

HYDERABAD - MUGGER BREEDING - NEHRU ZOO. (NEW YORK)

5 5

1/3/81

♀ found dead in myrtle burrow in Post 3 Island

25/7/81

♂₃ found dead with severe injuries - injuries described above the
1st week of July 1981. Injured in Post 2 after going to the bathroom
♂₁ & ♀₂

5/3/82

♂₂ found dead in Post 2 with severe hind limb injury. Injured in
Post 1 by ♀₁ while attempting to mate with ♀₂

19/6/82

♀ found dead in Post 1

4/83

yearling found dead in food decomposed state
missed adult ♂ found dead in food decomposed state

8/9/85



CROCODILE BREEDING AND MANAGEMENT PROJECT
Lake Dale, Rajendranagar Road, Hyderabad-500264, India.



IND/74/046/41

4 September 1980

Dear Mr. Mathur,

Mugger Breeding Pool at Nehru
Zoological Park

As per your request of yesterday, I have today visited the mugger breeding pool at Nehru Zoological Park in the company of Mr. Kamal Naidu, Curator. I find the pool in excellent condition and am pleased to note that three separate ponds have been constructed with sizeable land areas between them as per the prescription given to Mr. Naidu by Mr. Pushp Kumar and myself in 1978 and again repeated in 1979.

There are a few minor tasks remaining to be done. These are:

- a) Removal of approximately 1' of top soil on the area abutting on the boundary wall on the northern side.
- b) Putting of additional soil on the western side between the wall of the enclosure and old old boundary wall right up to the recently fabricated simulated rock boundary wall (in order to hide the old concrete wall).
- c) It may be useful to excavate the three pools by ^{an} additional foot or so. This is to reduce seepage during the dry season (the enclosure is at a higher level than the surrounding land). This excavated soil can be used towards the back of the pool thus cutting down the amount of soil to be brought in from outside.

There is no need for any additional planting of the pool and I can confirm that the present soil is suitable for nesting purposes. I have gone through the existing larger crocodiles with an Andhra origin currently being held at the zoo. There are three males plus seven females available, which could be introduced into the pool all at one time during the Wild Life Week. It is particularly important that they are to be introduced at one time as subsequently introduced individuals are likely to be victimised.

Although I may be absent on Study Tour at this time due to late departure of the tour, I hope that you would take necessary steps to ensure that the release actually takes place this time around.

during wild life week


With kind regards,

Yours sincerely,

(Dr. H.R. Bustard)
Chief Technical Adviser

Mr. A.K. Mathur
Addl. Chief Conservator of Forests
and Chief Wild Life Warden AP
Office of the Chief Conservator of Forests
Saifabad, Hyderabad-500 004

cc: Mr. Kamal Naidu, Curator, NZP, Hyderabad.

Inf.cc: Mr. B.C. Choudhary. 

4/10/80

New Mysr Breeding post N20

1				
2				
3	26c	31e		యదయగు
4	26e	32.5c	32.5c	విరాముల
5	26e	31e		యదయగు
6	26e	31e		కుంగమ్మి
7	26.5c	32c		L. Indragiri
8	25.5c	31e		యదయగు
9	28.4c	32e		గు
10	26e	32e		విరాముల
11	26e	31e		విరాముల
12	28.5e	32e		విరాముల
13	26c	31e		కుంగమ్మి
14				
15				
16				
17				
18	25e	31e		విరాముల
19	24.5c	30c		L. Indragiri
20	24.2c	29c		విరాముల
21	25c	30c		L. Indragiri
22	26e	30c		విరాముల
23	26e	30.5c		కుంగమ్మి
24	24e	31.2c		విరాముల
25	25e	31.5c		విరాముల
26	24c	31c		విరాముల
27	24e	30.5c		విరాముల
28	23c	31c		విరాముల
29	23c	31e		విరాముల
30	24e	30.5c		విరాముల
31	24e	31e		విరాముల

Air Temp

September
1981

New Breeding Post, N 2P.

1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18	23.e	28.e
19	25.e	27.e
20	25.c	27.e
21	24.c	29.c
22	25.e	30.c
23	28 ^o .c	31.c
24	27.e	30.e
25	25.e	31.e
26	24.c	32.c
27	22.c	29.c
28	21.e	31.e
29	22.e	31.e
30	24.e	31.e
31	25.e	31.e

20/11/90

Recording of N 20

	8AM	5PM	Temperature	
1	24.e	26.e	విరామలు	
2	24.e	25.e	విరామలు	
3	23.e	26.e	విరామలు	
4	24.e	26.e	విరామలు	
5	22.e	26.e	విరామలు	
6	22.e.5	27.e	పొంగవల్లి	
7	22.e	27.e	పొంగవల్లి	
8	22.e.5	27.e	పొంగవల్లి	
9	23.e.5	27.e.2	విరామలు	
10	22.e.5	26.e	పొంగవల్లి	
11	22.e	26.e.5	పొంగవల్లి	
12	24.e	26.e.1	విరామలు	Contshh of F, + M,
13	23.e	27.e	విరామలు	
14	24.e	26.e		
15	23.e.5	27.e	విరామలు	
16	23.e	27.e	విరామలు	
17	23.e	28.e	పొంగవల్లి	
18	23.e	28.e	పొంగవల్లి	Contshh of F, + M,
19	23.e	28.e	విరామలు	
20	23.e	28.e	విరామలు	
21	23.e.5	29.e	పొంగవల్లి	
22	22.e	29.e	పొంగవల్లి	
23	24.e	28.e	పొంగవల్లి	
24	24.e.5	27.e	పొంగవల్లి	
25	24.e.5	26.e	పొంగవల్లి	
26	24.e	27.e	విరామలు	
27	22.e.5	24.e	విరామలు	
28	21.e	24.e	పొంగవల్లి	
29	22.e	24.e	విరామలు	
30	22.e	24.e	విరామలు	

170
156
326

11/12/90

1	22.e	24.e	తుంగవల్లి
2	21.e	24.e	విరామల
3	21.e	23.e	విరామల
4	21.e	22.e	విరామల
5	22.e	22.e	విరామల
6	22.e	23.e	విరామల
7	22.e	23.e	విరామల
8	21.e	24.e	తుంగవల్లి
9	20.e	23.e	తుంగవల్లి
10	20.e	23.e	విరామల
11	20.e	23.e	తుంగవల్లి
12	20.e	24.e	విరామల
13	20.e	23.e	తుంగవల్లి
14	20.e	22.e	విరామల
15	20.e	22.e	తుంగవల్లి
16	20.e	21.e	తుంగవల్లి
17	20.e	21.e	విరామల
18	20.e	21.e	విరామల
19	19.5	21.e	తుంగవల్లి
20	19.5	21.e	తుంగవల్లి
21	20.e	22.e	తుంగవల్లి
22	20.e	21.e	తుంగవల్లి
23	20.e	21.e	తుంగవల్లి
24	20.e	21.e	విరామల
25	20.e	21.e	విరామల
26	19.5	21.e	విరామల
27	20.5	21.e	తుంగవల్లి
28	20.e	21.e	విరామల
29	20.e	21.e	తుంగవల్లి
30	20.e	21.e	విరామల
31	20.e	21.e	విరామల

