LANJA MODGU

SPECIAL

FILE NO._____

NAME_____

SUBJECT_____

CLASS_____ SEC._____

YEAR_____

M. S. B. BRAND



3020 SQ.KM.
SOMMANPALLY
Scale 4" = 1 mile.
Pannoor
S.No 18
SIWARAM
S.No 33
RF Ext
S.No 36
SOMMANPALLY
SIWARAM
ODOH
SOMANPALLY
GODAVARI RIVER
Patta land
S.No 162
KHANSABB PET
S.No 49
KHANNAPUR
S.No 132
EKLASHPUR
KHANNAPUR
BATPALLY
MANERUR

1976 April Eggs from Lanja Modgu

Crocodile eggs collected from Godavari River.
Lanja Modgu in 1976

Sent to Nehru Zoological Park — set for hatching

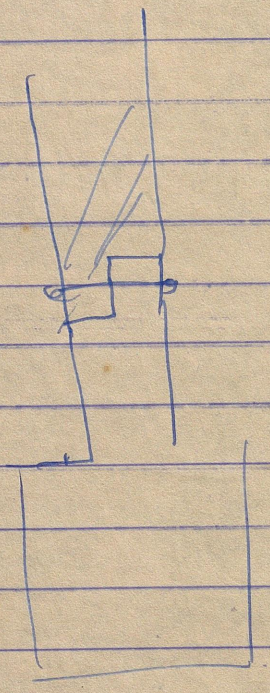
2 batches. 1st batch - 4 Eggs 16.4.76.
2nd batch - 10 Eggs - 14.4.76
IInd batch 8 Eggs - 20.4.76

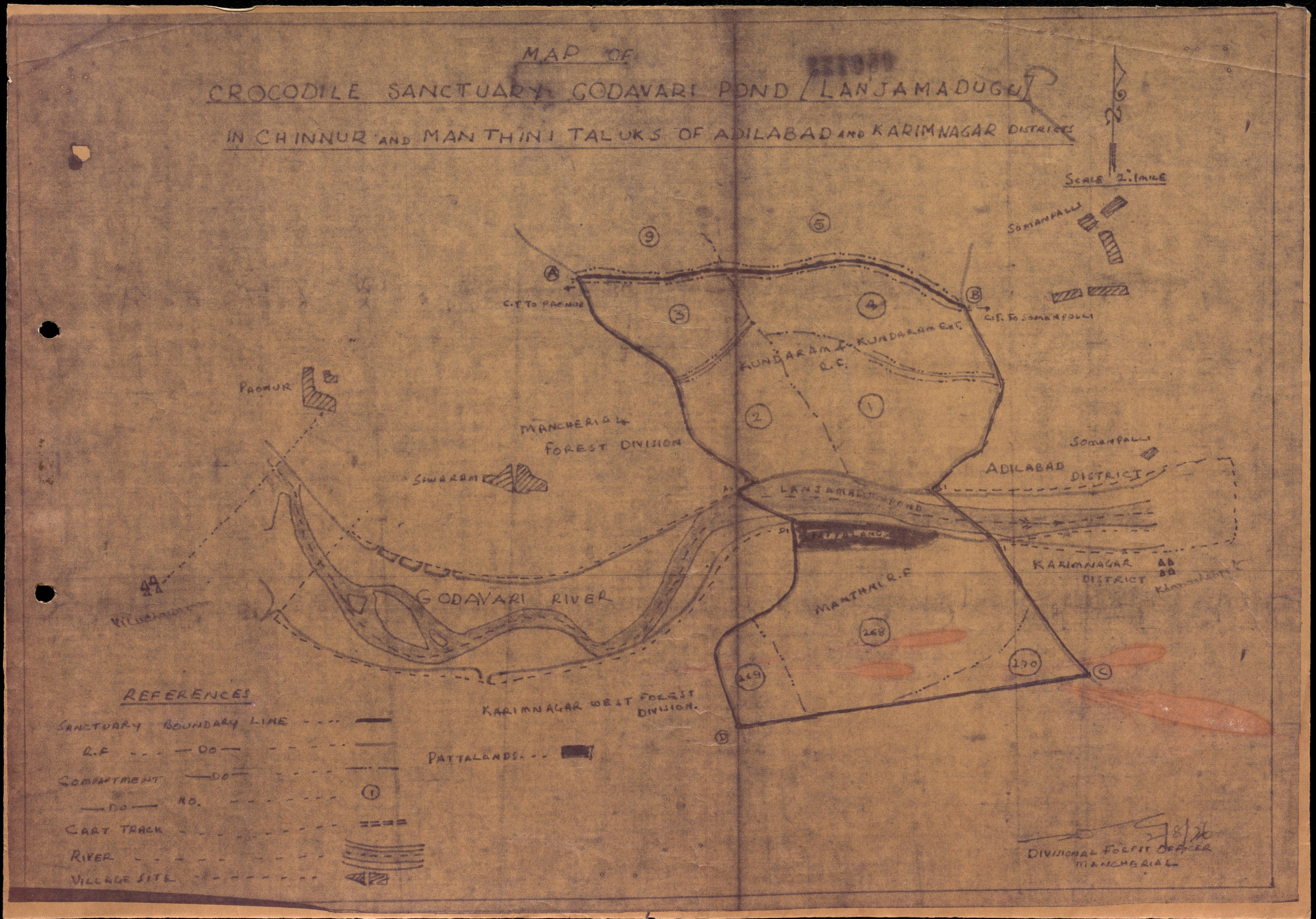
	Wt in gms	Size length	
1	59	2.8"	16.4.76 1st batch
2	69	3.2"	
3	72	2.8"	
4	79	3"	
5	60.063	6½" x 4½	20.4.76 3rd batch
6	76.060	6½ x 4½	
7	70.006	6½ x 4½	
8	70.008	6½ x 4½	
9	66.068	6½ x 4½	
10	66.100	6½ x 4½	
11	66.024	6½ x 4½	
12	56.066	6½ x 4½	
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			

Total Eggs brought to 22 Eggs

2.00 -

Data collected from Nehru Zoological Park Vet Hospital Hyderabad -




MAP OF
CROCODILE SANCTUARY GODAVARI POND [LANJAMADUGU]
IN CHINNUR AND MANTHINI TALUKS OF ADILABAD AND KARIMNAGAR DISTRICTS
SCALE 2" 1 MILE
SOMANPALLI
C.T. TO PAONUR
C.T. TO SOMANPALLI
KUNDARAM & KUNDARAM EXT. R.F.
PAONUR
MANCHERIAL FOREST DIVISION
SIWARAM
ADILABAD DISTRICT
LANJAMADUGU POND
KARIMNAGAR DISTRICT
MANTHNI R.F.
GODAVARI RIVER
KARIMNAGAR WEST FOREST DIVISION.
REFERENCES
SANCTUARY BOUNDARY LINE
R.F. — DO —
COMPARTMENT — DO —
— DO — NO.
CART TRACK
RIVER
VILLAGE SITE
PATTALANDS
DIVISIONAL FOREST OFFICER
MANCHERIAL

COPYCAT
XEROX & AMMONIA PROCESS PRINTS,
Hotel Krishna Campus,
Lakdikapul, Hyderabad-500 004
P.P 3615

(1977 AP)

CROCODILE NESTING BIOLOGY PROFORM

(Crocodylus palustris / ~~Crocodylus [illegible]~~)

1. LOCATION & NAME OF HABITAT : LANJA MODGU, GODAVARI RIVER.

2. DETAILS OF HABITAT (River/ ~~Tank/Reservoir/other~~) one sided RIVER GORGE (deep pool)

NEST :

1. Nest Number.
(Serial number if more than : 1 (one nest only)
One nest is located in the same habitat) : Estimated mugger population (6) 2 Adults others juvenile & sub adults.

2. DATE OF LOCATING THE NEST & NAME & ADRESS OF LOCATER : 20th March 77

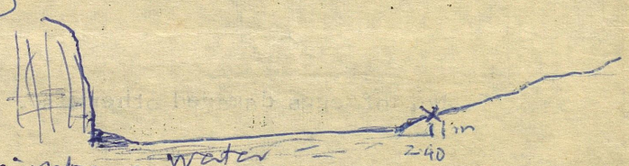
3. TRIAL NESTS (IF ANY) AND DETAIL : No trial nests

4. POSITION OF NEST IN RELATION TO WATER LEVEL

a) Distance from Water. 2.40 mts on 30th March | 2.20 mts on 7th May

b) Height of nest from Water. 1 mts

c) Profile of nesting site.



5. DATE OF LAYING. 19th March 77 night - early hrs of 20th March

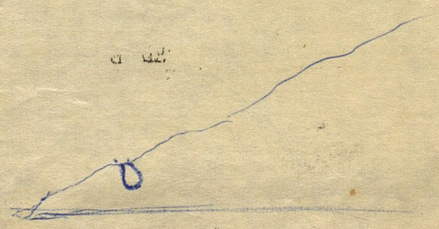
6. CONDITION OF NEST.
(If any disturbance by predacters human natural causes like flooding etc.) No disturbance after location because of protection staff

7. NEST TEMPREATURE AT DIFFERENT DEPTH.
on 7th May 77
SURFACE. - 28°C
25. C M. - 30°C
50 C.M.
bottom. - -

8. AMBIENT TEMPREATURE (Air) 32°C at 10 AM on 30 March 28 C at 6.30 AM on 7th May

9. HUMIDITY.

10. Ist. Layer of Eggs at depth 17 cm



shape of nest - oval straight pit
length x width x depth - 24 cm x 24 cm x 30 cm

1st layer 9 eggs 13 cms
2nd layer 6 eggs 11 2 18 fms

EGGS:

1. No. f of Eggs layers.

2. SIZE & WEIGHT OF EGGS (Average & Range).

No	length	breadth	wt	remark	No	L	S	wt	No	L	S	wt
1					11				22			
2					12				23			
3					13				24			
4					14				25			
5					15				26			
6					16				27			
7					17				28			
8					18				29			
9					19				30			
10					20							
					21							

3. TOTAL NO. OF EGGS IN THE NEST (CLUTCH SIZE)

15 (Fifteen)

4. No. OF Cracked eggs (of which layer) 3 all of top layer

5. No. of Rotten Eggs. 2

6. No. fo Infertile eggs.

7. No. of eggs damaged otherwise.

8. Abnormal eggs (if any) & description(layer etc.) Smallest eggs on the lowest layer

9. Total Number of eggs. collected. 13 (two were rejected - spoiled)

10. DATE OF COLLECTION & TIME OF COLLECTION. 7 May 77

11. DATE OF TRANSFER & MODE OF TRANSFER. 7 May 77 Jeep

12. NAME OF HATCHERY TO WHERE THE NEST IS TRANSFERED. NZP

COLLECTED BY. [signature] (Binod C. Chaudhury)

SUPERVISED BY Mr P. Kumar I.F.S. C.F. (WLM)

Signature: [signature]

Date : 7.5.77

FME/*

1978 (AP)
Godavari

CROCODILE NESTING BIOLOGY PROFORMA

SPECIES : C. palustris

COMMON ENGLISH NAME: Mugger Crocodile or Indian Marsh Crocodile

VERNACULAR NAME: Musali

NAME AND LOCATION OF THE HABITAT: Lanjamalgu Language. Telugu

DETAILS OF HABITAT : RIVER/ TANK / RESERVOIR / CREEK/ ETC. Godavari river

N E S T :

Nest number (Serial number if more than One nest is located in the habitat) one

Date of Locating the nest: 15.5.78

Name and Address of locator: B. Nagaraju, Lanjamalgu, Manthani

Trial nests (If any) & Details like depth, shape etc. More than four trial pits very very shallow in depth in the rocky bed

Date of Laying of the Actual nest: not known

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

No disturbance by predators nor by human etc.

Position of Nesting in rotation to water level:

a) Distance from permandent water. 11.6 mts
b) Height of nest from water. 3mts
c) Profile of nesting ~~etc~~.site.



VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST: 36°C

FIRST LAYER OF EGGS AT DEPTH: 12 cm

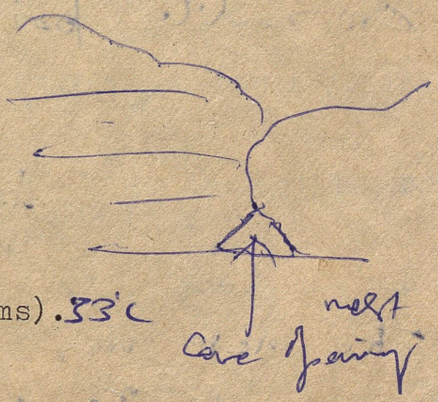
NEST TEMPARATURE (at different depth)

Surface. 35°C

25Cms. 33°C

50 Cms. —

Bottom (30 Cms). 33°C



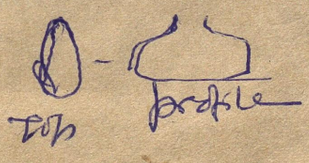
NEST DIMENSIONS:

depth : 30 cm

breadth: 64 cm / 30 cm

Length:

Shape : (diagramatic):





Cont..p..(2).

E G G S:

Total Egg Layers : 3

Size and Weight of Eggs (Average & range):

Total number of Eggs in the nest (clutch size): ~~32~~ 31 eggs

Number of ~~Cracked~~ Eggs (of which layer) 2 - top & bottom

Number of rotten Eggs: -

Number of Eggs damaged otherwise.

Abnormal Eggs (if any) & description of which layer etc.). 2 small egg

Bands on the Eggs. visible in top layer of eggs but not on the other layer

Total number of Eggs collected: ~~32~~ 31

Date & time of Collection: 20.5.78 ~~20.5.78~~ . 12.00 noon

Collection method: Collected in a plastic bucket with the original nest soil & eggs kept in layers with top side marked.

Date and Mode of Transfer. 20.5.78 by head load and by Jeep

Name and address of hatchery to where the Eggs were transfered: Nehru Zoological Park Hyderabad Crocodile project Central hatchery.

Collected and Supervised by: [signature] B.C. Chaudhury Research Scholar Ar. Croc project.

Mode of Incubation: Artificial incubation by simulated nest method

R E M A R K S:

The nest was found in an unusual place. Almost lents inside the tunnel, thus no sunlight reached the soil nor the mother soil had any moisture.

Signature: [signature]

Dated: 21/5/78

FMK.

Lunga. madgu Eggs. 1978. Date. 19.8.78

(1) 90 - 51
(2) 87 - 48
(3) 84 - 49
(4) 80 - 47
(5) 80 - 45
(6) 88 - 50
(7) 89 - 50
(8) 82 - 48
(9) 89 - 52
(10) 87 - 50
(11) 87 - 51
(12) 85 - 48
(13) 88 - 46
(14) 86 - 48
(15) 85 - 50
(16) 75 - 45
(17) 85 51
(18) 90 50
(19) 84 50
(20) 84 50
(21) 83 54
(22) 83 49
(23) 85 52
(24) 85 48
(25) 84 52
(26) 85 50
(27) 83 - 48
(28) 83 - 49
(29) 84 - 52

N.

17.6.78.	28°c.	30°c weather cloudy - whole day & night rains	30°c
18.6.78	23°c	25°c. showers.	26°c. Rain
19.6.78	28°c. cloudy & showing	29°c	27°c Rain
20.6.78	27°c. Rain	27°c. Doctor checks	28°c Rain
21.6.78	23°c.	24°c. Dr. Visit.	25°c. Rain
22.6.78	25°c.	26°c.	26c
23.6.78	25°c	26°c.	28°c.
24.6.78	26°c. Checked by	27°c.	28°c
25.6.78	26°c in hospital	28°c. H. Check.	28°c.
26.6.78	26°c	26°c.	N.R The nest was opened by Dr. and Doctor
27.6.78.	29°c	29°c	31°c.
28.6.78	29°c	29°c.	29°c
29.6.78	28°c	29°c	30°c.
30.6.78	28°c	29°c	29°c. Rain.
1.7.78.	28°c.	29°c	29c
2-7-78	28°c	28°c	28°c.
3.7.78	27°c.	28°c.	29°c
4-7-78	28°c	29°c	29°c - Rain
5.7.78.	27°c.	28°c.	27°c. Rain
6.7.78	27°c	27°c	28°c Rain
7.7.78.	27°c	27°c.	No Rain
8.7.78	26°c.	26°c	27°c.
9.7.78.	29°c.	29°c.	28°c. Rain
10.7.78.	28°c.	N R	N R. Rain
11.7.78	27°c	27°c.	27°c Rain
12.7.78	26°c.	27°c.	28°c. Rain
13.7.78	27°c.	28°c	28°c.
14.7.78	27°c	28°c	28°c
15.7.78	27°c.	27°c	27°c.

16.7.78.	26	27	27°C. Rain
17.7.78	26	28°	28°C Rain.
18.7.	26°	27°C	27°C.
19.7.78	26°C	27C	26C
20.7.78	28°C.		

Lanja Morfsu Nest

Date		Morning	Afternoon	Evening	Remarks
21.5.78		27°c	29°c	29°c	
22.5.78		28°c	29°c	29°c	
23.5.78		27°c	27°c	28°c	Rain
24.5.78		25°c	25°c	29	
25.5.78		29°c	25°c	N.R	Rain
26.5.78		26°c	29°c	30°c	
~~27.5.78~~		~~30°c~~	~~31°c~~	~~31°c~~	
~~28.5.78~~		~~29°c~~	~~32°c~~	~~36°c~~	~~Water Spray~~
27.5.78		25	26	29	
28.5.78		25	26	29	
29.5.78		30°c			
30.5.78		30°c	32	30°c	
31.5.78		29°c	32°c	30°c	
1.6.78		30°c	30°c	30°c	
2.6.78		31°c	32°c	30°c	
3.6.78		31°c	33°c	31°c	
4.6.78		32°c	30°c	30°c	
5.6.78		31°c	30°c	NR	
6.6.78		30°c	32°c	32°c	
7.6.78		31°c	32°c	31°c	
8.6.78		30°c	30°c	32°c	
9.6.78		29°c	31°c	31°c	
10.6.78		29°c	32°c	31°c	
11.6.78		30°c	31°c	31°c	
12.6.78 ✓		30°c ✓	NR	31°c	checked by me [signature] 12.6.78 [illegible]
13.6.78	Doctor checked	30°c	31°c	32°c	Rain in the night
14.6.78	N.S.	28°c	30°c	30°c	Rain in the night
15.6.78	N.S	28°c	30°c	31°c	
16.6.78	N.S.	29°c Dr. Vis. N.S.	29°c	29°c	Shower in the night

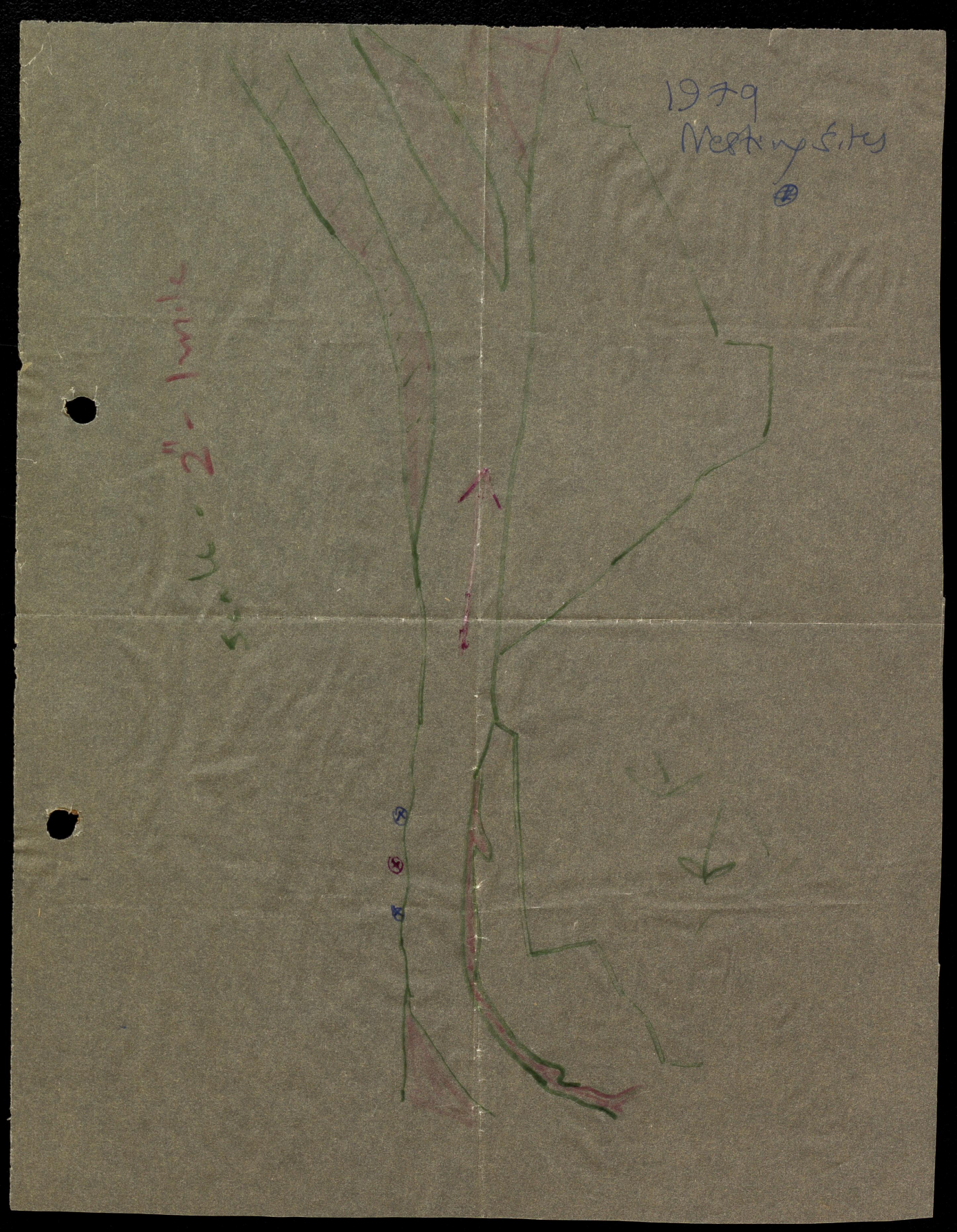
Egg size

1. 80mm x 58mm

80 x 52

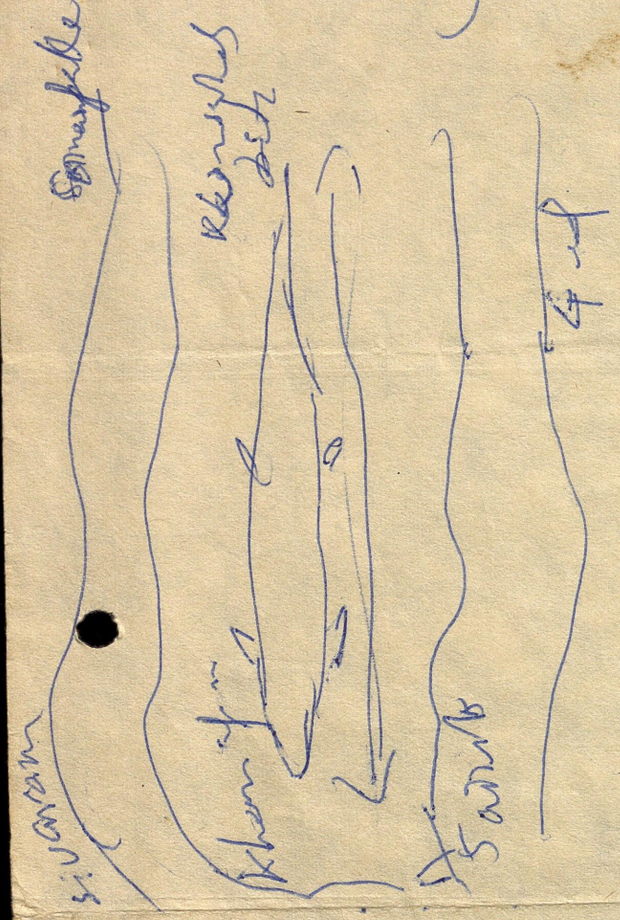
92 x 85

85 x 52


1979
Meeting Sites
1" = 1 mile

G. Nagaiah
Range Office
R. Pornem

Merely April key



25/3/79

Cattle, mingal Road

N
56
10

Fisheries reserve

25/3/79

Tule mignard 13
7 - no above 10 ft
otter small

9 nuggets -	
2 - about 10'	4 ft
7 above 5-6	2½ mt
14 s	1 mt
	1 yds

313 - Crocodile scheme

K(W)

for fencing River bank

Mr Ramesh

Night - Camp on 25/3/79

Carried out

1979

(1)

CROCODILE NESTING BIOLOGY PROFORMA

SPECIES : Crocodylus palustris.

