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VIRGINIA BALD EAGLE
NEST AND PRODUCTIVITY SURVEY:
YEAR 2003 REPORT



CENTER FOR CONSERVATION BIOLOGY
COLLEGE OF WILLIAM AND MARY

VIRGINIA BALD EAGLE NEST AND PRODUCTIVITY SURVEY: YEAR 2003 REPORT

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Center for Conservation Biology

Front Cover: *Six-week old eagle chick in nest on York River. Photo by Catherine Markham.*



The Center for Conservation Biology is an organization dedicated to discovering innovative solutions to environmental problems that are both scientifically sound and practical within today's social context. Our philosophy has been to use a general systems approach to locate critical information needs and to plot a deliberate course of action to reach what we believe are essential information endpoints.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	iii
BACKGROUND	1
Context	1
Objectives.....	1
METHODS	2
Study Area.....	2
Survey.....	2
RESULTS	4
Breeding Population.....	4
Productivity.....	8
DISCUSSION	10
ACKNOWLEDGEMENTS	11
LITERATURE CITED	11
APPENDIX I	12
APPENDIX II	15
APPENDIX III	18
APPENDIX IV	20
APPENDIX V	23
APPENDIX VI	24
APPENDIX VII	25
APPENDIX VIII	26

EXECUTIVE SUMMARY

By the late 1960's, the Virginia bald eagle breeding population had been decimated by eggshell thinning and associated low productivity. In 1977, the U. S. Fish and Wildlife Service formed the Chesapeake Bay Bald Eagle Recovery Team. This team was tasked with developing a plan for the recovery of the Bay population. As part of this process, state wildlife agencies assumed the responsibility for population monitoring. The Virginia Department of Game & Inland Fisheries along with the College of William & Mary initiated a systematic survey in the spring of 1977. Since that time, the annual bald eagle survey has become the most essential element of a successful conservation strategy. Our objectives in continuing the Virginia bald eagle nest survey are 1) to monitor the recovery of the bald eagle in Virginia, 2) to document the status, distribution, and productivity of breeding bald eagles in Virginia, 3) to provide information to the government agencies charged with the management and protection of the Virginia Bald Eagle population, 4) to provide information to land holders about the status of Bald Eagles on their properties, and 5) to increase our understanding of Bald Eagle natural history in Virginia.

The Virginia Bald Eagle survey measures breeding activity and productivity via a standard 2-flight approach. The first flight is conducted between late February and mid-March to locate active nests. A high-wing Cessna 172 aircraft is used to systematically overfly the land surface at an altitude of approximately 100 m to detect eagle nests. All Bald Eagle nests detected are plotted on 7.5 min topographic maps and given a unique alpha-numeric code. Each nest is examined to determine its condition and activity status. The second survey flight is conducted from late April through mid-May to check active nests for productivity.

During the 2003 breeding season, the annual survey documented 435 occupied Bald Eagle territories in Virginia. This represents the highest annual increase (19.8%) in the breeding population since the systematic survey began in 1977. The population is exhibiting tremendous forward momentum. At the present rate of increase, the population will exceed 500 breeding pairs within the next 1-2 years. Despite the third highest production of young (454), both success rate and average brood size were the lowest in approximately 10 years. The spring months in 2003 were the wettest on record for coastal Virginia. It seems likely that the dip in both of these parameters may have resulted from poor weather conditions. Previous lows in reproductive performance have also coincided with weather events. The possible influence of rain on reproductive rates is currently being investigated as part of an intensive video-monitoring study of prey delivery and chick growth within Virginia (Markham, unpub. data).

BACKGROUND

Context

No specific estimates of the Virginia Bald Eagle (*Haliaeetus leucocephalus*) population are available prior to the early 1900's. The first known survey of eagles in Virginia was a ground survey conducted by Tyrell in 1936 (Tyrell 1936). His survey covered a small portion of Virginia around the Potomac River and documented 17 active nests. With the realization that Bald Eagle numbers and reproductive success had declined throughout the early 1950's, the National Audubon Society requested information from several areas throughout North America. As part of this effort, Abbott coordinated a volunteer-based survey beginning in 1956 that included portions of Virginia (Abbott 1957). This effort was greatly expanded in 1962 when several government agencies provided support toward a continent-wide investigation of breeding status and success (Sprunt 1962, Abbott 1963). That year marked the first time that Bald Eagles were surveyed from the air throughout most tidal areas of Virginia. The aerial survey was conducted by Abbott and Scott until the 1977 breeding season (Abbott 1976).

In 1977, the U. S. Fish and Wildlife Service formed the Chesapeake Bay Bald Eagle Recovery Team (Abbott 1977). This team was tasked with developing a plan for the recovery of the Bay population. As part of this process, state wildlife agencies assumed the responsibility for population monitoring. As the state agency responsible for wildlife management, The Virginia Game Commission (currently, The Virginia Department of Game & Inland Fisheries) is responsible for Bald Eagle monitoring and management in Virginia. Under contract to the state M. A. Byrd took over responsibility for the survey in 1977. The 2003 breeding season represents the 27th year of the comprehensive Bald Eagle breeding survey.

Objectives

Our objectives in continuing the Virginia Bald Eagle nest survey are:

- 1) to monitor the recovery of the Bald Eagle in Virginia
- 2) to document the status, distribution, and productivity of breeding Bald Eagles in Virginia
- 3) to provide information to the government agencies charged with the management and protection of the Virginia Bald Eagle population
- 4) to provide information to land holders about the status of Bald Eagles on their properties
- 5) to increase our understanding of Bald Eagle natural history in Virginia

METHODS

Study Area

The primary focus area for the Virginia Bald Eagle breeding survey includes the tidal reaches of Chesapeake Bay tributaries and the lower Delmarva Peninsula. All Chesapeake Bay tributaries in Virginia are systematically surveyed to the extent of tidal influence. These drainages encompass nearly all historic records of breeding eagles in Virginia and continue to support the vast majority of the population. Throughout the 1990's, several areas have been added to the core survey area including Back Bay/North Landing River area, Lake Drummond, Kerr Reservoir, Lake Chesdin, Swift Creek Reservoir, Diascund Reservoir, and Lake Manassas. No attempts have been made to systematically survey the piedmont and mountain regions of Virginia. With the dramatic increase in inland reservoirs over the past few decades, it seems likely that breeding pairs remain undiscovered within these physiographic provinces. Nesting pairs known to occur within these regions have generally been discovered by agency biologists and the general public.



A stretch of the Pamunkey River in New Kent county. This type of undisturbed habitat is ideal for breeding eagles. Photo by Bryan Watts.

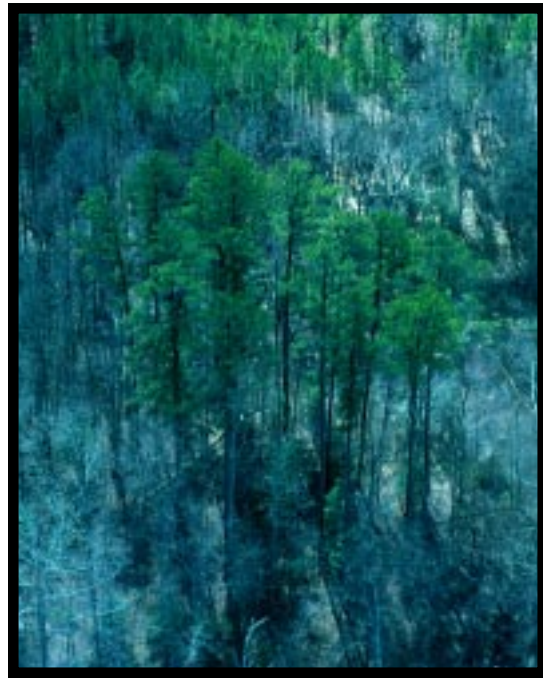
Survey

The Virginia Bald Eagle survey measures breeding activity and productivity via a standard 2-flight approach (Fraser et al. 1983). The first flight is conducted between late February and mid-March to locate active nests. A high-wing Cessna 172 aircraft is used to systematically overfly the land surface at an altitude of approximately 100 m to detect eagle nests. The aircraft is maneuvered systematically between the shoreline and a distance of approximately 1 km to cover the most probable breeding locations. All Bald Eagle nests detected are plotted on 7.5 min topographic maps and given a unique alpha-numeric code. Each nest is examined to determine its condition and activity status. A breeding territory

is considered to be “occupied” if a pair of birds is observed in association with the nest and there is evidence of recent nest maintenance (e.g. well-formed cup, fresh lining, structural maintenance). Nests are considered to be “active” if a bird is observed in an incubating posture or if eggs or young are detected in the nest (Postupalsky 1974). The second survey flight is conducted from late April through mid-May to check active nests for productivity. A high-wing Cessna 172 is flown low over the nest allowing observers to examine nest contents. The number of eaglets present is recorded along with their approximate ages.