antshh $t_2 + M_1$

11/13/81

Breeding Pat Temp - Jan 81

1	20.0	22.0	విరామలు
2	21.0	21	విరామలు
3	20.0	21	పొంగివచ్చి
4	20.0	21	పొంగివచ్చి
5	20.0	21	విరామలు
6	20.0	21.0	విరామలు
7	20.0	21.0	విరామలు
8	20.0	21.0	
9	20.0	21.0	విరామలు
10	20.0	21.0	విరామలు
11	20.0	21.0	విరామలు
12	20.0	21.0	విరామలు
13	20.0	21.0	విరామలు
14	20.0	21.0	విరామలు
15	20.0	21.0	పొంగివచ్చి
16	20.0	21.0	విరామలు
17	20.0	21.0	విరామలు
18	19.0	20	పొంగివచ్చి
19	19.0	20	పొంగివచ్చి
20	19.0	20	విరామలు
21	20.0	21.0	విరామలు
22	20.0	21.0	విరామలు
23	19.0	21.0	విరామలు
24	19.0	22.0	విరామలు
25	20.0	22	పొంగివచ్చి
26	21.0	22.0	పొంగివచ్చి
27	22.0	23.0	పొంగివచ్చి
28	22.0	23.0	
29	22.0	23.0	పొంగివచ్చి
30	22.0	23.0	పొంగివచ్చి
31	23.0	23.0	పొంగివచ్చి

3/11/84

Breeding Pool Temp Feb 81

1	23.0	24.0	విరామలు
2	23.0	24.0	గుంకమ్మి
3	23.0	24.0	విరామలు
4	21	24.0	విరామలు
5	22.0	24	గుంకమ్మి
6	22.0	24.0	విరామలు
7	22.0	24.0	
8	23.0	24.0	విరామలు
9	21.0	25	గుంకమ్మి
10	21.0	25.0	విరామలు
11	21.0	25.0	గుంకమ్మి
12	21.0	25.0	విరామలు
13	22.0	25.0	విరామలు
14	21.05	24.0	గుంకమ్మి
15	21.0	24.5	గుంకమ్మి
16	21.0	24.5	గుంకమ్మి
17	21.05	24.0	గుంకమ్మి
18	21.03.0	24.0	విరామలు
19	21.05	24	గుంకమ్మి
20	21.0	24.0	గుంకమ్మి
21	21.0	24.0	విరామలు
22	21.0	24.0	విరామలు
23	21.05	24.0	గుంకమ్మి
24	21.0	24.0	విరామలు
25	21.0	24.0	విరామలు
26	21.0	24.0	విరామలు
27	21.0	24.0	విరామలు
28	22.0	24.0	విరామలు
29			
30			
31			

18 dots. first 1000 p. 1000

H.M.T. N51R

	Head	S-V	TBE	WT
(i)	11	30.5	62	650

Breeding Pairs Turp Peen

April 1981

1	-	-	
2	-	-	
3	-	-	
4	29 c	31 c	ಬಂಕಯ್ಯ.
5	29 c	31 c	ಬಂಕಯ್ಯ.
6	29 c	31 c	ಬಂಕಯ್ಯ.
7	29 c	31 c	ಬಂಕಯ್ಯ.
8	29 c	31 c	
9	29 c	31 c	ಬಂಕಯ್ಯ.
10	29 c	31 c	ಬಂಕಯ್ಯ.
11	28 c	29 c	ಬಂಕಯ್ಯ.
12	28 c	29	ಬಂಕಯ್ಯ.
13	30 c	31 c	ಬಂಕಯ್ಯ.
14	31 c	32 c	ಬಂಕಯ್ಯ.
15	31 c	32 c	
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

Mar 3/81

Breeding Pod Temp March 81

1	23.e	24.e	వెరములు	one ♀ died due to care in of burrow.
2	22c	24.c	కుంగమ్మ	
3	22.e	24.e	వెరములు	
4	22.e	24.e	వెరములు	
5	22e	24.e	కుంగమ్మ	
6	22c	24.c	వెరములు	
7	22c	25.e	కుంగమ్మ	
8	22c	25.e	వెరములు	
9	23c	26.c	కుంగమ్మ	
10	23c	26.c	కుంగమ్మ	
11	24c	26.e	కుంగమ్మ	
12	24.e	26.e	వెరములు	
13	24c	26.e	కుంగమ్మ	
14	24c	26.c	కుంగమ్మ	
15	24.e	26.c	వెరములు	
16	24e	26	కుంగమ్మ	
17	24.	26	కుంగమ్మ	
18	24.	26.e	వెరములు	
19	24.	27.c	వెరములు	
20	24e	27c	కుంగమ్మ	
21	24e	27.c	వెరములు	
22	24.c	27.c	వెరములు	
23	24c	27.5	కుంగమ్మ	
24	24e	27	కుంగమ్మ	
25	24c	26		
26	24e	27.	కుంగమ్మ	
27	24e	27.	కుంగమ్మ	
28	24.e	27e.	వెరములు	
29	24e	28.5	కుంగమ్మ	
30	25c	29	కుంగమ్మ	
31	25e	29.	కుంగమ్మ	

From.

B.C.Choudhury,
Research Assistant,
Crocodile Scheme,
Nehru Zoological Park,
Hyderabad.

To,
The Curator,
Nehru Zoological Park,
Hyderabad.

Sir,

Sub - Mugger Crocodile Breeding in The new breeding pool in 1981-Reg.

.....

I am glad to inform you that two females muggers (Crocodylus palustris) have bred this year in the new breeding pool in to which a total of 11 muggers (4 males and 7 females) were introduced in September 1980. After death of one female by a tunnel cave-in now only 4 males and six females remain.

You may recall that last year(1980) also two of the females had laid eggs but only one nest hatched out. I am furnishing the details of both years breeding details for your records.

Year	Clutch sizes	date of laying	date of hatching	Total hatched	Remarks.
1980	10	not known	3.6.1980	4	4 dead embryo
	1	7.5.1980	did not hatch	-	inside egg.
1981	12	First week	4.6.1981	12	One dead
	6	of April 81	7.6.1981	5	---