COMMON ENGLISH NAME: Indian Mugger crocodile.

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT: Lanjamahal ~~Language~~. Godavari ~~River~~

DETAILS OF HABITAT : RIVER/ ~~TANK / RESERVOIR / CREEK/~~ ETC.

N E S T :

Nest number (Serial number if more than One nest is located in the habitat) one

Date of Locating the nest: 10.4.79

Name and Address of locator: G. Nageiah.

Trial nests (If any) & Details like depth, shape etc. 3

Date of Laying of the Actual nest: 2nd week of April

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

Good. No disturbance.

Position of Nesting in rotation to water level:

a) Distance from permandent water. 2 mts
b) ~~Height~~ of nest from water. 90cm
c) ~~Profile~~ of nesting ~~exx~~.site. 60° slope

VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST: 36°C

FIRST LAYER OF EGGS AT DEPTH: 16 cm

NEST TEMPARATURE (at different depth)

Surface. 36°C (at 1st layer) - 31°C 25Cms.

~~50 Cms.~~ Bottom 31°C ~~Bottom (Cms).~~

6+9+4

NEST DIMENSIONS:

depth : 31

breadth: 20

Length: 29

Shape : (diagramatic):



Cont..p..(2).

E G G S:

Total Egg Layers :

Size and Weight of Eggs (Average & range):

Total number of Eggs in the nest (clutch size): 19

Number of ~~Cracked~~ Eggs (of which layer) one (top layer)
cracks lengthwise contents not leaking.

Number of rotten Eggs: nil

Number of Eggs damaged otherwise. —

Abnormal Eggs (if any) & description — of which layer etc.).

Bands on the Eggs. All had bands

Total number of Eggs collected: 19

Date & time of Collection: 12.30 A 19.4.79

Collection method: Box Collection method.

Date and Mode of Transfer. 19.4.79, By Jeep.

Name and address of hatchery to where the Eggs were transfered: Nehru Zoological Park Hyderabad

Collected and Supervised by: B. C. Choudhury

Mode of Incubation: Simulated Nest method

R E M A R K S:

Signature:
Dated: 12/4/79

FMK.

21-5-79	29 c	29 c	30 c	
22-5-79	29 c	29 c	30 c	
23-5-79	29 c	29 c	30 c	
24-5-79	29 c	29 c	30 c	
25-5-79	29 c	29 c	30 c	
26-5-79	29 c	29 c	29 c	
27-5-79	29 c	29 c	29 c	
28-5-79	29 c	29 c	30 c	
29-5-79	29 c	29 c	29 c	
30-5-79	29 c	29 c	30 c	
31-5-79	29 c	29 c	30 c	
1-6-79	29 c	30 c	30 c	
2-6-79	30 c	30 c	30 c	
3-6-79	30 c	30 c	30 c	
4-6-79	30 c	30 c	30 c	
5-6-79	30 c	30 c	30 c	*
6-6-79	30 c	30 c	30 c	
7-6-79	30 c	30 c	30 c	
8-6-79	30 c	31 c	31 c	
9-6-79	30 c	31 c	30 c	
10-6-79	29 c	29 c	30 c	*
11-6-79	29 c	30 c	30 c	
12-6-79	29 c	29 c	29 c	
13-6-79	29 c	29 c	29 c	
14-6-79	29 c	30 c	30 c	
15-6-79	29 c	30 c	30 c	*
16-6-79	29 c	29 c	30 c	
17-6-79	30 c	30 c	30 c	
18-6-79	28 c	28 c	28 c	
19-6-79	28 c	28 c	28 c	
20-6-79	28 c	28 c	28 c	— Grunts heard morning
21-6-79	28 c			

Nest opened on 21.6.79 at 8AM in the morning

INCUBATION TEMERATURE DATA

(1)

LANJAMODSU NEST NO- 1

	Morning 8.00 AM	Afternoon 12.30	Evening 5PM	Remarks
21.4.79	28°C	30°C	31	Eggs implanted in the incubation chamber at 8AM
22-4-79	28°C	29°C	30	
23-4-79	28°C	29°C	30	
24-4-79	29°C	29°C	30°C	
25-4-79	29°C	30°C	29°C	
26-4-79	28°C	29°C	30°C	
27-4-79	28°C	29°C	30°C	
28-4-79	28°C	29°C	30°C	*
29-4-79	28°C	29°C	29°C	
30-4-79	28°C	29°C	31°C	
1-5-79	29°C	30°C	30°C	
2-5-79	28°C	29°C	30°C	
3-5-79	29°C	30°C	30°C	
4-5-79	29°C	30°C	30°C	
5-5-79	30°C	31°C	31°C	
6-5-79	29°C	30°C	30°C	
7-5-79	31°C	31°C	31°C	*
8-5-79	30°C	30°C	30°C	
9-5-79	28°C	29°C	30°C	
10-5-79	30°C	30°C	31°C	
11-5-79	30°C	30°C	30°C	
12-5-79	31°C	30°C	30°C	
13-5-79	29°C	28°C	28°C	
14-5-79	26°C	26°C	27°C	
15-5-79	26°C	26°C	26°C	
16-5-79	26°C	27°C	27°C	
17-5-79	26°C	27°C	28°C	
18-5-79	27°C	27°C	27°C	
19-5-79	28°C	28°C	29°C	
20-5-79	28°C	29°C	29°C	

Nest no. One Date of hatching 22.6.79

Date of collection	Date of hatching	Total number of Eggs incubated	Total Hatched	Dead embryos in Eggs	Rotten Eggs	Infertile Eggs	Others	Remarks if any
19.4.79	21.6.79 ~~22~~.6.79	20 Twenty	Six	1+1+1	11	–	–	Total developed embryos from the whole clutch

Deaths after hatching

21.6.79. – one inside egg
22.6.79. one with unabsorbed yolk.

Nest no – One

Danio Malyn

Total number of Eggs incubated – 20

Nest opened on – 21.6.79

Hatched – Six (live hatched)

Dead embryos inside egg – three

(Two preserved)

one Thrown – partially developed.

Death after hatching

21.6.79 – One – Unabsorbed yolk

22.6.79 – one – do –

Healthy four hatchlings released in pool on 23.6.79 morning.

Bhandhary

1979 (2)

CROCODILE NESTING BIDDOGY PROFORMA

SPECIES :

COMMON ENGLISH NAME:

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT: Language.

DETAILS OF HABITAT : RIVER/ TANK / RESERVOIR / CREEK/ ETC.

N E S T :

Nest number (Serial number if more than One nest is located in the habitat) 2

Date of Locating the nest: 12.4.79

Name and Address of locator:

Trial nests (If any) & Details like depth, shape etc. nil

Date of Laying of the Actual nest:

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

Position of Nesting in rotation to water level:

a) Distance from permandent water. 4.20m
b) Height of nest from water. 5mts
c) ~~Profile~~ of nesting ~~exx~~.site. 60° Slope

VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST:

FIRST LAYER OF EGGS AT DEPTH: 15cm

NEST TEMPARATURE (at different depth)

Surface. 36C

25Cms. 31C

~~50 Cms~~. 31C

~~Bottom (Cms)~~. 31C

NEST DIMENSIONS:

depth : 25

breadth: 23

Length: 26

Shape : (diagramatic):



Cont..p..(2).

E G G S:

Total Egg Layers :

Size and Weight of Eggs (Average & range):

Total number of Eggs in the nest (clutch size): 15

Number of ~~Cracked~~ Eggs (of which layer) no cracked eggs

Number of rotten Eggs: nil

Number of Eggs damaged otherwise. nil

Abnormal Eggs (if any) & description of which layer etc.). nil

Bands on the Eggs. present in all eggs.

Total number of Eggs collected: 15

Date & time of Collection: 19.4.79 2.30 pm

Collection method: ~~Box~~ method

Date and Mode of Transfer. 19.4.79 night by Jeep

Name and address of hatchery to where the Eggs ~~Were~~ transfered: Nehru zoological park Hyderabad.

Collected and Supervised by: B. C. Chaudhury

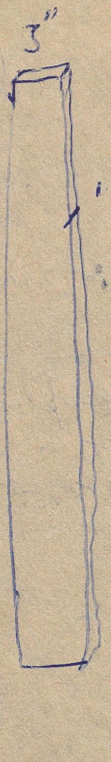
Mode of Incubation: Simulated nest method

R E M A R K S:

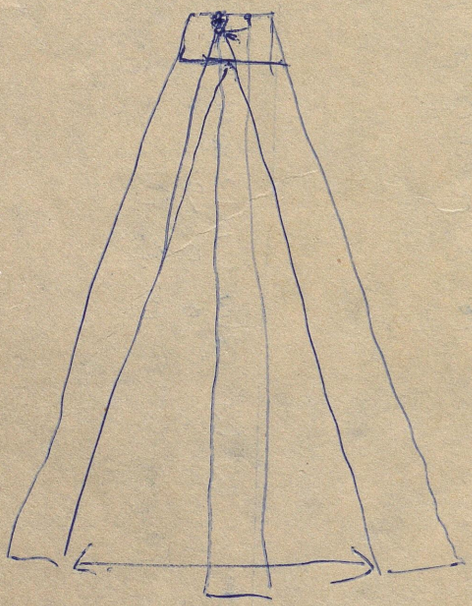
Signature: [signature]
Dated: 19/4/79

FMK.

Date	Morning	Anoon	Evening	Remarks
21.4.79	28 c	29 - c	30 c	Eggs implanted
22-4-79	28 c	29 - c	30 c	in the simulated
23-4-79	28 c	29 - c	30 c	nest at 8.30 AM
24-4-79	28 c	29 c	30 c	
25-4-79	28 c	29 c	29 c	
26-4-79	28 c	29 c	30 c	
27-4-79	28 c	29 c	30 c	
28-4-79	28 c	29 c	29 c	
29-4-79	28 c	29 c	29 c	
30-4-79	28 c	29 c	30 c	
1-5-79	28 c	29 c	30 c	
2-5-79	28 c	29 c	30 c	
3-5-79	29 c	29 c	29 c	
4-5-79	29 c	30 c	30 c	
5-5-79	29 c	30 c	30 c	
6-5-79	29 c	30 c	30 c	
7-5-79	30 c	30 c	30 c	
8-5-79	29 c	29 c	30 c	
9-5-79	28 c	29 c	30 c	
10-5-79	29 c	29 c	30 c	
11-5-79	29 c	30 c	30 c	
12-5-79	30 c	29 c	29 c	
13-5-79	28 c	28 c	28 c	
14-5-79	25 c	25 c	25 c	
15-5-79	25 c	25 c	25 c	
16-5-79	25 c	26 c	26 c	
17-5-79	25 c	26 c	27 c	
18-5-79	26 c	27 c	27 c	
19-5-79	27 c	28 c	28 c	
20-5-79	27 c	28 c	28 c	


3"
1½
6½





21-5-79-	28 e	28 e	29 e	
22-5-79-	28 e	28 e	29 e	
23-5-79-	28 e	29 e	29 e	
24-5-79-	28 e	29 e	29 e	
25-5-79-	29 e	29 e	29 e	
26-5-79-	28 e	28 e	28 e	
27-5-79-	29 e	29 e	28 e	
28-5-79-	28 e	29 e	29 e	
29-5-79-	29 e	29 e	29 e	
30-5-79-	28 e	29 e	29 e	
31-5-79-	28 e	28 e	29 e	
1-6-79-	28 e	29 e	29 e	
2-6-79-	29 e	29 e	29 e	
3-6-79-	28 e	29 e	29 e	
4-6-79-	28 e	29 e	29 e	
5-6-79-	29 e	29 e	29 e	*
6-6-79-	29 e	29 e	29 e	
7-6-79-	29 e	29 e	29 e	
8-6-79-	29 e	30 e	30 e	
9-6-79-	29 e	30 e	29 e	*
10-6-79-	29 e	29 e	29 e	
11-6-79-	29 e	29 e	29 e	
12-6-79-	29 e	29 e	29 e	
13-6-79-	29 e	29 e	29 e	
14-6-79-	29 e	29 e	29 e	
15-6-79-	29 e	30 e	30 e	*
16-6-79-	29 e	29 e	25 e	
17-6-79-	28 e	28 e	28 e	
18-6-79-	25 e	25 e	28 e	
19-6-79-	29 e	30 e	30 e	
20-6-79-	29 e	29 e	29 e	
21-6-79-	29 e	29 e	31 e	
22-6-79	29 e	29 e	30 e	
23-6-79	29 e	25 e	25 e	
24-6-79	25 e	25	25	
25-6-79	25	25	25	

26-6-79	25c	25c	28c
27-6-79	28c	28c	28c
28-6-79	28c	28c	28c
29-6-79	28c		

Nest no. Two

Date of Collection	Date of hatching	Total no incubated	Total hatched	Dead embryo	Rotten Eggs	Infertile Eggs	Others	Remarks if any
14.4.75	do / not hatched	15	Nil	3	7	2	-	Clutch size 15

1979

(3)

CROCODILE NESTING BIOLOGY PROFORMA

SPECIES :

COMMON ENGLISH NAME:

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT: Language.

