ORIGINAL

Round Island Field Season Report

1985

Judy Sherburne

The 1985 field season on Round Island passed without major incident. Visitor operations went smoothly, and no poaching, accidents or injuries occured. The unseasonally late snowfall and cool, wet weather delayed considerably the coming of spring. Deep snow made the island minimally accessible by foot for most of of May. This combined with low walrus numbers, no walrus that were a safe and reasonable walking distance as well as poor weather accounted for the late date of the first visitors, May 20.

Visitor Use

During the summer from May 20 through August 30, a total of 113 people came ashore in 31 parties. The largest group of 16 people arrived via the UAF research vessel "Alpha Helix". No doubt what appeared to be low visitor use is at least partly due to the unpredictable and poor salmon fishing season extremely short herring season, and poor weather conditions. All 31 parties arrived via boats except one party that chartered the Icicle Seafoods helicopter. In spite of several parties being turned away by poor weather, arriving by boat is the most dependable and economical means of transportation to Round Island. The overnight visitors timed their trips with luck in that only one party was required to stay an extra day due to poor weather.

Visitors to the island with few exceptions were reasonably aware of the sanctuary regulations and acted accordingly. Also, of the 15 overnight parties, only one was ill-prepared for adverse weather, having little food and an inadequate tent.

There are a few recommendations in order regarding visitors, and these are as follows:

1. Require that people read their permits in front of the person issuing the permit prior to signing it.

2. State in the permit that no nearshore circomnavigation of the island is allowed and no beach landings are allowed. All landings will be at Boat Cove via the ADF&G zodiac shuttling people to and from their boats.

Few people arrived without early morning radio contact to arrange a landing time. This minimized any inconvenience to personnel and worked out well in other cases. Refer to attached table on visitor use.

Disturbances

The most commen source of disturbance was due to air traffic. Two disturbances by a DC-3 occured in spite of its estimated elevation both times of over 2000 feet.

The NOAA helicopter disturbed walrus on the west side of the island while approaching and landing on top of the island to install a microwave beacon. One disturbance was recorded due to the too near approach of a skiff to the main beach. Several tankers and tenders came within the 2 mile limit, believing that the offshore limit was still 1/2 mile. These velssels were raised on the radio and notified as to their violation and in every case turned about and went outside the 2 mile limit without incident. All other disturbances occurred as deliberate intrusions by low flying aircraft while sightseeing. The most severe disturbance was caused by the widgeon on a search and rescue mission. It ran a third of the walruses, approximately 250 animals, off main beach.

A skiff described as a black rubber raft was reported on the west side of the island, but by the time we arrived via the Zodiak, it was gone. Refer to attached sheet on disturbances.

The only recommendations in this area are that:

1. Low flying aircraft that are positively identifiable are issued a first offence citation, followed by something more severe if persistant in violating air space restrictions.

2. Notification of the 2 mile limit be made for inclusion on charts and in the Coastal Pilot, etc. These should always be current on board any large vessel.

Maintenance

Island and camp maintenance projects included the digging of a cistern above the water tank to further extend the cabin's water supply and laying rock and installing steps along the east side trails. For lack of supplies, the following will be proposed projects for the 1986 season if the budget allows:

1. Treat deck and cabin with preservative
2. Build new ice house
3. Bury or paint holding tank
4. Re-string boat cable
5. Trail maintenance
6. Install new heating stove
7. Re-seal cabin exterior
8. Build fire shelter for campers
9. Replace plexi-glass in shylight

Research

Three major areas of study were continued or undertaken this year. First, walrus censusing was continued on a regular daily basis for the prupose of indicating trends in numbers yearly and seasonally and detecting changes in use patterns of walrus haul-out areas. Several tagged walrus were observed and locations recorded. Second, all observations of tagged and untagged fox were recorded, locations mapped, and activities briefly described. Third, seabird reproductive success was monitored, with particular emphasis on the black-legged kittiwake but including a look at common murres and pelagic cormorants.

The walrus censusing was performed every morning prior to 8:30 a.m. on Main Beach, First Beach, Second Beach, what is now known as Second Prime Beach, and at Boat Cove. On an irregular basis, depending on weather and our daily schedule West Beach North was censused. Occasionally weather allowed a survye by boat of the total island. I believe this is a very important area of study in terms of population trends, use patterns, and response to disturbance, and anticipate greater effort next year with the proposed tagging operation.

The fox monitoring was a casual continuation of one portion of the work Zabel did in the 4 previous years. It will be used to compliment the kittiwake work in regard to predator/prey relationships. An early, mid, and late season scat collection of den sites, along with random collections of fresh scats, took place to help develop a picture of fox summer diet and changes over the season.

A total of 16 tagged fox were sighted, and a suspected 5 or 6 untagged fox that were seen repeatedly in localized areas. This makes a possible total of 21-22 adults. Only 3 dens showed evidence of a successful litter; the cabin or camp den had 5 pups, the west side den had at least 3 pups, and the sea lion den had at least one (though I would suspect more by the amount of pup scat, carcasses, amd apparent use of the den site). As for fox production, years previous have shown both better and worse. Refer to attached maps and references.

A seabird study of reproductive success was initiated this year. The main objectives were the following:

1. To estimate production for the black-legged kittiwake.
2. To explain possibly within-colony variation in reproductive success.
3. To determine whether specific location within the colony was correlated with reproductive success.
4. To examine the relationship between predators and prey.

Seven census and reproductive plots were established around the island. Each plot contained from 170 to 260 birds. Four plots were intensively monitored every 3-4 days, weather permitting, with the remnaining 3 plots monitored approximately every 10 days. Egg production, chick survival, nest attendance, and hatching and laying dates were determined on a nest by nest basis. As well, a complete nest by nest description of nest characteristics was made for comparing with reproductive success. Included in the nest descriptions are rankings of visibility, accessibility, slope and aspect, as well as intraspecific measurements of nearest neighbor kittiwakes and local densities, interspecific measurements of nearest murres and their local densities, and edge versus center location within the colony. These characteristics will help in determining those factors that may affect breeding seccess, such as interaction between kittiwakes, interaction with murres, physical nature of the nest site, vulnerability to predators, and edge versus center effects of nest location.

During the mid to late incubation period for murres and kittiwakes, a photographic census of the island was made. A comparison will be made between regular censuses at the abofe 7 kittiwake study plots and the island census regarding nest attendance of individuals and pairs, and time of day in an effort to calibrate numbers for improving the island census estimate.

Without analysis, it can be said that production for the kittiwakes was a near total bust. No chicks from any of the 4 intensively studied plots fledged, and most eggs did not survive to hatching. Roughly, considering all plots totalling 1550 pairs, some 540 pairs layed primarily single-egg clutches, of which few to no chicks survived. To date, I have seen only 2 fledged chicks in the nearshore waters of Round Island.

Murres and cormorants were monitored at a few permanent sites for information on reproductive success. The murres appeared to have had an equally poor season as the kittiwakes. Of 760 individuals monitored, 31 eggs were observed. This is probably a very conservative estimate due to the nature of murre nesting habit and behavior. The date of first laying was June 12. The date of first hatching was July 25. A minimum of 19 chicks was observed.

Pelagic cormorants observed totaled 39 pairs producing a minimum of 53 chicks. The date of first laying was June 4, first hatching was July 10 and first fledging was August 12.

Miscellaneous Comments

Stellar sea lions were monitored regularly and numbers censused. Numbers fluctuated, apparently with severe weather, with a high count of over 1000 animals and numbers commonly between 400 to 700 animals, though as low as zero.

Included is a list of all new birds sighted over the course of the summer among which were: short-eared owl, marsh hawk, emperor goose, stellars eider and a whimbrel.

