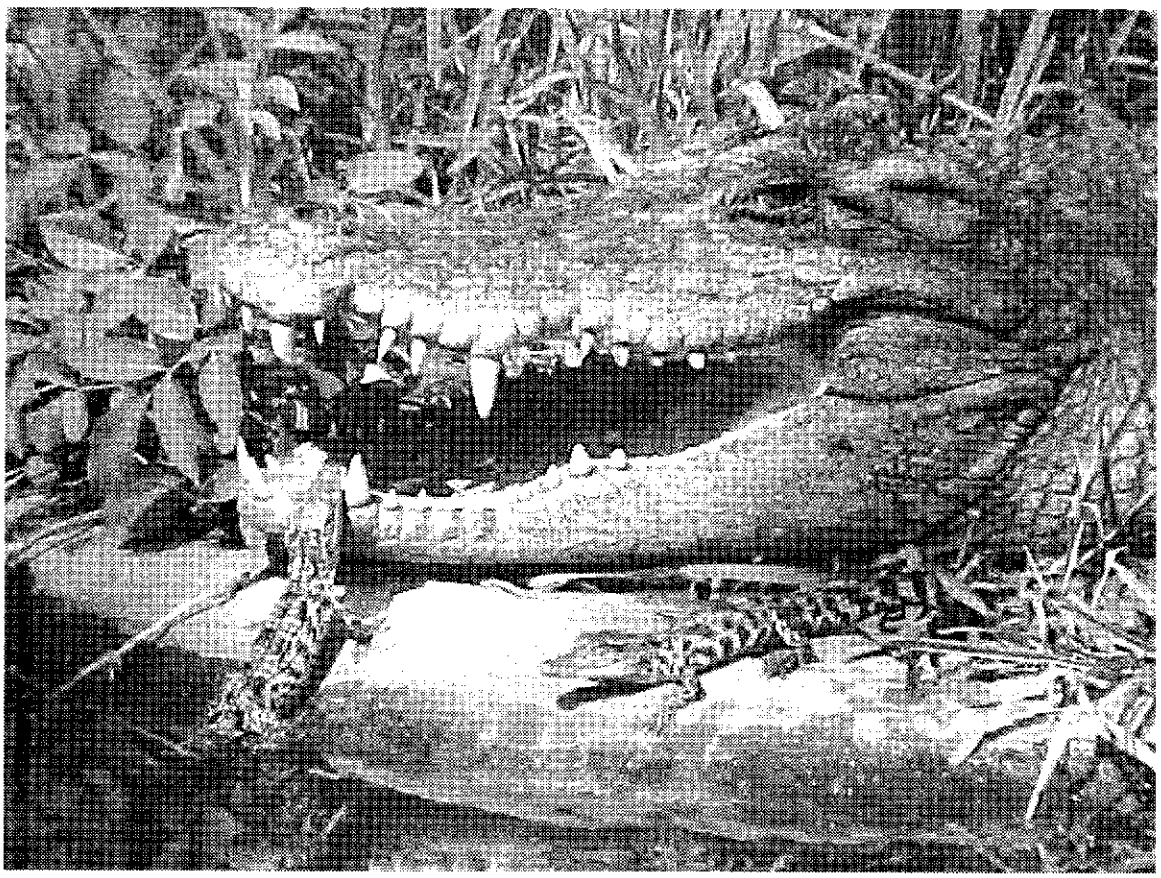
CROCODILE SPECIALIST GROUP

NEWSLETTER

VOLUME 21 No. 1 ■ JANUARY 2002 – MARCH 2002



IUCN - World Conservation Union ■ Species Survival Commission

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IUCN–The World Conservation Union
Species Survival Commission

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COVER PHOTO. Male *C. siamensis* and his hatchling offspring. St. Augustine Alligator Farm, see News 20 (3):66-67, J. Brueggen photo.

The CSG NEWSLETTER is produced and distributed by the Crocodile Specialist Group of the Species Survival Commission, IUCN – The World Conservation Union. CSG NEWSLETTER provides information on the conservation, status, news and current events concerning crocodilians, and on the activities of the CSG. The NEWSLETTER is distributed to CSG members and, upon request, to other interested individuals and organizations. All subscribers are asked to contribute news and other materials. A voluntary contribution (suggested $40.00 US per year) is requested from subscribers to defray expenses of producing the NEWSLETTER. All communications should be addressed to: Dr. J. P. Ross, Executive Officer CSG, Florida Museum of Natural History, Gainesville, FL 32611, USA. Fax 1 352 392 9367, E-mail prosscsg@flmnh.ufl.edu

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Gainesville FL USA
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Editorial

NEWSLETTER PAGINATION. Last year in Volume 20, we tried a new pagination system, numbering the pages continuously from one number to the next. In this way the last issue Vol 20 (4) was numbered pages 70-94.

Your editors are not convinced that this system has any value and it has proven an inconvenience in assembling the Newsletter. If an article is cited as page 4 in Vol 19 (3) It is immediately clear which issue to look for (the one with the caiman in the mud puddle on the front) and somewhere near the front. If an article is cited as vol 20:page 40. It is unclear which issue it is in or where within the issue.

Therefore, unless we receive an outcry from the membership and subscribers, we propose to return to the previous system of numbering each issue separately. This will make no difference to the current issue and depending on subscriber response, we will make a final decision with Vol 21(2).