Survey plane over Hog Island Wildlife Management Area. Photo by Bryan Watts.



Typical nesting situation in cluster of pines on Lake Chesdin. Photo by Bryan Watts.



Typical nesting situation in isolated pine over marsh (Rappahannock River). Photo by Bryan Watts.



Single 6-wk old chick in nest. Photo by Keith Cline.

RESULTS

Breeding Population

A total of 435 Bald Eagle territories was determined to be occupied in Virginia during the 2003 breeding season (Table 1, see Appendices I – VIII for nesting details by geographic area). When compared to 2002, this represents a 19.8% increase in the breeding population (Table 2). This is the highest annual rate of increase recorded during the 27-year survey (Figure 1). More than 120 new nests were mapped in 2003. Although many of these represent relocations within existing territories, a large number of new territories were discovered. The number of active nests increased by 12.8% compared to 5.1% for the previous year. The Virginia breeding population continues to exhibit exponential growth with an average doubling time over the 27 years of approximately 7.5 years (Figure 2).

Table 1. Summary of 2003 Bald Eagle survey results by geographic area. See methods for definitions of “occupied territory” and “active nest”. Chicks/active nests and chicks/productive nests are mean values.

GEOGRAPHIC AREA	OCCUP TERRS	ACTIVE NESTS	CHICKS PROD	CHICKS/ACT NEST¹	CHICKS/PROD NEST¹
POTOMAC RIVER	94	82	102	1.26	1.65
RAPPAHAN. RIVER	116	94	98	1.05	1.58
YORK RIVER	50	47	60	1.28	1.76
JAMES RIVER	92	80	104	1.30	1.65
WESTERN SHORE	19	17	24	1.41	1.71
EASTERN SHORE	30	26	28	1.08	1.33
LOWER TIDEWATER	11	11	18	1.64	2.00
INLAND AREAS	23	14	20	1.43	2.22
TOTAL	435	371	454	1.23	1.66

¹Calculated based on nests with known outcome. Success of 2 nests known to be active was not determined.

Growth in the breeding population was geographically widespread (Tables 1 and 2). All of the broad geographic areas examined had gains in the number of documented territories occupied and the majority had gains in the number of active nests. The Eastern Shore population had a particularly large jump in size. Known pairs within inland locations accounted for only 5% of the overall population (it should be noted that the systematic survey is focused primarily on coastal tributaries). Occupied territories were located within 44 counties and 9 independent cities (Table 3). Nests were located for the first time in Page and Pittsylvania Counties, as well as, in Norfolk and Chesapeake Cities. Westmoreland, King George, Richmond, Essex, and Charles City counties continue to support the highest number of pairs in the state. These 5 counties alone account for 32.4% of the state population.

Table 2. Summary of 2002 Bald Eagle survey results by geographic area. See methods for definitions of “occupied territory” and “active nest”. Chicks/active nests and chicks/productive nests are mean values.

GEOGRAPHIC AREA	OCCUP TERRS	ACTIVE NESTS	CHICKS PROD	CHICKS/ACT NESTS¹	CHICKS/PROD NESTS¹
POTOMAC RIVER	80	69	103	1.60	1.84
RAPPAHAN. RIVER	91	86	130	1.59	2.00
YORK RIVER	45	41	65	1.59	1.76
JAMES RIVER	81	74	117	1.58	1.95
WESTERN SHORE	18	18	26	1.44	2.00
EASTERN SHORE	23	20	28	1.40	1.65
LOWER TIDEWATER	6	5	8	1.60	1.60
INLAND AREAS	19	16	24	1.62	1.75
TOTAL	363	329	501	1.57	1.88

¹Calculated based on nests with known outcome. Success of 8 nests known to be active was not determined. The number of chicks within 5 nests known to be successful was not determined.

VIRGINIA BALD EAGLE POPULATION ANNUAL INCREASE

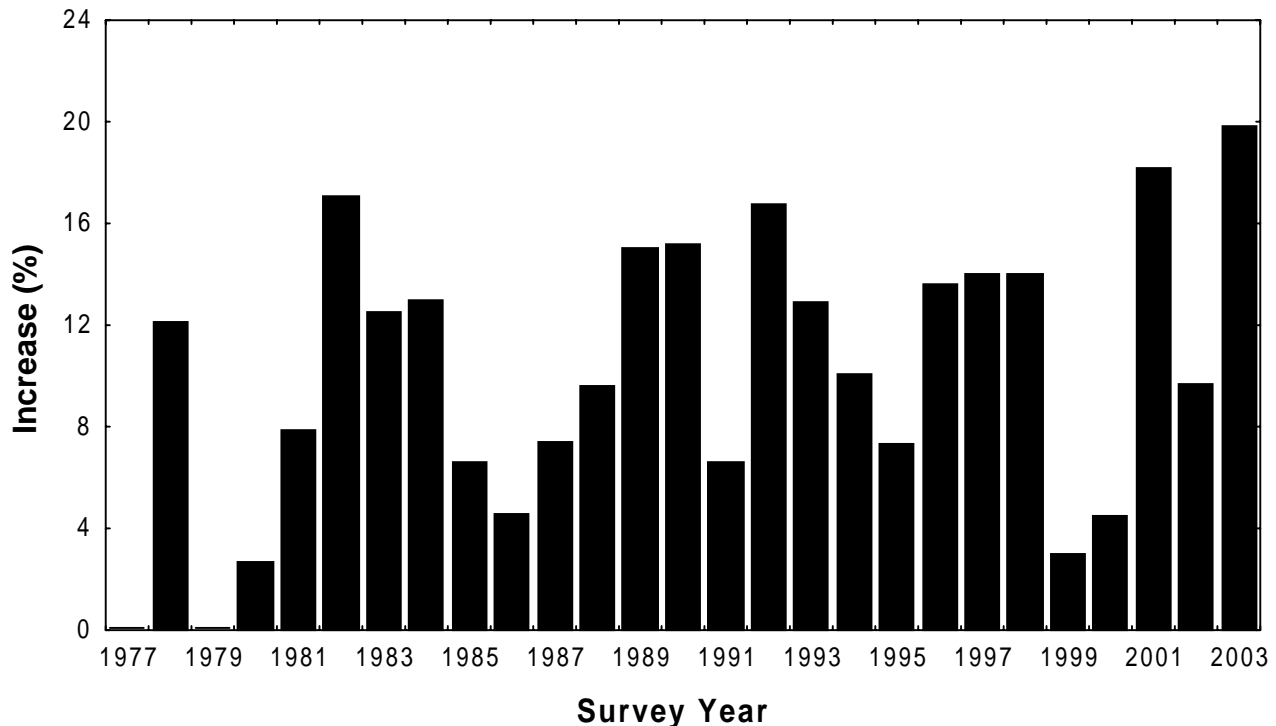


Figure 1. Annual increase values for the 27-year survey period (1977-2003). Values calculated as $(\text{Pairs}_t - \text{Pairs}_{t-1}) / \text{Pairs}_{t-1} \times 100$.