Ivory was collected from the beaches whenever possible. Twenty-one pieces were catalogued, most of which was recovered from Main Beach. These catalogued pieces will be turned over to the USFWS to be sold at public auction to licensed ivory buyers. Receipts will be channeled to the Game Fund to help defray management costs of the sanctuary.

The only flaw in operations this year had to do with communications with Dillingham. Whether this was a problem with the antenna or the radio was difficult to determine, though I suspect there is a poor connection in the VHF transmission wiring. Radio problems forced us to be dependent many times on Commercial Fisheries camps and the Togiak Cannery for relaying messages back and forth between town. A better operating radio system would alleviate inconveniencing outside parties at a time when the are no doubt very busy with the ongoing fisheries.

In order to carry out the projected projects for next year the following is a list of miscellaneous supplies that need to be ordered:

barge order list
bricks for lining heat stove
outboard manual
thermometer
spark plug wrench
new pack frame
50 wooden stakes
washboard
cupboard door knobs
particle board & hooks
wood preservative
colemen stove parts
wire brush
walrus tagging equipment
metal stakes

6v converter
plywood for ice house
plywood for cook shelter
Zodiac hose and pump
brown fiberglass paint
clear finish for cabin and deck

The following mainenance needs to be done on boad and motor:

track down problem with spark plug not firing
grease throttle gears
re-drill and mount oar locks
drill and mount anti-corrosion zincs

Appendix I.

Round Island Seabird Colony Census

LATITUDE 58°37' north

LONGITUDE 160°00' west

SITUATION Island - From cabin, south to Sea Lion Point, north to Spit.

SIZE 1 mi. X 1.5 mi.

SPECIES Common Murre (*Uria aalgae*), Black-legged kittiwake (*Rigga tridactyla*),

OTHER SPECIES Pelagic cormorant, Double-crested cormorant, Parakeet auklet, Tufted puffin, Horned puffin, Pigeon guillemot

CENSUS DATE July 5, 1985

CENSUS TYPE Photographic count by sea from a Zodiak using a Pentax 70-250m lens at an approximate distance of 200-250 meters.

RELIABILITY One previous census done by Sowls et al. Details not available at this time.

WEATHER Good, fair skies amd calm seas, light wind rippling surface, seas less than 4 feet.

TIDE High at 1820, height 4.7, ebbing

TIME 1800 - 1930 Pacific Standard

NUMBER OF BREEDING BIRDS To be calculated from photographs.

RELIABILITY OF COUNT No reference for comparison with single previous census.

TOTAL ESTIMATE To be calculated.

ROUND ISLAND COLONY CENSUS - PART II

CENSUS DATE July 23, 1985

CENSUS TYPE Photographic count by sea from a Zociak using a Pentax, 135mm lens at approximately 100 - 200 meters.

RELIABILITY Refer to Sowls et. al., 1979.

WEATHER Good, local overcast but fair seas, light wind rippling surface, seas less than 4 feet.

TIDE Half ebb, low at 1356 to 2.8 feet.

TIME 1100 - 1145 Pacific standard time.

NUMBER OF BREEDING BIRDS To be calculated.

RELIABILITY OF COUNT Unknown.

TOTAL ESTIMATE To be calculated.

STATUS OF POPULATION No data, casual observations indicate decreasing in numbers.

PHASE OF CYCLE Estimate late incubation, early hatching for kittiwakes and late incubation for murres.

Appendix B.

BIRD CHECKLIST - 1985

May 4

1. King Eider
2. Pigeon Guillemot
3. Parakeet Auklet
4. Glaucous-wing gull
5. Harlequin duck
6. Common widgeon
7. Pelagic cormorant
8. Black-legged kittiwake

May 8

9. Golden-crowned sparrow
10. Oldsquaw
11. Lapland longspur
12. Magpie

May 9

13. Wandering tattler
14. Horned grebe
15. White-winged scoter

May 10

16. Crested auklet
17. Horned puffin

May 11

18. Water pipit

May 12

19. Black turnstone

May 13

20. Savannah sparrow
21. Gray-crowned rosy finch
22. Common Redpoll

May 14

23. Short-eared owl?

May 16

Short-eared owl confirmed
24. Robin
25. Semi-palmated plover
26. Black brant
27. Rough-legged hawk?
28. Tree swallow
29. Glaucous gull

May 17

30. Stellars eider
31. Emperor goose
32. Red phalarope

May 20

33. Mew gull
34. Tufted puffin

May 21

35. Marsh hawk

May 22

36. Fox sparrow

May 23

37. Yellow-rump warbler
38. Orange-crowned warbler
39. Sandhill crane
40. Hermit thrush

May 24

41. Red-faced cormorant?
42. Double-crested cormorant

May 25

Rough-legged hawk

Bird Checklist 1985 (continued)

May 28

43. White-crowned sparrow

June 3

44. Song sparrow

June 5

45. Wilson's warbler

June 26

46. Yellow warbler

July 19

47. Dunlin

July 26

48. Whimbrel

July 30

49. Western sandpiper

August 3

50. White-winged crossbill

August 10

51. Band swallow

August 19

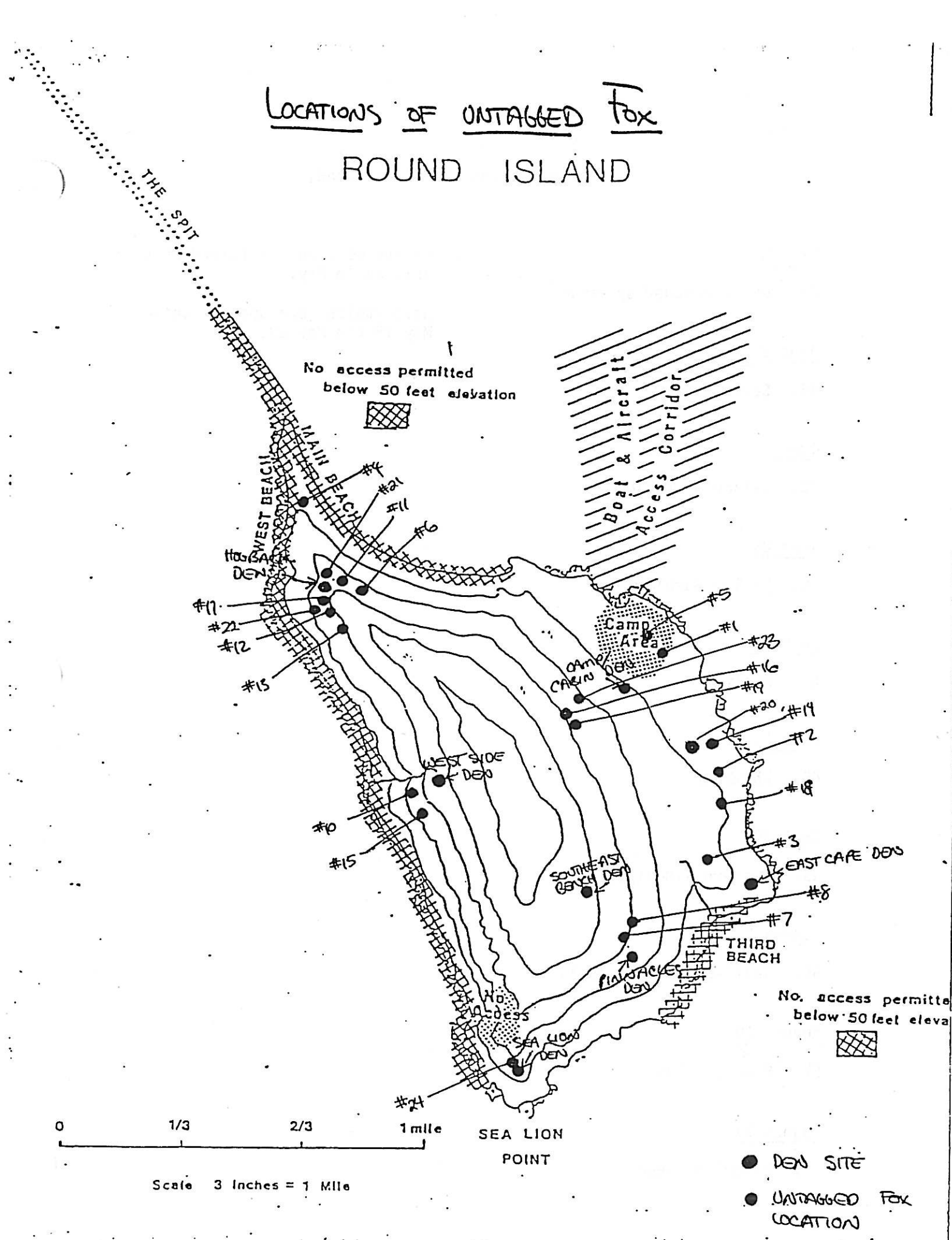
52. Pomarine Jaeger

Ravens were on the island when we arrived in May.

