

2003 Piping Plover Activity Report

**Gateway National Recreation Area
Sandy Hook, NJ**

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VIP Information

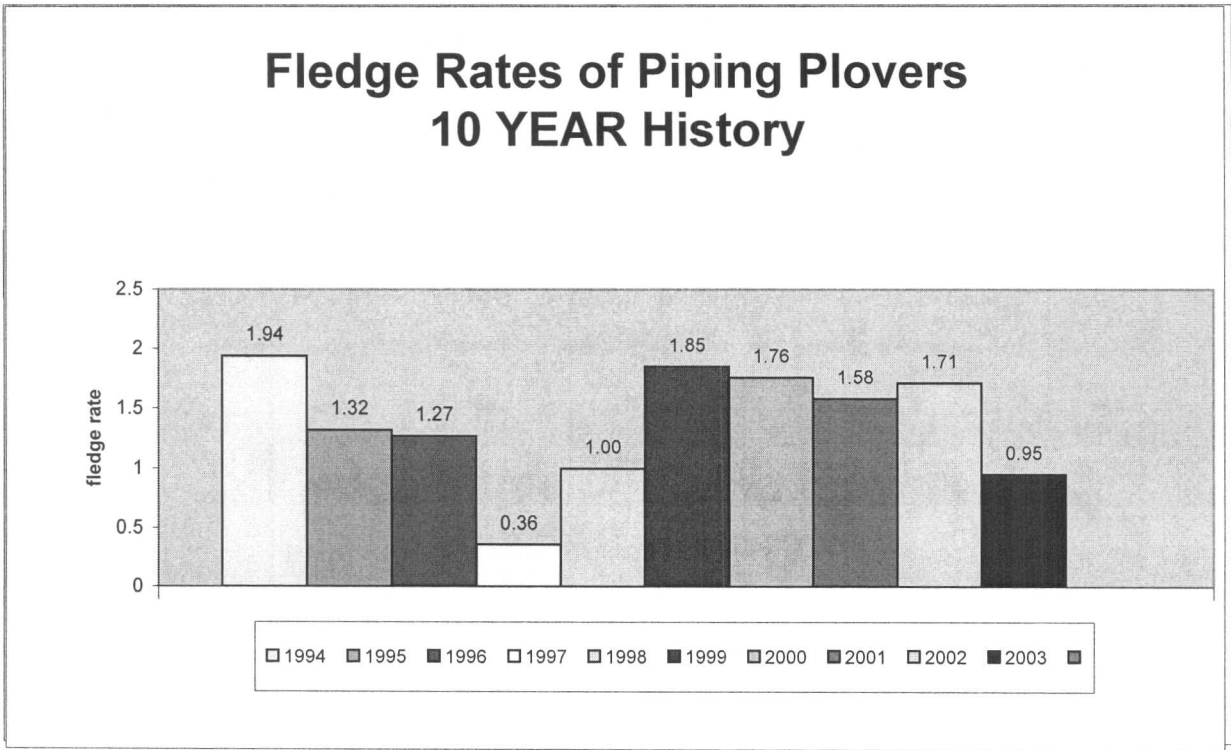
2003 Piping Plover Nesting Activity Data

Chart 1. This chart represents a summary of Piping Plover fledge rates at Gateway National Recreation Area, Sandy Hook Unit, NJ 10 YEAR History.

Piping Plover Fledge Rates 10 YEAR History

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
# of nesting pairs	36	43	40	42	29	27	29	31	35	38
# of eggs	146	193	200	195	145	107	124	140	137	226
# of eggs hatched	111	108	94	28	49	79	92	94	113	62
% of eggs hatched	76	54	47	14	34	74	74	67	82	27
# of chicks fledged	70	57	51	15	29	50	51	49	60	31
% of chicks fledged	63	53	54	54	59	63	55	52	52	50
FLEDGED RATE	1.94	1.32	1.27	0.36	1.00	1.85	1.76	1.58	1.71	0.95

Graph 1. This graph compares the fledge rates of Piping Plover populations 10 YEAR History