VIRGINIA BALD EAGLE BREEDING POPULATION

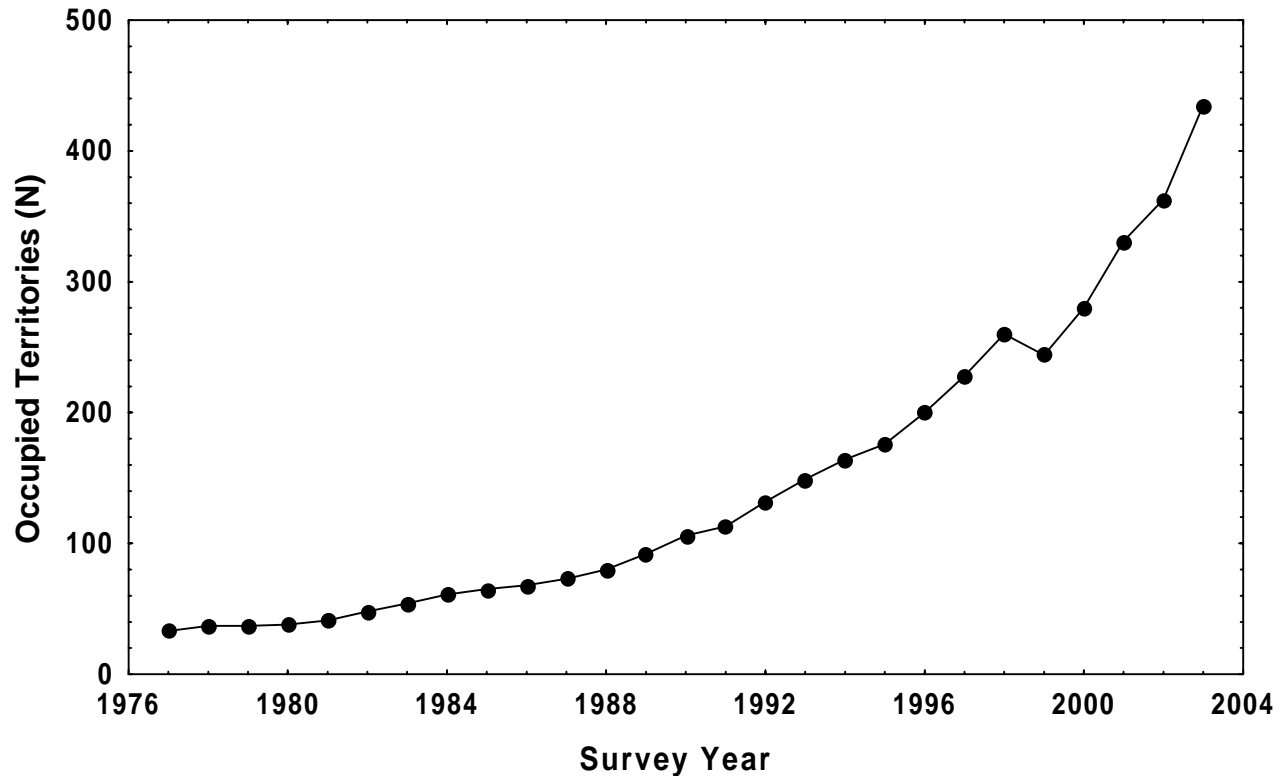


Figure 2. Number of known Bald Eagle territories in Virginia (1977-2003).

Table 3. Summary of 2003 Bald Eagle survey results by jurisdiction. See methods for definitions of “occupied territory” and “active nest”. Chicks/active nests and chicks/productive nests are mean values.

COUNTY	OCCUP TERRS	ACTIVE NESTS	CHICKS PROD	CHICKS/ ACT NESTS	CHICKS/ PROD NESTS
Counties					
Accomack	20	17	17	1.00	1.31
Albemarle	1	0	-----	-----	-----
Amherst	1	1	3	3.00	3.00
Bath	2	1	0	0.00	0.00
Bedford	1	0	-----	-----	-----
Caroline	14	11	12	1.09	1.50
Charles City	25	19	17	0.89	1.70
Chesterfield	6	5	8	1.60	2.00
Culpepper	1	0	-----	-----	-----
Essex	24	19	26	1.37	1.73
Fairfax	8	8	13	1.63	2.17
Fauquier	?	?	-----	-----	-----
Gloucester	6	4	3	0.75	1.50
Halifax	2	2	2	1.00	2.00
Hanover	1	1	3	3.00	3.00
Henrico	4	4	8	2.00	2.00

¹Results of 1 active nest unknown.

Table 3. –continued–

COUNTY	OCCUP TERRS	ACTIVE NESTS	CHICKS PROD	CHICKS/ ACT NESTS	CHICKS/ PROD NESTS
Isle of Wight	6	6	8	1.33	1.60
James City	16	15	23	1.53	1.77
King George	34	26	19	0.73	1.36
King & Queen	7	7	8	1.14	2.00
King William	15	15	18	1.20	1.64
Lancaster	9	8	9	1.13	1.50
Louisa	1	0	-----	-----	-----
Mathews	3	3	2	0.66	1.00
Mecklenburg	4	2	4	2.00	2.00
Middlesex	16	14	21	1.50	1.75
New Kent	13	11	16	1.45	1.60
Northampton	10	9	11	1.22	1.38
Northumberland	17	17	25	1.47	1.67
Nottoway	?	?	-----	-----	-----
Page	1	1	2	2.00	2.00
Pittsylvania	1	0	-----	-----	-----
Powhatan	1	1	2	2.00	2.00
Prince Edward	1	1	2	2.00	2.00
Prince George	12	10	13	1.30	1.86
Prince William	7	7	11	1.57	1.83
Richmond	33	27	20	0.74	1.54
Shenandoah	1	1	2	2.00	2.00
Southampton	1	1	3	3.00	3.00
Stafford	10	9	10 ¹	1.25	1.67
Surry	14	12	13	1.08	1.30
Sussex	2	2	0	0.00	0.00
Westmoreland	50	41	49 ¹	1.23	1.58
York	10	10	14	1.40	2.00
Independent Cities					
Chesapeake City	3	3	6	2.00	2.00
Hampton City	2	2	5	2.50	2.50
Hopewell City	1	1	1	1.00	1.00
Newport News City	3	3	4	1.25	1.25
Norfolk City	1	1	1	1.00	1.00
Portsmouth City	1	0	-----	-----	-----
Richmond City	1	1	2	2.00	2.00
Suffolk City	6	6	7	1.17	1.40
Virginia Beach City	6	6	11	1.83	2.20

¹Results of 1 active nest unknown.

Productivity

A total of 454 chicks was counted during the productivity flight (Table 1, see Appendices I – VIII for nesting details by geographic area). The Virginia population continues to have tremendous reproductive momentum. Of 4,794 chicks documented in the past 27 years, nearly 20% have been produced in the past 2 years (Figure 3). In general, this momentum is the combined result of an overall increase in the breeding population, the breeding success rate and the average brood size. However, per capita productivity for 2003 was considerably lower than that measured in recent years. Comparatively low success rate and average brood size for successful nests were low compared to recent years. The percentage of active nests that were successful in 2003 was 74% (Figure 4). This success rate is the lowest since 1994. By comparison, the success rate (87%) in 2002 was the highest recorded throughout the history of the survey. Similarly, average brood (1.66) was the lowest recorded since 1991 (Figure 5). The 2003 breeding season was contrary to the upward trend in this parameter observed over the past 15 years.

