RPT AND/7 5110

ANDAMAN & NICOBAR SEA TURTLE PROJECT: Phase IV

Report submitted to the Centre for Herpetology, Madras Crocodile Bank and to the Forest Department, Andaman & Nicobar Islands

by Satish Bhaskar, February 1994.

Period covered by Phase IV : 8 Aug to 3 Dec 1993

Period of actual field study : 14 Sep to 22 Nov 1993

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Islands surveyed : South Reef, Interview and Latouche.

1. SUMMARY OF FINDINGS ON SOUTH REEF

1.1 An estimated 46 Hawksbill turtles (Eretmochelys imbricata) made 128 nests on South Reef Island during the period 8 July - 22 Nov 1993. Of these turtles, 28 were tagged, between 14 Sep and 22 Nov 1993. The estimate is based on the assumption that on South Reef, a Hawksbill lays, on average, 2.8 nests in a nesting season.

1.2 An estimated 14 Green turtles (Chelonia mydas) made 55 nests on South Reef between 15 July and 22 Nov 1993. Of these turtles, 7 were tagged, between 14 Sep and 22 Nov 1993. The estimate is based on the assumption that Green turtles in this area lay, on average, 4 nests per season.

1.3 The numbers of nesters and nests of both species were greater in 1993 than for the corresponding period in 1992

i.e. 46 vs. 41 Hawksbills made 128 vs. 116 nests. and 14 vs. 11 Green turtles made 55 vs. 45 nests.

1.4 Hatchling production for both turtle species was greater in 1993 than for the corresponding period in 1992. Hawksbill hatchlings that emerged out of nests in 1993 numbered 14900 vs. 12100 in 1992. Green turtle hatchlings that emerged numbered 4700 vs. 3300 in 1992.

1.4.1 The increase in hatchling production resulted not only from greater numbers of nesters and nests but from increases in average clutch sizes : for Hawksbills, 137.1 in 1993 vs. 131.2 in 1992 (a 4.5% increase), and for Green turtles, 103.1 vs. 90.6 (a 13.8% increase).

1.5 Despite increased hatchling production, hatching percentage per clutch for both Hawksbills and Green turtles was lower in 1993 than in 1992 : 85.7 % vs. 88.2 % for Hawksbills and 84.2 % vs. 88.4 % for Green turtles.

1.6 The largest sea turtle clutch recorded in India - 215 eggs - was laid by a Hawksbill on South Reef in 1993. This is 2 eggs more than those in a Hawksbill clutch recorded on South Reef in 1992.

1.7 The average depth* of Hawksbill nests showed little variation between 1993 and 1992 -- 44.5 cm vs. 45.8 cm (a decrease of less than 3 %). That of Green turtle nests remained constant at 70.2 cm, despite 1993's nesters being larger than those of 1992 (# 1.8 below).

* depths were measured from sand surface to the bases of egg chambers.

1.8 For Hawksbills in 1993, both mean Standard Carapace Curved Length (SCCL) and mean Standard Carapace Curved Width (SCCW) differed only by o.6 cm (less than 0.9 %) from the 1992 figures (SCCL : 77.1 cm vs. 77.7 cm, SCCW 69.1 cm vs. 68.5 cm). Green turtles that nested in 1993 were larger than those of 1992 (Average SCCL : 94.75 cm vs. 90.45 cm -- a 4.75 % increase. Average SCCW : 85.1 cm vs. 83 cm -- a 2.5 % increase).

1.9 The minimum hatchling emergence period (i.e. incubation period + ascent period) recorded for Hawksbill nests in 1993 was 54 days and for Green turtle nests, 57 days. Sand temperatures at nest depths at control sites (1 m. away from hatchling emergence sites) measured on the morning after hatchlings emerged ranged from 27.9 to 30°C for Hawksbill nests and from 27.4 to 29°C for Green turtle nests.

1.10 Of 128 Hawksbill nests, only 1 was confirmed to have been destroyed by spring tides in 1993. Another nest was totally destroyed by predation by civet cats or by rats. No Green turtle nests were found inundated or predated upon.

1.11 No Hawksbill or Green turtle nests on South Reef were lost to predation by humans during the study period 14 Sep - 22 Nov 1993, but it was clear that the presence of the investigators on the island deterred most poachers -- including Burmese infiltrators , who were seen on 28 separate occasions diving in the vicinity of South Reef

or passing by in mechanized dugout boats. Two parties of Burmese -- numbering 7 and 4 individuals -- also landed on South Reef, on two separate occasions at 9-30 p.m. and 12-30 a.m. respectively

1.12 Shark fishermen regularly set shark nets in the sea 1/2 to 10 km from South Reef. One party encountered included Telugu members from a shark fishing party I had first met on Interview Island in 1981. A Hawksbill turtle that almost certainly had drowned in a net set 1 km from South Reef fetched up on the island in November. Favoured camping sites used by shark fishermen (and Burmese poachers) include Anderson Island, the southern end of Interview Island's western shore, and North Reef Island.

1.13 The skeletal remains of a mature Hawksbill turtle that had died several weeks before the study commenced was found just behind the vegetation line on South Reef. The cause of death was uncertain.

1.14 None of the 32 nesters tagged in 1992 (27 Hawksbills and 5 Green turtles) were among the 35 nesters seen and tagged in 1993 (28 Hawksbills and 7 Green turtles). Some of 1992's tagged turtles could be expected to remigrate and nest on South Reef in 1994.

1.15 Of 83 occasions when Hawksbills were present on the beach during the survey period, non-nesting crawls (NNCs) occurred in 11 (i.e. 13.25%) instances. The more frequent non-nesting crawls in 1992 (21.6 %) may have resulted from heavier disturbance on the beach that year (when the investigators had also been capturing, marking and releasing sea kraits on the beach). However, the figure for Green turtles in 1993 (21 non-nesting crawls out of 46 total crawls, i.e. 45.7 %) was greater than in 1992 (23.1 %). A particularly sensitive Green turtle in 1993 (tag no. CA 680 - CA 651) made 10 NNCs and 3 nests, but even excluding this turtle, 1993s NNC percentage , 33.2 %, is still higher than that of 1992.

1.16 The smallest nesting Hawksbill recorded in 1993, double-tagged CA 681 and CA 682, measured 64/59.5 cm SCCL/SCCW. This is smaller than the smallestnester recorded in 1992 (71½/58½ cm) and is even smaller than the erstwhile smallest nesting Hawksbill recorded from India, a 65½/60 cm turtle that nested on South Reef in 1983. Smallness could indicate size at sexual maturity.

