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INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE
CROCODILE SPECIALIST GROUP

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AUSTRALIA

The crocodile study group at the University of Sydney has completed a series of surveys in the Northern Territory. This work has resulted in 17 monographs covering the navigable portions of the tidal rivers and creeks of the Northern Territory. The monographs are available from Pergamon Press (Australia) Pvt. Ltd., 19 A Boundary street, Rushcutters Bay, NSW 2011, Australia, or from overseas offices of Pergamon Press.

'Applied Ecology', a research company which undertakes studies of enterprises which Aborigines or Torres Strait islanders believe could become commercially viable, has taken over the management of the Edward River crocodile farm on Cape York Peninsula. The farm will produce crocodile skins and will be handed over to the aboriginal community when running smoothly. At present there are 530 crocodiles on the farm.

COLOMBIA

Fred Medem has corrected an error in newsletter no.16 regarding the hatching of P.trigonatus and the statement that this was the first time Paleosuchus had been bred in captivity. The editor cringes in shame and hopes he will be fired. The first hatching of Paleosuchus took place in 1978 at the Station 'Roberto Franco' from eggs laid on Sept.27, '77. Fred adds that the same hybrid female laid 18 eggs on Aug.29 '79 three of which hatched on December 2-3. The rest failed to hatch.

INDIA

Gavialis gangeticus has been bred in captivity at the Nandan Kanan Biological Park in Orissa. A male on loan from the Frankfurt zoo was released into the breeding enclosure with two adult females and another male. The Frankfurt male killed the resident male. On 10 March one of the females laid 25 eggs. Fifteen hatched on May 7th.

The Gharial Rehabilitation Centre at Kukrail in Uttar Pradesh has released 60 more gharial in the Chambal in Nov-Dec '79 and will be resuming releases in February until April '80. They hope to release at least 200-250 gharial.

At the Gharial Research and Conservation Unit in Tikerpada on the Mahanadi River, Orissa, the following releases have been made during '75-'80.

<u>Year of hatching</u>	<u>Nos.reared</u>	<u>Nos. released</u>	<u>dates of releases</u>
1975	40	34	April-June '77, Feb. '78
1976	40	38	Feb. '78
1977	73	35	Dec. '79, Jan. '80
1979	15	--	--
1980	150	eggs under incubation.	

The following information from Owen Griffith's visit in December '79 (as related to G, Webb); and a document on crocodiles by Joflina Ratsirarson.

1. Government tried to protect (C.niloticus) but legislation was not passed because of the high level of subsistence farmers who consider crocodiles a threat to fishing, livestock and themselves.
2. Crocodiles are inscribed in class B of the list of protected species by the African Convention for the Conservation of Nature and Natural Resources. This was approved in the 1968 session of the OAU (Organisation of African Unity). Theoretically they cannot be hunted, captured or collected without approval from OAU.
3. CITES was signed and ratified on 18 November, 1975.
4. Crocodiles can be and are hunted, and their hides are freely sold within Madagascar. They are tanned and turned into products within the country. No export of hides takes place, and there are strict exit customs checks.
5. Export figures of dry hides between 1949 and 1975 are given in Ratsirarson's report. They show a decline from 437,000 kg in 1949 to 2,574 kg in 1975. These figures do not include the hides used locally.
6. General status has deteriorated in as much as the crocodiles in the many lakes, which are accessible, have been largely hunted out. It is believed that if any reasonably good wild populations exist they are in the wilder rocky and unnavigable rivers.
7. In areas of North Madagascar people believe the spirits of old people are embodied in the bodies of large crocodiles. There is a ritual feeding of these large crocodiles which are purported to be very old and big.
8. One crocodile farm in Madagascar has been operating for some 15 to 20 years, and is run by a Madagscan born Frenchman. The farm is situated some 45 miles from the capital, Tananarive, in the highlands. The farm has about 8 females and 2-3 males in 3 large pens (10-15m by 10-15m) and when females are gravid they are separated from the others for laying. Eggs are then collected and deposited in another pen with sand banks. They are left here to hatch, and a "high" but unspecified hatching success is achieved.

Crocodiles are then raised in 10x10 m pens with about half concrete and half water until 3 1/2 years of age, when they are killed. About half the skins are tanned in Madagascar and turned into products, and half go to taxidermy; none are exported.

During the winter the crocodiles hibernate in tunnels in the earth side of each pen (4 months). Dog meat is almost the exclusive form of food for non-hatchlings. For the first few months hatchlings are isolated and fed insects and frogs. Dogs are evidently readily available and can be purchased cheaply.