FINANCIAL REPORT. The CSG finances for calendar 2001 are summarized here. We received $80,852 in donations and generated additional revenues of $4,622 from the Newsletter, $3,572 for special projects and $6,172 from sales of Proceedings and photographs. The level of donations was in part due to the continuing generosity of our long time donors, the addition of several new major donors and a carry over effect from the previous year when several donors delayed their gifts. We have also diversified the kinds of donations received, for example the donation of $6,000 from National Geographic - Crocodile Chronicles in recognition of our assistance to their production and programming and a lucrative $1,400 re-sale agreement for back issues of Proceedings with Zoo Book Sales.

At the same time we continue to control expenses, which totaled $59,706 in 2001. The Executive Officer generated nearly 30% of the cost of his position from other sources and we did not incur major expenses such as meetings or major projects last year. Special projects for which restricted funds were received and expended included surveys in Sumatra and Madagascar and a workshop for the Orinoco

crocodile. Additional projects for the global economic review of $20,000 in 2001 and CITES Captive Breeding of Reptiles, $16,000 in 2002 were carried as separate external contracts to CSG.

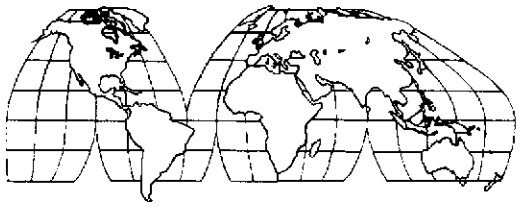
Financial report, January - December 2001

Income		
Donations	$80,852	
Fees for services	3,350	
Newsletter subs	4,622	
Sales	6,173	
Special projects	3,572	
Total Income		$ 98,568
Expense		
Account administration	$2,263	
Mail (Newsletter)	5,814	
Printing (Newsletter)	4,985	
Salaries and taxes	35,330	
Travel	3,409	
Special projects	6,410	
Supplies and Misc.	1,495	
Total expense		$ 59,706
Global economic study contract		
Received $20,000		
Spent $20,000	0	
Carried forward		$38,862

Revenues of $3,700 and expenses $41,590 were reported for the first quarter of 2002. We anticipate substantial expenses this year associated with the 16th Working Meeting and payments out for projects for which we have already received funds. We will therefore make our usual appeal to donors in mid-year to support our work.

LOST ISSUE. It is now apparent that the distribution of Volume 20 (3) in October 2001 was very irregular everywhere outside the USA. Apparently none were delivered in Australia and few if any in South Africa, Denmark, India, UK and Latin America. We assume that the cause is disruptions of US mail procedures caused in the aftermath of the September 11 terrorism and subsequent postal anthrax distribution. This is unfortunate as the issue contained an important report on the Chinese alligator advances and many other useful items. We will place this issue on the CSG website and any members requiring a hard copy should request it from this office.

Regional reports



Africa

Madagascar

EGG SURVEY IN THE BESSALAMPY REGION. Due to lack of financial resources and institutional capacity the CITES Management Authority (Department of Waters and Forests) has never been able to supply satisfactory action for monitoring the wild crocodiles in Madagascar.

In 1990, the FAO/UNDP project initiated an egg collection program by local people for the ranching development and to conserve wild crocodiles in the Northwest region of Madagascar (Besalampy area). The number of rural people involved in this program has increased in every collection period. Poaching and trapping crocodiles in Besalampy area has been almost completely substituted by the collection of eggs. Consequently crocodiles are considered as a renewable resource by rural people who are more tolerant of cohabitation with crocodiles during their annual seasonal occupation along the rivers and around the lakes for tobacco, potatoes, and rice cultivation.

In 1999, 500 problem animals were authorized to be taken from the wild in Madagascar by CITES Secretariat. Soon after it appeared that poaching and trapping crocodiles increased throughout the country. In 2001 we conducted an egg survey in Besalampy area that shows that trapping and poaching crocodiles is having a critical impact on the ranching program.

The *Crocodylus niloticus* population in Madagascar was transferred to Appendix II of CITES under Res. Conf. 7.14 at the 10th Conference of the Parties to CITES in 1998 with certain conditions. Among these conditions the management plan for the Nile crocodile in Madagascar has to strengthen the ranching program by the continuation of crocodiles egg collection in the Besalampy area.

After the 15th meeting of Animals Committee in 2000, questions were raised about the regulation of wild crocodiles in Madagascar. Reports of hunting and poaching suggested that the ranching program seemed to be compromised and the CITES Management Authority had not supplied satisfactory action for monitoring the wild crocodile population.

The CSG therefore supported CSG member Mr. Ramandimbison to conduct a survey to assess the current situation in the Besalampy area. The potential of the Besalampy area for a development of crocodile ranching was determined after aerial surveys of nine large rivers in the country (Sofia, Mahajamba, Betsiboka, Mahavavy, Sambao, Maningoza, Manambolo, Tsiribihina and Mangoky). Two ranches, located in Antananarivo (Reptel, Croco Ranch II) have been operational in Madagascar. In 1990, egg collection began in Besalampy area and continued until 1997. In 1998 poaching and hunting for skins and oil of crocodiles began in this area.

Between 1992 and 1995, Madagascar was authorized to take from the wild 100 skins for problem animal control, from 1996 to 1999 this was increased to 200 and finally since 2000, 500 problem animals have been authorized to be taken from the wild. Since 2000, approximately 3500 skins from the wild were exported, in spite of the allocation of 350 problem animals to the Native Craftsmen Association for making local articles and 150 to the farmers.

Since 1990, egg collection has been conducted in Besalampy area by Reptel Company and detail records are kept on 45 sites. Between 1999 and 2001 egg collection from this area declined. In 2000 the Department of Waters and Forests allowed a take of 5000 eggs from Besalampy area but only 2450 eggs were collected.