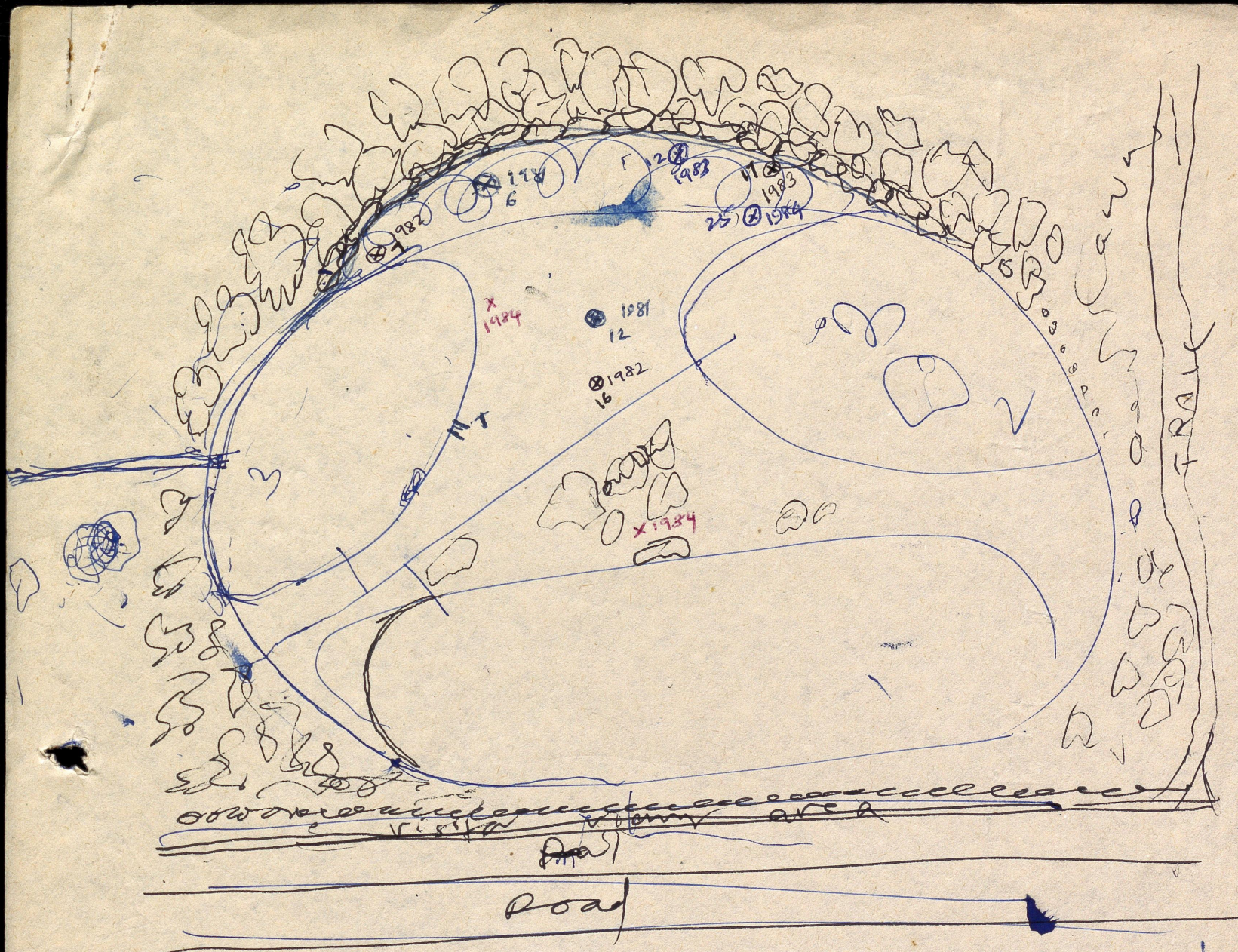
Both the nests of 1981 hatched out in the natural site and the hatchlings have been left with the parents to observe parental care and natural feeding. The only supplementary feeding that have been given to th young ones are live fish fingerlings, that have been released in to the pool. Both the mothers have been observed to protect the young ones ffrom intruders in to the pool. We need to open a drain to siphon water from the pool no. 1 to pool no 2 to maintain the balance of water in all the pools. There are regular supply of water to pool no 1 and 3. With the mothers and hatchlings in pool 3 it is not good to disturb pool no. 3 for anything.

Totally there are 16 hatchling in the pool with the mother.

Yours faithfully,

Dated 24.6.1981.

(B.C.Choudhury)



Handwritten text, possibly a name or address, written vertically on the left side of the page.

$$\begin{array}{r} 2432 = 47 \\ 2252 = 70 \\ \hline 179 = 97 \end{array}$$

From

B.C.Choudhury,
Research Assistant,
Crocodile Scheme,
Nehru Zoological Park,
Hyderabad.

To
The Curator,
Nehru Zoological Park,
Hyderabad.

Sir,

Sub - Breeding of Mugger crocodile at NZP - Reg.

I have the pleasure of ^{****}informing you that two nests laid by the female mugger (C. palustris) in the central fountain crocodile breeding pool have successfully hatched on the 2nd of June 1982.

On day and night counts the total number of hatchlings hatched this year is estimated to be 22 in number with one infertile egg in one of the nest.

Since out of sixteen hatchlings (hatched and left to grow along with the mother in 1981) only five are to be located now I thought it better to remove this years hatchlings for separate rearing in the crocodile complex rearing pools. With your kind permission I have been able to capture six hatchlings which are now being reared in the complex. The rest of the hatchlings of this year have migrated along with the mother in to other pools and it has become extremely difficult to capture them from among the vegetation.

I may suggest you and seek your permission to take out (pump out) some water from the pools and also some vegetaion so that the hatchlings (and if possible and agreed some yearlings as well) can be caught with comparative ease.

Submitted for favour of information and valued opinions .

Thanking you.

Yours faithfully

Dated 17.6.1982.

(B.C.Choudhury)

Copy to Wild Life Warden, Wild Life Investigation, Hyderabad for information.

Clutch size	Date of Hatching	Total hatched	Remarks
1982 - 16	2.6.1982	16	
7	- do -	6	1 infertile egg

22 - (7) removed

15

" Government of Andhra Pradesh "
Forest Department.

From: Sri K. Ja gan Mohan Rao, IFS.,
Wild Life Warden,
Wild Life Investigation,
A.P. Hyderabad.

To
The Curator,
Nehru Zoological Park,
Hyderabad.

Ref.No. 489 /WLI/82 Dated 29.6.82.

...

Sir,

Sub:- Breeding of Mugger Crocodiles at Nehru Zoological Park-Reg.

Ref:- Sri B.C.Choudhury, R.A . Report dt. 17.6.82.

...

With reference to the above, I request you to
please arrange the shifting of hatchlings as suggested by Research
Assistant.

Yours faithfully,

Sd/- Wildlife Warden,

WILD LIFE INVESTIGATION:A.P.HYD.

Copy to Research Asst. C.B.S. N.Z.P. Hyd. for information and submit
his further report after the work is completed.

Copy to Forest Range Officer, Crocodiles, Hyd. for information and
necessary action.

// t.c.b.o.

/ SNR. ASST.

"Government of British India"
Forest Department

To

The R.A.

NZP.

Agd.

Faint, mostly illegible text, likely bleed-through from the reverse side of the page. Some words like "Government of British India" and "Forest Department" are visible at the top. The rest of the page contains several lines of text that are too light to read accurately.

From
B.C.Choudhury,
Research Assistant,
Crocodile Scheme,
Nehru Zoological Park
Hyderabad.

To
The Curator,
Nehru Zoological Park
Hyderabad.

Sir,

Sub - Mugger breeding pool - Removal of eggs from nest
for artificial incubation - report regarding.

.....