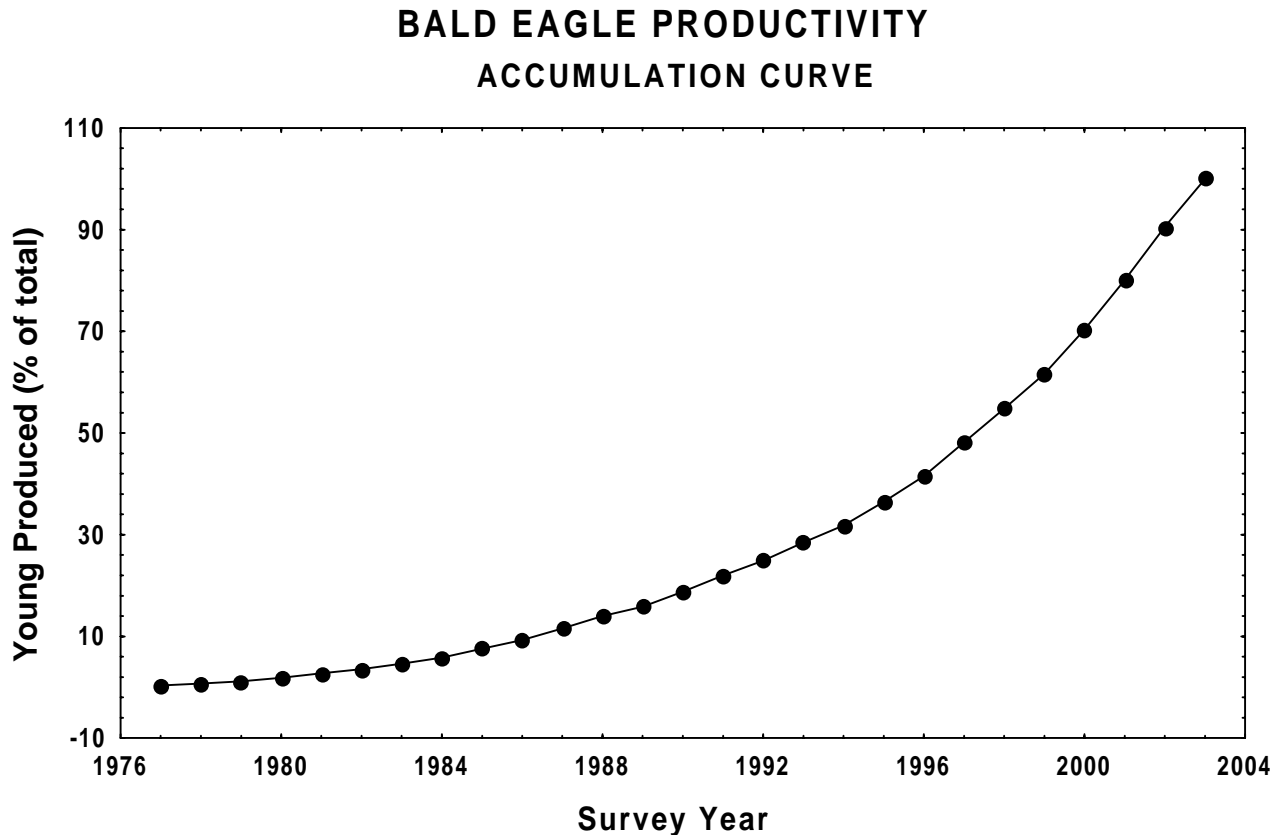


Figure 3. Productivity accumulation curve for Bald Eagles in Virginia (1977-2003). Total chicks produced over the 27-year study was 4,794.

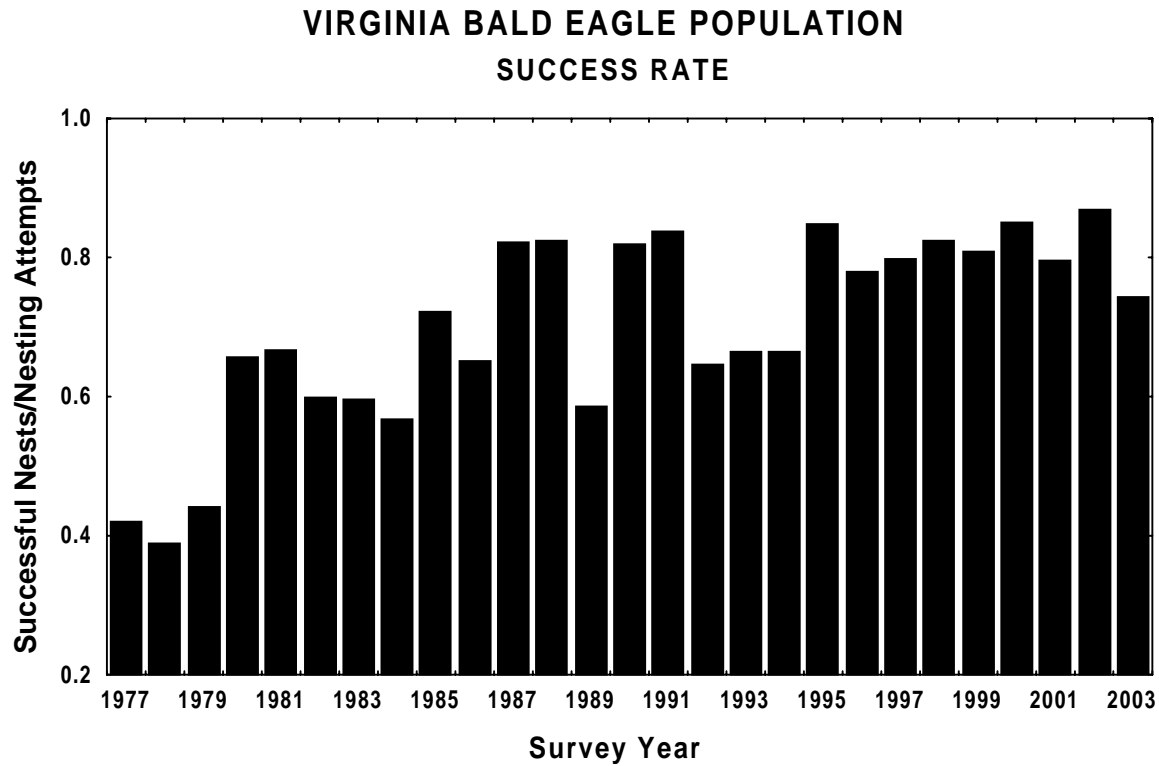


Figure 4. General trend in success rate for Bald Eagles in Virginia (1977-2003). Success rate calculated as successful nests/active nests. 2).

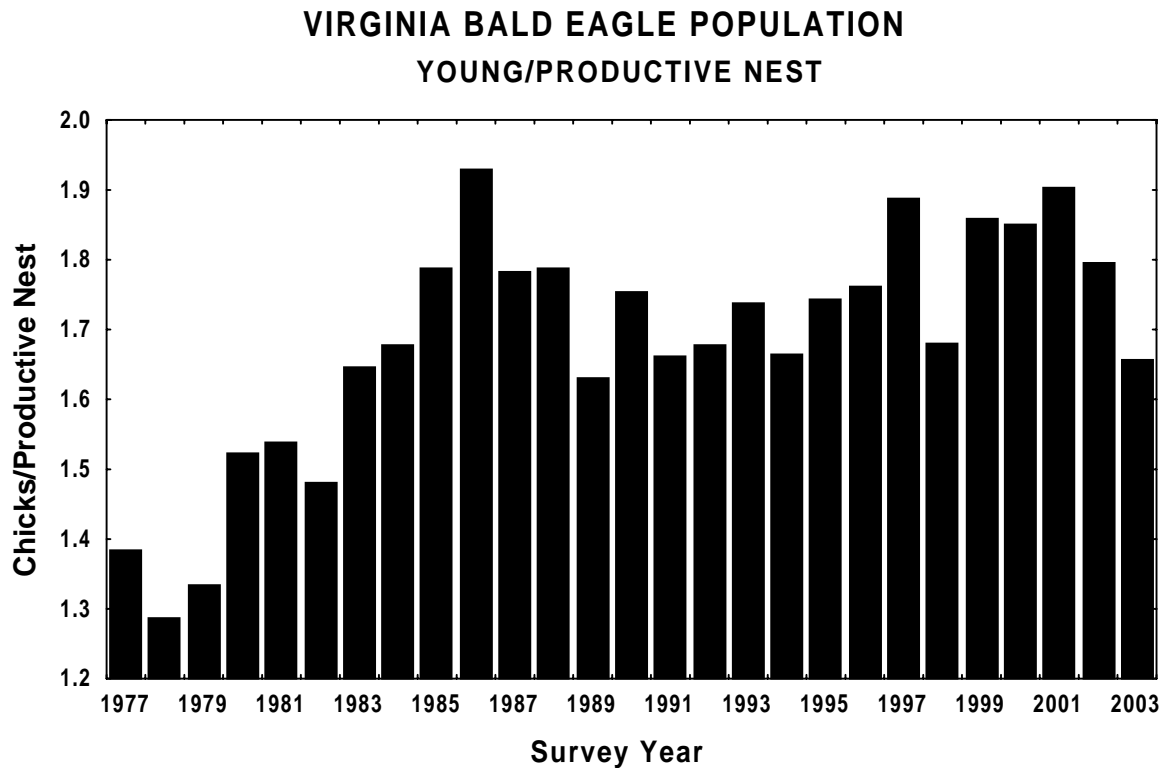


Figure 5. Temporal trend in average brood size for Bald Eagles in Virginia (1977-2003).

