	0.84	0.69	0.95
Totals	389	377	432	487	341	380	438	334	460	347	0.98	1.16	0.77	0.94	1.02

**JOB VII-C OBJECTIVE:** To coordinate all transfer of young ospreys from Virginia to other states involved in reintroduction programs for this species.

**RESULTS:**

Ten young ranging in age from 5-6 weeks of age were collected from the York River in late June and transferred to West Virginia for hacking purposes.

**JOB VII-D OBJECTIVE:** To make detailed studies of nests in areas of high pre-fledgling mortality to determine causes of differential rate of survival.

**RESULTS:**

No activity in this job during the current reporting period.

**PREPARED BY:**

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**TARGET DATE FOR COMPLETION:**

Continuing

**STATUS OF PROGRESS:**

On schedule

**SIGNIFICANT DEVIATIONS:**

None

**RECOMMENDATIONS:**

Continue study

**COST THIS SEGMENT:**

\$ 9,175 total  
\$ 6,881 federal  
\$ 2,294 state

**APPROVED BY:**

Bob Duncan  
Wildlife Div. Chief

Jerry Sims  
PR Coordinator