The objective of the project was to gather sufficient data for recommendations to the management plan for the conservation of Nile crocodile in the Besalampy region to be strengthened. It has three parts which were:

1. A survey of the nests in the sites where the collection of eggs has been carried out since 1990 and also in the sites where the nest surveys were undertaken on October 1996 and 1997. In particular along the Maningoza and Sambao rivers and in the lakes of Marovoay, Befandraria where the collection of eggs has taken place since 1990 for the REPTEL Company.

2. A survey of problem crocodiles in the Besalampy region. This was a ground survey of village areas where the local authorities have received complaints from rural people or reports about problem crocodiles.

3. A survey of other sites where rural people have reported that crocodiles are nesting.

This report will be a tool for Madagascar to review its policy with regard to CITES at the next COP 2002. The information presented in this report will allow the COP to make informed decisions regarding Madagascar's ranching and problem animal control program in the Besalampy area.

Egg collection. Since 1990, detailed records have been kept at 45 sites in the Besalampy area. According to the demand of Reptel Company the potential eggs offered by these is on average 5000 eggs. In 2000, 2450 eggs from these sites were collected with a hatchling success rate of approximately 78%. In 2001, to obtain 5284 eggs from the Besalampy zone, the collection included 2 new sites (3034 eggs from the 45 old sites and 2250 from the 2 new sites). The hatchling success rate in 2001 was approximately 40% due to bad control of incubation at the farm.

Year	Eggs collected	Number nests	Hatch Success
1990	1083	30	-
1991	784	20	-
1992	2624	68	74%
1993	2419	60	66%
1994	5417	135	62%
1995	4815	120	63%
1996	4596	125	60%
1997	4513	106	60%
1998	4415	103	72%
1999	3761	90	71%
2000	2450	60	75%
2001	5284	130	40%

Nest surveys were conducted along three major river systems (Maningoza river, Marotondo river and Sambao river) at a total of 15 survey routes and compared with previous surveys in 1996 and 1997. Nest counts were 270 in 1996, 228 in 1997 and 167 in 2001. Nest sites closer to Besalampy and villages located along Sambao and Maningoza rivers had been abandoned by the nesting crocodiles, and the rural people had to go further to look for nests.

It appears that this year crocodiles came to the mouth of the Sambao and Maningoza to nest because of increased poaching in all the sites of Besalampy area.

Problem crocodiles. The complaints about problem crocodiles come from non-residents. Conflicts and problems come from fishermen non-residents and people washing or looking for water in rivers after seven o'clock in the evening. Rural people in the Besalampy region come to live temporarily along the rivers and use land to grow tobacco and potatoes. At the end of rainy season areas around lakes Marovoaibe and Marovoaikely are occupied for rice. Consequently people come directly to cohabit with crocodiles in their nesting areas. These areas are often visited each year for collection of eggs, regular residents have lived with crocodiles without incidents or problems and benefit from their presence. People who have problems or are injured by crocodiles are usually non-residents. They are usually fishermen coming from the Maintirano or Mahajanga region. In addition, people washing in rivers late in the evening can have problem with crocodiles.

In 1999, CITES Secretariat has authorised Madagascar to harvest 500 problem animals. One part of this wild quota has been offered to the artisanal craftsmen and the second part to the two farmers (Reptel and Crocoranch II).

Since 1999, it appears that poaching and hunting occurred in many collection sites of Besalampy area. In 2001, the reduction of egg potential in the 45 collection sites of the Besalampy area was critical to the ranching program. In 2000, 300 to 350 wild skins (20cm – 80cm belly width) from Besalampy were offered to the farmers or to the local market in Antananarivo. The collectors of skins prefer to sell to the farmers because the price is higher than from the artisanal craftsmen.

Since 1990, rural people involved in the egg collection program continued to increase every year. However, faced with a market for poached skins in Besalampy, particularly after 1999, they can't play a major role in promoting crocodiles as a renewable resource. Laws recommend that poachers and collectors of illegal skins be prevented, but in practice this rarely happens. Local agents of Water and Forest Department lack financial resources to control poaching reported by local people.

There is a lack of understanding by politicians of the value of resources and CITES regulation concerning the Madagascar wild crocodile population. Crocodile habitat is progressively threatened by human activities (e.g., wild fire along the river).

Crocodiles are potentially dangerous to people (particularly to non-residents) in Besalampy region. It is difficult to give the number of problem animals in the Besalampy region. However, the local people take matters into their own hands and kill large dangerous crocodiles helped by local DEF and the military. The skins from these crocodiles must be destroyed. Since 1999, there are no records about the origin and the source of wild skins that come to the farmers and to the artisanal craftsmen. In 1998, local craftsmen used approximately 6000 skins from the wild.

Recommendations for crocodile management in Besalampy area

Detailed information of the Besalampy collection area must be maintained to follow the trend of the wild crocodile population. Expanding the egg collection program to other areas in Madagascar would help collectors to maintain detailed records concerning the new collection sites.

The DEF should establish criteria for egg quotas allocated to the present ranches based on their technical capacity.

To expand the egg collection program to other areas, the collection of crocodile eggs from the wild should reflect the value of the resources and people should be paid a "fair" price. This would encourage crocodile protection through income generation. Since 1999, 2500MGF per egg has been paid in other sites.

DEF should review a program for "Assistance to craftsmanship development" to ensure that the skins reaching the local market are used for quality products. In expectation of this program, the skins from the dangerous animals killed in the Besalampy region should be destroyed in place.

To reduce the expansion of trapping and poaching crocodiles, DEF should impose penalties on present ranches who buy wild skins.

DEF should review the control system to identify the skins produced on ranches and the wild. Ranches should not export farmed skins with belly width above 35cm.