DISCUSSION

Since the elevation of the Bald Eagle to the federal list of endangered species in 1967 (first under The Endangered Species Protection Act of 1966 and subsequently under The Endangered Species Act of 1973) and a ban on the general use of DDT and like compounds in the United States in 1972, Bald Eagles in Virginia have experienced a dramatic recovery. As illustrated by the results presented here, this recovery includes (1) an increase in the number of breeding territories, (2) an increase in reproductive rate, and (3) an expansion in geographic distribution. The annual breeding survey has played an important role in the recovery of the Virginia population. In addition to tracking the progress of the population, the survey has been used to guide management actions. Without information on the distribution and activity status of breeding pairs, layers of protection provided by federal laws would not be effective. The program has proven to be one of the most important elements of a successful conservation strategy (Byrd et al. 1990).

The size of the Virginia breeding population is exhibiting tremendous forward momentum. At the present rate of increase, the population will exceed 500 breeding pairs within the next 1-2 years. How many breeding pairs Virginia and the broader Chesapeake Bay are ultimately capable of supporting remains unclear. Ongoing analysis of spatial variation in breeding density and associated reproductive rates (Watts, Unpub. analyses) may help to predict when the population may begin to reach some form of equilibrium with the available resources.

Although the rate of territory formation between 2002 and 2003 was the highest recorded throughout the 27-yr monitoring program, both the success rate and the average brood size were the lowest in approximately 10 years. The spring months in 2003 were the wettest on record for coastal Virginia. It seems likely that the dip in both of these parameters may have resulted from poor weather conditions. Previous lows in reproductive performance have also coincided with weather events. The possible influence of rain on reproductive rates is currently being investigated as part of an intensive video-monitoring study of prey delivery and chick growth within Virginia (Markham, unpub. data).

ACKNOWLEDGEMENTS

Many individuals and organizations contributed to the success of the 2003 Bald Eagle survey in Virginia. Ray Fernald and Jeff Cooper from the Virginia Department of Game & Inland Fisheries provided logistical support. Captain Fuzzzo and Matt Crabbe provided expert flying services. Catherine Markham assisted on two productivity flights. Numerous individuals including Sarah Bell, Bill Bolin, Ruth Boettcher, Keith Cline, Linda Cole, Jeff Cooper, Thelma Dalmas, Scott Florence, Jolie Harrison, Reese Lukei, Jeff Marcell, Sharon Oehler, Chuck Rafkind, Rick Reynolds, Tim Stamps, Joe Witt, and Thomas Wray provided information toward the survey. Mark Indseth conducted a helicopter survey of nests on A.P. Hill and provided survey information. Carlton Adams, Renee Peace, Lydia Whitaker, Mark Roberts, Cheryl Pope, Bonnie Willard, Anne Womack, and Gloria Sciole from the College of William and Mary provided logistical support. Financial support was provided by the Virginia Department of Game & Inland Fisheries, the U.S. Fish and Wildlife Service, the U.S. Department of Defense, the U.S. Army Corps of Engineers, and the Center for Conservation Biology.

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APPENDIX I: Summary of 2003 Bald Eagle survey results for the Potomac River drainage. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
FF-92-01	Fairfax	Mount Vernon	NC	NC	NC
FF-94-01	Fairfax	Fort Belvoir	Y	Y	0
FF-96-01	Fairfax	Fort Belvoir	Y	Y	2
FF-97-01	Fairfax	Fort Belvoir	Y	Y	3
FF-00-02	Fairfax	Fort Belvoir	Y	Y	0
FF-01-01	Fairfax	Occoquan	Y	Y	1
FF-01-02	Fairfax	Indian Head	Y	Y	3
FF-02-01	Fairfax	Indian Head	Y	Y	3
FF-03-01	Fairfax	Fort Belvoir	Y	Y	1
FQ-92-01	Faquier	Rectortown	NC	NC	NC
KG-82-02	King George	Rollins Fork	Y	Y	1
KG-87-03	King George	King George	Y	N	-----
KG-87-04	King George	Dahlgren	Y	N	-----
KG-87-05	King George	Mathias Point	Y	Y	2
KG-90-02	King George	King George	Y	N	-----
KG-90-04	King George	Dahlgren	Y	N	-----
KG-96-05	King George	Dahlgren	Y	Y	2
KG-97-03	King George	Mathias Point	Y	Y	0
KG-97-05	King George	Dahlgren	Y	N	-----
KG-98-04	King George	Passapatanzy	Y	Y	0
KG-98-08	King George	Mathias Point	Y	N	-----
KG-99-05	King George	Dahlgren	Y	Y	1
KG-99-07	King George	Mathias Point	Y	Y	1
KG-99-08	King George	Dahlgren	Y	Y	2
KG-00-01	King George	Dahlgren	Y	Y	2
KG-00-02	King George	Dahlgren	Y	Y	0
KG-01-04	King George	Dahlgren	Y	Y	1
KG-02-04	King George	King George	Y	Y	0
KG-02-05	King George	Mathias Point	Y	Y	1
ND-96-01	Northumberland	St. George Island	Y	Y	1
ND-00-02	Northumberland	Burgess	Y	Y	2
ND-02-01	Northumberland	St. George Isl.	Y	Y	1
ND-02-02	Northumberland	Lottsburg	Y	Y	2
ND-02-03	Northumberland	Heathsville	Y	Y	2
ND-02-04	Northumberland	Heathsville	Y	Y	0
ND-02-06	Northumberland	Heathsville	Y	Y	3
ND-03-01	Northumberland	Heathsville	Y	Y	2
ND-03-02	Northumberland	Burgess	Y	Y	0
ND-03-03	Northumberland	Reedville	Y	Y	2
ND-03-06	Northumberland	Burgess	Y	Y	1

APPENDIX I: --continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
PW-98-01	Prince William	Quantico	Y	Y	2
PW-99-01	Prince William	Quantico	Y	Y	2
PW-99-02	Prince William	Quantico	Y	Y	1
PW-02-01	Prince William	Quantico	Y	Y	2
PW-03-01	Prince William	Quantico	Y	Y	0
PW-03-02	Prince William	Quantico	Y	Y	2
ST-86-01	Stafford	Widewater	Y	Y	1
ST-98-03	Stafford	Quantico	Y	Y	2
ST-99-01	Stafford	Widewater	Y	Y	2
ST-00-02	Stafford	Joplin	Y	Y	0
ST-01-02	Stafford	Widewater	Y	Y	2
ST-01-03	Stafford	Widewater	Y	Y	2
ST-02-01	Stafford	Widewater	Y	Y	1
ST-02-02	Stafford	Passapatanzy	Y	Y	0
ST-03-01	Stafford	Widewater	Y	Y	? ¹
WE-83-04	Westmoreland	Machodac	Y	Y	2
WE-90-03	Westmoreland	Colonial Beach S.	Y	Y	1
WE-91-02	Westmoreland	Stratford Hall	Y	Y	2
WE-94-02	Westmoreland	Colonial Beach S.	Y	Y	1
WE-95-03	Westmoreland	Rollins Fork	Y	Y	0
WE-95-06	Westmoreland	Kinsale	Y	N	-----
WE-96-02	Westmoreland	Stratford Hall	Y	N	-----
WE-96-03	Westmoreland	St. Clements Island	Y	Y	0
WE-96-05	Westmoreland	Stratford Hall	Y	Y	2
WE-97-01	Westmoreland	Colonial Beach N.	Y	Y	2
WE-97-11	Westmoreland	St. Clements Island	Y	Y	3
WE-98-02	Westmoreland	Colonial Beach S.	Y	Y	2
WE-98-03	Westmoreland	Colonial Beach S.	Y	Y	0
WE-98-05	Westmoreland	Machodac	Y	Y	2
WE-98-07	Westmoreland	Kinsale	Y	Y	0
WE-00-02	Westmoreland	Colonial Beach N.	Y	N	-----
WE-00-03	Westmoreland	Colonial Beach S.	Y	Y	2
WE-00-07	Westmoreland	Kinsale	Y	Y	2
WE-00-08	Westmoreland	Kinsale	Y	Y	2
WE-01-04	Westmoreland	Colonial Beach S.	Y	Y	2
WE-01-05	Westmoreland	Stratford Hall	Y	Y	0
WE-01-08	Westmoreland	Machodac	Y	Y	1
WE-01-11	Westmoreland	Rollins Fork	Y	Y	2
WE-01-12	Westmoreland	Machodoc	Y	Y	2
WE-02-03	Westmoreland	Stratford Hall	Y	Y	1