1.17 Of 55 Hawksbills tagged so far (in 1992 and 1993) only one possessed a carapace whose curved length was less than its curved width. This was an individual tagged 001 X ; measuring 76½/78 cm SCCL/SCCW. The carapace's high lateral curvature, however, makes it likely that Carapace Straight Length exceeded Carapace Straight Width, as is usual. This was not verified.

1.18 In 1993, at least two turtles -- a Hawksbill (tag. no. CA 695) and a Green turtle (tag no. CA 692)-- that nested on South Reef also nested elsewhere (apparently on another island). This was obvious from the lengths of the intervals -- 27 and 25 days respectively -- separating successive encounters of nestings by these turtles. A Green turtle showed similar behaviour in 1992. It is uncertain whether or not disturbance by the investigators caused this temporary shift in choice of nesting site.

1.19 Tags used on nesting turtles in 1993 were made of corrosion-resistant metal. Two sets of tags were used on Hawksbills: the "CA" series and the"X" series :-

	Inscribed number	Inscribed return address
Set 1	(eg.) CA 665	RETURN ANPWS GPO BOX 636 CANBERRA AUST 2601
Set 2	(eg.) 002 X	RETURN WILDLIFE BOX 166 NORTH QUAY 4002 QLD AUSTRALIA

Green turtles were tagged only with Set 1 tags. For both species, the site of the tag was on the trailing edge of the left foreflipper, usually on the first large scale (nearest to the armpit). In cases where tag attachment was unsatisfactory, the turtle was double-tagged (ie tagged again, this time on the second large scale) or even triple-tagged, on the third large scale.

1.20 On 30 Sep 1993, 44 of the uppermost eggs from a natural incubating clutch of 157 Hawksbill eggs were transferred carefully (while maintaining their orientation). Hatchlings from the remaining (113 egg) batch of eggs emerged 23 days later. Two days later, hatchlings from the transferred (44 egg) batch also emerged. The hatching percentages were

	Hatch %
44 egg batch	95.5
113 egg batch	90.3
Total clutch (157 eggs)	91.7

Unexpectedly, the overall hatching % (91.7) was 6% greater than this years average for undisturbed clutches. The unexpectedly, as given above, the disturbed 44 egg batch achieved a hatching percentage more than 5% greater than that shown by the less-disturbed 113 egg-batch.

The prevalence of lower incubation temperatures (believed to adversely affect hatching sex ratios) in the smaller batch — as could be inferred from the 2-day delay in hatchling emergence in this portion — may account for the increased hatching success.

1.21. The peak of the Hawksbills nesting season has been confirmed to be the month of September (as was the case both in 199- and in 199- Again in both years the second most productive month was October (Table). The peaks of the season

TABLE 2.1

ERETMOCHELYS. SOUTH REEF ISLAND 1993 . TAG NUMBERS, RENESTING INTERVALS, MEASUREMENTS.

Date of tagging	Tag number(s)	Renesting intervals (days)	Dates of nestings or of NNC's(*)	SCCL (cm)	SCCW (cm)	No. of nests
14 Sep	CA 678	16	14, 28*, 30 Sep	85	79	2+
15	652	13	15, 28 Sep	78	66½	2+
16	653, CA654	14	16, 30 Sep	82½	76¼	2+
18	655		18 Sep	76	68	1+
18	656	15	18/9, 3/10*, 3/10	68¼	64½	2+
20	657		20 Sep	73½	64	1+
20	658		20 Sep	78½	68½	1+
20	659, CA660	15, 15	20/9, 5/10, 20/10	72½	58½	3+
21	661	13, 13	21/9, 4/10, 17/10	79	72½	3+
24	664	14	24/9, 8/10	73¾	71	2+
24	663, CA662	16, 15	24/9, 9/10*, 9/10*, 10/10*, 10/10, 25/10	79	72¾	3+
24	665	13, 13	24/9, 7/10, 20/10	82½	71	3+
25	668, CA669	13, 14	28/9, 8/10, 22/10	75	66¼	3+
27	667	14, 13, 12	27/9, 11/10, 24/10, 5/11	77	66¾	4
27	670		27/9	80¾	74	1+
27	673		27/9	78½	69¾	1+
27	674, CA675	13, 12, 12	27/9, 10/10, 22/10, 3/11	75¾	67¼	4
3 Oct	681, CA682	13, 12, 12	3/10, 16/10, 28/10, 9/11	64	59½	4
6	685, CA686		6/10	79¼	67¼	1+
6	687	14	6/10, 20/10	75¼	68	2+
8	688, CA689	14, 15	8/10, 22/10, 6/11	82¼	73¾	3
10	690	15, 12	10/10, 25/10, 6/11	77	66	3
17	691		17/10	75	66	1+
21	695	13, 14	21/10, -, 17/11	73	62	3+
22	696	13	(20/10, 21/10)*, 22/10, 4/11	75	66¾	2+
26	699	14	26/10, 8/11*, 9/11	80	72½	2+
7 Nov	001 X	15	23/10, 7/11	76½	78	2+
14	oo2 X	14	31/10, 14/11	86½	77½	2+

\+ indicates that the individual turtle may or may not have made more nests than the listed number.

TABLE 2.2

DATA FROM ERETMOCHELYS NESTS, South Reef Island, 1993.

(Figures in parenthesis are data from 1992)

Parameter	n clutches	Range	Average	Sample S.D.
Clutch size	56 (58)	66 - 215 (46 - 213)	137.1 (131.2)	31.51 (29.38)
Nest Depth (cm)	52 (53)	36 - 55½ (32 - 60)	44.5 (45.8)	5.087 (6.427)
Emergence period of pioneers in clutch (days)	4 (15)	54 - 61* (55 - 73)	57.75* (61.47)	3.775* (4.868)
Hatching % per nest	52 (55)	23 -99.4 (25.6-98.9)	85.7 (88.2)	16.12 (11.59)
Emergence % of hatchlings	51	31.7- 99.1	85.4	16.59

TABLE 2.3 Data from nesting Eretmochelys, South Reef Island, 1993.

(Figures in parenthesis are data from 1992)

Parameter	n turtles	Range	Average	Sample S.D.
Standard Carapace Curved Length (SCCL) (cm)	28 (27)	64 - 86½ (71 - 85¼)	77.1 (77.7)	4.738 (4.252)
Standard Carapace Curved Width (SCCW) (cm)	28 (27)	58½- 79 (58½- 79¼)	69.1 (68.5)	5.254 (4.677)

* These three figures may be biased (low) because the 68-day field study may have been too short in duration to have covered nests having longer emergence periods.

TABLE 2.4

ERETMOCHELYS. Frequencies of renesting intervals, South Reef I.