DETAILS OF HABITAT : RIVER/ TANK / RESERVOIR / CREEK/ ETC.

N E S T :

Nest number (Serial number if more than One nest is located in the habitat)

Date of Locating the nest:

Name and Address of locator:

Trial nests (If any) & Details like depth, shape etc.

Date of Laying of the Actual nest:

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

Position of Nesting in rotation to water level:

a) Distance from permandent water.
b) Height of nest from water.
c) Profile of nesting site.

VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST:

FIRST LAYER OF EGGS AT DEPTH:

NEST TEMPARATURE (at different depth)

Surface. 25Cms.

50 Cms. Bottom (Cms).

NEST DIMENSIONS:

depth :

breadth:

Length:

Shape : (diagramatic):

Cont..p..(2).

E G G S:

Total Egg Layers :

Size and Weight of Eggs (Average & range):

Total number of Eggs in the nest (clutch size): 29 (Twenty nine)

Number of ~~Cracked~~ Eggs (of which layer)

Number of rotten Eggs:

Number of Eggs damaged otherwise.

Abnormal Eggs (if any) & description of which layer etc.).

Bands on the Eggs.

Total number of Eggs collected: 29

Date & time of Collection:

Collection method:

Date and Mode of Transfer.

Name and address of hatchery to where the Eggs were transfered:

Collected and Supervised by:

Mode of Incubation:

R E M A R K S:

Signature:

Dated:

FMK.

Total Eggs on Incubation - 28 800/Eggs one tracked Eggs

28.5.79	Eggs collected from Lanya moulger			
29-5-79				
30-5-79				
31-5-79				
1-6-79				
2-6-79-				
3-6-79-				
4-6-79-				
5-6-79-	28 e	29 e	29 e	
6-6-79-	28 e	29 e	29 e	
7-6-79-	28 e	29 e	29 e	*
8-6-79	29 e	29 e	30 e	
9-6-79	29 e	30 e	30 e	
10-6-79	29 e	29 e	29 e	*
11-6-79-	29 e	29 e	30 e	
12-6-79	29 e	29 e	29 e	
13-6-79	29 e	29 e	29 e	
14-6-79	29 e	29 e	29 e	
15-6-79	28 e	28 e	29 e	
16-6-79	28 e	28 e	28 e	*
17-6-79	28 e	28 e	28 e	
18-6-79	25 e	28 e	28 e	
19-6-79-	25 e	28 e	28 e	
20-6-79-	25 e	28 e	28 e	

— Grants heard on 20.6.79 at 8 Am & the West was opened at 4.30 pm

Hatching details

Total Eggs Incubated	Cracked Eggs	Rotten Eggs	Infertile Eggs	Total Hatched

Nest no. 3 Date of hatching 20.6.79

Date of collection	Date of hatching	Total number of Eggs incubated	Total Hatched	Dead Embryos	Rotten Eggs	Infertile Eggs	Remarks
~~28.5.79~~	20.6.79	29	3	1+1	24	-	-

Nest- no - Three

Total no of Eggs Incubated - 28 + 1 (Cracked)

Total Hatched live - Three

Rotten ~~Eggs~~ embryos discarded.

24 and 25 sept 1979

L. Modigas

Proposed survey work could not be carried out

Participants – B.C. Chandy
&
K. Varanprasad

Cause – Heavy rain & floods in the river

Water Temp. 24°C surface. at 11 AM.

24 January 1980

L. Modgu

Night Census & Day Census

Day Census - One 10' (approx) muggu seen on the left bank (Mandherial) at 9AM basking. Observed till 10.30. Again seen floating till 12.30 AM

Water Temp - at 10AM - 25°C

1PM - 25°C

one faecal sample collected. (XXX)

Night - Cons -

from 7PM to 8.30PM

Sl no	Time spotted	Estimated size	Location & details
1			
2			
3			
4			
5			

TAM

Water Temp - at - 7AM

at - 8 PM.

water flow - minimal -

CROCODILE NESTING BIOLOGY PROFORMA

1980

SPECIES : Crocodylus palustris

COMMON ENGLISH NAME: Mugger.

VERNACULAR NAME: Mosali Laiyamosa Marathi, Kariamugar-Kannada Godararri Language.

NAME AND LOCATION OF THE HABITAT:

DETAILS OF HABITAT : RIVER/ ~~TANK / RESERVOIR / CREEK/ ETC.~~

N E S T :

Nest number (Serial number if more than One nest is located in the habitat) 1

Date of Locating the nest: 24.3.80

Name and Address of locator: Bhimaya.

Trial nests (If any) & Details like depth, shape etc. One trial nest 3 mts from the original nest.

Date of Laying of the Actual nest: 23.3.80

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

No disturbance

Position of Nesting in rotation to water level:

a) Distance from permandent water. 2.5m
b) Height of nest from water. 136cm
c) Profile of nesting ~~exx~~.site. Silt - Upsoil

VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST: 31°C

FIRST LAYER OF EGGS AT DEPTH: 4cm

NEST TEMPARATURE (at different depth)

Surface. 31°C

25Cms. —

50 Cms. —

Bottom (Cms). 30°C

NEST DIMENSIONS:

depth : Total depth. — 24cm

breadth: 22cm

Length: 2 cm

Shape : (diagramatic):

Egg Sizes

Sl no	Length	Breadth	Wt
1	90mm	49	110
2	81	52	100
3	77	52	100
4	75	51	105
5	76	51	100
6	82	55	100
7	80	47	105
8	76	47	105
9	77	48	100
10	79	46	105
11	80	48	105
12	81	47	100
13	78	47	100
14	78	47	105
15	77	48	105
16	77	47	105

Cont..p..(2).

E G G S:

Total Egg Layers : nil -

Size and Weight of Eggs (Average & range):

Total number of Eggs in the nest (clutch size): 16 (sixteen)

Number of ~~Cracked~~ Eggs (of which layer) nil

~~Number of rotten~~ Eggs: nil

Number of Eggs damaged otherwise. nil

Abnormal Eggs (if any) & description of which layer etc.). nil

Bands on the Eggs. Present on all eggs.

Total number of Eggs collected: 16 (sixteen)

Date & time of Collection: 1st April 1980 8.30 AM

Collection method: Transport box method.

Date and Mode of Transfer.

Name and address of hatchery to where the Eggs were transfered: Nehru Zoological Park Hyderabad.

Collected and Supervised by: CCBMTI Trainees IInd batch. B.C. Chaudhury.

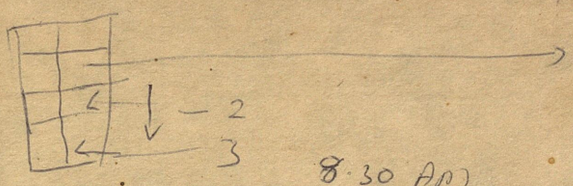
Mode of Incubation: Simulated nest.

R E M A R K S:

Too little sand covering on the top of first layer of eggs. Top layer slightly desiccated.

Signature:
Dated: 17/4/1980

FMK.



Nest 1

Lonjamodgu

Date	8.30 AM Morning	1.00 PM Afternoon	4.30 PM Evening	Remark
4/4/1981	[illegible]	28	30	
5	29	29	30	
6	29	29	30	
7	29	29	30	
8	29	29	30	
9	30	30	30	
10	30	30	30	
11	30	30	30	
12	30	31	32	
13	30	31	32	
14	30	31	31	
15	30	31	32	☆
16	30	33	32	
17	31	31	32	
18	32	33	32	
19	31	32	33	
20	31	31	32	
21	31	32	33	
22	31	33	33	
23	34	34	33	☆
24	32	33	33	
25	32	33	33	
26	32	32	32	
27	32	34	34	☆
28	32	33	34	
29	32	33	33	
30	31	33	33	

[illegible] 1-5-80

Lanjamalpu Mest - [illegible]

16 [illegible]

May	(1)			
1	31.	32	32	
2	32	34	34	
3	33	34	37	*
4	33	33	34	
5	33	33	34	
6	34	34	34	
7	34	34	34	
8	35	35	35	
9	35	34°C.	34	*
10	32	33	33	
11	34	35	34	
12	35	35	34	*
13	34	34	35	
14	34	34	34	
15	33	31	33	
16	31	31	33	
17	31	31	31	
18	31	31	31	
[illegible]	31	32	33	
20	31	32	32	
21	30	32	31	
22	31	32	32	
23	30	32	31	
24	31	33	34	
25	34	35	34	*
26	33	34	33	
27	34	34	33	
28	34	33	33	
29	34	34	32	
30	30	33	32	
31	33	33	32	

1980

CROCODILE NESTING BIOLOGY PROFORMA

18° 47'.30 N
79° 42' 30" E

SPECIES : Crocodylus palustris

COMMON ENGLISH NAME: Mugger

VERNACULAR NAME: Mosali (Telugu) Lanja morala, Mauthari Kalinnajer (Dt- Andhra Pradesh Godavari) Language.

NAME AND LOCATION OF THE HABITAT:

DETAILS OF HABITAT : RIVER/ ~~TANK~~ / ~~RESERVOIR~~ / CREEK/ ~~ETC.~~

N E S T :

Nest number (Serial number if more than One nest is located in the habitat) 2

Date of Locating the nest: 24.3.80

Name and Address of locator: Bhimaya.

Trial nests (If any) & Details like depth, shape etc. One trial nest 10mts from the original nest

Date of Laying of the Actual nest: 23.3.80

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

Nil

Position of Nesting in rotation to water level:

a) Distance from permandent water. 3m
b) Height of nest from water. 1.2
c) Profile of nesting ~~exx~~.site.

VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST: 30°c

FIRST LAYER OF EGGS AT DEPTH: 2cm *

NEST TEMPARATURE (~~at~~ different depth)

Surface. 31°C at 9.3.80 25Cms. 30.5°C

50 Cms. Bottom (20 Cms).

NEST DIMENSIONS:

depth : 20cm (Total depth)

breadth: 22

Length: 22

Shape : (diagramatic):

Wt	Sl no	Length	Breadth
105	1	83	47
115	2	87	48
120	3	81	47
115	4	86	48
120	5	86	(46)
115	6	83	49
120	7	86	48
120	8	(78)	48
120	9	83	48
125	10	82	48
100	11	79	48
120	12	80	47
110	13	82	(48)
100	14	84	49
105	15	85	48
110	16	85	49
110	17	80	49
100	18	82	48
110	19	81	48
110	20	81	47

E G G S:

Total Egg Layers : —

Size and Weight of Eggs (Average & range): —

Total number of Eggs in the nest (clutch size): 20

Number of ~~Cracked~~ Eggs (of which layer) one

Number of rotten Eggs: nil

Number of Eggs damaged otherwise. nil

Abnormal Eggs (if any) & description of which layer etc.). nil

Bands on the Eggs. one without

Total number of Eggs collected: Twenty

Date & time of Collection: 1.4.1980 9.30 AM

Collection method: Incubation box method

Date and Mode of Transfer.

Name and address of hatchery to where the Eggs ~~Were~~ transfered: Nehru Zoological Park Hyderabad

Collected and Supervised by: CCBMTI trainees Thirbatch

Mode of Incubation: Simulated Nest.

R E M A R K S:

★

Signature: [signature]

Dated: 1/4/1980

FMK.

