

International Union for the Conservation  
of Nature and Natural Resources

Survival Service Commission  
Crocodile Specialist Group

F. Wayne King, Chairman

Editors: Peter Brazaitis  
Myrna E. Watanabe

### EDITORS' COMMENTS

This will be the first issue of the C.S.G. newsletter under the co-editorship of Myrna Watanabe and Peter Brazaitis. All communications and correspondence should be addressed to:

P. Brazaitis<sup>1</sup>/M. Watanabe<sup>2</sup>  
Editors, CSG Newsletter  
c/o Department of Herpetology  
New York Zoological Park  
Bronx, New York 10460, USA

Phone No.: 212-220-5042<sup>1</sup>/212-624-4853<sup>2</sup>  
Telex No.: 428279

As you all know, the costs of preparing and mailing a newsletter of any kind are extremely high and time consuming. This first issue will be sent to everyone on the most recent list of members, consultants, and correspondents available. We would like to hear from you if you wish to be maintained on the mailing list. We plan to compile four issues annually, based on information you supply to us for dissemination to the entire group. Requests for anonymity will be honored. We hope you will think of the CSG newsletter as a cost efficient means of keeping you and your colleagues informed of activities, interests, plans, and new developments important to all of us.

Many of you have expressed the concern that you do not know what projects other members of the CSG are carrying out, which may lead to the duplication of efforts. Our first call, therefore, is for all of you to communicate the following information to us:

- 1) recently completed projects and status of those currently under way;
- 2) projects, studies, consultancies, etc. to be undertaken in the near future;
- 3) sources of support or funding;
- 4) recent publications and papers in press; and
- 5) recent trips made by you or by colleagues with whom you are in communication that may be of interest to the group.

Last, we hope the members of the group will keep us informed of important personal events such as recent illnesses and deaths. Information about recent births will, of course, be accompanied by all the associated data, such as sex, weight, snout-vent and total lengths, and any individual marks that might be necessary for future identification by the CSG. We suggest that tattooing, toe clipping, tagging, or affixing a radiotelemetry device be avoided, except in cases of very large family populations.

We also want to know what information you would wish to see included in the newsletter. In most cases, the newsletter can disseminate information about rapidly changing conditions, population status, market shifts, etc. more rapidly than most publications. As long as you provide us with the information, we will do our best to publish it quickly. In the event of an urgent news item or announcement, we will mail out a special report.

The following is an example of our ability to speedily transmit information to you. Ted Joanen recently received a note from a Natchitoches, Louisiana courthouse reporting the results of a coroner's inquest involving the body of one Joques du Bois. The presence of head lacerations and the fact that the body was found nude led the coroner to believe that the cause of death was an attack by an alligator while the victim bathed. The account was written on August 10, 1734. Ted commented that it shows Louisiana alligators have been "eating on folks for some time now." It took 248 years for this report to reach Ted, and less than 90 days for it to reach all of you.

On behalf of all of us who were able to attend the Sixth Working Meeting of the IUCN/CSG held in Victoria Falls, Zimbabwe and St. Lucia Estuary, South Africa, we would like to extend our thanks and sincere appreciation to our hosts, the Department of National Parks and Wildlife Management of Zimbabwe and the Natal Parks Board, for their gracious hospitality. We were shown every consideration which made the meetings and the symposium on crocodylian utilization and conservation fruitful, informative, and most professional. Dr. J. P. Loveridge, Dr. D. H. M. Cumming, Dave Blake, and Tony and Elsa Pooley extended themselves above and beyond the call of duty to make our stay pleasant and comfortable.

---

## AREA REPORTS

### NORTH AMERICA

#### U.S.A.:

The 1982 holiday season did little to increase the sales of crocodylian products. Very few shops displayed any appreciable numbers of crocodylian products, while items which were on hand were discounted by as much as 50 percent. Belts, wallets, and watchbands made from the hides of Caiman species were most numerous. Some products made from black caiman, Melanosuchus niger, continue to appear in the more fashionable department stores. Recently, a crocodile skin attaché case of French-tanned leather was advertised in a Washington, D.C. magazine

U.S.A. - cont'd.

for \$4,250 -- order by mail! The mainstay of reptile products' sales at the present time is items made from "whipsnake" and "cobra," Ptyas, Elaphe, and semi-aquatic colubrids. Large quantities of these skins are beginning to appear from China.