(See FIG. 4.2)

Renesting intervals (days)	No. of turtles in 1992 n=15	No. of turtles in 1993 n=35	Overall no. of turtles n=50	% of 50 turtles
11	0	0	0	0
12	1	6	7	14
13	5	11	16	32
14	3	9	12	24
15	4	7	11	22
16	1	2	3	6
17	1	0	1	2
18	0	0	0	0

TABLE 2.5

ERETMOCHELYS. Frequencies of clutch sizes, South Reef I.

(See FIG 4.3)

Range of clutch sizes (no.of eggs)	No.of clutches in 1992 n=58	No.of clutches in 1993 n=56	Overall no.of clutches n=114	% of 114 clutches
40 - 60	1	0	1	0.9
61 - 80	0	1	1	0.9
81 - 100	7	4	11	9.6
101 - 120	11	14	25	21.9
121 - 140	21	14	35	30.7
141 - 160	9	10	19	16.7
161 - 180	6	7	13	11.4
181 - 200	1	5	6	5.3
201 - 220	2	1	3	2.6
221 - 240	0	0	0	0

TABLE 2.6
ERETMOCHELYS. Size (SCCL) frequencies of nesters. South Reef I.

(See Fig 4.4)

Range of SCCL (cm)	No. of turtles in 1992 n=27	No. of turtles in 1993 n=28	Overall no. of turtles n=55	% of 55 turtles
59 - 63	0	0	0	0
63 - 67	0	1	1	1.8
67 - 71	1	1	2	3.6
71 - 75	7	7	14	25.5
75 - 79	9	11	20	36.4
79 - 83	6	6	12	21.8
83 - 87	4	2	6	10.9
87 - 91	0	0	0	0

TABLE 2.7
ERETMOCHELYS. Size (SCCW) frequencies of nesters. South Reef I.

(See Fig 4.5)

Range of SCCW (cm)	No. of turtles in 1992 n=27	No. of turtles in 1993 n=28	Overall no. of turtles n=55	% of 55 turtles
54 - 58	0	0	0	0
58 - 62	2	3	5	9.1
62 - 66	8	4	12	21.8
66 - 70	10	10	20	36.4
70 - 74	4	7	11	20
74 - 78	2	3	5	9.1
78 - 82	1	1	2	3.6
82 - 86	0	0	0	0

TABLE 2.8

Eretmochelys. Nesting intensities on South Reef I. in 1993 and 1992

Period	No of days	No. of nests	No. of nests per day, 1993	No. of nests per day, 199[illegible]
c 12-31 July	c. 19	13	0.68	~~0.72~~ 0.73
August	31	27	0.87	0.52
September	30	41	1.37	1.23
October	31	34	1.10	1.03
-21 November	21	13	0.62	0.63

TABLE 2.9

Proportion [illegible]

Species	1992 (c mid July – 12 Dec) No. of nests	% of total	1993 (c mid July to 21 Nov) No. of nests	% of total
Hawksbill	11[illegible]	[illegible]	12	69.[illegible]
Green turtle	[illegible]	[illegible]	[illegible]	[illegible]
Total	1[illegible]	[illegible]	1[illegible]	1[illegible]

The num[illegible] [illegible]

~~Hatching emergence~~ Turtle hatchling production:

	Hawksbill				Green Turtle			
	Hatchlings [illegible]	No of nesters	Emerged hatchlings per nester	Nesters that produce 1000 hatchlings	Hatchlings emerged	No of nesters	Emerged hatchlings per nester	Nesters that produce 1000 hatchlings
[illegible]	12100	41	295	3.4	3300	11	300	3.3
[illegible]	14900	46	324	3.1	4700	14	335	3.[illegible]

TABLE 2.11

Chelonia [illegible] Renesting intervals ~~on~~ South Reef, 1993
([illegible] in parenthesis are 1992 data)

Renesting [illegible]	n	Range	Average	Sample S.D
Average for each turtle (days)	7 (5)	11.5 - 13.5 (12 - 13.67)	12.6 (13.4)	0.673 (1.112)
Based on instances [illegible] renesting (days)	1[illegible] (11)	11 - 15 (12 - 15)	12.6 (13.2)	1.115 (1.092)

TABLE 2.12

Eretmochelys Renesting intervals South Reef, 1993
(Figures in parenthesis are 1992 data)

Renesting interval	n	Range	Average	Sample S.D
Average for each turtle (days)	21 (9)	12.33 - 16 (12.7 - 15.5)	13.87 (14.2)	1.012 (0.942)
Based on instances of renesting (days)	35 (15)	12 - 16 (12 - 17)	13.7 (14.1)	1.162 (1.356)

TABLE A.19

Chelonia mydas [illegible]

Date tagged	Tag no(s)	Dates of [illegible]	[illegible]		
14 Sep	CA 679	14/9, 21/9*, [illegible]*, 21/9, [illegible]	15, 11	[illegible]	[illegible]
14 Sep	CA 680, CA 657	14/9*, 15/9* (three), [illegible], [illegible]*, [illegible]*, [illegible], [illegible]; [illegible]*, [illegible], [illegible], [illegible], [illegible]*, [illegible]*	13, 15, [illegible]	[illegible]	[illegible]
20 Sep	CA 683, CA 684	20/9*, 21/9, 4/10	13	96½	91½
24 Sep	CA 666	24/9, 5/10*, [illegible], 7/10, 19/10, 1/11	13, 12, [illegible]	95	84
25 Sep	CA 671	25/9, 7/10*, 7/10, [illegible]*, 19/10, [illegible]/10	[illegible], 12, [illegible]	[illegible]	[illegible]
25 Sep	CA 672	25/9, 6/10	11	[illegible]	[illegible]
[illegible] Nov	CA 692	19/10, — [illegible] 1[illegible]/11	1[illegible], 12	96	[illegible]

TABLE 2.14

CHELONIA MYDAS. South Reef, 1993. Data from emerged nests. (Figures in parenthesis are 1992 data).

Parameter	n nests	Range	Average	Sample S.D.
Clutch size (no. of eggs)	30	76 -133	103.1	15.01
	(22)	(52 -144)	(90.6)	(21.14)
Average hatching % per nest	29	55 - 97.5	84.2	11.83
	(20)	(70.1- 96.9)	(88.4)	(6.604)
Emergence % (Eggshells minus DIN minus doomed AINs)	29	54.1- 97.5	82.7	11.81
Nest depth (cm)	29	56 - 91	70.2	8.68
	(17)	(60 - 81)	(70.2)	(7.06)
Emerged hatchlings per nest, 14/9 to 21/11	29	56 -115	85.2	15.71

DIN= Hatchlings dead in nest
AIN= Hatchlings alive in nest
Doomed AINs= Hatchlings unlikely to survive ascent, i.e. those doomed in nest by biological or by physical factors.