Nest II

Lanja modpu

	Date	morning	Anon	Evening	Remarks
April	4		25	27	
	5	25	26	27	
	6	28	28	29	
	7	28	28	29	
	8	28	28	29	
	9	28	28	29	
	10	29	30	30	
	11	28	29	30	
	12	29	30	31	
	13	29	30	30	
	14	29	29	30	
	15	30	30	31	
	16	29	30	30	
	17	30	30	30	
	18	29	30	29	
	19	29	29	30	
	20	30	30	30	
	21	29	30	31	
	22	30	31	31	
	23	31	31	30	
	24	30	31	31	
	25	31	31	32	
	26	31	31	31	
	27	31	31	32	
	28	31	31	31	
	29	31	31	30	
	30	30	30	30	
	31				

Lanjamolgu Nest – 2

(2) 2045

May			
1	30	31	31
2	31	32	31
3	31	32	31
4	31	32	32
5	31	31	32
6	31	32	32
7	31	32	32
8	32	32	32
9	31	32°C.	32
10	30	31	30
11	31	31	30
12	31	31	31
13	31	32	31
14	31	31	31
15	34	31	31
16	32	32	32
17	32	32	33
18	33	33	33
19	33	33	33
20	34	34	35
21	35	35	35
22	34	35	35
23	34	35	34
24	35	35	35
25	35	35	36
26	35	35	34
27	34	34	35
28	35	35	35
29	35	34	34
30	33	34	34
31	33	34	34

Lanja mosque

31 3. 1980

Day Cerrons

Right Bank

9.30 — 27 cm H.F. point (Sentos 5 5cm)

Trial: next right bank

13 ft (1 [illegible]

Spiritual Vestiges from water 14'.6"

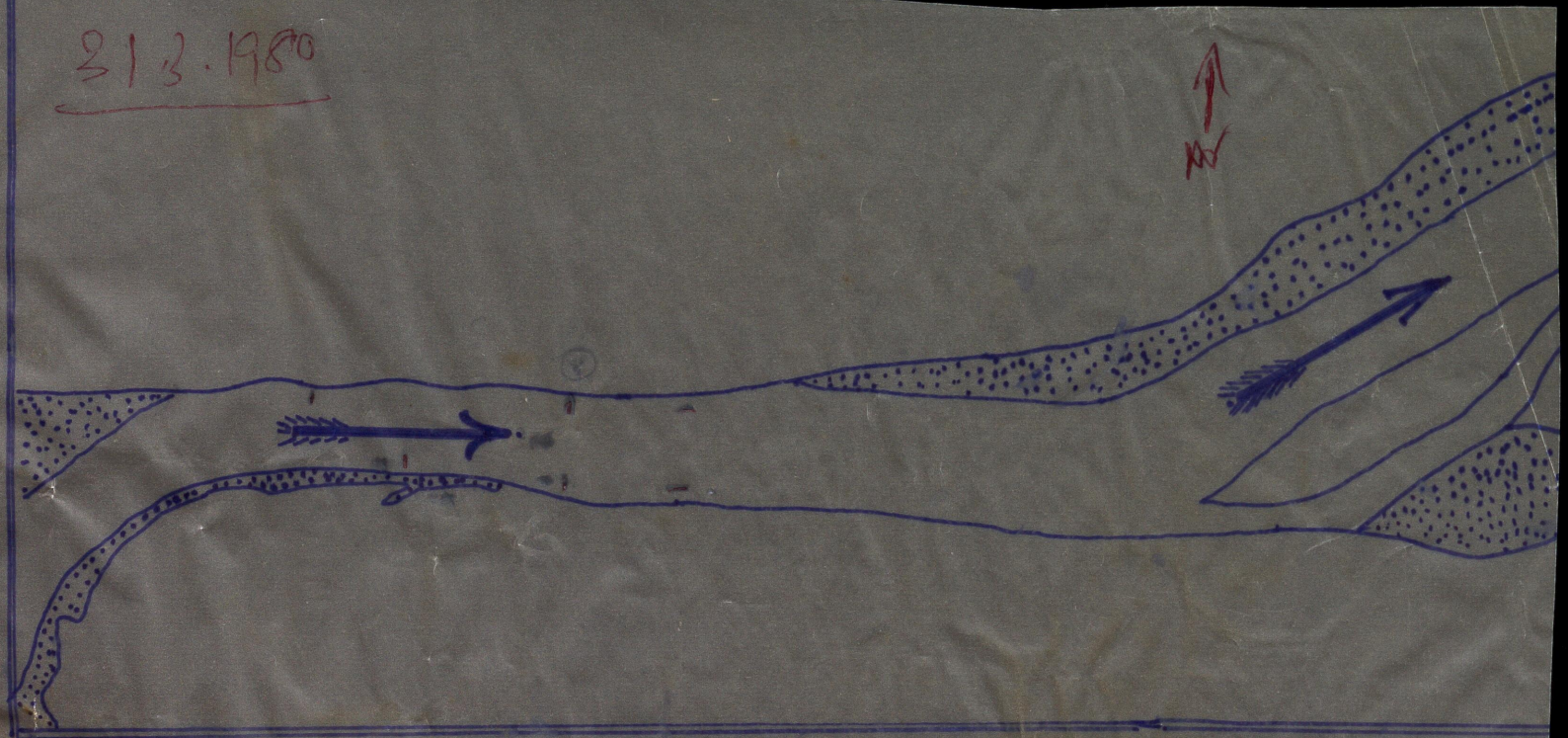
width 35 cm x 55 cm

depth 41 cm.

Ht from water level to the nest } 3' 5"

excluded to the water surrounded with rocks with bush of two species?

3.3.1980



Night census for crocodiles, at Lanja Madgu Crocodile Sanctuary. 31.3.1980

Date:-

S.No	Time	location	Estimated size	Right or Left bank	What doing	Others. Air temp.	Water temp.	Remarks.
	7.30					36°C	31.2°C	verified in objectively
1	7.45	one ✓ 8.30	Unestimated	Rt bank	swimming, & taying at bank continuously.			Ung
	7.51	one ✓ varified 8.37 two	-"-	Lt bank	on the bank, resting			
	8.00	one	-"-	Central	swimming from Rt to Lt Bank	35°C	31.1°C	
	8.03	one	-"-	Rt bank				
	8.05	one	-"-	Lt. bank	swimming at bank. gone in water			
UP	8.18	one.	-"-	Rt Bank	-"-	35°C.	30.8°C	
	9.00	one	-"-	Rt bank	near trial rest side. went down. Come up again after	35°C	30.8°C	
	9.00	one	-"-	Lt bank	-"-			
	9.10	one	-"-	Rt bank	on the side of the bank.	32°5°	30.8°C	
	9.30							

Graf I

Trainees

Mr Tulsi Rao

Mr Dull

Mr R.N. Chandler

Mr Gautam

Mr Pillai Asst Instructor

Mr Varakrasad - F.R.O & Trainee 1st batch

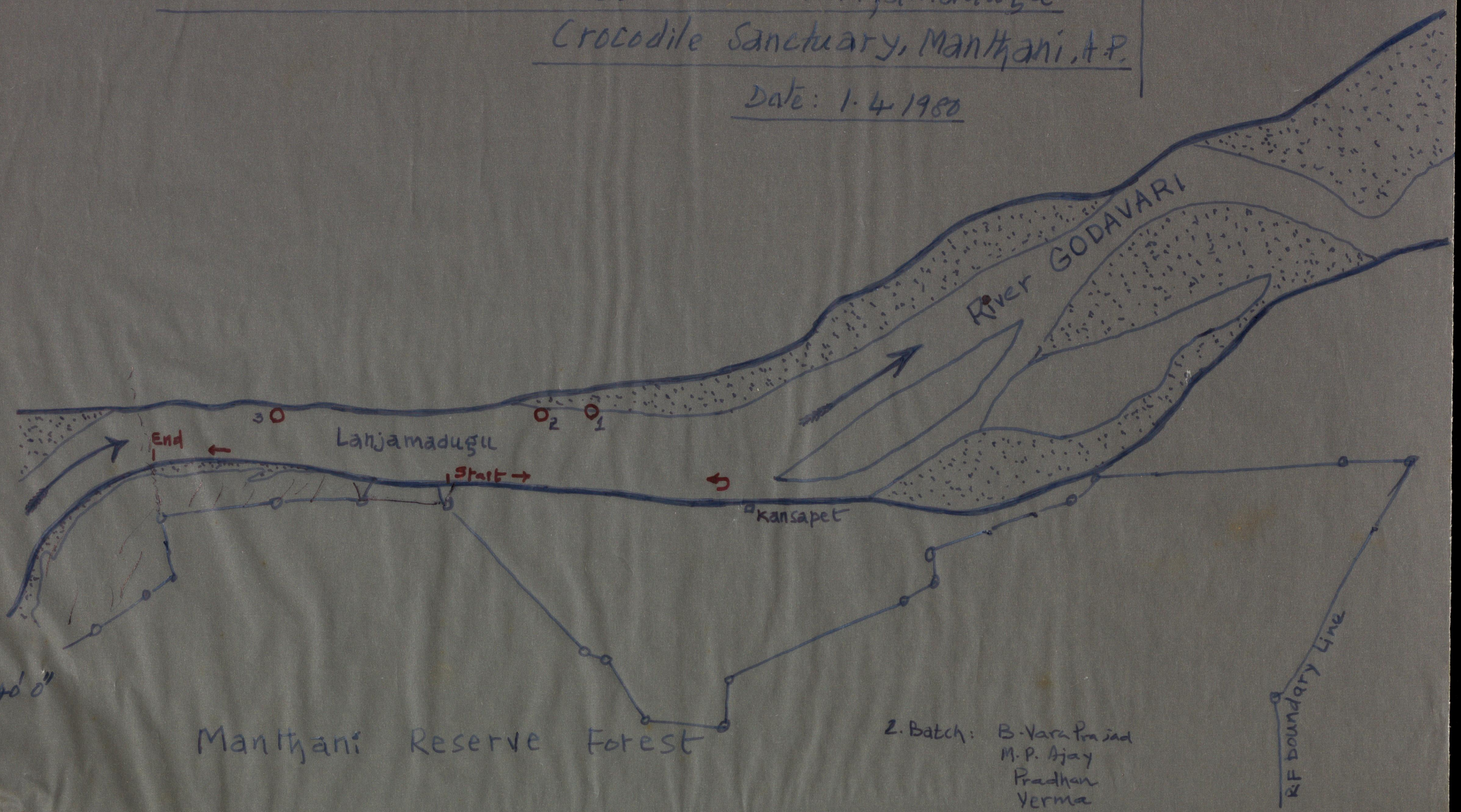
Mr A.C.C

79°

18°41'30"

Night Survey of muggers at Lanjamadugu Crocodile Sanctuary, Manthani, A.P.

Date: 1.4.1980



79°52'30"

2. Batch: B. Vara Prasad
M. P. Ajay
Pradhan
Verma
Joseph

Supervised by: B. C. Choudhury.

Date V.1.80

Night Census of Crocodiles, at Lanjamadgii Crocodile Sanctuary.

Nos.	Time	Location	Size	Left or Right bank	What doing	Other: Air Temp.	Water Temp.	Remarks.
Start	7.15					31.5	30.5	Start
	7.45					32.0	30.2	
1)	8.15					33.0	30.2	
	8.40			Left	Basking on bank			
	8.45					32.0	30.2	
2)	8.50			Left	Basking ~~[illegible]~~ in water	32.0	30.2	
3)	9.15			Left	floating	32.0	30.2	Ending

2nd Batch: B. Varahesan
M.P. Ajay
Prathan
Verma
Joseph

Supervised by: B.C. Chowdhury

Graph III

Thr Pillarisett (Maharashtra)
Thr Varma (Bihar)
Thr Pradhan (Bhutan)
Thr Joseph (Kerala)
Thr Veera Reddy (Andhra Pradesh).