As proposed in the daily report sheets of the reptile section for removing the eggs laid by the nesting female muggers, I have removed on 11.5.83 a clutch of eggs (a total of 16 eggs) from one nest laid in the mugger breeding enclosure of the zoo. The second nest is yet to be located and I propose to remove it the sooner it is located. I am observing the movements of the nest guarding female to locate the second clutch of egg.

As you know from the 17 hatchling left last year and 12 left the year before to grow along with the parent in the breeding pool I am able to see only some eight hatchling and yearling class confirming my doubts of heavy mortality amongst the young crocodiles. This is also the case with crocodiles in nature. Our breeding pool simulates nature to the closest proximity and to avoid such heavy loss of the young ones I have proposed and lifted eggs to be hatched in artificial conditions where the survival percentages could be high. For your information the seven young ones that were removed out of the breeding pool last year are all surviving and have shown an excellent growth record.

I wanted to remove some of the reeds from the breeding enclosure but as the streaked weaver birds and white breasted water hens are now nesting there I wish to defer this clearing operations till the birds nesting season is over.

Yours faithfully,

B.C.Choudhury
17/5/83
(B.C.Choudhury)

Dated 17.5.1983.

cc: wild life Warden, Wild life Investigation A.P. Hyderabad
for information.

B.C.

From:

To:

B.C.Choudhury ,
Research Assistant,
Crocodile Scheme,
Nehru Zoological Park,
Hyderabad.

~~XXXXXXXXXXXXXXXXXXXX~~
The Curator,
Nehru Zoological Park,
Hyderabad.

Sub - Hatching of eggs collected from Mugger Breeding R
Pool - Report - Regarding.

Ref # My letter addressed to Curator, N.Z.P dated 17.5.83.

.....

I had reported in my letter under reference that a clutch of mugger eggs totaling 16 in number were removed for artificial incubation at the Crocodile Rearing Complex, Nehru Zoological Park. The same nest hatched out on 21.5.1983 after 10 days of artificial incubation and resulted in 13 hatchlings out of 16 eggs. The hatchlings are now being reared at the hatchling pool complex of crocodile scheme at N.Z.P, Hyderabad.

The second nest suspected to have been laid by the second female could not be located as yet, but a constant watch is being kept to locate either the nest or resultant hatchlings. As proposed earlier the eggs and/or the hatchlings are to be removed from the breeding pool for artificial rearing and increased survival.

I request you to kindly instruct the concerned staff and/or the Park Supervisor to ensure that the beef and live fish given to the breeding pool are placed in all the three pools and feeding trays and not just in one pool as is being done now even after several reminders to the concerned staff both by the hospital section and myself.

Thanking you.

Yours faithfully

B.C. Choudhury
23/5/83

B.C.Choudhury.

Dated 23.5.1983.

CC: The Wild Life warden, Wild Life Investigation, Andhra Pradesh, Hyderabad, for information.

Year	No. of Eggs	Date Hatched	No. of Hatchlings	Remarks
1983	16	21.5.83	13	3 infertile
	12	2.6.83	11	1 infertile

From:

B.C.Choudhury
Research Assistant
Crocodile Scheme
Nehru Zoological Park
Hyderabad.

To
The Curator,
Nehru Zoological Park,
~~The Wild Life Warden~~
~~Wild Life Investigation~~
Hyderabad.

Sir,

Sub + Breeding of mugger crocodiles in captive breeding -cum
exhibit pool at Nehru Zoological Park - Regarding.

I wish to inform you that the mugger crocodile breeding pool near the central fountain ~~is~~ in the Nehru Zoological Park is the location where two female mugger have laid eggs this year. The nests were located within 48 hours of egg laying during the third week of March 1984.

Similarly in the crocodile exhibit pool near the reptile house and the crocodile complex where seven mugger of the 1977 Tamil Nadu stock are on exhibit, one female has laid eggs during the same time.

These nests have been left in-situ for incubation for six weeks and it is proposed to collect one nest from the central breeding pool and the nest from the other breeding pool during the last week of April 1984 for another 15 days of captive incubation in the Crocodile Rearing Station Crocodile hatchery. Eggs are expected to hatch during the second week of May 1984.

By collecting one nest and leaving one nest in the central breeding pool as was the practice in previous years a higher percentage of survival is assured as well a captive and wild growth studies can be carried out.

I wish to also inform that the 13 hatchlings that hatched out of the 17 eggs removed last year from the central breeding pool are all surviving at the end of one year and are showing excellent growth rate.

Submitted for favour of information and suggestions.

Yours faithfully,

sd/

(B.C.Choudhury)

Dated 21 April 1984.

CC: Wild Life Warden, Wild Life Investigation for information

[Handwritten signature]