Water is supplied via a permanent creek and sluice gates. There is an area of flat concrete over which the water runs in order to warm it up. This flat

area has guide banks to hold in the water for a longer period of time; the arrangement is purported to raise water temperature by 10°C.

Feeding 3 times per week caused sickness and diarrhoea so it was reduced to twice a week.

9. The government official who wrote the report believes the farm is located in the wrong place, and should be on the coast where temperatures are higher, tourists would visit it and food in the form of fish would be more readily available.

MALAYSIA

Some notes from Arthur Mitchell's report on a fairly large crocodile farm near Sandakan, Sabah. The owner, Mr. Chai is now trying to breed C. porosus and would welcome any assistance in the way of advice, papers, and other literature.

His address is Chai Yau Look, P.O. Box 633, Sandakan, Sabah, Malaysia.

1. Chai Yau Look has been rearing Crocodylus porosus for export for about 10 years in Sandakan. Currently the farm has over 800 animals. In 1978 an unknown epidemic killed over 200, mostly juveniles.
2. Since 1978 an enclosure of about 1000 sq. ft with a natural pond, has held one adult male and 4 females. The pool is 15' at its deepest, and 30-40' in diameter. So far no eggs have been laid. In the wild, gravid females have been found during June/july, and hatchlings have been seen in October/November.
3. Apparently the best habitat for catching crocodiles is brackish swamp land. They come from the river systems of the Kinabatangan, Labuk, Sugut, Segama and Paitan Rivers, the latter two being the best areas. In the last two years Mr Chai has tried to control the sizes of crocodiles killed but bigger crocodiles are still hunted.
4. All of Mr Chai's skins have been bought by Mr Tan, a dealer for buyers in Singapore and Japan, since 1978. Mr Tan buys skins from Indonesia, West Malaysia and Sabah.
5. Crocodile meat is considered a delicacy but does not seem to have medicinal properties ascribed to it. It is stored then sold to a buyer in Hong Kong.
6. Mr Chai said he had not seen Tomistoma for several years.

PAPUA NEW GUINEA

Regarding the large C. porosus from Western Province that we wrote about in Newsletter No.17, a correction: total length was 6.2 m and not 6.1 m as reported.

PHILIPPINES

C A Ross (Smithsonian Institution) is just leaving or has left on a visit to C. mindorensis in the Philippines. Very little is known about this crocodile and Ross' study, funded by the Office of Endangered Species, proposes to locate extant populations, collect information on its

biology, investigate captive propagation and create publicity for the species' plight. Some specific results of the study will be: status and distribution of C. mindorensis in the Philippine Islands, bibliography on the species, key and fact sheets on the crocodiles of the Philippines, recommendations for the conservation of crocodiles in the Philippines.

VENEZUELA

Mark A. Staton has been working on the life history of C. crocodilus under the sponsorship of Mr Thomas Blohm of Caracas, Venezuela and in conjunction with Dr James R Dixon since 1973, in the Venezuelan Llanos. Eighteen months of field work from 1973-1974 and 1976-1977 resulted in a detailed study of reproduction, a radiotelemetric study of movements and activity patterns, and observations on demography, thermoregulation, social behaviour, morphometrics, feeding habits, predation, carrying capacity, and captive rearing.

SKIN TRADE

A reliable contact was at a Paris tannery recently and saw a single shipment of 30,000 C. niloticus skins from Sudan on arrival. There were skins of all sizes including many large adults. The tanners are unanimous in their desire to get skins of 10"-16" belly width and only buy the big ones to keep the interest of the supplier. A big influx of C. cataphractus skins from North-West Africa was noticed and about 20-30,000 skins of C. niloticus from Madagascar annually was claimed by the tanners. Japanese tanneries are at present getting large numbers of Caiman sp skins via Singapore.

PUBLICATIONS

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Jerome's article and photographs gives a good idea of the work of an extension officer on the PNG crocodile project.

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Late News:

Writing about the Northern Territory surveys, Harry Messel says, 'I believe we have been successful in getting a pretty good picture of the dynamics of C.porosus populations and able to account for our data in a plausible and consistent fashion. Of course we now also have good information on the status of C.porosus in northern Australia. It is not an entirely happy situation, as poaching and netting are serious and increasing problems.

The Melbourne Herpetological Symposium, held in May 1980, included several papers on crocodiles including 'Nesting biology of Crocodylus johnstoni in the Northern Territory' by G J W Webb and 'Captive reproduction in Crocodylus porosus and C.johnstoni by R W Dunn.

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