Graph 2. This graph shows the percent of total Piping Plover eggs laid that

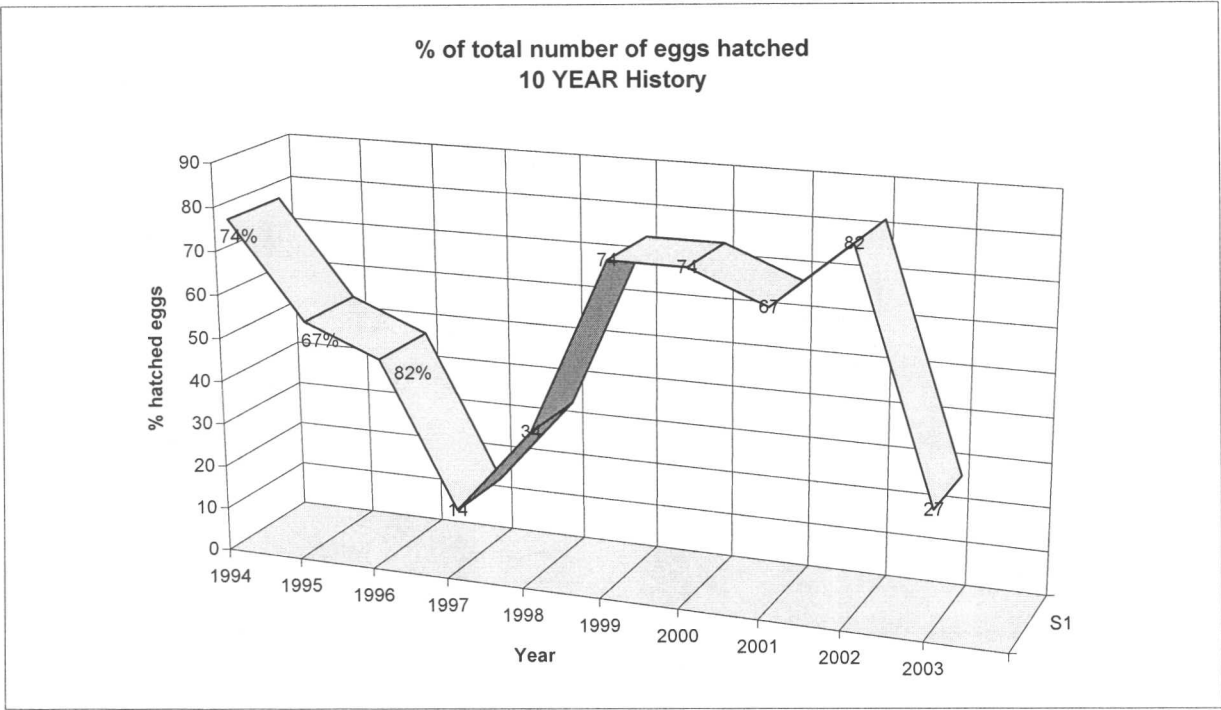


Chart 2. This chart presents general nesting data for the Piping Plover populations at the Sandy Hook Unit, NJ for 2000 - present.

Piping Plover Nesting Data 10 YEAR History

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
# nests lost in laying stage	11	7	7	27	11	6	1	0	3	13
# eggs lost to predation	7	32	64	118	91	8	8	0	0	53
# unhatched eggs	25	7	4	6	5	19	15	28	24	55
# re-nest attempts	10	16	15	23	16	4	4	5	4	26
# exclosures used	37	51	37	28	25	21	28	34	34	42
# nest attempts	46	59	57	63	43	31	33	36	39	63
# exclos. nests lost	10	21	21	22	15	3	2	7	2	8
# eggs lost to flood	6	14	31	20	0	0	2	0	1	28

Chart 3. This chart shows over the years the percent of total eggs laid by Piping Plovers that were lost to predation (foxes, raccoons, people, crows).

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
total # eggs laid	146	193	200	195	145	107	124	140	137	226
# eggs predated	7	32	64	118	96	8	8	0	0	53
% eggs predated	5	17	32	61	66	7	6	0	0	23

Graph 3. Percent of total eggs lost to foxes, crows, raccoons, and humans from 2000 - present.