2nd April Batch I

Day Survey Langamandyn

Mr Pillai

Mr Vara Prasad

Mr Krishna Prasad

Mr Patnaik

Mr Bhaskrabarty

2 April 1980

Batch II

Mr Vora Prasad
Mr Biswas
Mr Tulsi Rao
Mr R.K. Chaudhury -

2 April 1980

Day Survey - Batch III

B.C.C
Gautam
Bradhan

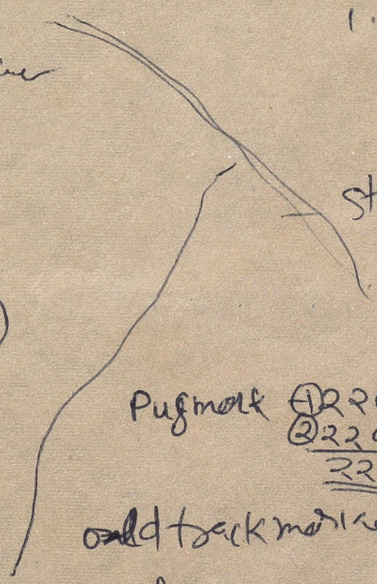
II 2nd Trial nest.

① Trial nesting at 3 places by crocodile.

③ 22cm hindfoot.

② Body Scutes - 2cm
1.7cm
1.6cm
1.5cm
1.5cm

Fastfoot 12cm



①

Pugmark ① 22cm
② 22cm
22cm

9.00 am.

old track marked

Crocodile - 10-15 days old.

↑ 8.00 A.M.

Batch III

Mr Bradhan
Mr Gautam
B. C. Chowdhury

2 April 1880 - Batch IV

Day Survey Longmandsen.

Mr Dutt.

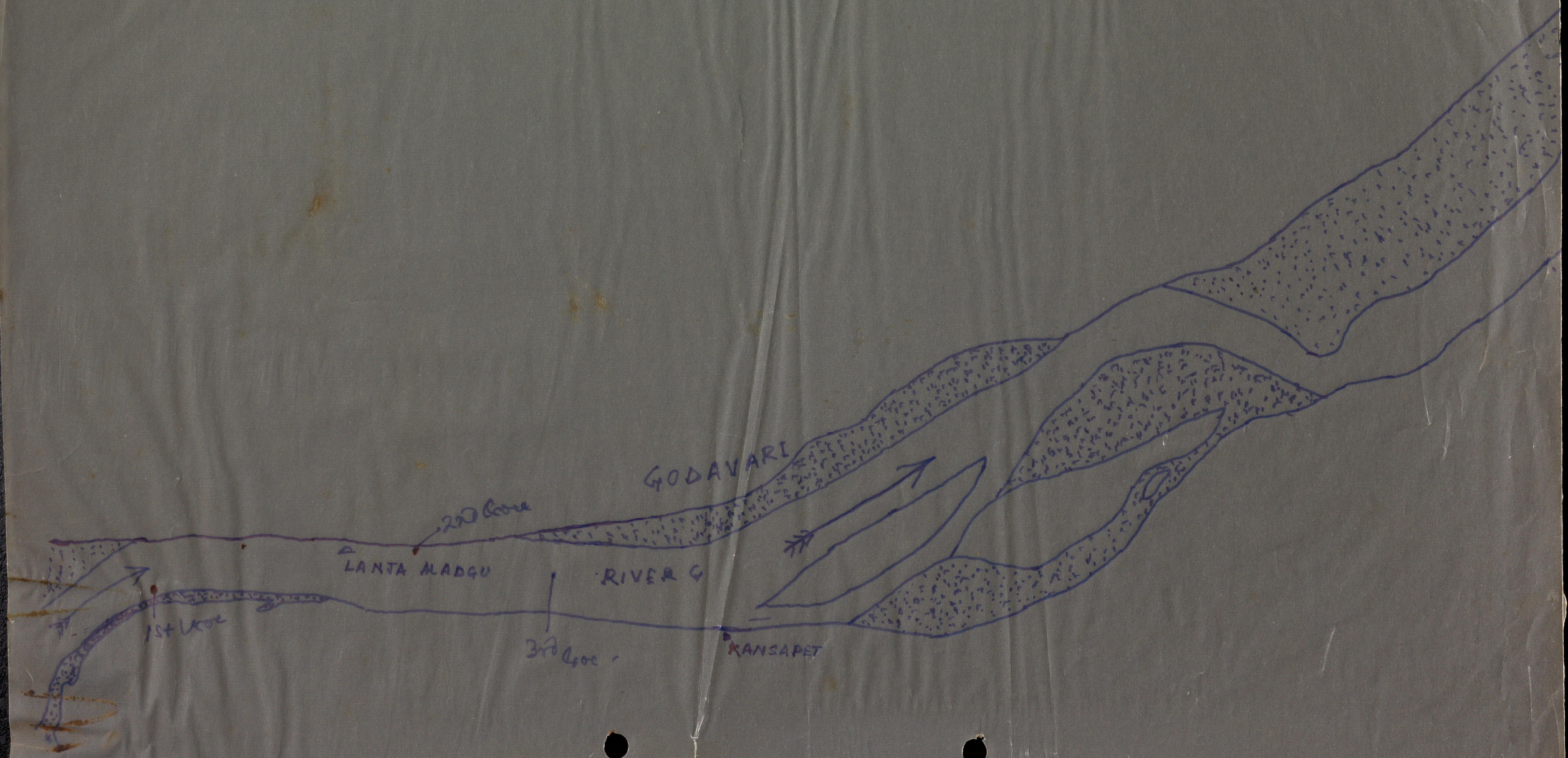
Mr Varma

Mr Ajai.

Date = 2.4.80.

NIGHT CENSUS OF MUGGER AT LANGA MADGU.

CROCODILE SANCTUARY.



Night Census for Crocodiles, at Lanjamadgu Crocodile Sanctuary.

Date:- 1.4.80

S.No	Time	Location	Estimated Size.	Right & left bank	What doing.	Remarks. Air Temp.	Water Temp.	Remarks.
	7.35 p.m					33.5°c	31.2°c	
	7.50 "					33°c	31.9°c	
	7.55 "		1 meter	left bank.	feeding under the bush. just close to bank.			
	8.5 "					34°c	31°c	
	8.30 "							
	8.40 "		below 1 meter	left bank	close to the bank.	34.5°c	30°c	
	9.01 "		more than 2 meter.	Mid stream	eating a fish caught in the net.			
	9.010 "		1	Right bank				3rd time The same crocodile again came out of the centre close to the right bank
						3°c		

31.8.1980

Migratory Census

Time	Location	Estimated Size	Rt & Lt banks	What doing	Remark.

1154
20

10 June 1980.

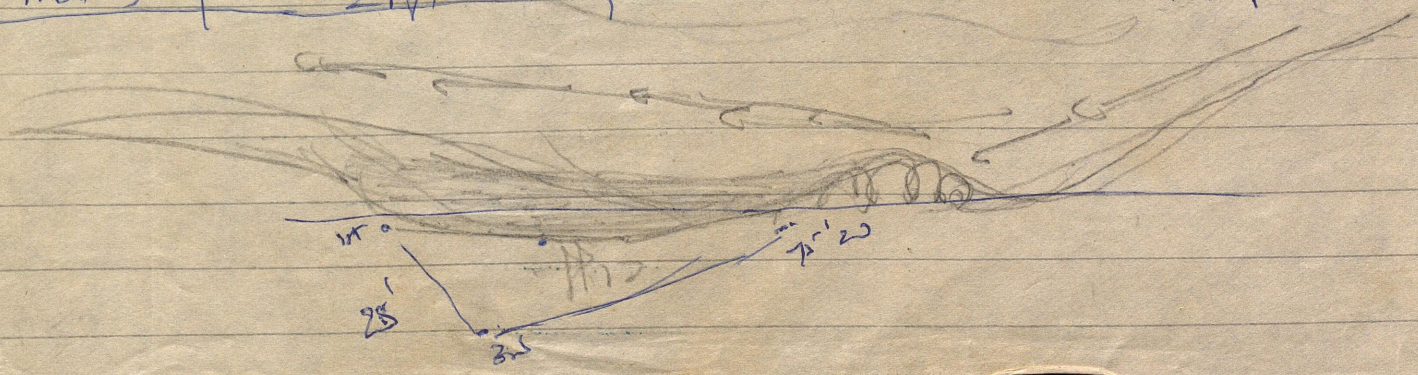
Langamodgu N Survey

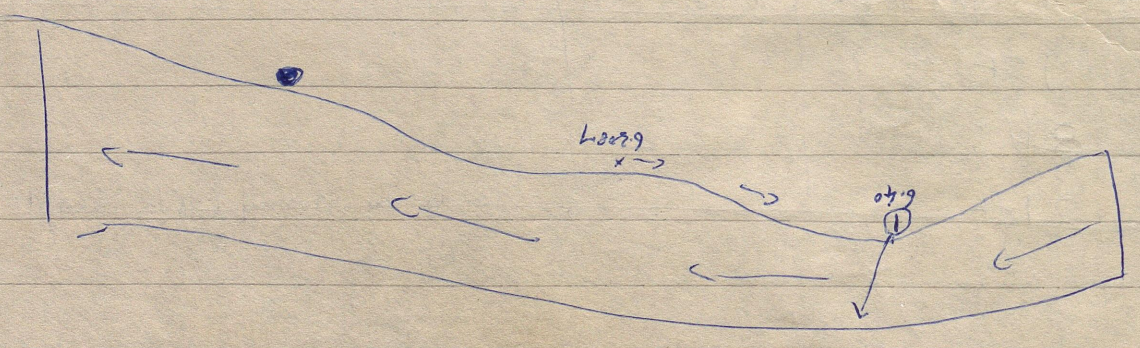
Time	Location	Estimated size	Approach dist	Remarks
6.30 PM	–	–	–	31.8°C (WT)
6.40	L. Bank	8ft	30m	floating in water head with foam on head.
6.55	– Langur calls (LB), Pied Kingfisher calls (RB)			
7.01	– owls call			32.0°C
	Night Census start at 7.15 PM (still dusk light)			
7.15				31.8°C
(7.30 again floats) 7.25	LB (	? 1.5m	50m (dives due to veam on fish)	on the shore in water
	Floats again at 7.27 swims right bank	approach 5m)		
7.30	LB	1m	10m (diversion)	on the shore vegetation
7.43	mid river	?	dived low off 75m	–
31.8°C 7.45	Floats again but dives in again – waves big			
7.48	one LB	?	75m	on the water
7.50	LB	?	50m	on the shore on rock
8.05	returning from the bottom end to mid point			
8.30	Back to the starting point			31.4°C

11 June 1980

6.45 AM Checking the Nesting Area on 11.6.1980

~~Nest 1~~	Dist from water	T. Depth	
Nest 1	1ft		
Nest 2	8ft		
Nest 3	21ft		Inside the tunnel (6ft inside).





5th June 1980 . Hatching of natural nest at Kanjamalai.

Total Eggs - 24

Hatched - 12 on 5th June 1980 morning 7Am & Remained in the evening.

From
B.C.Choudhury,
Spl.Crocodile Surveyor/Research Scholar
A.P.Crocodile Conservation Project
Nehru Zoological Park, Hyderabad:

To
The Wild Life Warden
Wild Life Investigation
A.P., Hyderabad

Sir,

Sub:Lanjamadugu - Collection of hatchlings 1980 ~~xxx~~ nesting season - Regarding.

***

This is to inform you that one more clutch of Crocodile eggs was located on the North banks of Godavari River on 5th June, 1980 by the temporary watchers appointed for egg location work on the same day this nest hatched out in the wild and the resultant 12 hatchlings out of 24 eggs were collected and kept by the watchers.

On reaching Lanjamadugu on 11th June,1980 the 12 hatchlings and 12 infurtile eggs were collected and brought back to the Crocodile Rearing Complex of the project at Nehru Zoological Park, Hyd.

With the hope of finding a few more hatchlings, possibly from a fourth clutch, I have asked both the temporary watchmen to continue working till end of June,1980.

This is submitted for favour of information and necessary action.

Yours faithfully,

(B.C. CHOWDHURY)

Copy submitted to the Conservator of Forests, Wild Life Management, A.P., Hyderabad for favour of information.

Copy to Range Officer, Crocodile Scheme with the request ~~xx~~ to make arrangement for payment of wages to the temporary watchmen for the month of June,1980 at Lanjamadudu.

B/C 16/6/80

3rd Nest

	Wt
1	110 gms.
2.	100 gms.
3	100 gms.
4	105 gms.
5	100 gms.
6	100 gms.
7	105 gms.
8	105 gms.
9	100 gms.
10	105 gms.
11	105 gms.
12	100 gms.
13	100 gms.
14	105 gms.
15	105 gms.
16.	105 gms.