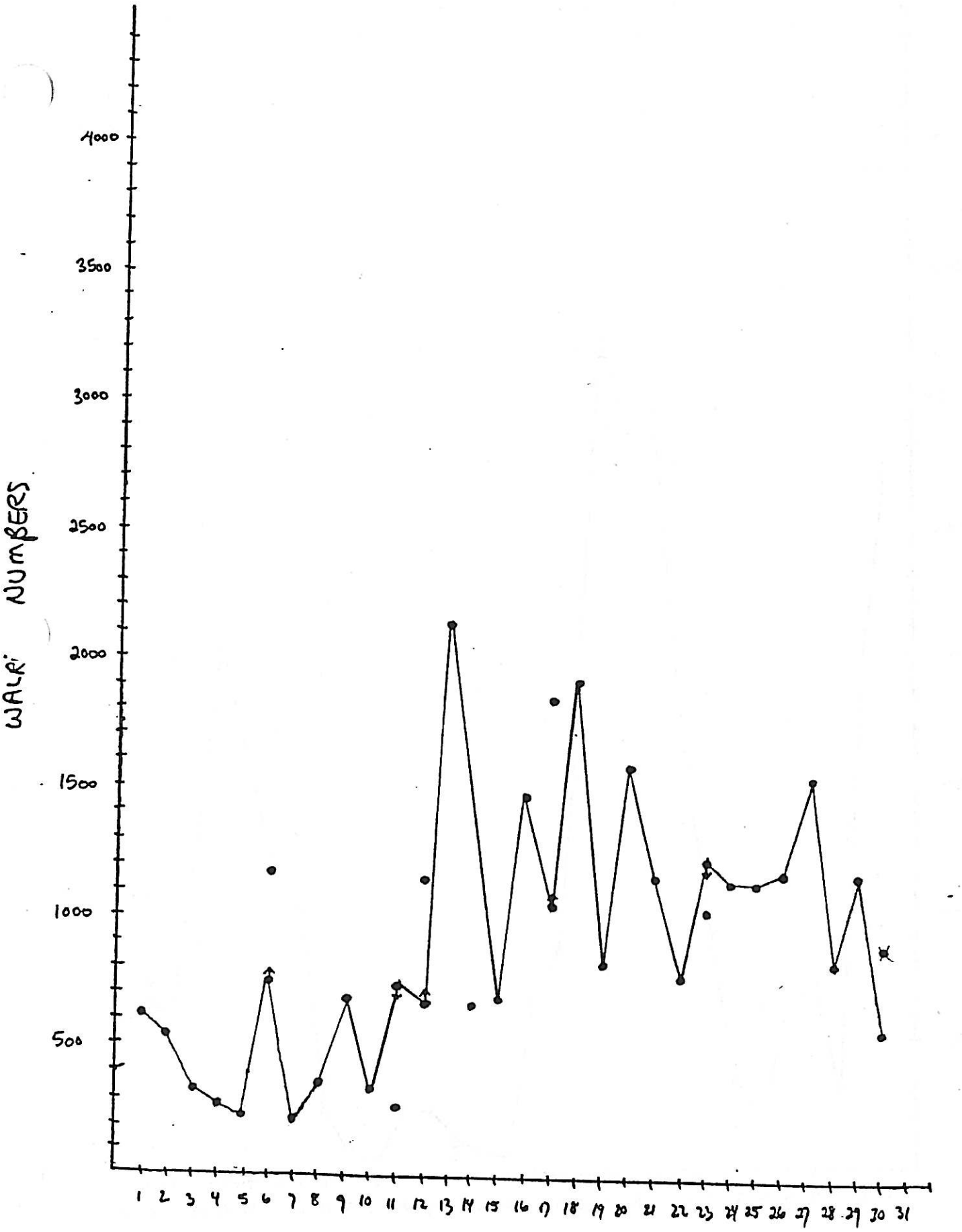
Bald eagles were spotted between May 15 and May 29.