TABLE 2.15

CHELONIA MYDAS. South Reef, 1993. Carapace measurements. (Figures in parenthesis are 1992 data).

Parameter	n turtles	Range	Average	Sample S.D.
SCCL (cm)	7	92 - 96½	94.75	1.479
	(5)	(86½ - 93¼)	(90.45)	(2.786)
SCCW (cm)	7	81½ - 89	85.1	3.101
	(5)	(81 - 85¼)	(83)	(1.829)

SCCL = Standard Carapace Curved Length.

SCCW = Standard Carapace Curved Width.

TABLE 2.16
CHELONIA MYDAS. Frequencies of renesting intervals. SOUTH REEF I.

(See FIG. 4.6)

Renesting interval (days)	No. of turtles in 1992 n=13	No. of turtles in 1993 n=17	Overall no. of turtles n=30	% of 30 turtles
*10	0	0	0	0
11	0	2	2	6.7
12	4	6	10	33.3
13	4	7	11	36.7
14	3	0	3	10
15	2	2	4	13.3
16	0	0	0	0

TABLE 2.17
CHELONIA MYDAS. Frequencies of clutch sizes. South Reef Island.

(See FIG. 4.7)

Range of clutch sizes (no. of eggs)	No. of clutches in 1992 n=22	No. of clutches in 1993 n=30	Overall no. of clutches n=52	% of 52 clutches
40 - 60	1	0	1	1.9
61 - 80	7	2	9	17.3
81 - 100	9	13	22	42.3
101 - 120	2	13	15	28.8
121 - 140	3	1	5	7.7
141 - 160	1	0	1	1.9
161 - 180	0	0	0	0

TABLE 2.18

CHELONIA MYDAS. Nesting intensities in 1993 and 1992. South Reef I.

Period	No. of days	No. of nests	No. of nests per day, 1993	No. of nests per day, 1992
c.8 July-31 July	c. 23	12	0.52	1.46
August	31	10	0.35	0.23
September	30	17	0.57	0.17
October	31	12	0.39	0.16
November (1-21)	21	4	0.19	0.3
c.8 July-21 Nov	136	55	0.4	0.31

TABLE 3: Nest counts on Interview and Latouche islands.

	Date(s) of survey	EI nests	CM nests
Interview	7-8 Sep 1993	6	28
	3-11 Dec 1983	17	105
Latouche	26 Nov 1993	4	4

The large decrease in nesting intensity by Green turtles on Interview over the course of the last 10 years (table above) gives cause for concern for Interview was upto 1983 at least India's ~~best~~ most favoured green turtle nesting island. It is unlikely that natural fluctuation in a nesting population could account for such a sharp fall in numbers. Human predation on nesters and eggs could explain it, and it is quite likely that poachers ~~arriving~~ operating from Burma ~~take a~~ play a major part.

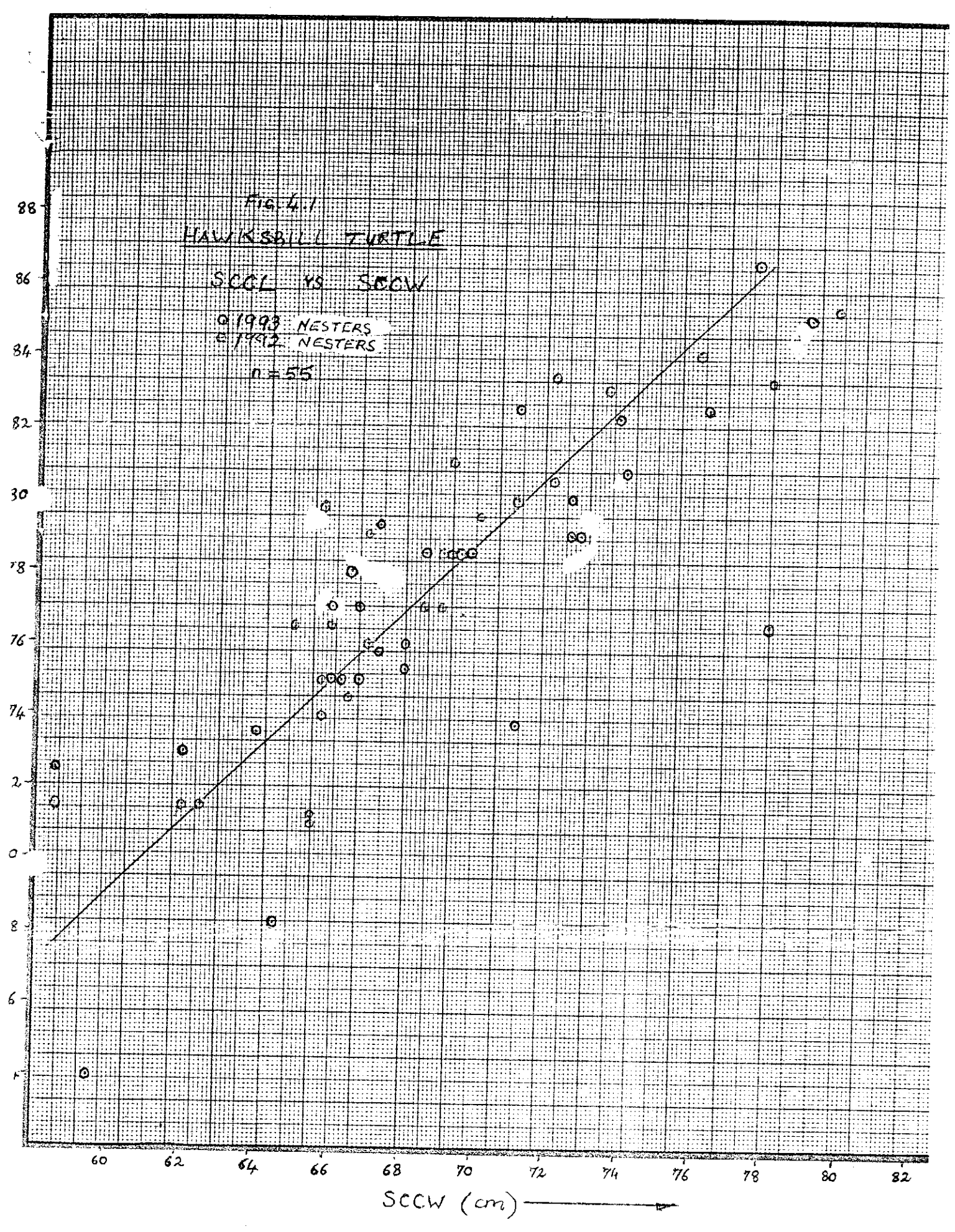
Fig. 4.1
HAWKSBILL TURTLE
SCCL VS SCCW
1993 NESTERS
1992 NESTERS
n = 55
88
86
84
82
30
78
76
74
2
0
8
6
60
62
64
66
68
70
72
74
76
78
80
82
SCCW (cm)