	Wt.
1	105 gms.
2	115 〃
3	120 gms.
4	115 gms.
5.	120 gms.
6	115 gms.
7	120 gms.
8	120 gms.
9	125 ~~+5~~ gms.
10	~~100~~ 100 gms.
11	120 gms.
12	110 gms.
13	100 gms.
14	105 gms.
15	110 gms.
16	110 gms.
17	100 gms.
18	110 gms.
19	110 gms.
20	110 gms

26°C/25°C

SIWARAM [(LANJAMADUGU) (CROCODILE)
WILDLIFE SANCTUARY, ANDHRAPRADESH



24 August 1980

- Kanjamadgu -

with DCF Mr Satish Chandra (F.S.).

Observation Period - 9AM to 12 noon.

Observations -

River in flood } - nesting areas submerged
& muddy }

water Temperature at 10AM - 25.4°C

Muggers reported 200 m upstream of the nesting area on a side creek on the northern bank.

Dt. 17.4.81.

Clutch No. 1:

31 Eggs found

30 brought. & 1 emptied egg left.

Location 100 m. upstream of last year nests.

1 m. from the water edge on a slope of 30°

Nest: 1. 1st layer of eggs at depth - 17 cm

Total nest depth - 32 cm

Clutch no. 2:

16 eggs

all brought.

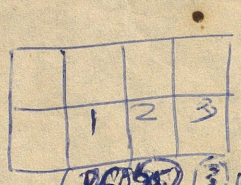
~~[illegible]~~ 30 m. downstream of the 1st clutch.

Nest is 2 ft. from water edge on a ½ m raised platform.

1st layer of eggs at - 30 cm deep

Total nest depth - 41.5 cm

(1)



	1	2	3

← Clutch size – 16

18-4-1981

(16) (25) (3) [illegible]
(2) Thorax 2 at [illegible]
1 at [illegible]

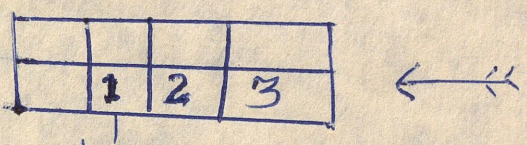
18	–	30	31		
19	29	31	31		
20	30	30	31		
21	29	30	30		
22	29	30	30		
23	29	29	30		
24	29	29	30		
25	29	29	29		
26	29	29	29		
27	28	29	29		
28	28	29	28		
29	28	29	28		
30	29	29	30		
~~31~~	~~29~~	~~29~~	~~31~~		
May 1st	29	30	30		
2	29	30	31		
3	31	30	30		
4	30	30	31		
5	30	30	30		
6	29	29	31		
7	29	31	31		
8	29	31	31		
9	29	30	31		
10	29	30	31		
11	29	30	31		
12	29	29	29		
13	29	29	29		
14	28	30	30		
15	30	~~30~~ 30	30		
16	31	30	30		
17	~~30~~ 31	31	31		

Clutch size - 16 eggs

Dt. 18-5-81 POOL. No. (1)

	1	2	3

16 eggs



18	31	32	32		
19	31	32	32		
20	31	31	32		
21	31	31	32		
22	31	31	31		
23	31	31	32		
24	31	31	32		
25	32	32	32		
26	31	32	32		
27	32	31	32		
28	33	32	31		
29	31	31	31	☆	
30	30	31	31		
31	31	31	31		
JUNE 1	28	29	29		
2	28	29	29		
3	28	29	29		
4	29	30	30		
5	29	29	30		
6	29	29	29		
7	29	29	30		
8	29	29		Nest opened	at 4 PM
9				10 hatched.	6 eggs
10				spoiled - 3 infertile, 3	Rotten.
11					
12					
13					
14					

(2) 1981. L. morlyn nest-
Clutch size - 25

Apr. 1981

13	-	30	31
14	29	30	31
20	30	30	31
21	29	30	30
22	30	30	30
23	29	30	30
24	29	29	30
25	29	29	29
26	29	29	29
27	28	29	29
28	28	28	29
29	28	29	30
30	29	29	30

May 1981

1	29	30	30
2	30	30	31
3	30	30	30
4	31	30	31
5	31	31	31
6	29	30	31
7	29	30	31
8	29	30	31
9	29	30	31
10	30	30	31
11	29	31	32
12	29	29	31
13	30	30	31
14	29	31	32
15	31	31	33
16	31	31	33
17	31	31	33

~~21~~-18-5-81

18	31	32	33		
19	31	32	33		
20	31	31	32		
21	30	31	32		
22	30	31	31		
23	30	31	31		
24	30	31	31		
25	30	31	32		
26	30	31	32		
27	31	32	32		
28	31	32	32		
29	31	32	32		
30	30	31	32		
31	30	31	32		
1	25	28	29		
2	29	29	29		
3	29	29	29		
4	29	29	29		
5	28	28	28		
6	28	27	27		
7	27	27	28		
8	28	28	28		
9					
10					
11					
12					
13					
14					

CROCODILE NESTING BIOLOGY PROFORMA

1982

Species : Crocodylus palustris

Common English Name; Mugger

Name in Local language: Mugali Language: Telugu

Name and Location of Habitat : River/~~Tank~~/~~Reservoir~~/~~Creek~~/~~Brdoding Pool~~.

Location details: Godavari river near Mantheni, Ramagundam

NEST

Nest number(Serial number if more than one nest is located in the Habitat).

: 2

Date nest located: 19th March 1982

Name and address of locator: Laxmiah.

Trial nests(if any) and details : One, 5mts away from water
(Number,depth,shape,distance from original nest,water etc). and 8mts from the nest- land

Condition of nest :
(Like disturbance by Predators Nothing detected)
Human disturbance like .....)
Natural causes like...Flooding/Desication/ Etc.....)
Other causes .....)

For mound nesters

Vegetations used:

Wallows if any : Numbers..... Dimensions .....

Distance from nest.....

Other details.

Area cleared:

Weather conditions: Sunny/~~Cloudy~~/ ~~Rainy~~/~~Other~~ .....

Ambient Air Temperature: 90°F at- 10.30 AM.

Surface temperature of the Nest: 85°F

(Turn Over)

Nest moisture by speedy moisture tester at ready

1. 3.2%
2. 3.2%
3. 3.4%
4. 3.2%
5. 3.3%

First layer of eggs at depth :

Nest temperature at surface...85°F.....25cm...88°F..... .. bottom 38cm.....

Nest dimensions: Depth 33cm Length 25.....Breadth 23.....

Shape of the nest(diagramatic) U

POSITION OF NEST IN RELATION TO PERMANENT WATER:

Distance..... Height .....Profile .....

Total egg layers(if any): 24

Size and weight of eggs: (Average and range).....

Number of cracked eggs:(of layer):

Number of eggs damaged:

Abnormal eggs(if any) Details: one

Bands on eggs: Present Unbanded if any.....

Total number of eggs in nest (CLUTCH SIZE): 24

Total number collected: 24

Other remarks if any: Nest laid on a tunnel of ro

...

Date and time of Collection: 10.30am 25.3.1982

Collection method: Collection box

Collected and supervised by: B. C. Chandley

Name and location of Hatcheryto } Nehru Zoological Park, Hyd

Where eggs are transfered: } 260km away

Date and mode of transfer: 25.3.1982 by Jeep, On road

Incubation method planned: Simulated nest method

GENERAL REMARKS: Egg collected at 10.30am after 6 days of laying and shift to NZP Hyd on 25.3.1982. Nest laid at the place where the female had laid earlier in 1978.

Name & Signature of collector

Date 25.3.1982

1982 L mudgee nest – 2

Sl no	Length	Breadth	wt	Remarks
1	82	49	110	~~X~~
2	84	48	110	~~X~~
3	83	49	120	D Infertile
4	82	49	130	X
5	91	49	130	X
6	85	~~49~~	120	X D
7	83	50	120	X
8	82	49	120	X.B.
9	83	50	125	~~X~~ XD
10	85	49	125	X
11	84	49	120	X
12	80	48	110	–
13	78	48	120	X
14	83	49	120	X
15	84	49	110	X
16	84	50	125	X
17	82	49	120	X
18	84	49	120	X
19	78	49	110	– Infer
20	80	49	105	X
21	84	49	125	X
22	84	48	120	X
23	83	50	120	X
24	83	49	120	X

M C. Abnormal egg

27-5-82	27	28.5	28.5	చుంగమ్మ
28-5-82	27.5	28.5	28.5	చుంగమ్మ
29-5-82	28	28.5	28.5	చుంగమ్మ
30-5-82	28.5	28.5	28	చుంగమ్మ
31-5-82	27.5	28	28	చుంగమ్మ
1-6-82	27	27.5	27	చుంగమ్మ
2-6-82	27.	27.	28.	విరామములు
3.6.82	27.	27.5	27.5	విరామములు
4.6.82	28.	28.	28.5	Gradually
5.6.82	28.	29	29	విరామములు
6.6.82	28	28.5	29.5	చుంగమ్మ
7.6.82	29	29.5	29	చుంగమ్మ
8.6.82	29.	30	30	విరామములు
9-6-82	30	30	30	విరామములు
10-6-82	30	30	30	విరామములు
11.6.82	30	30	30	Gradually
12-6-82	30	30	30	చుంగమ్మ
13.6.82	30	30	30	విరామములు
14-6-82	29	29	29	చుంగమ్మ
15-6-82	29	29	29	చుంగమ్మ
16-6-82	25.	26	26	విరామములు
17.6.82	26	26	26	చుంగమ్మ
18-6-82	26	26	26	విరామములు
19-6-82	26	26	26	చుంగమ్మ
20-6-82	26.	26.	26	విరామములు
21-6-82	26	26	26	చుంగమ్మ
22-6-82	26	26	26	Eggs removed from the

simulated nest at 3 pm. All eggs seem to be rotten. Cracked egg has leaked out the content. Two eggs checked (no embryo development) 5.6% moisture in the simulated nest.

L. malge nest - 2

Total number of eggs - 24

1-4-82

27-4-82	27	24	27	విరామలు
28-4-82	24	27	24	విరామలు
29-4-82	27	28	28	విరామలు
30-4-82	27	28.5		ఉంగమ్మ
1-5-82	28	28	28	ఉంగమ్మ
2-5-82	28	28	28	విరామలు
3-5-82	28	28	28	విరామలు
4-5-82	27	28	28	విరామలు
5-5-82	28	28	28	విరామలు
6-5-82	28	28	29	విరామలు
7-5-82	28.5	28	28	ఉంగమ్మ
8-5-82	27	28	29	ఉంగమ్మ
9-5-82	27	28	28	ఉంగమ్మ
10-5-82	28	29	29	ఉంగమ్మ
11-5-82	28	28.5	28	ఉంగమ్మ
12-5-82	28	28	28	Padagini
13-5-82	28	28.5	29.5	ఉంగమ్మ
14-5-82	28.5	29	28	ఉంగమ్మ
15-5-82	28	28	28	Padagini
16-5-82	26.5	26.5	26.5	Padagini
17-5-82	27	27	27	ఉంగమ్మ
18-5-82	26.5	27.5	28	ఉంగమ్మ
19-5-82	27	27.5	28	విరామలు
20-5-82	27	28	28	విరామలు
21-5-82	27	27.5	27	ఉంగమ్మ
22-5-82	27	27.5	27	విరామలు
23-5-82	27	27.5	27	ఉంగమ్మ
24-5-82	27	27	27	విరామలు
25-5-82	27.5	27	27	ఉంగమ్మ
26-5-82	27	27.5	27.5	విరామలు

27.3.82 (2) Total number of [illegible] - 24

27-3-82	26	27	27	ఇంగమ్మ
28-3-82	26	27	27	విరాములు
29-3-82	26	26	27	[illegible]
30-3-82	26	27	27	ఇంగమ్మ
31-3-82	26	27	27	విరాములు
1-4-82	26	27	27	విరాములు
2-4-82	26	26	27	ఇంగమ్మ
3-4-82	26	26	27	విరాములు
4-4-82	26	27	27	విరాములు
5-4-82	26	27	27	విరాములు
6-4-82	26	27	27	విరాములు
7-4-82	26	27	27	విరాములు
8-4-82	27	28	28	ఇంగమ్మ
9-4-82	28	28	28	[illegible]
10-4-82	27	28	28	ఇంగమ్మ
11-4-82	27	28	28	[illegible]
12-4-82	27	27	27	విరాములు
13-4-82	25	26	26	ఇంగమ్మ
14-4-82	25	26	27	విరాములు
15-4-82	26	26	28	విరాములు
16-4-82	26	26	26	ఇంగమ్మ
17-4-82	26	26	26	విరాములు
18-4-82	26	26	26	ఇంగమ్మ
19-4-82	26	27	28	ఇంగమ్మ
20-4-82	26	27	28	[illegible]
21-4-82	26	27	27	విరాములు
22-4-82	26	27	27	ఇంగమ్మ
23-4-82	26	27	27	ఇంగమ్మ
24-4-82	27	27	27	ఇంగమ్మ
25-4-82	27	27	27	విరాములు
26-4-82	26	27	28	ఇంగమ్మ

1982

CROCODILE NESTING BIOLOGY PROFORMA

SPECIES : Crocodylus palustris

COMMON ENGLISH NAME: Mugger crocodile.

