

Symposium

Captive breeding of Mugger
Crocodile in India ~~20~~ - Achievements
and future

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CAPTIVE BREEDING OF MUGGER CROCODILES CROCODYLUS PALUSINUS LESSON
(REPTILIA, CROCODILIA) IN INDIA

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ABSTRACT

Breeding record of Mugger Crocodiles (Crocodylus palustris) in

in five Indian Zoos are reported. Construction of good breeding pools and
interest by the existing Zoos, ^{actually authorities. captive bred?} in India would help this endangered reptile to
~~increase in number.~~ Major difficulties, as pointed out by most of the
Zoo authorities, ^{are} ~~such as~~ lack of funds etc., ^{however these} can be overcome since
~~suggest~~ do not require an elaborate pool complex like Gharial or Salt Water
Crocodile. This ^{is only denoted by demonstrated} can be proved looking at the success of the five Zoos
in breeding of mugger ^{on side pools} virtually with no elaborate change in the pool complex.

Captive breeding of Mugger Crocodile
in India - Achievements and future

Introduction.

Results of Indian zoo institutions breeding Mugger.

Discussion -

a tool for conservation.
the need of zoos holding muggers ^{initiating} to breed ^{programmes} them.

References.

In light of A.O.'s ^{miss} failure in hatching a single
wild egg for the state, it is important to use the
captive birds and ^{utilize} the resultant hatchlings for
research purposes.

Captive Breeding of Muggers in India

In Zoological Parks

Jaipur	1967
Baroda	1967
Delhi	1973
Nehru Zoological Park (Hyd)	1980
Vizag	1978
Ahmedabad	1967
Nandan Kanan	1983
Bandola (Goa)	1984
Banmangal	1984
Kanpur	1985
HST	1975

In Crocodile Breeding Stations

MERT (TN)

Amaravathi (TN)

Sathamudra (TN)

Similipal (Orissa)

Tikurpala (Orissa)

Andhra Pradesh
Luchkund (AP)

Hyderabad (AP)

Discussion

① Captive breeding is an essential tool for conservation and has a positive role in successfully bringing back an endangered species back on to ~~the~~ its natural ecosystem. In this field mentions should be made of the success of the captive breeding of Pear David's deer, Hooping crane, Bronze horse ~~from Australia~~ European Bantard etc. These animals, ~~once~~ almost on the recent past threatened to extinction are now back into their natural habitats & are slowly recovering in numbers. The examples in this respect are not many but certainly encouraging.

In the case of the endangered Crocodilians the importance has ~~not~~ rightly been given for protecting the existing wild stocks and habitats. Combined with the wild egg collection, artificial incubation, hatching ~~and~~ the grow & release rear & restock programmes, several species of Crocodilians have been brought back from the face of extinction. While efforts are being intensified in this direction the ^{important} ~~role~~ ^{role of the} scattered isolated individual Crocodiles ~~kept~~ in unsuitable exhibition pools in the zoos in ~~the~~ in various zoos is ignored. These isolated Crocodiles if allowed to mate in an ideal environment will increase the number of their reduced population manifold. Being in the zoos ^{these Crocodiles can} ~~where~~ ^{and} ~~the~~ ^{make} the general public ~~visiting the zoos can be made~~ ^{aware} aware of Conservation.

⊗ In the one hand these isolated Crocodiles kept in unsuitable enclosures has a very poor exhibit play an insignificant role as an exhibit & contribute ~~to nothing~~ ^{nothing} very nothing in the continuation of the race. Because these Crocodiles are not allowed to mate in an ideal environment & to breed. o

If ~~an~~ attempts are being made to save or to increase the population of endangered Crocodilian species it is important to see that these isolated Crocodiles are brought together to form compatible breeding groups to breed.

Most of the zoos do not make an attempt to breed Crocodilians ~~ferrothly~~ ^{ferrothly} because of the believe that the cost factor would be high and secondly due to lack of knowledge about their biology.

~~Subs~~ In India of the three crocodilian species almost all of them could be seen in most of the Indian zoos. Some of these zoos hold large number of them but being kept in unsuitable enclosures these crocodiles never breed. There are however exceptions and some zoos have ~~made~~ ^{already} bred the Indian Muggar crocodile.

The ⁱⁿ ~~is~~ gharial because of its habit of living in flowing deep water pools in the large rivers is difficult to breed in captivity. The salt water or estuarine crocodile breeds ~~a~~ very well given for minimum requirements as is the case in the private crocodile farms in Thailand.

The Muggar perhaps needs the minimum requirements to breed in captivity. This could be seen from the breeding records of Ahmadabad Jaipur, Baroda Zoo for the last decade or so (TABLE I)

With the initiation of the Crocodile Conservation projects in India fortunately the crocodiles are getting more attention in captive breeding. From Table I. it is indicative that in 1975 apart from Ahmadabad & Jaipur Zoo, Baroda & Madras Crocodile Bank have also bred the Muggers successfully. In 1976 Delhi Zoo also bred Muggers. By 1978 the Vizag Zoo of Andhra Pradesh has also started breeding Muggers. The number of zoos and organizations breeding muggers in the country have increased from 2 in 1973 to 6 in 1978 and the Nandankanan Zoological Park in ~~ORISSA~~ ~~ORISSA~~ and the Nehru Zoological Park in the Andhra Pradesh are initiating ~~the~~ similar projects very soon.

Of the 42 zoos in India (Source: Zoo Advisory Committee report - India) most of them hold muggers and other species of crocodilian species but have made no attempt yet to breed them. Only

Ahmadabad Zoo has hatched 2055 Muggers from a single pair of crocodiles in ~~—~~ years. A resource ^{such as crocodiles} commercially so valuable is being wasted if several such pairs capable of breeding successfully are either kept isolated remainably or are not being provided the minimum breeding requirements.

References

① International 20 year book - vol (9).

② BNHS Journal -

③ Per Communication - R. S. R.

④ Idhu 20 M. B. Patra (Per & Comm) 31.12.1977

⑤ 25 27 - P. S. Reddy (Per & Comm) 3.9.1978

~~5~~ ^{Home page} IUCN ~~in preparation~~ from MS - 41
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~~5~~ ~~Home page~~

5. David Reuben.

6. Bahad Mahendra.

7. 20 advisory Committee Report.

	1 Ahmedabad Zoo	2 Jaipur Zoo	3 Baroda Zoo	4 Madras Snake Park & Crocodile Bank	5 Delhi Zoo	6 Indira Gandhi Zoological Park Vizag	Source of Information	NZP Hyd
1510	?	?					1 st Jarvis (1961)	
61	*	*					-	
62	?	?					Jarvis (1982)	
63	*	?	⊙	—	—	⊙	2 Jarvis (1965)	
64	*	*	X				3 Jarvis (1964)	
65		?					2 Jarvis	
66	✓	*						
67	X	X						
68	-	X					2. Lucas & Yadav (1969) Prakash (1971)	
69	X	X					2. Yadav (1969)	
70	X	X					1 David (1971) 2, Prakash (1971)	
71	-	X					- do -	
72	X	X					2 Prakash (1971)	
73	X	X					1 David (pers comm) 2. Hindustan State Zoo Zoo 1975	
74	X	* -		-			- do -	
75	X	X	X	X			X - Successfully bred	
76	X	X	X	X	X		- Egg laid, did not hatch.	
77	X	*	*?	X	X	-	? Report doubtful	
78	X	X	*?	X	*	X	* No report available	
79	X	X	*?	X	X	X		
80	X	X	*?	X		X		X