APPENDIX I: --continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
WE-02-04	Westmoreland	Machodoc	Y	Y	1
WE-02-06	Westmoreland	Colonial Beach S.	Y	Y	0
WE-02-07	Westmoreland	Kinsale	Y	Y	1
WE-03-03	Westmoreland	Colonial Beach N.	Y	Y	1
WE-03-04	Westmoreland	Colonial Beach N.	Y	N	-----
WE-03-05	Westmoreland	Colonial Beach S.	Y	Y	1
WE-03-06	Westmoreland	Rollins Fork	Y	N	-----
WE-03-07	Westmoreland	Colonial Beach S.	Y	Y	0
WE-03-08	Westmoreland	Colonial Beach S.	Y	Y	2
WE-03-09	Westmoreland	Colonial Beach S.	Y	Y	0
WE-03-10	Westmoreland	Stratford Hall	Y	N	-----
WE-03-11	Westmoreland	Machodoc	Y	Y	1
WE-03-12	Westmoreland	St. Clements Island	Y	Y	1
WE-03-13	Westmoreland	St. Clements Island	Y	Y	0
WE-03-14	Westmoreland	Piney Point	Y	Y	1
WE-03-15	Westmoreland	St. Clements Island	Y	Y	1

¹Nesting results unknown.

APPENDIX II: Summary of 2003 Bald Eagle survey results for the Rappahannock River drainage. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
CA-86-01	Caroline	Rapp Academy	Y	N	-----
CA-90-01	Caroline	Supply	Y	N	-----
CA-90-02	Caroline	Port Royal	Y	Y	2
CA-90-03	Caroline	Rapp Academy	Y	N	-----
CA-95-02	Caroline	Rapp Academy	Y	Y	1
CA-96-05	Caroline	Port Royal	Y	Y	2
CA-00-02	Caroline	Rapp Academy	Y	Y	0
CA-01-01	Caroline	Rapp Academy	Y	Y	0
CA-01-05	Caroline	Supply	Y	Y	1
CA-02-01	Caroline	Port Royal	Y	Y	3
CA-03-01	Caroline	Port Royal	Y	Y	1
CA-03-02	Caroline	Supply	Y	Y	1
CA-03-03	Caroline	Bowling Green	Y	Y	1
ES-79-01	Essex	Morattico	Y	N	-----
ES-92-02	Essex	Loretto	Y	N	-----
ES-95-05	Essex	Tappahannock	Y	Y	1
ES-97-03	Essex	Mount Landing	Y	Y	2
ES-97-06	Essex	Loretto	Y	Y	3
ES-98-02	Essex	Mount Landing	Y	Y	2
ES-00-02	Essex	Mount Landing	Y	N	-----
ES-00-04	Essex	Champlain	Y	Y	2
ES-01-01	Essex	Dunnsville	Y	Y	2
ES-01-02	Essex	Dunnsville	Y	Y	3
ES-01-03	Essex	Mount Landing	Y	Y	1
ES-01-04	Essex	Champlain	Y	Y	2
ES-01-06	Essex	Champlain	Y	Y	1
ES-01-07	Essex	Champlain	Y	Y	2
ES-02-02	Essex	Mount Landing	Y	Y	0
ES-02-05	Essex	Loretto	Y	Y	0
ES-02-06	Essex	Rollins Fork	Y	Y	1
ES-03-01	Essex	Dunnsville	Y	Y	0
ES-03-02	Essex	Tappahannock	Y	Y	1
ES-03-03	Essex	Dunnsville	Y	Y	0
ES-03-04	Essex	Champlain	Y	Y	2
ES-03-05	Essex	Loretto	Y	N	-----
ES-03-06	Essex	Rollins Fork	Y	Y	1
ES-03-07	Essex	Mount Landing	Y	N	-----
KG-95-01	King George	Port Royal	Y	Y	0

APPENDIX II: --Continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
KG-95-03	King George	Rollins Fork	Y	Y	1
KG-96-01	King George	Port Royal	Y	N	-----
KG-97-08	King George	Rollins Fork	Y	Y	0
KG-98-01	King George	Port Royal	Y	N	-----
KG-98-03	King George	Rollins Fork	Y	Y	1
KG-99-01	King George	Port Royal	Y	Y	0
KG-01-01	King George	Port Royal	Y	Y	0
KG-01-02	King George	Rollins Fork	Y	Y	0
KG-02-01	King George	Port Royal	Y	Y	1
KG-02-03	King George	Rollins Fork	Y	Y	0
KG-03-01	King George	Passapatanzy	Y	Y	0
KG-03-02	King George	Rollins Fork	Y	Y	1
KG-03-03	King George	Rollins Fork	Y	Y	0
KG-03-04	King George	Rollins Fork	Y	Y	2
LA-98-03	Lancaster	Urbanna	Y	Y	0
LA-01-02	Lancaster	Irvington	Y	N	-----
LA-02-01	Lancaster	Lively	Y	Y	2
LA-02-03	Lancaster	Urbanna	Y	Y	1
LA-03-01	Lancaster	Lively	Y	Y	1
LA-03-02	Lancaster	Irvington	Y	Y	2
LA-03-03	Lancaster	Irvington	Y	Y	2
LA-03-05	Lancaster	Lively	Y	Y	1
MI-77-01	Middlesex	Church View	Y	Y	2
MI-96-01	Middlesex	Urbanna	Y	Y	1
MI-99-01	Middlesex	Church View	Y	N	-----
MI-01-03	Middlesex	Morattico	Y	Y	2
MI-02-03	Middlesex	Church View	Y	Y	2
MI-02-04	Middlesex	Church View	Y	Y	1
MI-02-05	Middlesex	Church View	Y	Y	0
MI-02-07	Middlesex	Saluda	Y	Y	2
MI-03-01	Middlesex	Wilton	Y	Y	2
MI-03-02	Middlesex	Church View	Y	Y	0
MI-03-03	Middlesex	Urbanna	Y	Y	1
MI-03-04	Middlesex	Urbanna	Y	Y	2
MI-03-05	Middlesex	Urbanna	Y	Y	2
RI-87-03	Richmond	Tappahannock	Y	Y	0
RI-89-02	Richmond	Tappahannock	Y	Y	2
RI-90-03	Richmond	Champlain	Y	Y	1
RI-90-04	Richmond	Tappahannock	Y	N	-----
RI-95-02	Richmond	Mount Landing	Y	Y	0

APPENDIX II: --Continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
RI-96-03	Richmond	Morattico	Y	N	-----
RI-97-01	Richmond	Montross	Y	Y	0
RI-98-01	Richmond	Champlain	Y	N	-----
RI-98-03	Richmond	Montross	Y	Y	1
RI-98-05	Richmond	Tappahannock	Y	Y	0
RI-99-02	Richmond	Morattico	Y	Y	0
RI-99-03	Richmond	Lively	Y	Y	1
RI-00-01	Richmond	Champlain	Y	N	-----
RI-01-02	Richmond	Tappahannock	Y	Y	0
RI-02-01	Richmond	Champlain	Y	Y	0
RI-02-02	Richmond	Montross	Y	Y	2
RI-02-03	Richmond	Tappahannock	Y	Y	2
RI-02-04	Richmond	Tappahannock	Y	Y	2
RI-02-08	Richmond	Tappahannock	Y	Y	0
RI-02-09	Richmond	Tappahannock	Y	Y	0
RI-03-01	Richmond	Champlain	Y	Y	0
RI-03-02	Richmond	Tappahannock	Y	Y	2
RI-03-03	Richmond	Tappahannock	Y	Y	0
RI-03-04	Richmond	Tappahannock	Y	Y	1
RI-03-05	Richmond	Tappahannock	Y	Y	0
RI-03-06	Richmond	Tappahannock	Y	Y	1
RI-03-07	Richmond	Tappahannock	Y	Y	2
RI-03-08	Richmond	Haynesville	Y	Y	2
RI-03-09	Richmond	Haynesville	Y	Y	0
RI-03-10	Richmond	Haynesville	Y	Y	0
RI-03-11	Richmond	Haynesville	Y	Y	1
RI-03-12	Richmond	Morattico	Y	N	-----
RI-03-13	Richmond	Morattico	Y	N	-----
ST-01-01	Stafford	Salem Church	Y	N	-----
WE-84-01	Westmoreland	Champlain	Y	N	-----
WE-88-01	Westmoreland	Champlain	Y	Y	2
WE-99-03	Westmoreland	Rollins Fork	Y	Y	? ¹
WE-00-10	Westmoreland	Champlain	Y	N	-----
WE-01-01	Westmoreland	Rollins Fork	Y	Y	1
WE-01-02	Westmoreland	Loretto	Y	Y	2
WE-03-01	Westmoreland	Champlain	Y	Y	1
WE-03-02	Westmoreland	Champlain	Y	Y	2
WE-03-16	Westmoreland	Haynesville	Y	N	-----

¹Nesting results unknown.