U.S. ports continue to be closed to shipments of caiman skins from Paraguay and Bolivia. Recent seizures of thousands of caiman skins by the U.S. Fish and Wildlife Service have been made at the Port of Miami. The current price for tanned caiman flanks for a piece 7.5 to 12.7 cm wide and 70 cm long is about \$30.00 to the fabricator. (See "South America" for additional information.)

Efforts by the State of Texas to deregulate its populations of American alligators have met with considerable resistance. Lack of a comprehensive management program and tagging system are the major criticisms.

Gatorland Zoo, Orlando, Florida announced the hatching of 11 Alligator mississippiensis, believed to be the first young resulting from artificial insemination. The alligator project is a joint venture of the University of Florida's College of Veterinary Medicine and Gatorland Zoo. Eighteen females were artificially inseminated for the study. Hormones were injected into 12 animals to stimulate ovulation. The successful insemination occurred in one of six control females not receiving hormone treatment. Sperm was collected from a male nuisance alligator that had previously been killed.

Ken Earnest, Curator, California Alligator Farm, P.O. Box 236, Buena Park, California 90620 reported that the alligator farm will continue to operate as a non-profit corporation. The farm has bred five species of crocodylians to date: Crocodylus niloticus, C. rhombifer, Caiman yacaré, C. sclerops fuscus, and Alligator mississippiensis. Representatives of about 14 other species are in the collection.

The Department of Herpetology of the National Zoological Park has recently completed construction of new crocodylian breeding facilities, and has modernized existing indoor enclosures. Under the management of Lead Keeper Michael Davenport, the department is developing breeding groups of Crocodylus rhombifer, Tomistoma schlegelii, and Paleosuchus palpebrosus. They recently acquired four Gavialis gangeticus from Nepal.

The formation of the International Center for the Protection and Preservation of Endangered Species has been announced by the David Luginbuhl Research Institute, Newport, Rhode Island. The Center's interest is the preservation of endangered species worldwide. The CSG Newsletter will monitor the progress of the Center and give details in a forthcoming issue.

MEXICO:

Marco A. Lazcano is continuing his study of Crocodylus moreletii in the coastal lagoon, State of Vera Cruz, off the Atlantic coast of Mexico.

The only animals found were approximately 30 hatchlings. No nests have been located. Marco wrote, "Hatchlings remain in crab holes during

Mexico - cont'd.

the day and enter the water at dusk ... parasites are common among young individuals. Up to 32 nematodes (2 cm each) were expelled by a single crocodile (37.5 cm total length).

"Fishing activities have caused the drowning of at least two sub-adult crocodiles." He further states that alteration of the mouth of the lagoon may affect selection of nest sites and nesting success.

## SOUTH AMERICA

### Brazil:

Antenor Leitao de Carvalho sent several newspaper articles that focussed on the extermination of Caiman yacaré from the Pantanal. The result is extensive ecological change. Piranha populations have drastically expanded and pose an increasing threat to wildlife and cattle.

### Colombia:

A special report on Colombian wildlife trade was recently published by Traffic (U.S.A.). It focusses on the illegal traffic in crocodilian hides through Colombia, and the difficulties of enforcement of wildlife regulations within that country.

### Uruguay:

Federico Achaval recently attended a course on crocodile research and farming in Florida, Louisiana, and Georgia.

He cited habitat destruction as the most serious problem for Caiman latirostris in Uruguay. No hunting or commercial exploitation exist. Populations in Bolivia are very small and the species is more frequently encountered in Paraguay. He suggested that hides are smuggled out of Argentina and Brazil to Bolivia for export.

### Venezuela:

In the spring of 1982, Richard Franz, Research Associate, Florida State Museum, assisted by Stewart Reid, Catherine Puckette, and the Universidad Nacional Experimental de los Llanos Occidentales, Guanare, surveyed 250 km of the Rio Caura, a river that originates near the border with Brazil and flows into the Rio Orinoco. As reported in the Florida State Museum Notes, Sept./Oct. 1982, they sighted as many as 79 Crocodylus intermedius, estimated to be between 2 and 5 m long. Three nesting beaches were identified, one containing freshly hatched eggs. The species is known to be nearing extinction throughout its range, so the discovery of this population is significant. The region is threatened by the proposed construction of a hydroelectric plant and dam which would flood the nesting sites and open the area to human traffic. Franz plans to continue the study and help develop a management plan for the species in Venezuela.