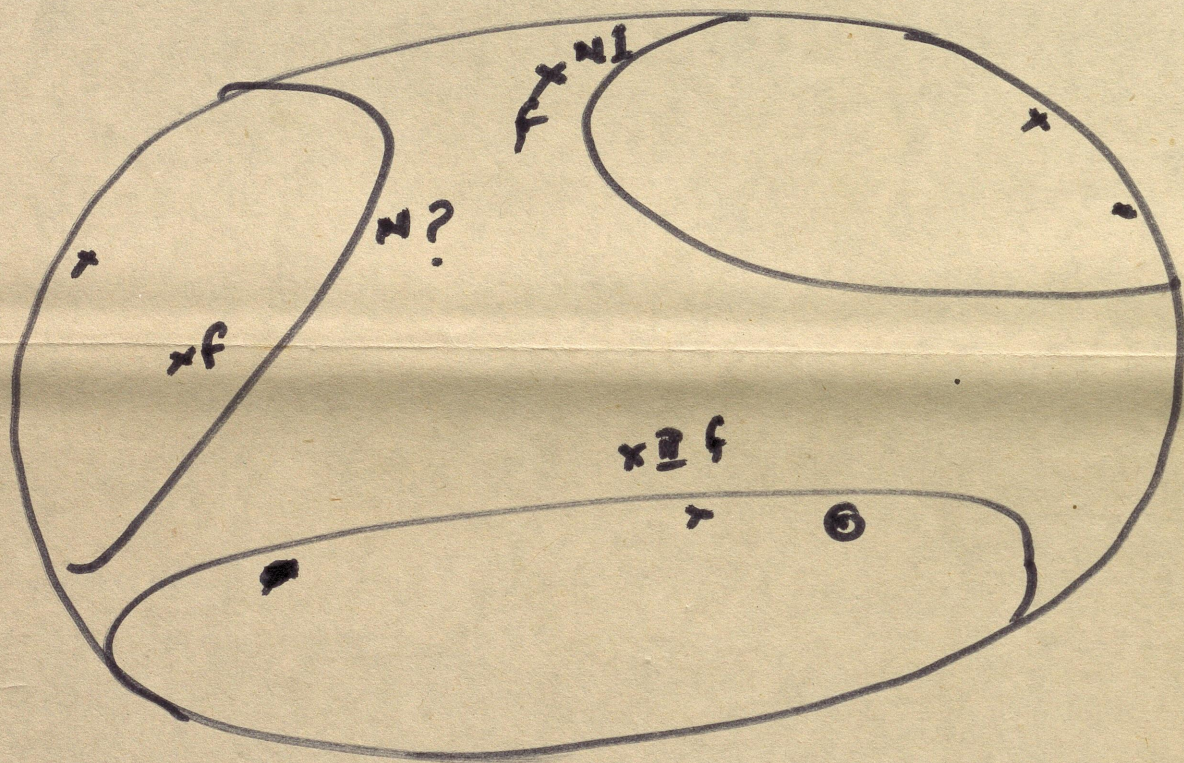
Binod C. Choudhury

NEHRU ZOOLOGICAL PARK
HYDERABAD - 500 264.
INDIA

24 April 1989

New Breeding PNT

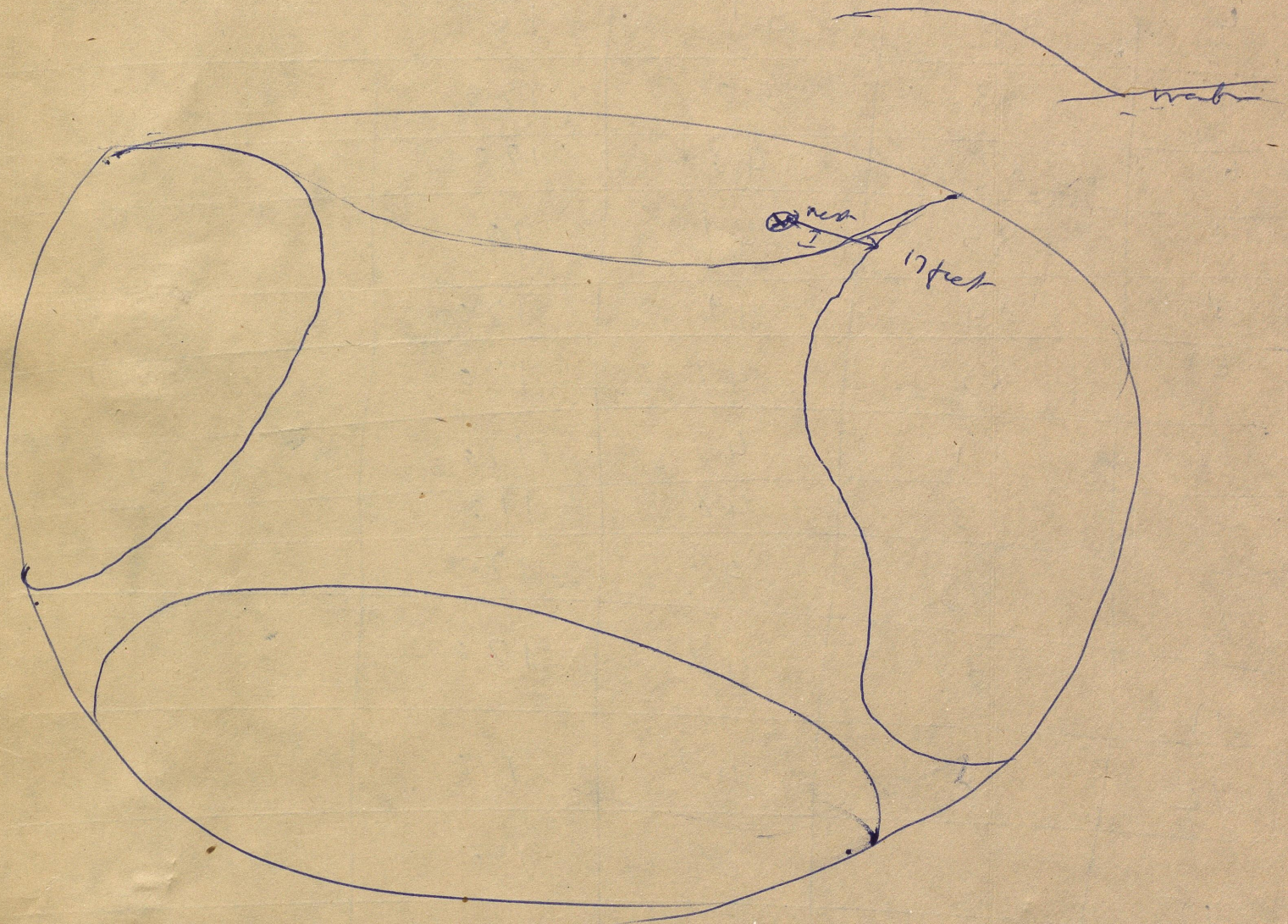
11.30 PM



1984

N2P breeding pair. Nest no - 1
Nest laid on 15 March 1984

Distance from nearest water - 17 feet
height of nest from water - 3ft 1"



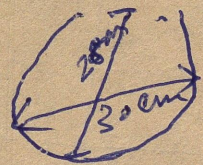
1st layer of egg - 15cm
nest mesh dimensions

25 x 23cm

Ambient Temp - 32°C

Top layer nest temp - 30°C

Bottom Temp - 31°C



Clutch size - 25 eggs

24 no. Dead not stored

Date of collection - 1st May 1984

Egg Sizes

	Length	Breadth	wt.
1	83	49	110
2	86	48	110
3	83	48	120
4	85	49	120
5	83	50	125
6	87	48	120
7	85	49	120
8	84	49	120
9	85	47	120
10	84	47	110
11	83	48	110
12	83	49	120
13	86	48	120
14	87	47	110
15	85	49	110
16	85	49	120
17	83	48	110
18	85	48	110
19	87	49	120
20	85	48	110
21	85	47	125
22	85	47	120
23	84	47	120
24	81	47	120
25	91	52	100
25	88 88	47	100 grams

Remarks

Infertile bird
~~5.80~~
 2.80

1989 *referred nest*
atm - (1985)

1985

~~1985~~

Donkey man

CROCODILE BREEDING BIOLOGY PROFORMA

SPECIES:
COMMON ENGLISH NAME:
VERNACULAR NAME:
NAME AND LOCATION OF THE HABITAT:
DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/
Other) ✓

NEST:
Nest Number (Serial number if more than one nest is located in
the habitat)

Date of nest location:
Name and address of locator:
Trial nests (if any) and details:
(depth, shape and distance from original
nest and water etc.)

Date of egg laying:
Conditions of the nest:
(Disturbance by natural or
human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest: 3.3 w

Height of nest: 50 w

Nest profile:

Surface temperature of Nest: 30°C

First layer of eggs at depth: 22 cm

Nest mouth (Dimensions): 16 x 20 w

Nest temperature:

Top Layer: 31°C Middle: Bottom:

Nest Dimensions:

Shape: Middle: Bottom:

EGGS:

Clutch size:
No. of cracked eggs (of layer):
No. of eggs damaged otherwise:
No. of rotten eggs:
Abnormal eggs (if any) and details:
Band description on eggs:
No. of eggs collected:
Date and time of collection:
Collection method:
Mode of transfer:
Hatchery type and location:
Collected and Supervised by:
(Egg size and weight: On reverse side)

Signature:

Complex nest

1985 Season

CROCODILE NESTING BIOLOGY PROFORMA

SPECIES: Crocodilus palustris
COMMON ENGLISH NAME: Mugger
VERNACULAR NAME: Masali (7 days) Muggamach (Kand.)
NAME AND LOCATION OF THE HABITAT: Mehru Zoological Park
DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/Other)
crocodile pond

NEST:

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

Date of nest location: 17 March 1985

Name and address of locator:

Trial nests (if any) and details:
(depth, shape and distance from original nest and water etc)

Date of egg laying:

Conditions of the nests:
(Disturbance by natural or human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest:

Height of nest:

Nest profile:

Surface temperature of Nest:

First layer of eggs at depth:

Nest mouth (Dimensions):

Nest temperature:

Top layer: Middle: Bottom:

Nest Dimensions:

Shape: Middle: Bottom:

EGGS:

Clutch size:

No of cracked eggs (of layer):

No of eggs damaged otherwise:

No of rotten eggs:

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection: - 27/4/85

Collection method:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Nest 1.