Origin and source of wild skins must clearly be established. This would help to reduce the number of illegal wild skins reaching the ranches / farms.

Records should be established on the origin and circumstances surrounding each problem crocodile killed. The final allocation and utilisation of the skin (breeders or artisanal craftsman must be known and defined by DEF)

DEF should register the exact number of breeders in each farm to verify declarations of the number of eggs incubated and real performance.

The wild quota could be allocated to the registered breeders and in exchange they would contract with artisanal craftman to provide them with skins produced from ranching / farming to be used in local market.

Acknowledgments. Our thanks to rural people in Besalampy who have helped us since 1990 to 2001 to conserve crocodiles in their habitat and to monitor crocodile nests every year. The crocodile farmers (Mme Aline Ralimanana), Croco Ranch II Ltd and M. Daniel Bessaguet, Reptel Sarl) have given truly of their time. — Ramandimbison & Rahajaharison Jaspert, *c/o Label CBD, Lot ii v 93 Ampandrana, Antananarivo, Madagascar <OlivierBehra@MATE.mg>*

Niger

DISCOVERY OF A TINY FOSSIL CROCODILE. A tiny two-foot-long crocodile, which slithered around ancient swamps with enormous "supercrocs," has been discovered in Africa. "One of my students was walking along at the end of the day and saw it poking out of the ground," said Professor Paul Sereno of the University of Chicago, who was showing off the fossilized head of the little beast at the annual meeting of the American Association for the Advancement of Science. The skull fit neatly into the palm of his hand. The 110-million-year-old crocodile has not yet been given a scientific name. But Prof. Sereno and his colleagues have dubbed it the "duck-crocodile" because of its small size and wide, upper jaw that resembles a beak. He said the crocodile also had an odd tooth pattern, which would have left a big gap between its front teeth. Prof. Sereno suspects the crocodile, which measured two feet from snout to tail, dined on insects, frogs and tadpoles. It lived in a world teeming with a great variety of crocodiles, including giant "supercrocs" that were more than 12 metres long. Prof. Sereno's team unveiled the supercroc last fall. Both of the creatures were discovered in rich fossil beds they have been mining in a remote desert in Niger. They have found a menagerie of new creatures ranging from the dwarf crocodiles to fierce clawed dinosaurs, one sporting almost 1,000 teeth.

They also uncovered a bed of giant long-necked plant-eaters in a communal death site. Serreno says the new finds are filling in huge gaps in understanding reptile and dinosaur evolution. Prof. Sereno also hopes the fossils from Africa will help explain why there were no burrowing or climbing dinosaurs. They also suggest that the supercontinent, which existed when the dinosaurs roamed the earth, may have broken up much later than previously believed. "Africa and South America may have remained connected by a land bridge until 90 million years ago," says Prof. Sereno. This is because dinosaur bones they have recently found in South America are clearly related to some of the creatures now turning up in the African fossil beds. There had to have been a connection between the landmasses, which creatures could roam along, he said. — *from http://www.nationalpost.com/tech/story.html?f=/stories/20020219/98426.html Margaret Munro, National Post.com, Boston, 2/19/02, submitted by* Grahame Webb, *Adjunct Professor NTU, Director, Wildlife Management International, PO Box 530, Sanderson, NT. 0812 Australia.*

Eastern Asia Australia and Oceania

Cambodia

FIELD SURVEYS IN THE CARDAMOM MOUNTAINS. Two survey teams have begun a two-year systematic survey of the distribution, abundance and ecology of Siamese crocodiles across the Cardamom mountains.

In January (dry season), we surveyed 27km of the River Krau system, which includes the Veal Veng marsh at 560m. Within this system we obtained signs and sightings of a minimum of 55 *C. siamensis* ranging from juveniles to large adults, though of course the true figure could be significantly higher. Most were confined to four main areas, comprising the deepest parts of the marsh and deepwater pools in the river.

Over the next few months, we will survey additional rivers in the Central Cardamom Mountains, several of which we already know contain Siamese crocodiles and are far removed from any human habitation.

Sixty nine faecal samples were collected from the marsh and river banks, and analyzed. Thirty two contained the scales of snakes, with a preponderance of *Naja* spp.

We recently ran a classroom and field-based course on crocodile biology and basic survey techniques for the Department of Forestry and Wildlife, and the Department of Nature Conservation and Protection. The core crocodile survey teams this year comprise seven national and provincial DFW staff. All were new to crocodile work, but have proved highly competent thus far.

Community-based management of Veal Veng marsh. Veal Veng marsh alone contains a resident population of at least 40 *C. siamensis* (based on transect surveys of the accessible areas). It is also one of the few areas in the Cardamom Mountains with a long-established ethnic minority community, which has a traditional respect for the crocodiles. Fifty - four families reside in the marsh, and an additional 137 families live a few kilometres away. FFI and DFW conducted a series of biological and socioeconomic surveys in 2000 and 2001, and identified several imminent threats to the crocodiles, the marsh and, to some extent, the indigenous culture. (A full report is available from FFI). Our intention is to come to a formal agreement with the community leaders and other key stakeholders regarding how the marsh and surrounding watershed are utilized in the future. A small team of expert upland agronomists and socioeconomists will work with the villagers over the next few months to devise practical and sustainable alternatives for improving their income and food security. Rural development stakeholders, such as UNDP and PLG, are being kept in the loop to avoid conflict or duplication of effort.

In March, we will start recruiting selected villagers as field officers, to help monitor the crocodiles and the community management plan as it develops.

Crocodile poaching does not appear to have occurred across much of the Cardamom Mountains yet, but is likely to escalate as more non-indigenous people move into the area, encouraged by the development of new roads, both legal and illegal. The crocodile project has already begun working closely with two major new initiatives to strengthen wildlife protection in this area.