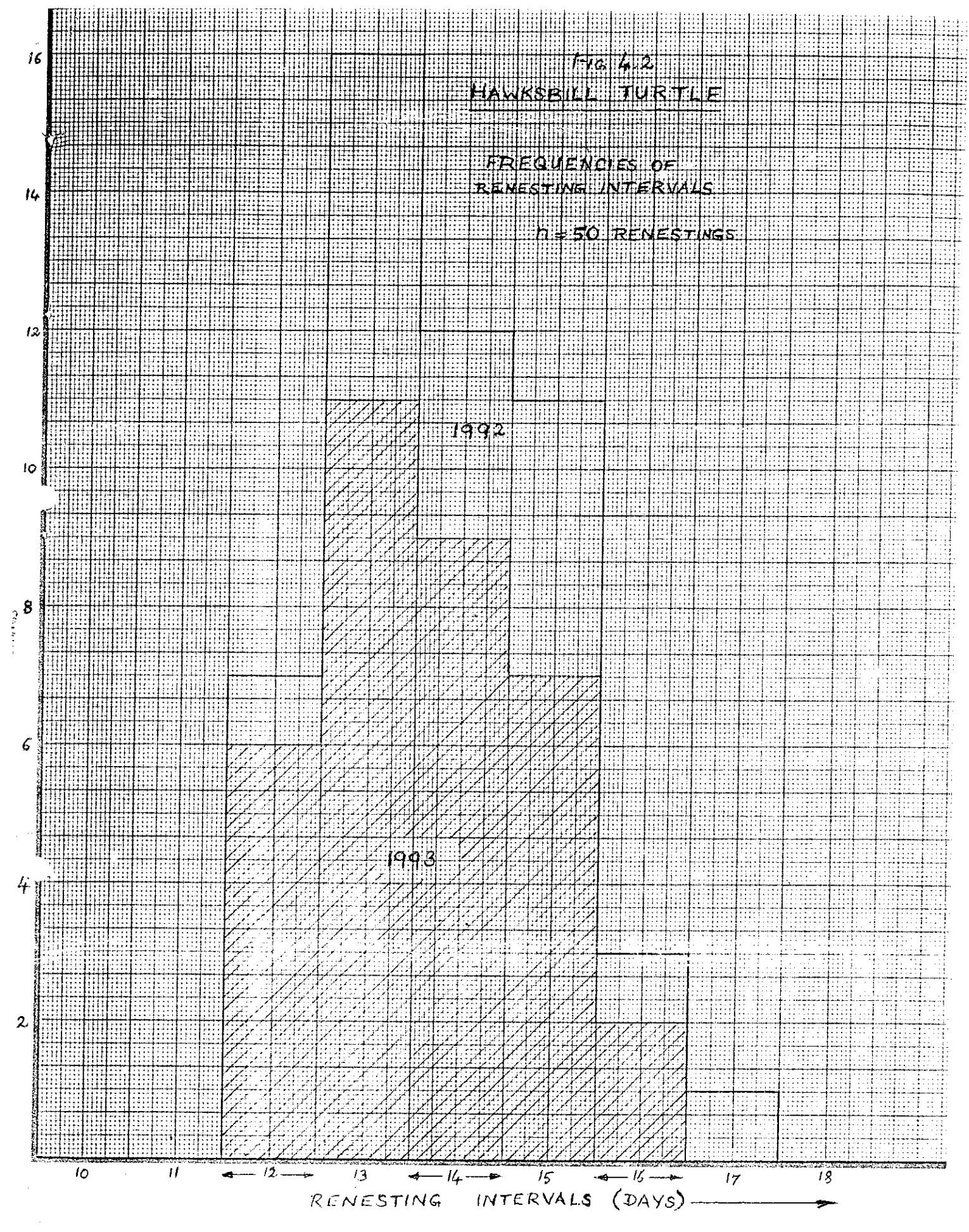
FIG. 4.2
HAWKSBILL TURTLE
FREQUENCIES OF
RENESTING INTERVALS
n = 50 RENESTINGS
1992
1993
16
14
12
10
8
6
4
2
10
11
12
13
14
15
16
17
18
RENESTING INTERVALS (DAYS)