- | | | | | |
|---|--------|--------|---------|---------------------------------|
| ① | 71 cm | 46 cm. | 80 gms. | Band developed. |
| ② | 70 cm | 45 cm. | 80 gms. | " |
| ③ | 70 cm | 44 cm. | 70 gms. | " |
| ④ | 72 cm. | 47 cm. | 80 gms. | " |
| ⑤ | 71 cm | 43 cm. | 70 gms. | " |
| ⑥ | 72 cm | 45 cm | 80 gms. | " |
| ⑦ | 72 cm | 44 cm | 70 gms. | " |
| ⑧ | | | | band not very clear kept in box |

2/18/85

~~4~~ 8 fertile, 5 infertile, 8 development of embryo appears to have ceased.

Hatched - 8 on 3/5/85 & 6/8/85

Complex mound

1985 Season

CROCODILE NESTING BIOLOGY PROFORMA

SPCIES: *Crocodylus palustris*

COMMON ENGLISH NAME: Muggar

VERNACULAR NAME: Muzali (T) Muggermuch (H)

NAME AND LOCATION OF THE HABITAT: Nehru zoological Park

DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/Other)

→ Crocodile Mound

NEST:

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

Date of nest location: 11-3-1985

Name and address of locator:

Trial nests (if any) and details:
(depth, shape and distance from original nest and water etc)

Date of egg laying: 10-3-1985

Conditions of the nest:

(Disturbance by natural or human agencies etc.) None

Position of nest in relation to permanent water:

Distance of nest:

Height of nest:

Nest profile:

Surface temperature of Nest:

First layer of eggs at depth:

Nest mouth (Dimensions):

Nest temperature:

Top Layer: Middle: Bottom:

Nest Dimensions:

Shape: Middle: Bottom:

EGGS:

Clutch size: 21

No of cracked eggs (of layer):

No of eggs damaged otherwise:

No of rotten eggs:

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection:

Collection method:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

Note Area

dt. 27.4.85

Nest - tempt. 32°C .

nest distance from door = 14'.

nest mouth width = 10"

nest depth = $10\frac{1}{2}$ " upper layer.

Total depth 13"

Nest 2. ① 72 cm 44 cm - 70 gm Band development complete.
② 73 cm 44 cm - 80 gm - do -
③ 70 cm 43 cm - 70 gm Band development nearly complete.
④ 71 cm 44 cm - 70 gm - do -
total w of eggs - 4 only - Hatched 4 on

Complex Breeding Nest (moat)

1985

Nest hatched in situ on 4/6/85

CROCODILE BREEDING BIOLOGY PROFORMA

SPECIES:

COMMON ENGLISH NAME:

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT:

DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/
Other)

NEST:

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

Date of nest location:

Name and address of locator:

Trial nests (if any) and details:
(depth, shape and distance from original nest and water etc.)

Date of egg laying:

Conditions of the nest:
(Disturbance by natural or human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest:

Height of nest:

Nest profile:

Surface temperature of Nest:

First layer of eggs at depth:

Nest mouth (Dimensions):

Nest temperature:

Top Layer:

Middle:

Bottom:

Nest Dimensions:

Shape:

Middle:

Bottom:

EGGS:

Clutch size: 8

No. of cracked eggs (of layer):

No. of eggs damaged otherwise:

No. of rotten eggs:

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection:

Collection method:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

Hatched - 6 on 4/6/85

Central Breeding Proj WZP
(1985)

CROCODILE BREEDING BIOLOGY PROFORMA

SPECIES:

COMMON ENGLISH NAME:

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT:

DETAILS OF THE HABITAT: (~~River/Tank/Reservoir/Creek/Breeding Pool/~~
Other) -3

NEST:

Nest Number (Serial number if more than one nest is located in
the habitat) 3

Date of nest location:

Name and address of locator:

Trial nests (if any) and details:
(depth, shape and distance from original
nest and water etc.)

Date of egg laying:

Conditions of the nest:
(Disturbance by natural or
human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest:

Height of nest:

Nest profile:

Surface temperature of Nest:

First layer of eggs at depth:

Nest mouth (Dimensions):

Nest temperature:

Top Layer:

Middle:

Bottom:

Nest Dimensions:

Shape:

Middle:

Bottom:

EGGS:

Clutch size:

No. of cracked eggs (of layer):

No. of eggs damaged otherwise:

No. of rotten eggs:

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection:

Collection method:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

1985

CROCODILE NESTING BIOLOGY PROFORMA

SPECIES:

COMMON ENGLISH NAME:

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT:

DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/Other)

NEST:

Nest number (Serial number if more than one nest is located in the habitat) 3

Date of nest location:

Name and address of locator:

Trial nests(if any) and details:
(depth, shape and distance from original nest and water etc)

Date of egg laying:

Conditions of the nest:
(Disturbance by natural or human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest: 2.5 m.

Height of nest: 1.5 m.

Nest profile:

Surface temperature of Nest: 30°C.

First layer of eggs at depth: 18cm.

Nest mouth (Dimensions): 28 x 28 cm

Nest temperature:

Top Layer: 28.5°C Middle: Bottom: 29°C

Nest Dimensions:

Shape: Middle: Bottom: 32 x 33.

EGGS:

Clutch size:

No of cracked eggs (of layer): ^{nil} 2 (bottom) (depressed shell).

No of eggs damaged otherwise: [↑]

No of rotten eggs: one of the above 2.

Abnormal eggs(if any) and details: —

Band description on eggs:

No. of eggs collected:

Date and time of collection: 1/5/85

Collection methods:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

	EL	EB	EW	Max. Band width	Min Band width	
1	87	47	110	22	22	Dented; Dented. cleaned (?) *
2	87	47	-	28	28	Dented, rotten, empty.
3	82	48	110 g.	59	32	
4	85	48	120 g.	49	31	
5	80	47	110 g.	36	30	Dented. cleaned (?) *
6	80	48	120 g.	61	30	
7	91	48	120	51	32	Cracked.
8	90	46	120	50	33	
9	88	47	110	51	31	Band: 2 wide faint 2 narrow points
10	82	48	120	47	31	
11	87	48	120	59	32	
12	81	47	100	64	33	
13	88	48	120	53	33	
14	88	48	120	54	34	Cracked.
15	86	47	120	52	36	
16	86	48	120	50	32	
17	83	48	120	30	30	Dented. cleaned. *
18	80	47	100	67	37	

② not incubated

17 incubated

1985 Season.

Central Inland Pool N 28

CROCODILE NESTING BIOLOGY PROFORMA

(1985)

SPECIES: *Crocodylus palustris*.