APPENDIX III: Summary of 2003 Bald Eagle survey results for the York River drainage. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
CA-99-01	Caroline	Ashland	Y	Y	0
GL-97-01	Gloucester	Gressitt	Y	Y	2
GL-98-02	Gloucester	Gloucester	Y	N	-----
GL-01-04	Gloucester	Clay Bank	Y	Y	0
GL-02-02	Gloucester	Gressitt	Y	Y	1
HN-95-01	Hanover	Hanover	Y	Y	3
JC-95-01	James City	Toano	Y	Y	2
JC-00-01	James City	Gressitt	Y	Y	2
KQ-96-01	King & Queen	K&Q Courthouse	Y	Y	0
KQ-98-01	King & Queen	West Point	Y	Y	2
KQ-00-01	King & Queen	West Point	Y	Y	0
KQ-02-01	King & Queen	King William	Y	Y	0
KQ-03-02	King & Queen	K&Q Courthouse	Y	Y	2
KW-80-01	King William	West Point	Y	Y	2
KW-88-01	King William	New Kent	Y	Y	0
KW-92-01	King William	New Kent	Y	Y	2
KW-97-03	King William	West Point	Y	Y	1
KW-98-02	King William	K&Q Courthouse	Y	Y	0
KW-98-03	King William	K&Q Courthouse	Y	Y	1
KW-98-04	King William	West Point	Y	Y	0
KW-99-01	King William	K&Q Courthouse	Y	Y	2
KW-00-01	King William	K&Q Courthouse	Y	Y	2
KW-01-01	King William	Tunstall	Y	Y	0
KW-01-02	King William	Tunstall	Y	Y	1
KW-02-01	King William	K&Q Courthouse	Y	Y	2
KW-03-01	King William	Tunstall	Y	Y	1
KW-03-02	King William	West Point	Y	Y	2
KW-03-03	King William	New Kent	Y	Y	2
NK-86-01	New Kent	Tunstall	Y	Y	2
NK-97-01	New Kent	New Kent	Y	Y	1
NK-97-03	New Kent	West Point	Y	Y	1
NK-98-04	New Kent	New Kent	Y	Y	3
NK-99-01	New Kent	Toano	Y	Y	0
NK-01-01	New Kent	West Point	Y	Y	2
NK-01-03	New Kent	Tunstall	Y	Y	1
NK-02-01	New Kent	New Kent	Y	N	-----
NK-03-01	New Kent	Toano	Y	Y	1
NK-03-02	New Kent	Toano	Y	N	-----

APPENDIX III: --Continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
NK-03-03	New Kent	New Kent	Y	Y	2
NK-03-04	New Kent	New Kent	Y	Y	1
YK-94-01	York	Clay Bank	Y	Y	0
YK-99-01	York	Williamsburg	Y	Y	0
YK-99-02	York	Williamsburg	Y	Y	2
YK-01-01	York	Yorktown	Y	Y	1
YK-02-01	York	Poquoson W.	Y	Y	0
YK-02-02	York	Yorktown	Y	Y	2
YK-02-04	York	Williamsburg	Y	Y	2
YK-02-06	York	Williamsburg	Y	Y	3
YK-03-01	York	Clay Bank	Y	Y	2
YK-03-02	York	Williamsburg	Y	Y	2

APPENDIX IV: Summary of 2003 Bald Eagle survey results for the James River drainage. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
CC-91-02	Charles City	Charles City	Y	Y	0
CC-94-01	Charles City	Hopewell	Y	Y	0
CC-96-02	Charles City	Brandon	Y	Y	3
CC-98-03	Charles City	Brandon	Y	N	-----
CC-99-02	Charles City	Westover	Y	Y	0
CC-99-04	Charles City	Charles City	Y	Y	0
CC-99-05	Charles City	Brandon	Y	Y	0
CC-99-06	Charles City	Providence Forge	Y	Y	0
CC-00-01	Charles City	Charles City	Y	Y	1
CC-00-03	Charles City	Brandon	Y	N	-----
CC-01-02	Charles City	Charles City	Y	Y	2
CC-01-03	Charles City	Charles City	Y	Y	0
CC-01-05	Charles City	Walkers	Y	Y	1
CC-01-06	Charles City	Westover	Y	Y	0
CC-02-01	Charles City	Westover	Y	Y	1
CC-02-02	Charles City	Westover	Y	Y	0
CC-02-04	Charles City	Brandon	Y	N	-----
CC-02-06	Charles City	Brandon	Y	Y	1
CC-02-07	Charles City	Westover	Y	Y	3
CC-02-08	Charles City	Walkers	Y	Y	1
CC-03-01	Charles City	Westover	Y	N	-----
CC-03-02	Charles City	Hopewell	Y	Y	1
CC-03-03	Charles City	Westover	Y	Y	3
CC-03-04	Charles City	Westover	Y	N	-----
CC-03-05	Charles City	Charles City	Y	N	-----
CD-98-01	Chesterfield	Hopewell	Y	Y	2
CD-98-02	Chesterfield	Hopewell	Y	Y	2
CD-99-01	Chesterfield	Hopewell	Y	Y	1
CD-02-02	Chesterfield	Hopewell	Y	Y	3
HE-95-01	Henrico	Roxbury	Y	Y	2
HE-99-01	Henrico	Hopewell	Y	Y	2
HE-99-02	Henrico	Drewrys Bluff	Y	Y	1
HE-03-01	Henrico	Hopewell	Y	Y	3
HO-00-01	Hopewell City	Hopewell	Y	Y	1
IW-86-01	Isle of Wight	Bacons Castle	Y	Y	2
IW-96-01	Isle of Wight	Benns Church	Y	Y	2
IW-99-01	Isle of Wight	Benns Church	Y	Y	0
IW-01-01	Isle of Wight	Benns Church	Y	Y	1

APPENDIX IV: --Continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
IW-01-02	Isle of Wight	Mulberry Island	Y	Y	1
IW-02-01	Isle of Wight	Bacons Castle	Y	Y	2
JC-87-01	James City	Surry	Y	Y	2
JC-96-01	James City	Norge	Y	Y	2
JC-96-02	James City	Norge	Y	Y	2
JC-01-01	James City	Surry	Y	Y	2
JC-01-02	James City	Hog Island	Y	Y	1
JC-01-05	James City	Surry	Y	Y	2
JC-02-01	James City	Norge	Y	Y	2
JC-03-01	James City	Norge	Y	Y	2
JC-03-02	James City	Brandon	Y	Y	0
JC-03-03	James City	Norge	Y	Y	0
JC-03-04	James City	Hog Island	Y	Y	1
JC-03-05	James City	Yorktown	Y	Y	2
JC-03-06	James City	Norge	Y	Y	1
JC-03-07	James City	Surry	Y	N	-----
NK-01-04	New Kent	Walkers	Y	Y	2
NN-02-01	Newport News	Mulberry Island	Y	Y	1
NN-02-02	Newport News	Newport News N.	Y	Y	1
NN-03-01	Newport News	Mulberry Island	Y	Y	2
PG-91-01	Prince George	Charles City	Y	Y	2
PG-94-01	Prince George	Westover	Y	Y	2
PG-94-02	Prince George	Westover	Y	Y	2
PG-96-04	Prince George	Prince George	Y	Y	2
PG-00-03	Prince George	Charles City	Y	Y	0
PG-00-04	Prince George	Westover	Y	Y	1
PG-00-05	Prince George	Westover	Y	Y	0
PG-01-01	Prince George	Savedge	Y	Y	2
PG-01-02	Prince George	Savedge	Y	Y	2
PG-02-01	Prince George	Hopewell	Y	N	-----
PG-03-01	Prince George	Savedge	Y	Y	0
PG-03-02	Prince George	Charles City	Y	N	-----
PM-00-01	Portsmouth	Newport News S.	Y	N	-----
PO-98-01	Powhatan	Midlothian	Y	Y	2
RM-01-01	Richmond City	Bonair	Y	Y	2
SK-91-01	Suffolk City	Chuckatuck	Y	Y	1
SK-00-01	Suffolk City	Suffolk	Y	Y	2
SK-02-01	Suffolk City	Newport News S.	Y	Y	2
SK-02-02	Suffolk City	Chuckatuck	Y	Y	1
SK-03-01	Suffolk City	Windsor	Y	Y	1