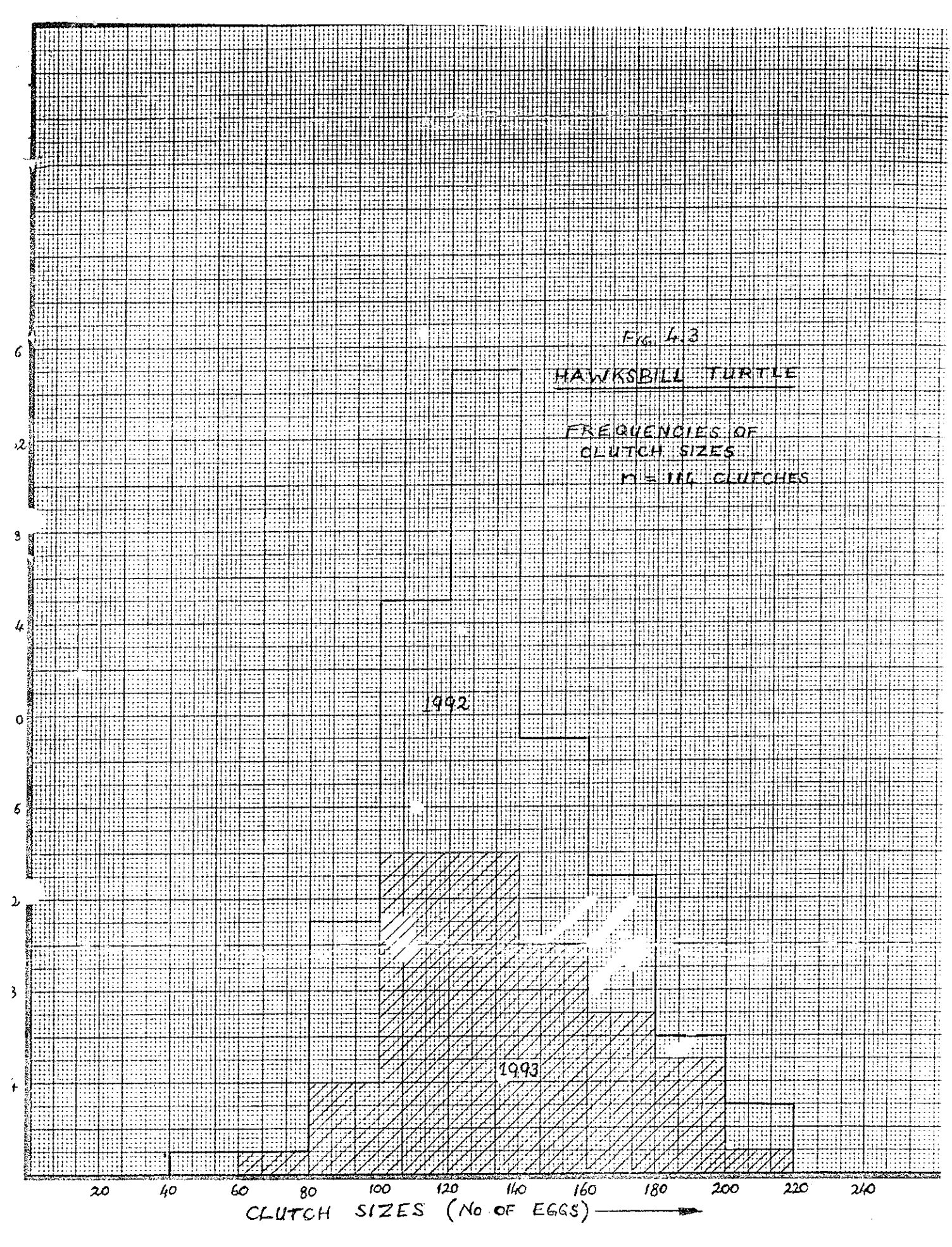
FIG. 4.3
HAWKSBILL TURTLE
FREQUENCIES OF CLUTCH SIZES
n = 111 CLUTCHES
1992
1993
6
2
8
4
0
6
2
3
4
20
40
60
80
100
120
140
160
180
200
220
240
CLUTCH SIZES (No OF EGGS)

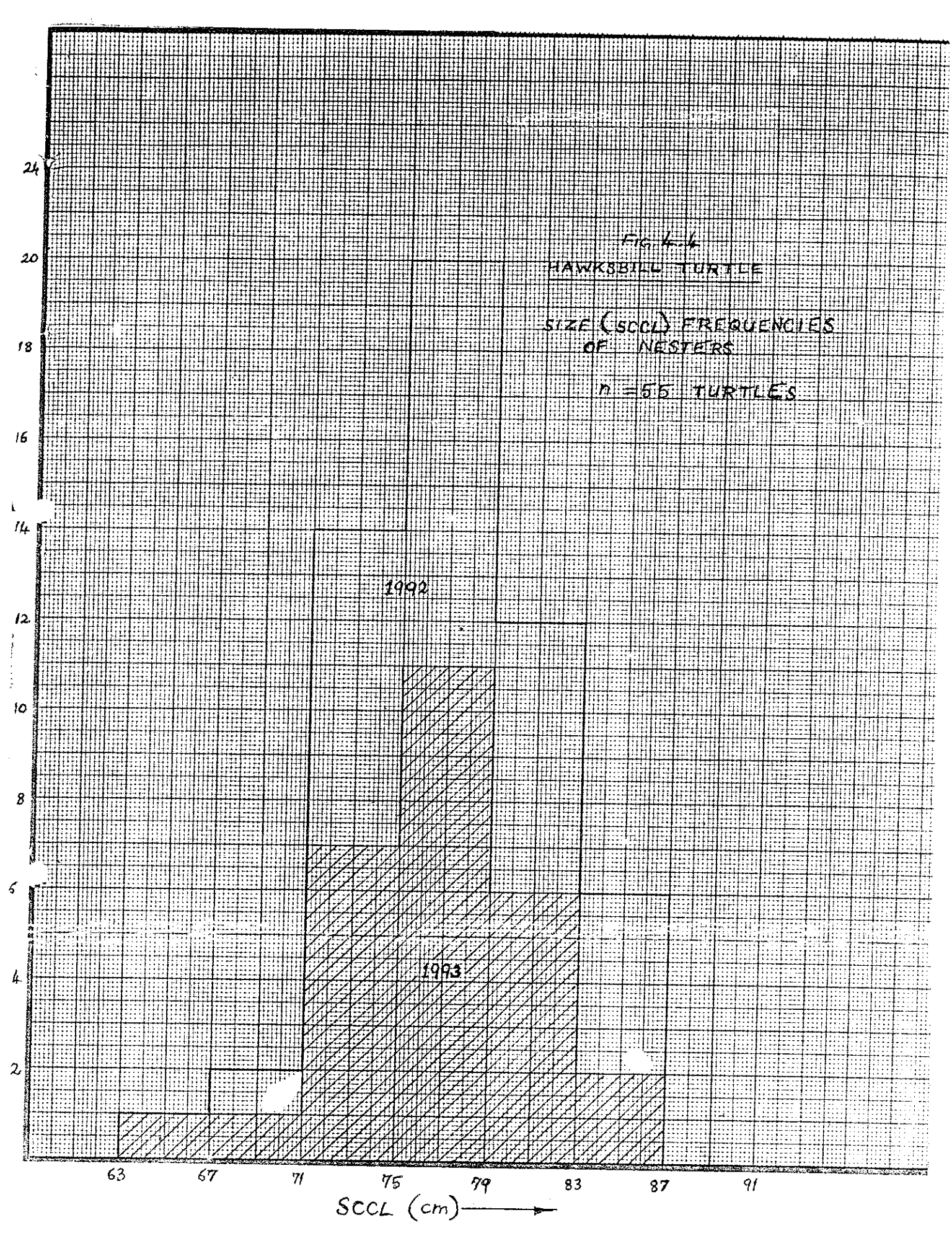
Fig. 4.4
HAWKSBILL TURTLE
SIZE (SCCL) FREQUENCIES
OF NESTERS
n = 55 TURTLES
1992
1993
24
20
18
16
14
12
10
8
6
4
2
63
67
71
75
79
83
87
91
SCCL (cm)