## MIDDLE EAST

### Israel:

\_\_ Tel Aviv - According to the New York Times of 21 December, 1982, the first American alligator to successfully hatch as a result of farming efforts at the Hamat Gader Reserve, was immediately stolen. It later was found safe at the Acre railroad station. [The alligator, called Rishon Lezion, could have been on its way home to the U.S. to complain to Don Ashley about having to give up its U.S. citizenship; fearing conscription into the Israeli army and an untimely trip to Lebanon.- Eds.]

## EUROPE

René Honegger reported that a private collector near Berne, Switzerland recently hatched Paleosuchus. Cologne Zoo hatched its second clutch of Paleosuchus. Additional data will follow. René plans to tour U.S. zoos and aquaria in the fall of 1984.

## ASIA

### Bangladesh:

In May, 1982, Rom Whitaker and Reza Khan confirmed the presence of several breeding pairs of gharial in the Padma and Jamuna Rivers in Bangladesh, according to the September, 1982 issue of Hamadryad. Two nest sites were located. One contained 41 eggs, laid between 7-10 April. The wild Bangladesh population is estimated at about 10 animals. The gharials were previously thought to be extinct in that country.

### China:

Huang Chu-chien, who has been travelling extensively in the field, sent the following report on Alligator sinensis:

"1) In the last several years there have been five females producing eggs at the Shanghai Zoo. Some females produced eggs annually; others produced eggs biannually. The number of eggs per nest ranged from 8 to 41, excluding eggs scattered outside the nest proper. Oviposition began at dawn. Individual eggs were laid at 45-50 second intervals, with oviposition completed in 30-40 minutes. Freshly laid eggs weighed 33-48.7 g and measured 56-61 mm by 34-38 mm. The incubation period for artificiall incubated eggs was 67 to 83 days, compared with less than 65 days for eggs naturally incubated. The difference between natural incubation time and artificial incubation time was not excessive and the Zoo considers artificial incubation to have produced good results. The artificial incubation hatch rate was greater than 80 percent while the natural incubation hatch rate did not exceed 20 percent. The majority of naturally incubated embryos died within the first 15 days of incubation. The Zoo is presently studying the best time to move freshly laid eggs.

' China - cont'd.

"Three different methods of feeding hatchlings have been used. As a result of this, the times of commencement of feeding and the growth rates have differed. Young that were fed on the fourth day after hatching grew rapidly, reaching 60 g in one month, 270 g in one year, and 800 g in two years. Those young that grew slowly weighed 24 g by the end of one month, 65 g by the end of one year, and 230 g by the end of two years. Adult alligators are fed a diet of animal remains (including viscera of pigs and sheep) obtained from slaughter houses.

"2) Zhejiang Province has begun a general alligator survey at the Yinjia Brigade in Changxing County. They already have nine animals on hand (four males, five females). The Lingfengsi Tree Farm in Anji County also has nine alligators, comprising three adults and six young.

"3) Yixing County in Jiangsu Province has begun a natural resources survey. An alligator rearing facility, which may be visited by tourists, is to be established near the world famous Grotto of the Three Supplicants (Sange Gong Luyou Grotto).

"4) The Beijing Zoological Park will set up a quasi-natural alligator rearing habitat near the Zoo. I will be working with them to study alligator breeding.

"5) The Chinese Ministry of Posts and Telecommunications, Postal Issuing Bureau, Office of Design has commissioned Ms. Yu to paint a design for a Chinese alligator commemorative stamp. I am supplying them with research material and supporting their work. It is projected that the stamp will be issued in April, 1983."\*

Mr. Huang is interested in maintaining contact with any members or correspondents of the CSG who can provide him with information that may assist any of China's alligator breeding farms. His address is Institute of Zoology, Academia Sinica, Beijing, People's Republic of China.

Mr. Chen Bihui of Anhui Teacher's University, reported a 1982 hatching success rate of more than 86 percent at the Xiadu Tree Farm Alligator Farm in Xuancheng County, Anhui Province. He noted that animals from one clutch were malformed and speculated that this was due to inbreeding.

Prof. Shih Ying-hsien of Institute of Developmental Biology, Academia Sinica, Beijing is studying development of the Chinese alligator in cooperation with the Beijing Zoological Park and Mr. Huang Chu-chien.