COMMON ENGLISH NAME: Muggar

VERNACULAR NAME: Musali (M) Muggarmuch (H)

NAME AND LOCATION OF THE HABITAT: Nehru zoological park

DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/Other)

NEST:

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

Date of nest location: 11-3-1985

Name and address of locator:

Trial nests (if any) and details: (depth, shape and distance from original nest and water etc)

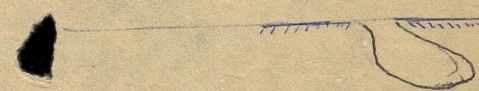
Date of egg laying: 10-3-1985

Conditions of the nest: None (Disturbance by natural or human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest: 18'

Height of nest: 3'

Nest profile: 

Surface temperature of Nest:

First layer of eggs at depth: 11"

Nest mouth (Dimensions):

Nest temperature:

Top Layer: 29°C Middle: 31°C Bottom: 30°C

Nest Dimensions:

Shape: Middle: Bottom:

EGGS:

Clutch size: 18 No.

No of cracked eggs (of layer): Nil

No of eggs damaged otherwise: Nil

No of rotten eggs: Nil

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection: 24-4-85 - 5.30 P.M.

Collection method: Box

Mode of transfer: Head Load

Hatchery type and location: Simulated Hatchery - Nehru zoological park

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

28/4/85

Time 5.30 P.M.

Details of eggs.

No.	L mm	W mm	WT gm.	Remarks	shorter area	width area
1	88	49	120		35 mm	60 mm
2	90	48	120		31	57
Not going to hatch. 3.	85	47	100		28	34 Band spread development stopped.
4.	85	47	120		31	55
5.	86	48	120		34	63
6.	82	46	100		30	52
7.	88	47	120		35	56
8.	88	48	120		32	57
9.	90	49	120		31	56
10.	87	48	120		33	64
11.	81	50	100		29	62
12.	92	47	110		34	52
13.	82	47	100		28	49
14.	87	47	110		34	53
15.	90	47	110		30	67
16.	90	47	120		39	54 band development ceased.
doubtful 17.	90	47	120		31	42 ↑
" 18.	80	49	100		no band	Rotten to be opened.

17 incubated

nest laid and
found up & destroyed by
mynor

1985
Central Breeding
(1985)

CROCODILE BREEDING BIOLOGY PROFORMA

SPECIES:

COMMON ENGLISH NAME:

VERNACULAR NAME:

NAME AND LOCATION OF THE HABITAT:

DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/
Other)

NEST:

Nest Number (Serial number if more than one nest is located in → 1
the habitat)

Date of nest location:

Name and address of locator:

Trial nests (if any) and details:
(depth, shape and distance from original
nest and water etc.)

Date of egg laying:

Conditions of the nest:
(Disturbance by natural or
human agencies etc.)

Position of nest in relation to permanent water:

Distance of nest:

Height of nest:

Nest profile:

Surface temperature of Nest:

First layer of eggs at depth:

Nest mouth (Dimensions):

Nest temperature:

Top Layer:

Middle:

Bottom:

Nest Dimensions:

Shape:

Middle:

Bottom:

EGGS:

Clutch size:

No. of cracked eggs (of layer):

No. of eggs damaged otherwise:

No. of rotten eggs:

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection:

Collection method:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

Central fountain breeding root

1985

5

ZOO CENTER POUNDING BREEDING

Egg Lamp

To be collected on Pool

11/3/85 20

centrey family Breeding Pool find
Egg nest on 11/3/85

45
25
14

24/4/85 completed 45 days

17/3/85 20

we checked centrey family Breeding
pool find Egg nest
on 17/3/85

1/5/85 completed 45 days

(1st nest) one nest found in hole / e spotted

TOTAL Eggs 17
Zoo, Century Breeding Pool.

date 25/4/85

Slms - 1

DATE	Morning	Afternoon ^{near} Evening	Evening	No of days	Remarks
26/4/85	28	28	29	4+1	
	28	27	29	2	
27/4/85	29	29	29	3	
28/4/85	28	29	30	4	
29/4/85	29	29	30	5	
30/4/85	29	29	30	6	
1/5/85	29	29	29	4+7	
2/5/85	30	29	28	8	
3/5/85	28	30	31	9	
4/5/85	30	31	28	10	
5/5/85	28	31	30	11	* check for lumps
6/5/85	28	31	30	12	
7/5/85	28	29	29	13	శుంకపూర్తి
8/5/85	28	28	28	14 (60)	శుంకపూర్తి
9/5/85	30	31	32	15	శుంకపూర్తి
10/5/85	30	30	31	16	శుంకపూర్తి
11/5/85	29	30	31	17	విరామములు
12/5/85	29	30	33	18	విరామములు
13/5/85	29	30	31	19	విరామములు
14/5/85	29	29	29	20	శుంకపూర్తి
15/5/85	29	29	29	21	విరామములు
16/5/85	28	30	31	22	శుంకపూర్తి
17/5/85	29	29	29	23	
18/5/85	28	28	30	24 (70)	శుంకపూర్తి
19/5/85	28	29	30	25	శుంకపూర్తి
20/5/85	27	29	30	26	శుంకపూర్తి
21/5/85	29	29	30	27	శుంకపూర్తి
22/5/85	29	29	29	28	
23/5/85	28	28	28	29	శుంకపూర్తి
24/5/85	30	30	30	30	
25/5/85	29	29	28	31	

Total Eggs - 17
Zoo Central Breeding Pond

Sl no 2
Date 2/5/85

Date	Morning	A-noon	Evening	No of days	Remarks
2/5/85	29	29	29	46 + 2	ಕುಂಠವಾಗಿ
3/5/85	30	32	35	5	ಕುಂಠವಾಗಿ
4/5/85	31	32	32	4	ಕುಂಠವಾಗಿ
5/5/85	30	32	33	5	ಕುಂಠವಾಗಿ
6/5/85	30	32	32	6	ಕುಂಠವಾಗಿ
7/5/85	30	31	32	7	ಕುಂಠವಾಗಿ
8/5/85	30	31	33	8	ಕುಂಠವಾಗಿ
9/5/85	30	32	34	9	ಕುಂಠವಾಗಿ
10/5/85	30	31	33	10 (56)	ಕುಂಠವಾಗಿ
11/5/85	30	31	32	11	ವಿರಾಮ
12/5/85	30	31	32	12	ವಿರಾಮ
13/5/85	31	32	33	13	ವಿರಾಮ
14/5/85	30	32	33	14 (60)	
15/5/85	30	32	33	15	ವಿರಾಮ
16/5/85	30	31	33	16	ಕುಂಠವಾಗಿ
17/5/85	31	31	31	17	
18/5/85	29	31	30	18	ಕುಂಠವಾಗಿ
19/5/85	30	31	33	19 (65)	ಕುಂಠವಾಗಿ
20/5/85	28	29	30	20	ಕುಂಠವಾಗಿ
21/5/85	31	31	32	21	ಕುಂಠವಾಗಿ
22/5/85	31	31	31	22	
23/5/85	30	30	30	23	ಕುಂಠವಾಗಿ
24/5/85	31	31	31	24	
25/5/85	30	30	30	25	
26-5/85	29	29	30	26	
26/5/85	32	32	32	27	
27/5/85	30	31	31	28	
28/5/85	29	30	30	29	
29/5/85	29	30	31	30	
30/5/85	31	31	31	31	