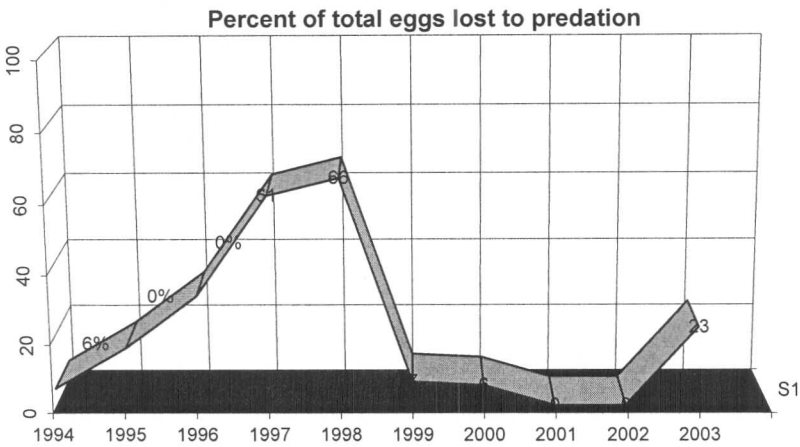


Chart 4. This chart represents a summary of the fledge rate of the Piping Plover population for the 2003 season at the Sandy hook Unit, NJ. Data is organized by the seven nesting sites. Fledge rates for individual sites are shown.

Piping Plover Fledge Rates per Nest Sites 2003

	South Fee	Fee Beach	Hidden Beach	Critical Zone	South Gunn.	North Gunn.	North Beach		
# of pairs	1	6	4	4	1	5	9	8	38
# of eggs	4	45	26	14	0	34	63	40	226
# of eggs hatched	4	7	7	3	0	8	17	19	65
% of eggs hatched	100	15	27	21	0	23	25	48	29
# of chicks fledged	2	5	3	2	0	0	11	13	36
% of chicks fledged	50	71	0	1	0	0	64	68	55
FLEDGE RATE	2.00	0.83	0.75	0.50	0.00	0.00	1.57	1.85	0.95

Note that beaches are listed from south to north: Fee, Hidden, Critical Zone, South Gunnison, North Gunnison, North Beach, and US Coast Guard.

Chart 5. Productivity of Exclosed VS. Unexclosed nests 2003

	Exclosed Nests	Unexclosed Nests
Total # of nests	42	21
# nest hatched	11	8
# nest lost to fox	10	5
# nest lost to humans	1	1
# lost to crow	0	0
# lost to gull	0	1
# abandoned	14	2
# unknown	0	4
# lost to flood	5	1
% nests hatched	26%	38%

Chart 6. This chart shows the total number of Piping Plover nests that were destroyed during the 2003 season. The nests are organized by the week and type of destruction.

Week of	Unknown	Flood	Fox	Human	Crow	Gull	Aband	TOTAL
27-Apr								0
4-May								0
11-May								0
18-May		6					1	7
25-May			9			1	1	11
1-Jun	1		1	1			6	9
8-Jun	1	1	1				4	7
15-Jun	1							1
22-Jun			1				4	0
29-Jun			1	1				2
6-Jul	1		1					0
13-Jul								0
20-Jul								0
TOTAL	4	7	14	2	0	1	16	44