LOCATIONS OF UNTAGGED FOX

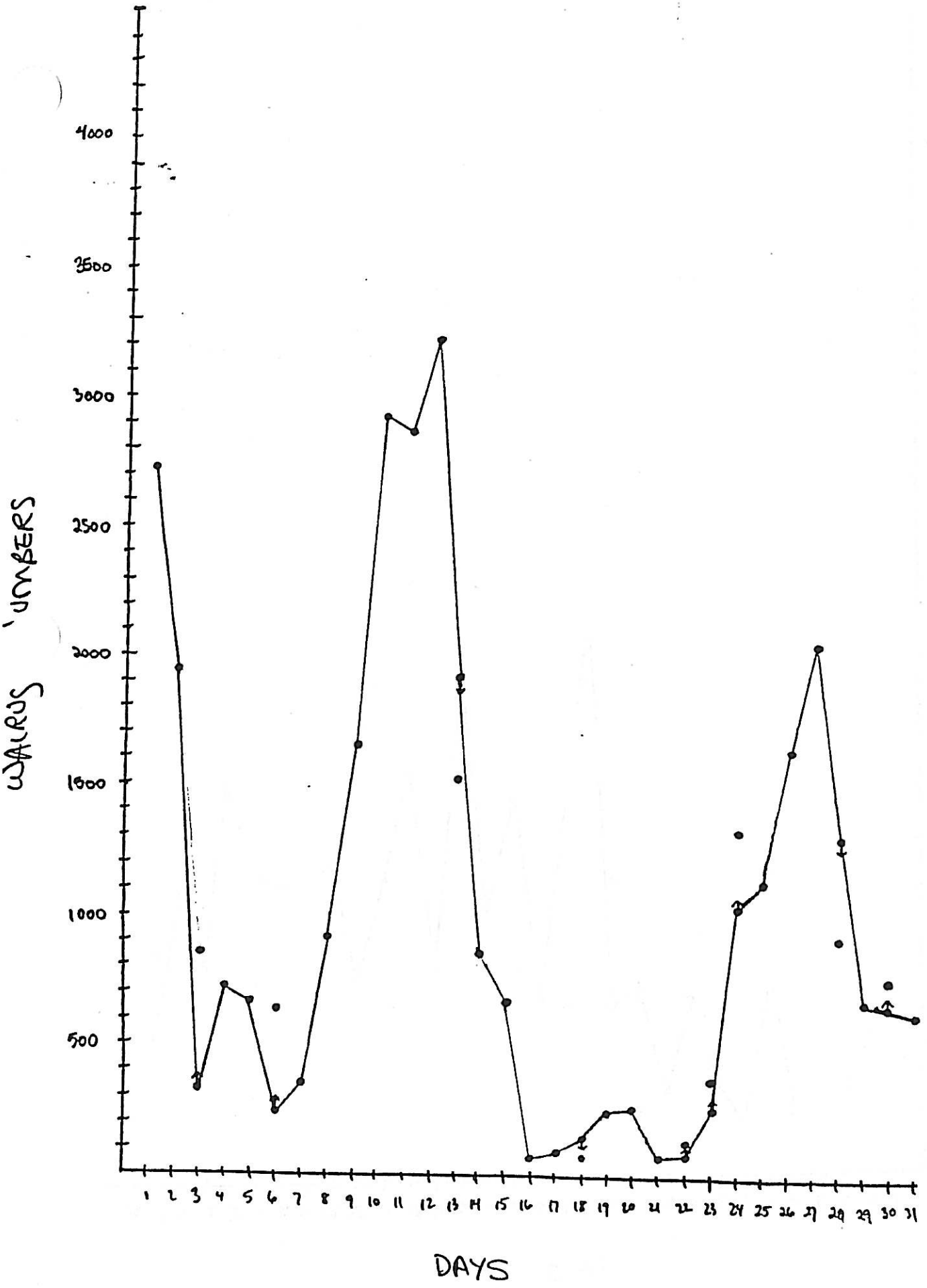
ROUND ISLAND



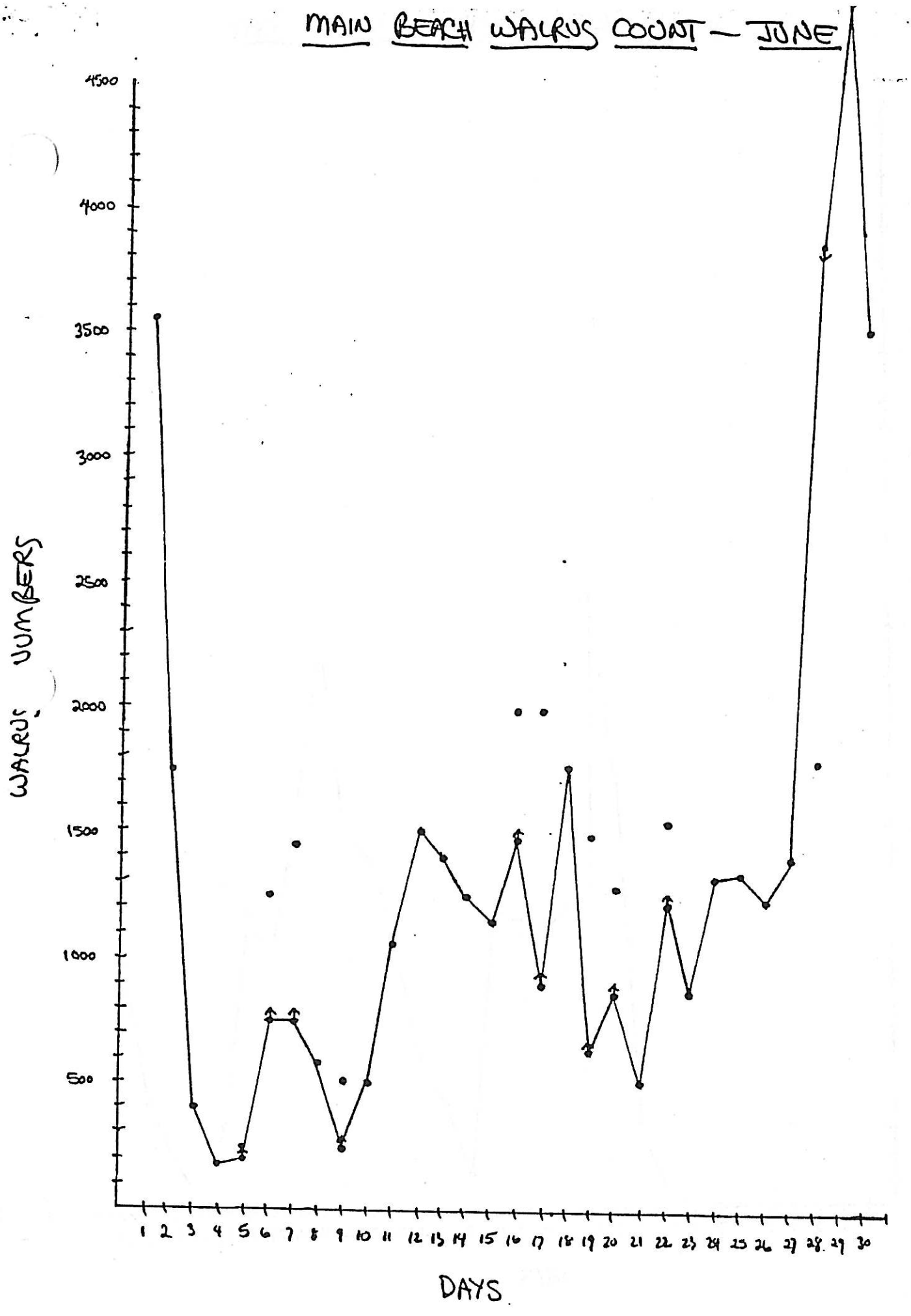
MAIN BEACH WALRUS COUNT — AUGUST



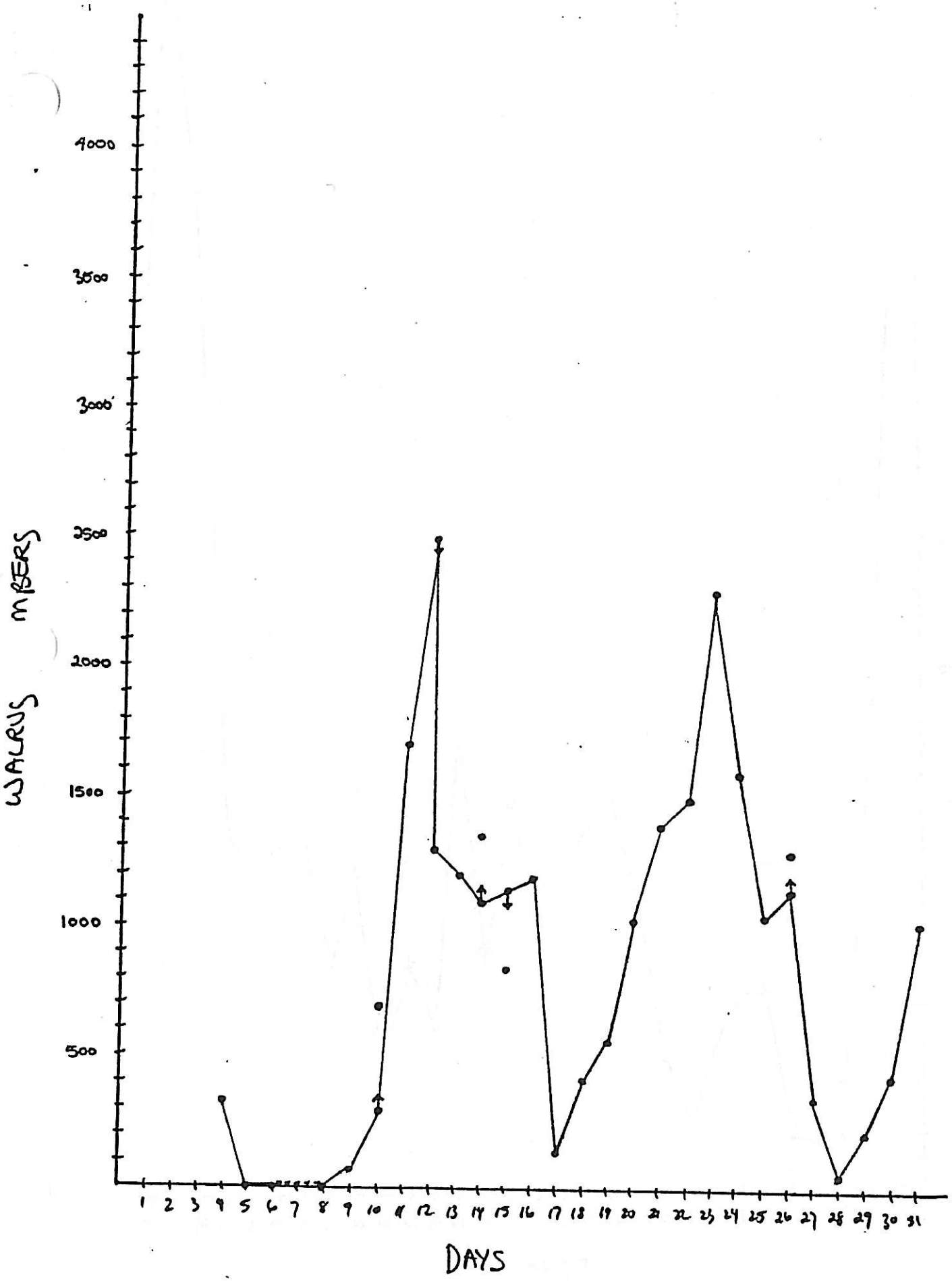
MAIN BEACH WALRUS COUNT – JULY



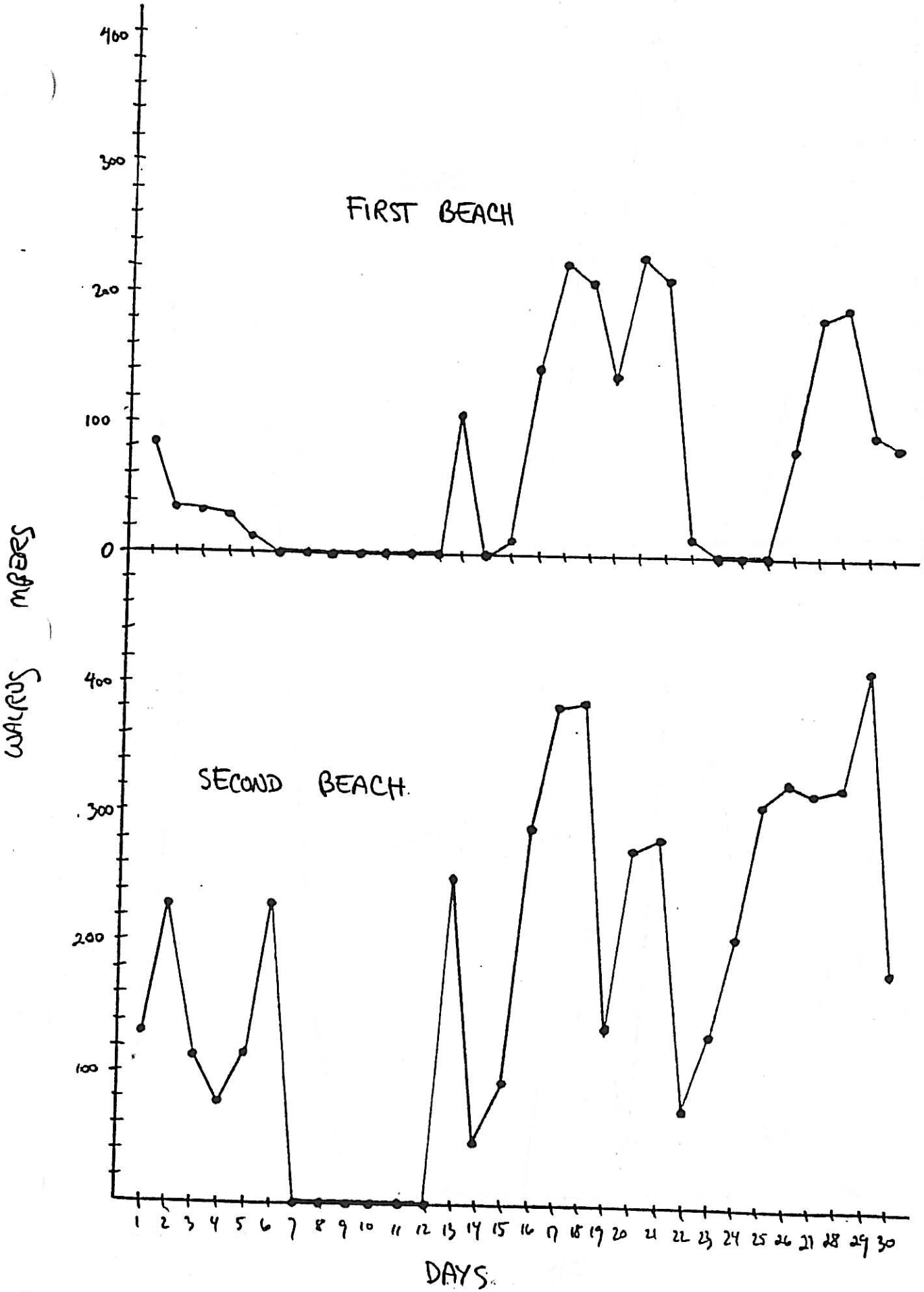
MAIN BEACH WALRUS COUNT — JUNE



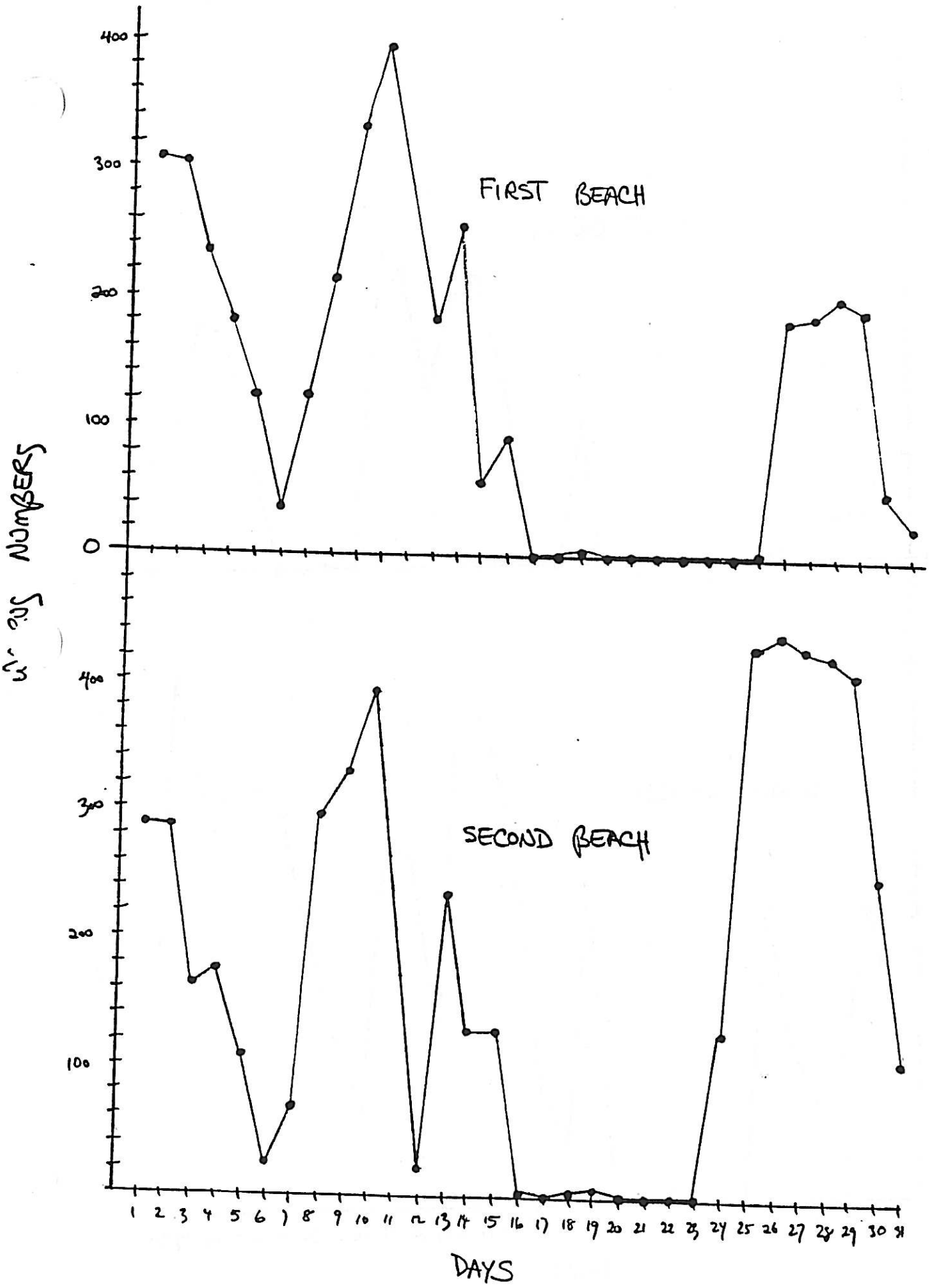
MAIN BEACH WALRUS COUNT — MAY

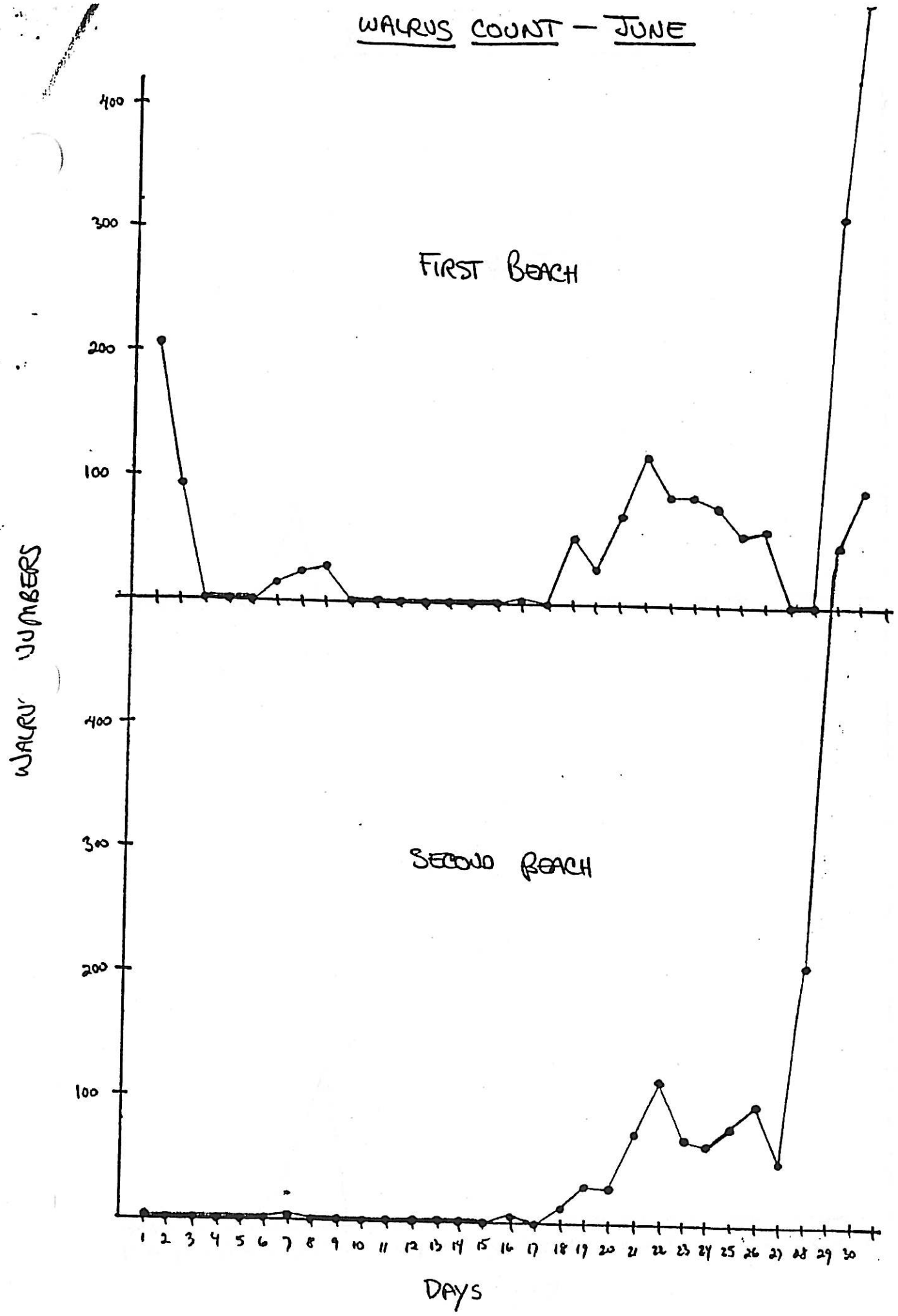


WALRUS COUNT — AUGUST

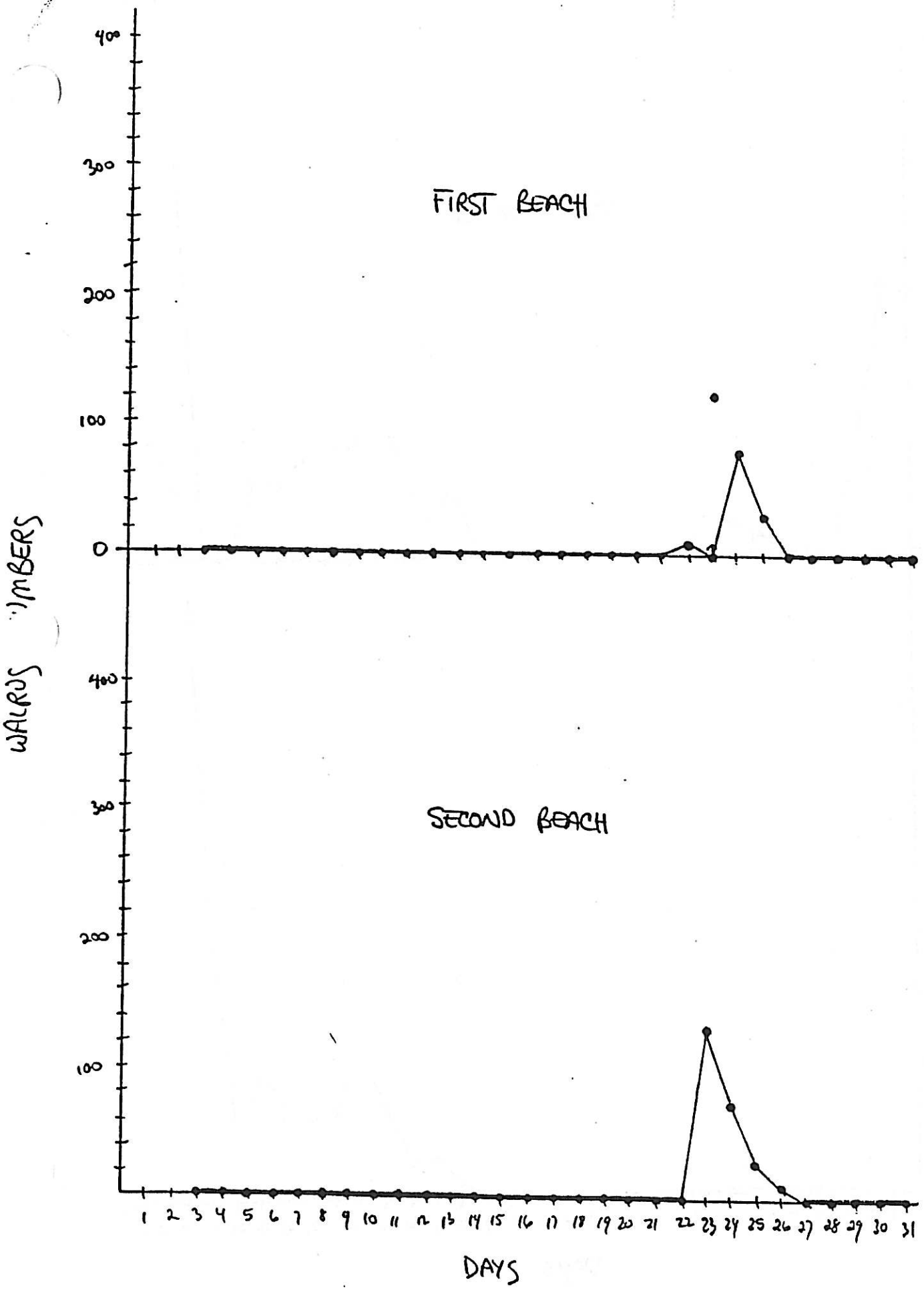