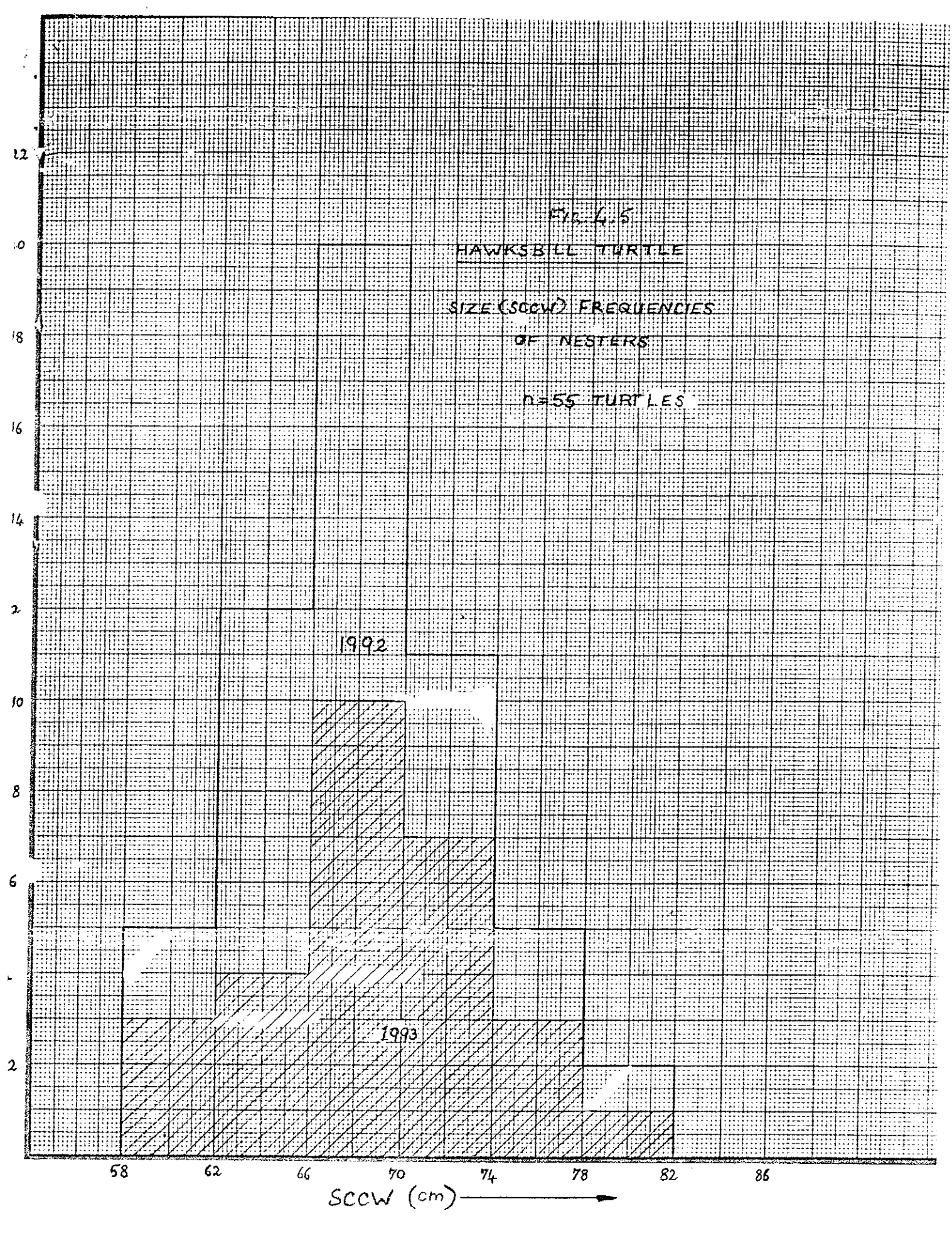
Fig. 4.5
HAWKSBILL TURTLE
SIZE (SCCW) FREQUENCIES
OF NESTERS
n=55 TURTLES
1992
1993
12
10
8
6
4
2
58
62
66
70
74
78
82
86
SCCW (cm)

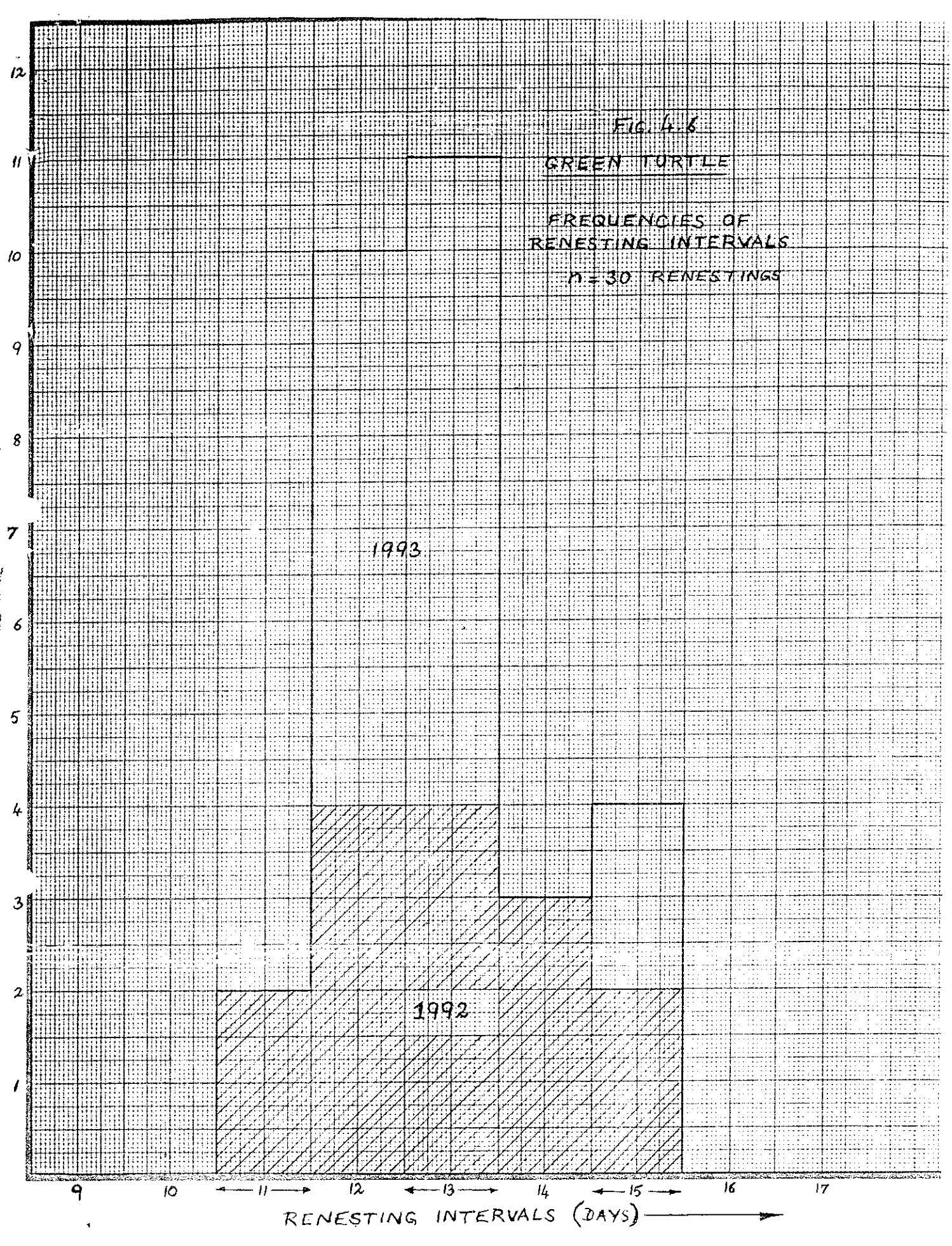
FIG. 4.6
GREEN TURTLE
FREQUENCIES OF
RENESTING INTERVALS
n = 30 RENESTINGS
1993
1992
12
11
10
9
8
7
6
5
4
3
2
1
9
10
11
12
13
14
15
16
17
RENESTING INTERVALS (DAYS)