APPENDIX IV: --Continued--

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
SU-96-04	Surry	Hog Island	Y	Y	2
SU-97-04	Surry	Surry	Y	Y	0
SU-99-02	Surry	Surry	Y	Y	1
SU-99-03	Surry	Claremont	Y	Y	1
SU-99-04	Surry	Savedge	Y	Y	1
SU-00-01	Surry	Surry	Y	Y	2
SU-00-02	Surry	Surry	Y	N	-----
SU-01-02	Surry	Surry	Y	Y	2
SU-02-01	Surry	Hog Island	Y	Y	1
SU-03-01	Surry	Hog Island	Y	Y	1
SU-03-02	Surry	Hog Island	Y	Y	1
SU-03-03	Surry	Claremont	Y	Y	1
SU-03-04	Surry	Claremont	Y	Y	0
SU-03-05	Surry	Hog Island	Y	N	-----

APPENDIX V: Summary of 2003 Bald Eagle survey results for the western shore fringe of the Chesapeake Bay. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
GL-02-01	Gloucester	Saluda	Y	N	-----
GL-03-01	Gloucester	Gloucester	Y	Y	0
HM-00-01	Hampton City	Newport News N.	Y	Y	2
HM-03-01	Hampton City	Newport News N.	Y	Y	3
KQ-02-02	King & Queen	Church View	Y	Y	2
KQ-03-01	King & Queen	Church View	Y	Y	2
LA-03-04	Lancaster	Deltaville	Y	Y	0
MI-85-01	Middlesex	Wilton	Y	Y	2
MI-01-02	Middlesex	Church View	Y	N	-----
MI-02-06	Middlesex	Shackleford	Y	Y	2
MA-97-01	Mathews	Ware Neck	Y	Y	0
MA-01-01	Mathews	Ware Neck	Y	Y	1
MA-02-01	Mathews	Newpoint Comfort	Y	Y	1
ND-86-01	Northumberland	Lancaster	Y	Y	1
ND-92-01	Northumberland	Reedville	Y	Y	1
ND-01-01	Northumberland	Fleets Bay	Y	Y	2
ND-02-05	Northumberland	Reedville	Y	Y	1
ND-03-04	Northumberland	Reedville	Y	Y	2
ND-03-05	Northumberland	Reedville	Y	Y	2

APPENDIX VI: Summary of 2003 Bald Eagle survey results for the Eastern Shore of Virginia. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
AC-88-02	Accomack	Exmore	Y	Y	1
AC-91-02	Accomack	Jamesville	Y	Y	1
AC-93-01	Accomack	Pungoteague	Y	Y	0
AC-94-01	Accomack	Chincoteague W.	Y	Y	1
AC-94-02	Accomack	Chincoteague E.	Y	Y	2
AC-97-03	Accomack	Chincoteague W.	Y	Y	1
AC-99-02	Accomack	Accomac	Y	Y	1
AC-00-01	Accomack	Chincoteague W.	Y	Y	2
AC-01-01	Accomack	Saxis	Y	Y	1
AC-02-02	Accomack	Hallwood	Y	Y	2
AC-02-03	Accomack	Parksley	Y	Y	0
AC-03-01	Accomack	Accomac	Y	Y	1
AC-03-02	Accomack	Bloxom	Y	N	-----
AC-03-03	Accomack	Chincoteague E.	Y	Y	0
AC-03-04	Accomack	Hallwood	Y	Y	1
AC-03-05	Accomack	Parksley	Y	Y	1
AC-03-06	Accomack	Chesconnessex	Y	Y	0
AC-03-07	Accomack	Tangier Island	Y	N	-----
AC-03-08	Accomack	Accomac	Y	Y	2
AC-03-09	Accomack	Parksley	Y	N	-----
NT-96-01	Northampton	Cheriton	Y	Y	1
NT-97-01	Northampton	Townsend	Y	Y	1
NT-00-01	Northampton	Jamesville	Y	Y	1
NT-00-02	Northampton	Franktown	Y	Y	1
NT-01-01	Northampton	Cheriton	Y	Y	2
NT-02-01	Northampton	Cheriton	Y	Y	2
NT-02-02	Northampton	Cheriton	Y	N	-----
NT-03-01	Northampton	Cheriton	Y	Y	2
NT-03-02	Northampton	Nassawaddox	Y	Y	1
NT-03-03	Northampton	Jamesville	Y	Y	0

APPENDIX VII: Summary of 2003 Bald Eagle survey results for the Lower Tidewater portion of Virginia. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
CP-03-01	Chesapeake	Bowers Hill	Y	Y	3
CP-03-02	Chesapeake	Deep Creek	Y	Y	2
CP-03-03	Chesapeake	Pleasant Ridge	Y	Y	1
NO-03-01	Norfolk City	Little Creek	Y	Y	1
SK-99-01	Suffolk City	Lake Drummond	Y	Y	0
VB-97-01	Virginia Beach	Kempsville	Y	Y	2
VB-99-01	Virginia Beach	Creeds	Y	Y	3
VB-00-01	Virginia Beach	North Bay	Y	Y	1
VB-02-01	Virginia Beach	Cape Henry	Y	Y	2
VB-02-02	Virginia Beach	Pleasant Ridge	Y	Y	3
VB-03-01	Virginia Beach	Kempsville	Y	Y	0

APPENDIX VIII: Summary of 2003 Bald Eagle survey results for the inland impoundments and rivers of Virginia. See methods for definitions of “occupied territory” and “active nest”.

NEST CODE	COUNTY	TOPO QUAD	OCCUP TERR	ACTIVE NEST	CHICK PROD
AL-98-01	Albemarle	Simeon	Y	N	-----
AM-01-01	Amherst	Lynchburg	Y	Y	3
BA-93-01	Bath	Mountain Grove	Y	Y	0
BA-99-01	Bath	Sunrise	Y	N	-----
BE-03-01	Amherst	Lynchburg	Y	N	-----
CD-03-01	Chesterfield	Hallsboro	Y	Y	0
CD-03-02	Chesterfield	Winterpock	Y	N	-----
CU-97-01	Culpeper	Rapidan	Y	N	-----
HF-01-01	Halifax	Buffalo Springs	Y	Y	2
HF-03-01	Halifax	Omega	Y	Y	0
LO-02-01	Louisa	Mineral	Y	N	-----
ME-97-01	Mecklenburg	Clarksville North	Y	N	-----
ME-00-02	Mecklenburg	John H. Kerr	Y	Y	2
ME-02-01	Mecklenburg	Bracey	Y	Y	2
ME-03-01	Mecklenburg	Boydton	Y	N	-----
NY-99-01	Nottoway	Danieltown	NC	NC	NC
PA-03-01	Page	Rileyville	Y	Y	2
PE-96-01	Prince Edward	Green Bay	Y	Y	2
PV-03-01	Pittsylvania	Straightstone	Y	N	-----
PW-98-03	Prince William	Thoroughfare Gap	Y	Y	2
SH-02-01	Shenandoah	Strasburg	Y	Y	2
SO-01-01	Southampton	Riverdale	Y	Y	3
SS-97-01	Sussex	Disputanta South	Y	Y	0
SS-02-02	Sussex	Yale	Y	Y	0