WALRUS COUNT — JULY




WALRUS COUNT – JUNE
FIRST BEACH
SECOND BEACH
WALRUS NUMBERS
400
300
200
100
400
300
200
100
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
DAYS

WALRUS COUNT — MAY



MISCELLANEOUS REPRODUCTIVE RECORDS

NOTE 1a, 1b, 2 etc refers to developmental stage of chick

E = EGG C = CHICK

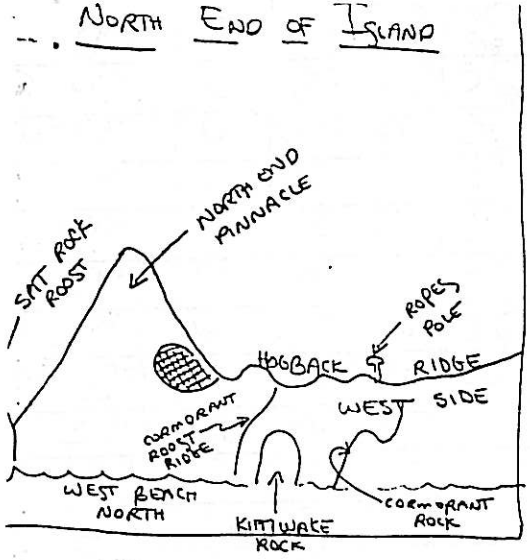
* = EGG OUT OF NEST

KITTIWAKE ROCK ON WEST SIDE NORTH

EST UMBER → / DATE ↓	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	20	1	2	3	4	5	6	7	8	9	30	1	2	3	4	5	6	7	8	9	40	1