VERNACULAR NAME: Mugali, Tolugu

NAME AND LOCATION OF THE HABITAT: Lanjamadugu, Godavari river A.P.

DETAILS OF HABITAT : RIVER/ ~~TANK / RESERVOIR / CREEK/ ETC.~~

N E S T :

Nest number (Serial number if more than One nest is located in the habitat) 1

Date of Locating the nest: 9th March 1982

Name and Address of locator: A Laxmiah

Trial nests (If any) & Details like depth, shape etc. one trial nest 0.5m away from the nest

Date of Laying of the Actual nest: 8th March 1982

Condition of Nest (Like disturbance by predators/ human/ natural) causes like flooring etc.

Position of Nesting in rotation to water level:

a) Distance from permandent water. — 9.0 m
b) Height of nest from water. — 75.0 cm
c) Profile of nesting ~~exx~~.site.

Will mound

VEGETATIONS USED IN NEST PREPARATION:

Wallaws if any around the nest:

Area cleared for nest laying.

Shape & depth of Wallow.

SURFACE TEMPARATURE OF NEST: 31°C at 6cm

FIRST LAYER OF EGGS AT DEPTH: 15 cm

NEST TEMPARATURE (at different depth)

Surface. 25 Cms. - 28°c

~~50 Cms.~~ Bottom (Cms).

NEST DIMENSIONS:

depth : 23cm

breadth: 28 cm

Length: 32

Shape : (diagramatic):

E G G S:

Total Egg Layers : nil layers.

Size and Weight of Eggs (Average & range): →

Total number of Eggs in the nest (clutch size): 20

Number of Cracked Eggs (of which layer) nil

Number of rotten Eggs: nil

Number of Eggs damaged otherwise. nil

Abnormal Eggs (if any) & description of which layer etc.). none

Bands on the Eggs. On all except one.

Total number of Eggs collected: 20

Date & time of Collection: 6/7 on 15/3/82

Collection method: Collection box.

Date and Mode of Transfer. By Jeep on round night transfer

Name and address of hatchery to where the Eggs were transfered: NZP

Collected and Supervised by: B. C. Chambers.

Mode of Incubation:

REMARKS: Nest laid on ground on the swampy ground on thick shrub vegetation (picture.

1. 80 mm x 49mm
2. 78 " x 48 "
3. 78 " x 48 "
4. 80 " x 48 "
5. 77 " x 49 "
6. 78 " x 49 "
7. 79 " x 51 "
8. 81 " x 50 "
9. 79mm x 49mm.)
10. 79 " x 50 "
11. 75 " x 46 "
12. 79 " x 48 "
13. 77 " x 49 "
14. 81 " x 49 "
15. 80 " x 50 "
16. 78 " x 50 "
17. 79 " x 49 "
18. 83 mm x 49 mm.
19. 78 " x 50 "
20. 78 " x 46 ".

. 110 gms Ave. weight

Signature:

Dated:

FMK.

17-5-82

(1)

17-5-82	27	27	27	ఉంగమ్మ
18-5-82	275	28	28	ఉంగమ్మ
19-5-82	27	28	27	విరాములు
20-5-82	27.5	28.	28	విరాములు
21-5-82	28	23 5	28	ఉంగమ్మ
22.5.82	28.	28	28	విరాములు
23-5-82	28 5	28.5	28	ఉంగమ్మ
24.5 82	28	28 5	285	విరాములు
25-5-82	28	28 5	285	ఉంగమ్మ
26-5-82	28	28.5	28.5	విరాములు
27-5-82	285	29.5	29.	ఉంగమ్మ
28-5-82	285	29	29	ఉంగమ్మ
29-5-82	285	29.	30	ఉంగమ్మ
30-5-82	29	29.	29	ఉంగమ్మ
31-5 82	285	29	29	ఉంగమ్మ
1-6-82	28	28 5	28	ఉంగమ్మ
2-6-82	28.	28.	28 5	విరాములు
3-6-82	28.	285	28.	విరాములు
4.6.82	28	28.5	28.5	Rajalaxmi
5-6-82	30	29	29	విరాములు
6-6-82	29	29	30	ఉంగమ్మ
7-6-82	295	29	30	ఉంగమ్మ
8-6-82	30.	31	31	విరాములు
9-6-82	30	30	31	విరాములు
10.6-82	30	31	31	విరాములు
11.6.82	30	30.5	31	Rajalaxmi
12-6-82	30	30	30	ఉంగమ్మ
13.6.82	30	30	30	విరాములు
14-6-82	28	28	28	ఉంగమ్మ
15-6-82	275	28	28	ఉంగమ్మ
16-7-82	25	27	27	విరాములు
17-6-82	26	27		లాకాయి

17/6/82 — The net was opened on 17/6/82 at 3.30 pm in presence of Dr M. G. Alikhan and Dr Daltati Rao. Two broken eggs have leaked its contents. Part of the eggs to be tested next day.

(1)

2. morgan wet - 1

Total number of 1882 - 20.

17-4-82				
17-4-82	26	26	26	విరాములు
18-4-82	26	26	26	ఉంగమ్మ
19-4-82	27	28	29	ఉంగమ్మ
20-4-82	26	27	28	Gadagini
21-4-82	26	27	27	విరాములు
22-4-82	25	27	27	ఉంగమ్మ
23-4-82	25	25	25	ఉంగమ్మ
24-4-82	24	24	25	ఉంగమ్మ
25-4-82	25	24	24	విరాములు
26-4-82	24	24	25	ఉంగమ్మ
27-4-82	25	25	25	విరాములు
28-4-82	24	25	25	విరాములు
29-4-82	25	26	27	విరాములు
30-4-82	25	28.5	28.5	ఉంగమ్మ
1-5-82	27	27	28	ఉంగమ్మ
2-5-82	27	27	28	విరాములు
3-5-82	27	27	28	విరాములు
4-5-82	28	28	28	విరాములు
5-5-82	28	28	28.5	విరాములు
6-5-82	28	28	29	విరాములు
7-5-82	27	28	28	ఉంగమ్మ
8-5-82	27.5	28	28	ఉంగమ్మ
9-5-82	27	28.5	28	ఉంగమ్మ
10-5-82	27	28.5	28	ఉంగమ్మ
11-5-82	28	29	28	ఉంగమ్మ
12-5-82	28	29	28	Gadagini
13-5-82	28.5	29	29	ఉంగమ్మ
14-5-82	29	29.5	28	ఉంగమ్మ
15-5-82	28	28	28	Gadagini
16-5-82	27	27	27	Gadagini
17-5-82				

17/3/82

L

L. morlya nel-?-

Total number of days . 20

17-3-82	25	28	29	వీరామలు
18-3-82	26	28	29	వీరామలు
19-3-82	26	27	28	[illegible]గా
20-3-82	26	27	29	వీరామలు
21-3-82	26	27	28	వీరామలు
22-3-82	27	27	28	వీరామలు
23-3-82	27	27	28	ఉంగమ్మ
24-3-82	27	27	28	వీరామలు
25-3-82	27	28	28	వీరామలు
26-3-82	27	29	28	ఉంగమ్మ
27-3-82	27	28	28	ఉంగమ్మ
28-3-82	27	28	28	వీరామలు
29-3-82	27	27	28	[illegible]గా
30-3-82	27	28	28	ఉంగమ్మ
31-3-82	27	28	28	వీరామలు
1-4-82	27	28	28	వీరామలు
2-4-82	27	28	28	ఉంగమ్మ
3-4-82	27	27	27	వీరామలు
4-4-82	27	28	28	వీరామలు
5-4-82	27	28	28	వీరామలు
6-4-82	27	28	28	వీరామలు
7-4-82	27	27	28	వీరామలు
8-4-82	27	28	28	ఉంగమ్మ
9-4-82	28	28	29	[illegible]గా
10-4-82	27	28	28	ఉంగమ్మ
11-4-82	~~26~~	26	28	[illegible]గా
12-4-82	27	27	28	వీరామలు
13-4-82	25	26	26	ఉంగమ్మ
14-4-82	25	26	27	వీరామలు
15-4-82	26	26	~~27~~	వీరామలు
16-4-82	26	27	27	ఉంగమ్మ
~~17-4-82~~	~~26~~	—	—	~~వీరామలు~~

17

Reintroduced

Mugger crocodile ,Crocodylus palustris Monitoring Report

Location : Lanjamodugu (Siwaram) Sanctuary,Andhra Pradesh.

Survey Carried out on : 20th April 1985.

Personells: B.C.Choudhury,Assistant Director,Crocodile Research Centre of Wildlife Institute of India,Hyderabad and

K.Vara Prasad,Forest Range Officer, Crocodile Project Nehru Zoological Park,Hyderabad.

Purpose of Survey: Monitoring the released crocodiles (Crocodiles released on 25th January 1985)

Daytime Survey:

Duration of survey: 0800 hrs to 1200hrs.

Area of survey: Right bank of the river (on the Manthani side) from western end of the sanctuary to Eastern end of the sanctuary.

Method of survey: Walking along the bank chenking for footprints,faecal droppings and actual sightings.

Weather condition : Clear sunny sky, Air Temp at 10.30hrs - 35.5°C.

Crocodiles seen : 2 (Two) individuals approximately 1m to 1.5m . mid-river floating.

Spoor marks ; Four fresh (morning basking) spoormarks-

Pellet(dung)Samples: 6pellets in a stretch of 3km out of which 2 (Two) were very fresh.

Other Activities in the Habitat: None.

Night Survey:

Duration : 1900hrs to 2100hrs.

Area of survey : Right bank on the Manthani side. middle portion of the left bank, and river surface with-in the sanctuary limits.

Method of survey: Spotlight scanning of riverbank and water surface.

Weather condition : Clear and moonless.

Mugger seen : Right Bank = Five (5) individuals 1m to 1.5m. on shore(all appeared to be the released ones)
Left Bank on shore = Three(3) individuals all adults.

Other animals seen : Peacock,Barking Deer and Fishing Owl.

Analysis: The adults seen on the left bank are adults and are therefore not the relaesed ones. The other smaller ones (all within 1 to 1.5m) were seen close to the release point on the right bank. The gap of 3months have not made the released small individuals to strayout into the deeper water. Sighting of five induvuduals out of 15 released (33%) is a good enough indication of the survival etc.

22/5

Dated 22.5.1985.

(B.C.Choudhury)
Asst. Director,Crocodile Research Centre.
Hyderabad 500 264.

Lanjamodgu Egg Collection & Details

Year	No. of clutch	Clutch size	Date of collection	Result of hatching	Remarks
1977	1	15	7.5.1977	nil	Nest was collected after 45 days of in-situ incubation during which the nest was submerged for about a week. Also appeared infertile as no embryo could be seen inside the incubated eggs on opening.
1978	1	31	20.5.78	nil	Infertile - no embryos inside the eggs
1979	3	19, 15 — 2 29 eggs (53)	19.4.79 — 28.5.79	6 & nil 3	Low fertility
1980	2 nests & 12 hatchlings + 12 + eggs	16 & 20 (60)	1.4.80	7 & 15	44% & 75%
		12 hatchlings + eggs	5.6.80		50% hatching in the wild
1981	2	31 & 16 (47)	17.4.1981	2 & 10	1. Low fertility in the first nest 2. 62.5% success
1982	2	20 & 24 (44)	15.3.82 25.3.82	nil	Infertile eggs
1983	nil	18		4	Experimental incubation at higher & lower temp
1984	nil				
1985	nil				