A GEF project to enhance management of the Phnom Samkos Wildlife Sanctuary (West Cardamoms) and Phnom Aural Wildlife Sanctuary (East Cardamoms), to be implemented by the Department of Nature Conservation and Protection and Fauna & Flora International. This will begin within the next few months and will include developing management plans for the sanctuaries and providing rangers with training, equipment and greater authority to tackle wildlife crimes. The sanctuaries comprise a total of 5,800 sq. km. PSWS definitely contains *siamensis*, while PAWS has yet to be surveyed for crocodiles.

The Central Cardamom Project, which is managed by DFW and Conservation International. An area of 4,000 sq. km in the Central Cardamoms will become formally protected by April, including a number of rivers known to contain *siamensis*. This project has already begun recruiting and training rangers. (I have just heard that the trainee rangers have already seized two young siamensis that were accidentally caught by fishermen in the Areng river, which will be released shortly).

While on the subject of *siamensis*, you may be aware that Australian volunteer Robert Howard has been following up reports of crocs elsewhere in Cambodia. It seems that there are still a few scattered individuals / groups in Ratanakiri province, although unfortunately it appears they are being hunted here. — Dr Jenny Daltry, *Senior Conservation Biologist Fauna & Flora International c/o FFI Cambodia Programme PO Box 1380 #14 A, Street 420, Phnom Penh, Cambodia.*

China

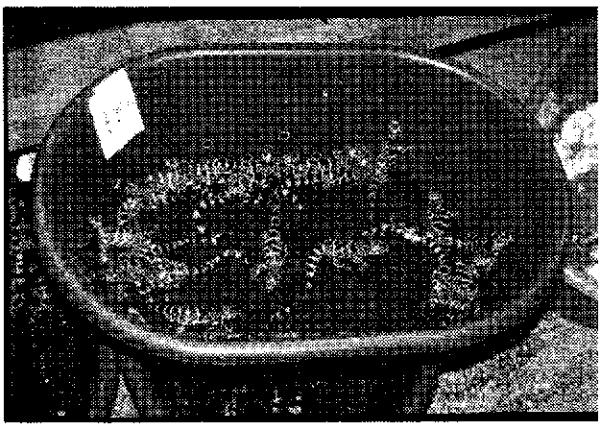
CHANGXING CITY MOVES ON CHINESE ALLIGATORS. Outside of Anhui Province, which contains the largest remaining wild population of Chinese alligators (*Alligator sinensis*), the next site with the greatest potential for reestablishing a wild population is in the Changxing City area of Zhejing Province.

At Yinjiabian Village, 22 km from Chiangxing City, a small but rather remarkable effort to conserve Chinese alligators was started

back in the 1980's by local villagers. With a founder stock of 4 wild alligators, they promoted captive breeding in modest facilities and with limited resources - very much a "bottom-up" effort by motivated local people. Today, the breeding farm is managed by the local Forestry Bureau, but is still operated by the families of the same local people who started it.

In 1992, when Brian Vernon and I visited, there were stocks of 118 alligators. When Charlie Manolis and I visited in March 2002, there were 350 - all through captive breeding. Furthermore, field surveys prior to the Chinese Alligator Workshop in Hefei City last year revealed that some wild alligators - at best a handful - still existed in Zheijing Province.

There is no doubt that the Chinese Alligator Workshop and the commitment by the Beijing Government, through SFA, to assist Provinces in reestablishing Chinese alligators in the wild, has highlighted their importance. Anhui Province received the "green light" for a large program last year. A cooperation agreement with Zheijing Province has been agreed with Beijing and will be finalized within the next few months.



Juvenile Chinese alligators. R. Hedegaard photo.

But already the Chinese alligator in Changxing City is becoming an important icon. Its public profile is soaring as a "living fossil" and a unique attraction of the area. The species features prominently at a newly developed and quite remarkable geological attraction - a vertical cliff face in which the boundaries between the Permian and Triassic and Paleozoic and Mesozoic are clearly defined.

The opening ceremony for an international investment forum in Changxing City in March 2002, which included China's four top "pop stars" (Ren Xianqui, Siqingerile, Tengger, Tian Zhen) and drew a packed audience, saw all performances in front of two giant, golden, images of Chinese alligators on the stage.

At the breeding farm in March, the first Chinese alligators were emerging from hibernation and basking in the Spring sun. There seems little doubt that their future will be much more secure, and that the CSG has played an important role in promoting that security. — Grahame Webb, *Adjunct Professor NTU, Director, Wildlife Management International, PO Box 530, Sanderson, NT. 0812 Australia.*