		1b	1b	1b	1b		1E																																			
26 JULY	O	1C	1C	1C	1C	1C	1C	1C	O	O	1E	1E	O	O	O	O	O	?	1C	O	O	3a C	O	3a C	O	?	* 1E	?	O	1b C	?	O	O	1C	O	3a C	1C	1b C 1E	?	1C	O	ST
30 JULY	O	1C	1C	1C	O	1C	1E	1C	O	O	O	O	O	O	O	O	O	?	1C	O	O	1C	O	1C	O	O	1E	O	O	1C	1E	O	O	1C	O	1C	1C	1C +	O	1C	O	
3 AUGUST	O	1C	1C NB	1C	1C	1C	1E	1C	O	O	O	O	O NB	O	O	O	O	O	1C	O	O	1C	O	1C	O	O	1E	O	O	NB 1E	O	O	1C	O	1C	O	1C	O	1C	O		
6 AUGUST	O	O NB	O NB	O NB	?	1C	O	1C	O	O NB	O	O	O NB	O	O	O	O	O	1C	O	O	1C	O NB	1C	O	O	O NB	O	O	O	NB 1E	O	O	1C	O	1C NB	O	1C	O	1C	O	SP
2 AUGUST	O	O	O	O	O NB	O	O	O	O	O	NB	NB	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	
17 AUGUST	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	NB	O	O	O	O	NB	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	SU
23 AUGUST	O	O	NB	O	O	O	O	O	O	O	O	O	NB	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	
26 AUGST	O	NB	NB	O	NB	O	O	O	O	NB	O	O	O	O	O	O	O	NB	O	O	NB	O	O	NB	O	O	O	O	O	NB	NB	O	O	O	O	NB	O	O	NB	O	O	