"Habitat determination of the Chinese alligator using Landsat imagery," coauthored by Myrna E. Watanabe, Alta Walker of the U.S. Geological Society, and Huang Chu-chien appeared in the November, 1982 issue of Ziran Zazhi (Nature Journal) published by the Shanghai Science and Technology Publishing Company. An expanded English version of the paper is presently undergoing editorial review.

\* Editor's note: Textual errors may be due to errors in translation. MEW.

## PACIFIC REGION

### Australia:

—We are in receipt of Harry Messel's latest report on his Crocodylus porosus surveys: "Notes by Professor H. Messel on Survey of Waterways in the Maningrida Monitoring Area -- October-November 1982." This is a sequel to his report, "The continuing and mysterious disappearance of a major fraction of sub-adult C. porosus from tidal waterways in northern Australia," presented at the last CSG meeting. According to Harry, the latest report confirms his C. porosus population dynamics model.

Harry was visited by Dr. Sudhakar Kar of India's Bhitarkanika Wildlife Sanctuary. Harry expects that Dr. Kar will use the Maningrida survey methods to survey and create a model for their C. porosus populations.

### Papua New Guinea:

Papua New Guinea is well known as a conservation conscious nation and it has developed model programs for the sound management and reasonable utilization of its endemic crocodilians. A system to monitor the status of wild populations and survey the effects of commercial harvesting was initiated a few years ago with the assistance of Alistair Graham and CSG member Martin Hollands. Martin presented a report on the system at the last IUCN/CSG meeting.

The CSG Chairman recently learned that the government of PNG intends to reduce the monitoring program and "release" Martin Hollands. The CSG believes that such a reduction may well be premature while the program is still in its infancy, and may compromise the government's ability to produce data on wild populations. The Chairman of the CSG, Wayne King, who is head of the IUCN delegation to CITES, has written to the Minister of the Department of Primary Industry urging him not to reduce the program or release Martin Hollands at this time.

### Palau:

An article in a Pacific magazine called, "Glimpses," profiled a farm for C. porosus owned by former Californians in Babelthuap, Palau that was to have opened this year. The article stressed the allure of the farm for the tourist, and the crocodile as a natural resource, but the hide market seems to be the farm's ultimate aim.

### Philippines:

The Silliman University Environmental Center Crocodile Research and Breeding Project is sending out an information flier on Crocodylus novaeguineae mindorensis. They claim that the wild population is between 500-1000 animals at most. They further state, "mating, vocalization, and nest guarding in these species have been successfully documented. Scientific papers on its natural history which is largely unknown, are being prepared for publication." Further information on the project may be obtained by writing: The Director, Silliman University Environmental

Philippines - cont'd.

Enter Crocodile Research and Breeding Project, Silliman University,  
Dumaguete City, Negros Oriental, Philippines.

Samoa:

According to articles in the October 22, 1981 edition of The Observer (Western Samoa), a West German proposed to build a crocodile farm on that Pacific island. Species to be farmed and the ultimate decision on the proposal are unknown. If we learn anything more about this plan it will appear in future issues.

### CSG NEWS

The Sixth Working meeting of the CSG closed in St. Lucia Estuary, Republic of South Africa, without designating a site for the 1984 meeting. Australia, Venezuela, and the People's Republic of China were suggested as possible locales. Will members please communicate their preferences to the CSG Chairman?

On the request of the CSG Chairman, there will be a contest for a new CSG logo. The only prize is the knowledge that your design will confront your colleagues on a regular basis. (What? You expected a home computer?) Please send all logo suggestions to the editors. We will then mail them to members for a vote.

The CSG Newsletter can include photographs. It won't look like National Geographic, but it will be good enough to get your point across.

### BOOKS RECEIVED

Discoveries of a Crocodile Man. By Tony Pooley. William Collins Sons and Co. Ltd. London: 1982. 213 pp.

While some of us were spending our time writing grant proposals or only hoping that conservation money once again would become abundant, Tony Pooley was writing the memoirs of his life with the crocodiles.

Packed within the pages of his book are examples from Tony's highly observant eye, discourses on crocodilian behavior and the ecology of the St. Lucia Estuary, and beautiful photographs of our favorite beasts. Tony also outlines the history of the CSG and mentions the names of many of us (a good enough reason to buy the book). The book is available from Collins and Co. (Pty) Ltd., 1 Hardy St., City and Suburban, Johannesburg, 2001, Republic of South Africa for R20.95.



PERSONALS

Zai and Rom Whitaker announced the birth of their first child, a son,—in October. Subsequently, Rom went off to look for Tomistoma.