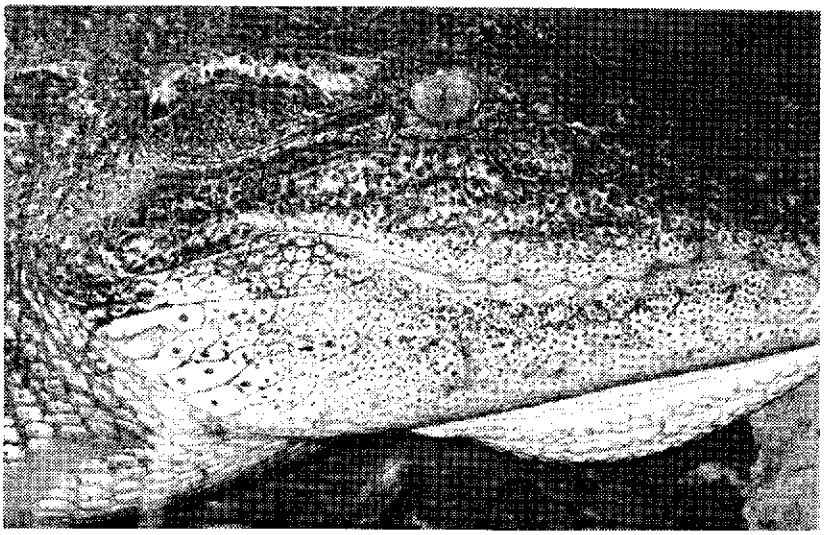
Thailand

WWF-THAILAND LAUNCHES CERTIFICATION PROGRAM. A new program certifies souvenir shops that support sustainable use and to educate both buyers and sellers about legal and illegal wildlife trade. The program logo has crocodile, butterfly, and orchid images to communicate that these three categories can be traded legally. This program will, hopefully, boost sales of products from captive-bred crocodile and eradicate other crocodilian products in the market. Illegal trade of crocodilian products will also be reduced as a result of an eyes and ears campaign.

In July 2001, WWF-Thailand and Tourism Authority of Thailand held a seminar to advise tour operators, hotels, souvenirs, and private zoos to STOP WILDLIFE TRADE. As a participant, I could no longer keep quiet. I, then, spoke up to protect existing legal wildlife trade of captive-bred crocodiles, butterflies, and orchids. I pointed out that the campaign could not succeed as long as buyers and sellers do not have the right information.

It needs no effort to launch a campaign to STOP THE TRADE, on the other hand a campaign for SUSTAINABLE USE will have a greater impact on Thailand wildlife. Thereafter, a series of meeting between WWF-Thailand and a number of organisations including the Crocodile Management Association of Thailand - CMAT were held to revise the campaign. A survey in 2001 revealed many occurrences of illegal wildlife trade mostly associated with tourism business. Despite legal protection, tigers, elephants, bears, sea turtles, corals, butterflies and orchids are all still threatened by illegal trade

in Thailand. Sometimes the actions of tourists, however unwittingly, are contributing to the destruction of nature. To discourage the illegal trade and import/export of endangered species, as well as help Thailand and neighboring countries preserve their biodiversity, WWF-Thailand has launched the "Wildlife Trade Campaign". Target groups are tourists from Europe and East Asia, hotels, souvenir shops, wildlife farms and zoos. A certificate will be awarded to the shops that support sustainable use and to educate both buyers and sellers about legal and illegal wildlife trade.



Detail. head of *C. siamensis*. G. Polet photo.

The campaign was initiated by WWF-Thailand with funding from DANCET and support from both government and private sectors, such as Royal Forest Department, Fisheries Department, Department of Agriculture, Thai Hotels Association, Green Leaf Foundation, CMAT, Bird Conservation Society of Thailand, The Royal Horticultural Society of Thailand Under the Royal Patronage of H.M. the King, Professional Guide Association of Thailand, Wildlife Fund Thailand Under the Royal Patronage of H.M. the Queen, and The Zoological Park Organization Under the Royal Patronage of H.M. the King.

Criteria for certification of crocodilian product are that all crocodile skins, leather products, meats, and all parts derived from crocodile must be from CITES permitted captive breeding operations in Thailand. No other exotic crocodiles or products of nonindigenous crocodile is considered. The applicant must have a permit from CITES and the Fisheries Department to breed or merchandise crocodile and crocodile products. The applicant must be able to provide the required permits to customers intending to export the products.

The message to tourists is, 'You can help by supporting shops, sites, and souvenirs that don't cost the earth! If you want to buy animal and plant products, or to visit attractions featuring animals and plants but want to be sure your actions are not endangering wild species - then look for the "Sustainable Use" logo. Developed by a number of organizations together with WWF, this logo is awarded only to shops and tourist attractions which either make use of non-protected species of wild animals and plants, or use protected species which are legally bred in captivity, or artificially propagated in officially approved facilities. Shops with this logo can provide you with legally required permits to take your souvenirs out of Thailand and import them to your own country'.

For more information, please visit the WWF-Thailand website at http://wildlifethailand.org. — Yosapong Temsiripong, *Crocodile Research Laboratory-CMAT, 336 Moo 6 Surasak, Chonburi, 20110, Thailand.*

Vietnam

CROCODYLUS SIAMENSIS RE-INTRODUCED IN CAT TIEN NATIONAL PARK. On Tuesday, 18 December 2001, 10 *Crocodylus siamensis* (Siamese crocodile) were released in the Bau Sau wetlands in Cat Tien National Park. The release site is known to have harbored large numbers of these crocodiles in the past but none have been observed over the last 7 years. All the crocodiles have been hunted for food and for breeding in crocodile farms in southern Vietnam. With the assistance of the WWF - Cat Tien National Park Conservation Project, Cat Tien National Park aims to re-establish a wild population in its Bau Sau wetlands.

The crocodiles, which have been released are part of a larger number donated by Hoa Ca crocodile farm in Ho Chi Minh City. All animals have been DNA tested at Queensland University, Australia to assure that they are of pure *C. siamensis* breed. Crocodile farmers prefer to mix their *C. siamensis* breed with Cuban or Saltwater crocodiles as the offspring produces a better quality leather. As offspring remain fertile, an individual crocodile could be 1/4 Cuban and 3/4 Siamensis or 1/2 Siamensis and 1/2 Saltwater, etc. and there are no morphological differences to be seen from the outside. Therefore DNA testing is the only way to separate pure from non-pure *C. siamensis*.

Dr. Phan Viet Lam scans Siamese crocodiles for microchip identification and matching to DNA profiles. G. Polet photo.