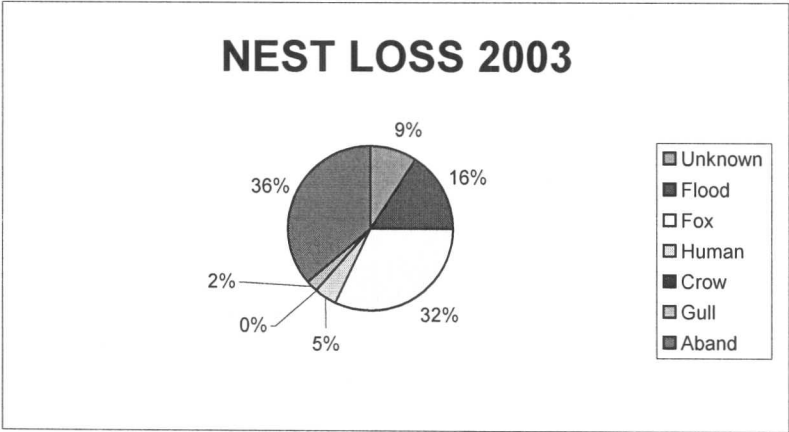
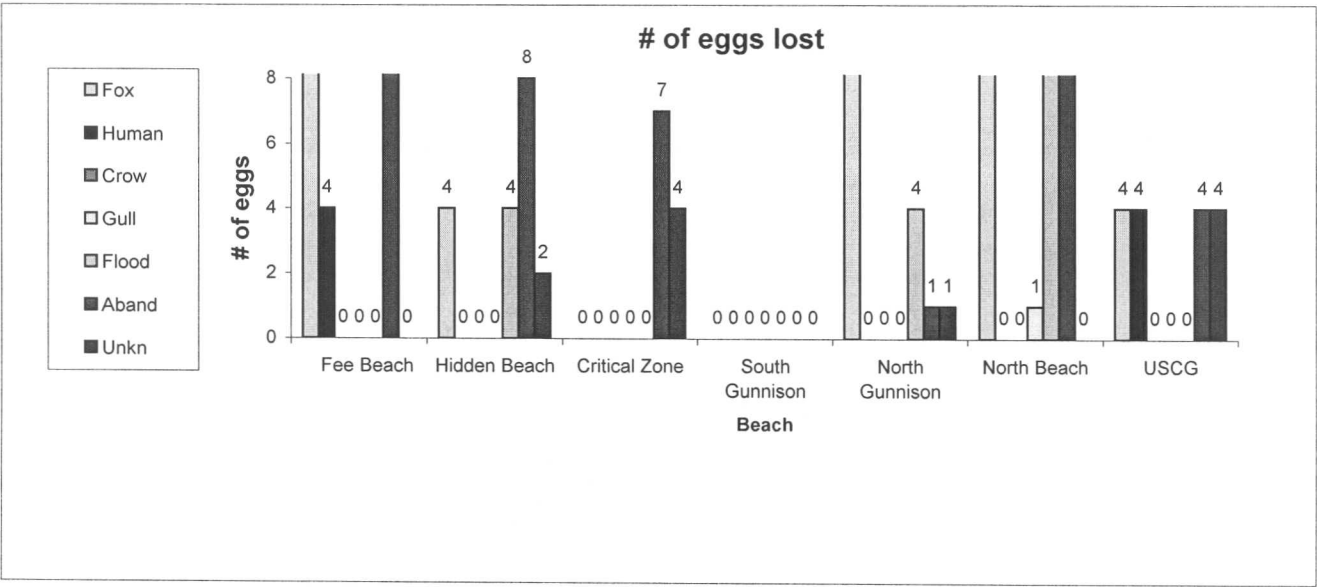


Chart 7. This chart shows the total number of lost eggs for the individual

nesting sites.

	Fox	Human	Crow	Gull	Flood	Aband	Unkn
South Fee	0	0	0	0	0	0	0
Fee Beach	12	4	0	0	0	21	0
Hidden Beach	4	0	0	0	4	8	2
Critical Zone	0	0	0	0	0	7	4
South Gunnison	0	0	0	0	0	0	0
North Gunnison	20	0	0	0	4	1	1
North Beach	9	0	0	1	20	16	0
USCG	4	4	0	0	0	4	4

Graph 4. This bar chart indicates how many eggs at each beach site were lost and the cause.



Least Tern Population Data-2003

Chart 1. This chart shows the number of individual adult and fledged Least Terns for Gateway National Recreation area, Sandy Hook Unit, NJ.
Productivity at Sandy Hook was 0.06

Site	Adults	Fledged	Total
South Fee	9	1	10
Fee Beach	28	5	33
Hidden	8	0	8
Critical Zone	66	2	68
S. Gunnison	0	0	0
N. Gunnison	2	0	2
North Beach	4	0	4
USCG	26	1	27
TOTAL	143	9	152

Total productivity for Sandy Hook sites was 0.06

Least Tern Survey from 2000 - present

	2000	2001	2002	2003
# of pairs	188	194	222	72
# of fledge	57	74	52	9

Number of Adult vs. Fledgling Least Terns