31/5/85	30	30	30	32	(3)
1.6.85	28	30	30	33	(9)
2.6.85	30	30	29		
3/6/85	28	28	29		
4/6/85	-	-	-		

1987 Year

CROCODILE BREEDING BIOLOGY PROFORMA

SPECIES: *Crocodilus palustris*

COMMON ENGLISH NAME: Muggler

VERNACULAR NAME: Mursali

NAME AND LOCATION OF THE HABITAT:

DETAILS OF THE HABITAT: (River/Tank/Reservoir/Creek/Breeding Pool/Other) Artificial ✓

NEST:

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

Date of nest location: 15th March, 1987

Name and address of locator: Complex worker

Trial nests (if any) and details: (depth, shape and distance from original nest and water etc.) Two

51 cm from the main nest
25 cm ..

Date of egg laying: 15th March 1987

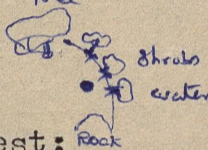
Conditions of the nest: (Disturbance by natural or human agencies etc.) No disturbance

Position of nest in relation to permanent water:

Distance of nest: 1.77 mt

Height of nest: 1 mt

Nest profile:



Surface temperature of Nest: 28°C

air temp - 28°C 8.30 Am

First layer of eggs at depth: 10 cm

Nest mouth (Dimensions):

Nest temperature:

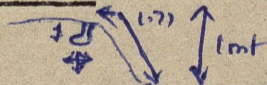
Top Layer:

Middle: 28°C

Bottom: 28°C

Nest Dimensions:

Shape:



Middle:

Bottom:

EGGS:

23 x 17 x 27 cm

Clutch size: 22

No. of cracked eggs (of layer):

No. of eggs damaged otherwise: 6

No. of rotten eggs:

Abnormal eggs (if any) and details:

Band description on eggs:

No. of eggs collected:

Date and time of collection: 19th April 1987

Collection method:

Mode of transfer:

Hatchery type and location:

Collected and Supervised by:

(Egg size and weight: On reverse side)

Signature:

Egg measurements.

	Length mm	x	Width mm	x	Lt. gm	Remarks.
20.	90	x	48	x	120	Bands Present
19.	90	x	48	x	125	"
18.	87	x	49	x	120	Bands present. Width 41 mm
17.	86	x	50	x	120	Band width 41 mm, 3 dents
16.	85	x	49	x	115	41 mm band width
15.	83	x	50	x	120	Band with 42 mm, 2 dents
14.	87	x	50	x	120	Band width 42 mm
13.	85	x	47	x	110	Band with 37 mm
12.	85	x	49	x	110	Band with 41 (2 dents)
11.	82	x	50	x	120	Band with 38 mm (2 dents)
10.	88	x	50	x	120	Band width 41 mm (heavily dented 3 dents)
9.	82	x	49	x	100	Band width 36 mm
8.	81	x	49	x	110	" 40 mm
7.						Completely broken out
6.						rotten
5.						Decided, broken heavily dented.
4.						" " "
3.						" " "
2.						Band obliterated "
1.						Already spoiled rotten.

Incubated

Eggs dimensions

Sl. no	Length	Breadth	wt	Remarks
1	69	43	70	glazed ✓
2	67	41	60	glazed ✓
3	67	44	60	B.C ✓
4	63	39	40	B.N.C. Fungus ✓
5	66	42	60	B.C ✓
6	66	42	50	Glazed ✓
7	69	42	70	GLAZED ✓
8	66	41	60	B.C ✓
9	65	40	50	B.C ✓
10	66	40	60	B.C ✓
11	66	40	60	B.N.C ✓
12	68	43	90	B.C ✓
			73 @ gm	

B.C - Band clear to the end

B.N.C - Band not clear

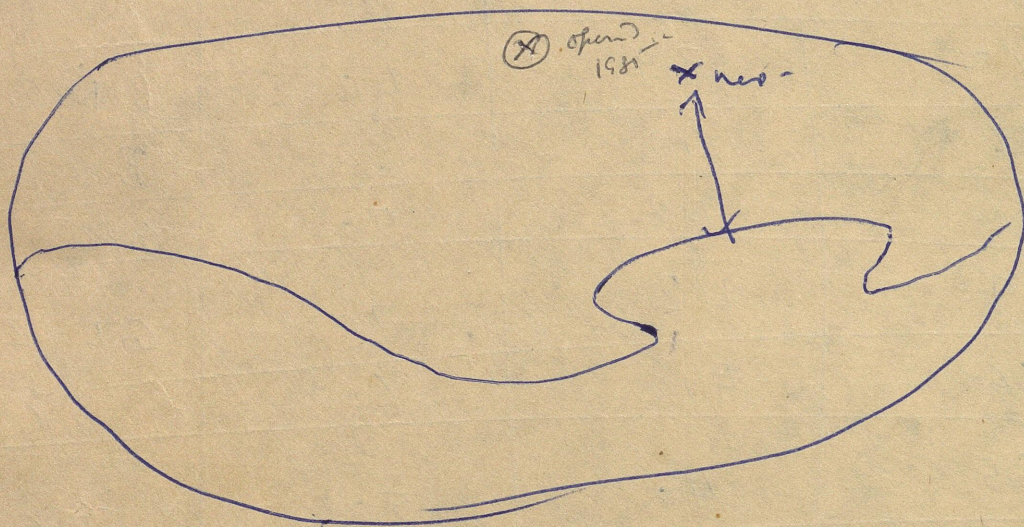
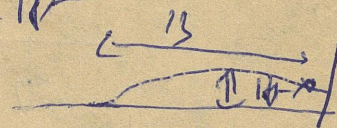
B.N.F - Band not clear & fungus

Glazed - Infertile with glazed appearance.

Female laying 1st - normal nest - 1984

N2P Breeding pair (1977 7th myom) Nest no-1
Nest-laid on 16 March 1984

Distance of nest from water - 13ft
height of nest from water - 1ft



9.15 AM

1. Nest-mark dimensions - 20 x 22

2. 1st layer of eggs at depth - 23

Ambient Temp - 23°C

Top layer Temp - 31°C

Bottom Temp (nest) - 31°C

Clutch size - 12

Band details (band visible but clear remains)

Date of collection - 18 May 1984

Mode of incubator - Kerosuffler - simulated nest

Bottom dimensions - 28 x 26 cm

Time of collection - 9.30 AM