The contact with Queensland University ran through Dr. Phan Viet Lam of the Saigon Zoo, who took the blood samples and inserted a chip in each sampled crocodile. On December 18 2001, Dr. Phan Viet Lam read the chips and linked the individual crocodiles to the DNA test results. Of the tested animals, one was found not to be of pure *C. siamensis* breed and this animal has been rejected from the re-introduction program. In total, 10 (5 males and 5 females) pure *C. siamensis* were transferred to the Bau Sau wetland area and released back into the wild. About 25 more crocodiles remain at the headquarters of Cat Tien National Park, most of which are yet to be DNA tested. These animals will be released over an estimated period of 3 years. Members of the IUCN-SSC Crocodile Specialist Group provide technical advice for this program.

Post release activities include the regular monitoring of the crocodiles to see whether they remain in the area or will disperse over a larger area. The Park's Forest Protection Department will step-up its law enforcement operations in the area to deter potential violators. Plans are prepared to distribute information on the biological importance of the crocodiles targeting people who live in the vicinity of the wetlands. — Gert Polet, *Cat Tien National Park Project. 85 Tran Quoc Toan St. Ho Chi Minh City, Vietnam.*

Indonesia

NEW RECORD OF A FRESHWATER CROCODILE FROM BRUNEI. *Crocodylus raninus* Müller & Schlegel (1844), was described on the basis of a juvenile collected by the French naturalist, Peirre Meńard Diard at Pontianak, Kalimantan Barat, Indonesia and one listed by Lidth de Jeude (1898) that was collected by Salomon Müller in 1836 from the Banjer River, a tributary of Sungai Barito, Kalimantan Tengah, also in Indonesia. While collecting zoological specimens in 1878 for American museums, William T. Hornaday collected a crocodilian from an unspecified locality in Borneo. Since Hornaday's collection activities were confined to Sarawak, Ross (1990) tentatively assigned this crocodilian specimen as an additional collection from Borneo without any data on its exact provenance. In the next 100 years, no further specimens of this palustrine crocodile were collected. Since 1889, several zoologists working on crocodilian species of the region have relegated the name *Crocodylus raninus* to the synonymy of the widespread *Crocodylus porosus* Schneider. The irony here is that *C. porosus* is an

estuarine species and therefore potentially not ecologically syntopic.

Ross (1990) revived *C. raninus* as a distinct species, and subsequently designated a lectotype. Since then, little has appeared on the systematics and biology of the species, and precise locality records for this taxon are few. Most recently, Ross *et al.* (1998) recorded two specimens at a crocodile farm in Banjarbaru that they assigned to the 'raninus' group of crocodiles that were reportedly collected from Pangkalanbun, central Kalimantan, Indonesia.

In February 1990, Webber Booth of Universiti Brunei Darussalam collected a complete skull of a juvenile crocodilian from the surface of the muddy shores of Tasek Merembun, Tutong District, Brunei Darussalam. In an effort to correctly identify this rare collection, Indraneil Das of Unimas and Joseph Charles of University Brunei Darussalam (UBD) have re-examined several pertinent taxonomic features of the skull which is currently housed at the UBD. They assign the skull to *Crocodilus raninus* Müller & Schelegel (1844). Given that Ross' (1998) record of *Crocodylus raninus* was from a local crocodile farm in Kalimantan, the new locality from Brunei is of considerable interest. Ross *et al.* (1998) was informed by knowledgeable local sources that the species is referred to as Buaya salak, literally barking crocodile, in central Kalimantan, and in the Sungai Sebingit region, the species is suspected to be locally extinct. The second hand report in Cox and Gombek (1985) of a crocodilian similar to *C. siamensis* from Kelauh, Seterap and Dor tributaries of the Batang Lupar, may be based on raninus as well. The record from Tasek Merembun shows that *Crocodylus raninus* occupies patchy swamps. — *reprinted from* Indraneil Das and Joseph K Charles (2000) *A record of Crocodylus raninus Muller & Schlegel, 1844, from Brunei, North-western Borneo. Sabah Parks Nature Journal Vol 3: 1-5*

[Editors note. We reprint the article above with caution due to the continuing uncertainty about exactly to which crocodilian taxon the name 'raninus' should be applied. C. A. Ross 1990 and 1991 contends that the specimens he has designated differ from both *C. porosus* and *C. siamensis*, but there is little evidence either that it is restricted to Borneo or that it differs significantly from *C. novaeguineae* from the north coast of New Guinea. We are aware of genetic analyses in progress and in press that will shed much needed light on this vexing problem. We also note that the authors' reference above to the estuarine habitat of *C. porosus* is in error, the species is well known to thrive in fresh water swamps. While the discovery of an additional skull assignable to 'raninus' sensu Ross 1991 is of interest, the taxonomic position of these specimens and the diversity of freshwater crocodilians in Borneo remains to be determined.]

TWO CROCODILE SPECIES IN WEST JAVA? In 1999, potential information on the false gharial and its possible existence in Ujung Kulon National Park, Banten province (West Java) was gathered in a first visit to Java (CSG-Newsletter 19, (1). Various comments and references proved promising, hence a second trip was carried out in January 2002.

The basic intention of this stay was aimed at interviewing local fishermen and rangers of the Indonesian Government's Department of Forestry and Nature Conservation (PHKA), and visiting sites where freshwater crocodiles were known to occur. Besides photographs of the false gharial, two crocodile toy models (one showing a broad-snouted crocodile resembling a saltwater crocodile, the other a slender-snouted crocodile very similar to *Tomistoma schlegelii*), were brought forward while interviewing people. This method provided unequivocal results as several interviewees and the so-called "orang asli" from Banten recognized the freshwater crocodile immediately.