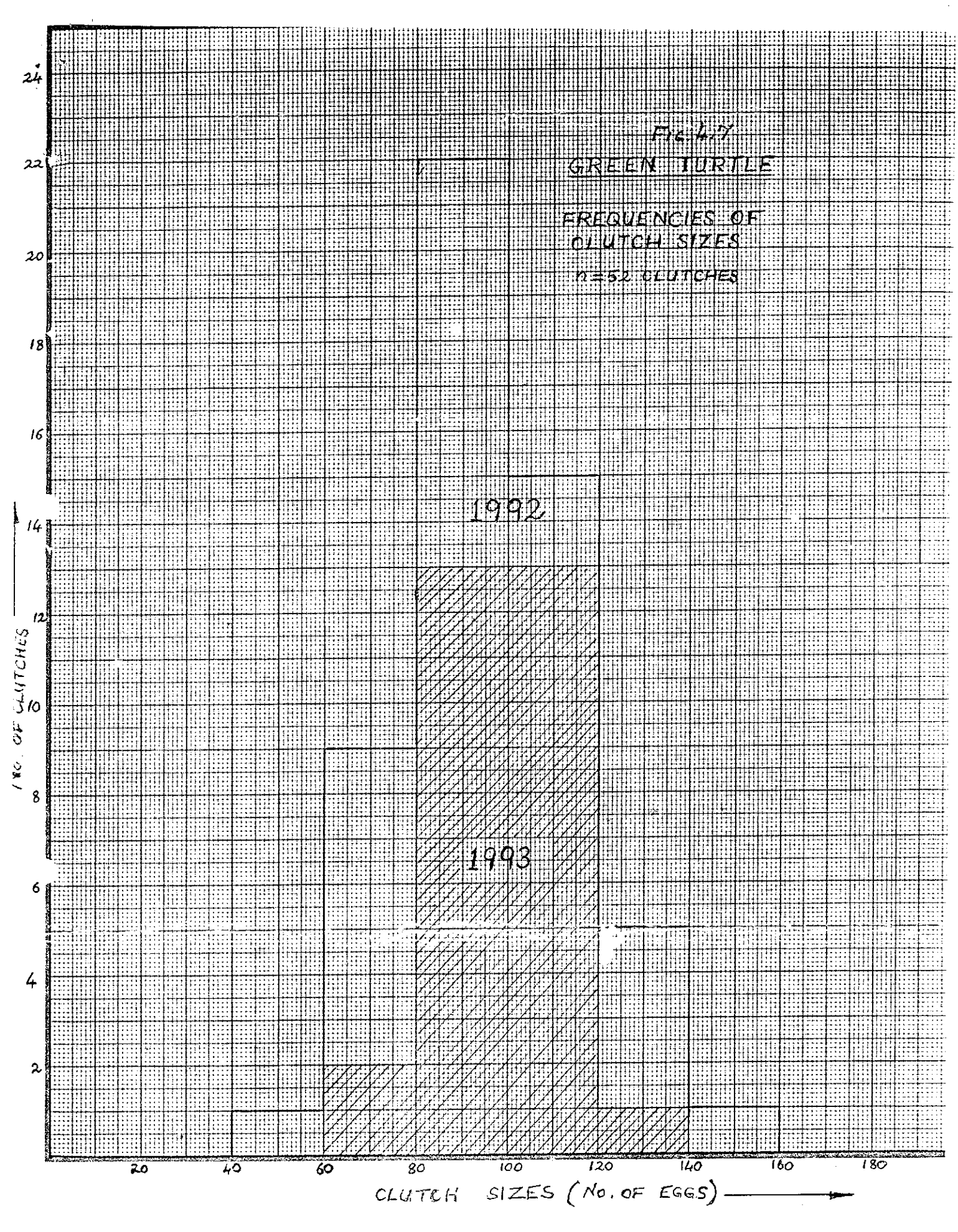
FIG 4.7
GREEN TURTLE
FREQUENCIES OF CLUTCH SIZES
n=52 CLUTCHES
1992
1993
NO. OF CLUTCHES
CLUTCH SIZES (NO. OF EGGS)
2
4
6
8
10
12
14
16
18
20
22
24
20
40
60
80
100
120
140
160
180

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Andaman & Nicobar Sea Turtle Project. Phase IV (contd.) :

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Table 17. Chelonia mydas, South Reef Island, 1994. Tag numbers, renesting intervals and measurements.

Date of tagging	Tag number or numbers	Renesting intervals (days)	Dates of nesting	SCCL (cm)	SCCW (cm)	N
2 Jul	CA 701, CA 702	12, 12	2,14,26 Jul	91	85	3
3 Jul	CA 703	11,11,12,12,13	3,14,25 Jul;6,18,31 Aug	94¼	87	6
28 Aug	004 X, 005 X		28 Aug	99	94¾	1
31 Aug	007 X	12, 12, 13	25 Jul; 6,18,31 Aug	92¾	81¼	4

(N = Minimum no. of times the turtle nested during the nesting season)

Table 18. Chelonia mydas, South Reef Island. Frequencies of renesting intervals, 1994.

RI (days)	Number of renesting intervals (RIs)				Percentage of 40 RIs
	1992 (n=13 RIs)	1993 (n=17 RIs)	1994 (n=10 RIs)	Overall (n=40 RIs)	
10	0	0	0	0	0
11	0	2	2	4	10
12	4	6	6	16	40
13	4	7	2	13	32.5
14	3	0	0	3	7.5
15	2	2	0	4	10
16	0	0	0	0	0

* * *