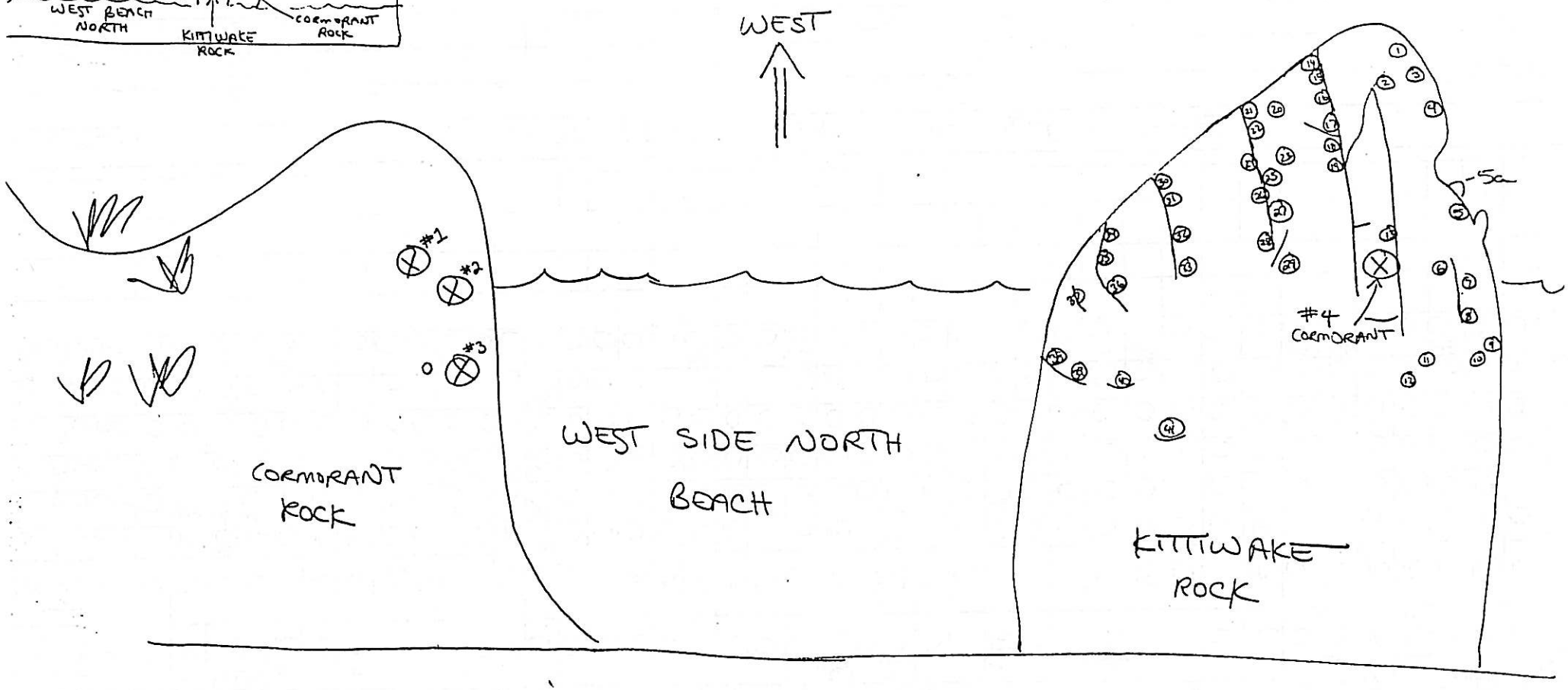
CORMORANT ROCK AND BLACK HOLE

NEST # → / ATE ↓	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	NOTE
6 JULY	O	3E+	?																		
1 JULY	O NB	2C+	2E/1C																		
1 JULY	O	3C+	3C+				NO					DATA									
22 JULY	O NF	3C	4C																		
6 JULY	O	3C	3C	2C+	3C	3C+	2C+	3C	4C	3C	3C+	2C+	3C+	3C+	3C	2C+	3C+	3C	3C+	O NB	ALL HA 2+CHIC
0 JULY	O	3C	3C	3C	2C+	3C	2C+	2C+	3C	3C	3C+	2C+	3C	3C+	2C+	2C	3C+	3C	2C+	O	
2 AUG	O	3C	3C	2C	2+C	3C	2C	2C	2C+	3C	3C	1+C	2C+	3C+	2C	2C	3C	2+C	2C	O	
AUG	O	3C	3C	2C	2C	2C	2C	1C	3C	3C	3C	2C	3C	4C	2C	2C	3C	2C	2C	O NB	
AUG	O	3C	3C	2C NB	2C	2C	3C	1C NB	2C	3C	3C	2C	3C	3C	2C	2C	2+C	2C	1 DEAD	O NB	1ST # C 2 NOT
AUG	O	2C+1	3C	2C NB	2C NB	0	NB 2C	1C		2C+1	2+1	2C NB	3C NB	3C NB	2C NB	2C NB	2C	3C	2C		
AUG	C	3C	3C	2C NB	1C	1 DEAD	2C	1C	1C	2C NB		2C	3C NB	1C	O NB	2C	3C NB	O	O NB	O NB	
AUG	C	1C	2C	2C NB	O	DEAD	NB 1C	NB 2C	1C NB	1C NB	1C	2C	3C NB	1C	O NB	2C			O NB		



KITTIWAKE NEST LOCATION AND CORMORANT NEST LOCATION — NORTH END

- FROM HOGBACK RIDGE LOOKING DOWN WESTWARD AND NORTHWARD -



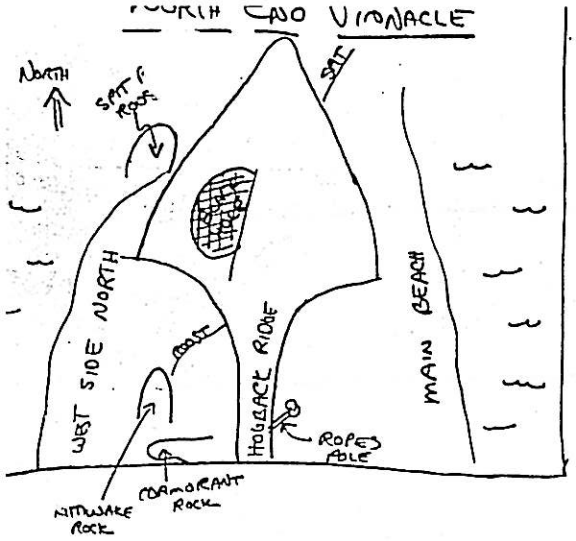
O = KITTIWAKE NEST

⊗ = CORMORANT NEST

HOGBACK RIDGE

TH

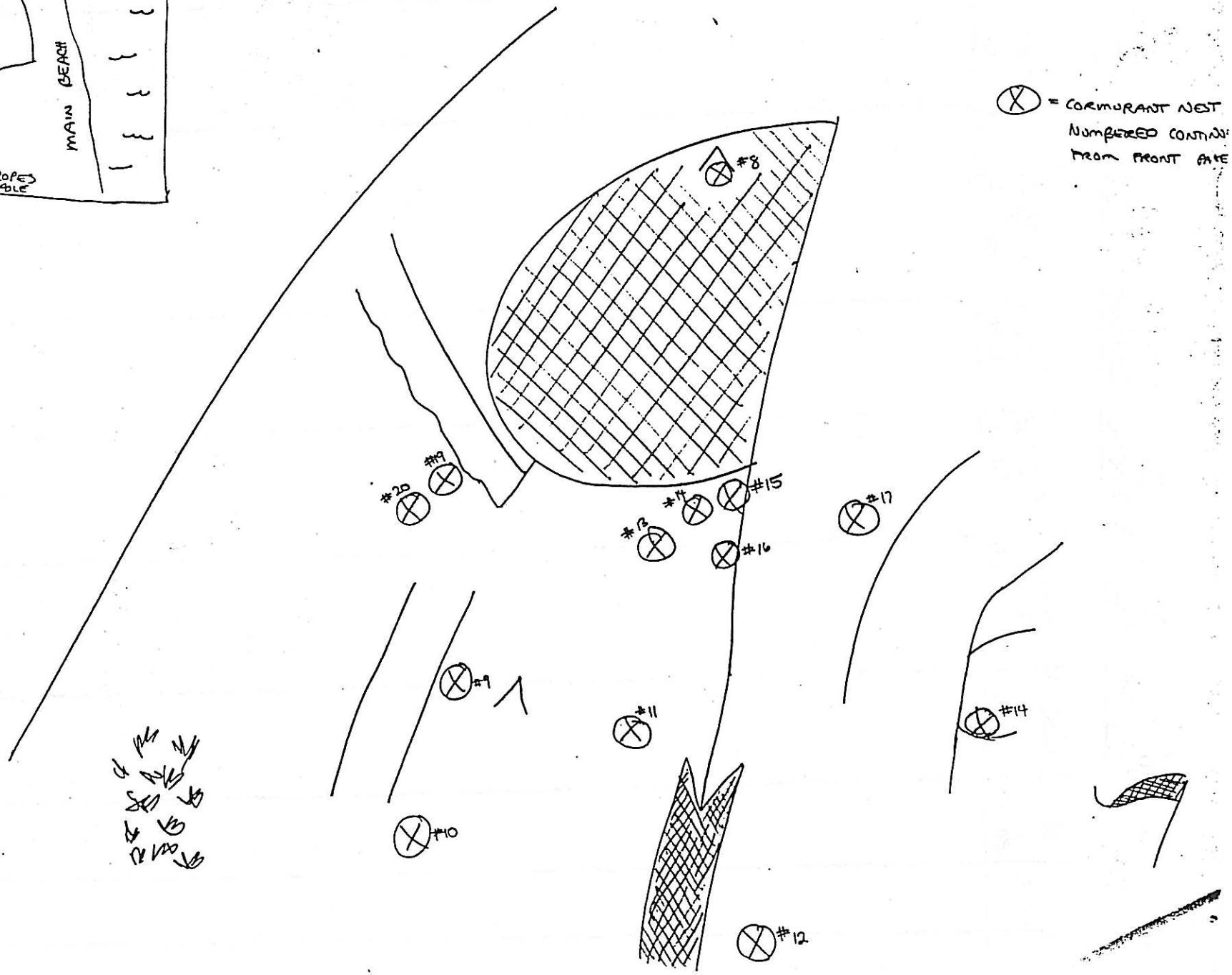
FOURTH CAPE VINNACLE



DUNK TIDE

CORMORANT NEST LOCATION – NORTH END PINN[illegible]

⊗ = CORMORANT NEST NUMBERED CONTINU[illegible] FROM FRONT GATE



Visitor Use of Round Island – 1985

DATE	# IN PARTY	LENGTH OF STAY	#DAYS BEYOND PLANNED	#PEOPLE DAYS	#CAMP DAYS	MEANS OF TRANSPORTATION	HOME BASE

STAL

DISTURBANCES DURING 1985 SEASON

DATE	TIME	BEACH	DESCRIPTION OF CRAFT	# WALRUS DISTURBED	SEVERITY	COMMENTS