One recommended site is the peat swamp forest "Nyiur" at the northern tip of the Ujung Kulon Peninsula. There have been several reported observations of the False Gharial in that area, particularly during the dry season (April – September). In the wet season "Nyiur" is connected with the neighboring but smaller freshwater swamp area "Jamang" in the east. The latter may be totally dry during the dry season, whereas in "Nyiur" large freshwater pools always remain. When rainfalls are high during the wet season, freshwater may overflow into the nearby sea. "Nyiur" is separated by coastal shrub vegetation and a beach slope from the sea, preventing saltwater from entering the swamp.

There have been no reports of observations of *Crocodylus porosus* occurring at Nyiur, although it is not out of question that saltwater crocodiles could possibly enter during the wet season. Populations of saltwater crocodiles were severely

depleted by poachers until the early nineties. In 1992, Ujung Kulon was officially designated a National park, and since then poaching of *Crocodylus porosus* has slowly been reduced. Despite this development, fishermen, pilgrims and tourists have increased, and probably cause severe disturbance to saltwater crocodiles. The common canoe-frequented river "Cigenter" was a secure place in earlier times to observe *Crocodylus porosus*. Today, such sightings are very rare.

Brackish-water creeks predominantly show vast stretches of Nipa palms (*Nypa fruticans*), a commercially valuable palm, with the leaves providing a high quality thatch. The leaves are regularly harvested by locals, also at more remote lying estuaries e.g. the "Ciujung-Kulon" river. Due to this impact even more quiet river courses are selected by saltwater crocodiles.

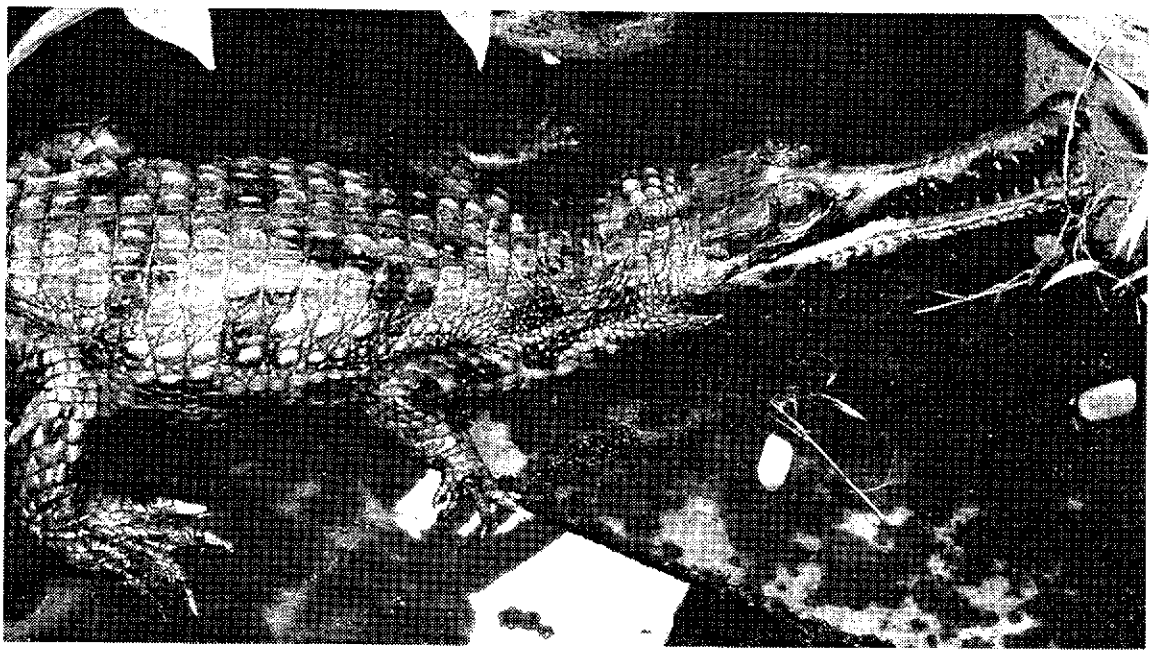
Only on one occasion, upriver from Ciujung-Kulon, were tracks of a saltwater crocodile observed.

periodically visited by fishermen using nets and occasionally potassium cyanide.

"Nyiur" also includes various fish-eating birds, exemplified by herons (*Ardea purpurea, A. sumatrana*) or kingfishers (*Halcyon cyanoventris, Pelargopsis capensis*). Travel agents attract birdwatching tourists via the Internet.

If *Tomistoma schlegelii* does exist in the "Nyiur" swamp area, the above described impact factors may not be alarming at this state. However, future monitoring of the area would be strongly advisable, especially during the dry season when the area is exposed to the negative influence of potassium cyanide fishing fishermen.

In summary, "Nyiur" provides the potential habitat features the false gharial requires. The remoteness of the area combined with the species' secretiveness may explain why this highly threatened species has avoided observation until now?



Tomistoma schlegelii, captive juvenile, Jakarta Indonesia M. Auliya photo.

"Nyiur" is rich in freshwater fishes, e.g. *Clarias batrachus* (ikan lele), *Channa striata* (ikan gabus), *Trichogaster* sp. (ikan sepat), *Chanos chanos* (ikan bandeng), *Terapon jarbua* (ikan bulan bulan) and *Barbodes gonionotus* (ikan beunteur). Consequently, the swamp is

Special thanks to Dr. D. Jelden (Federal Agency for Nature Conservation, Germany - BfN), V. Kern (Internationaler Reptilleder Verband e.V. - IRV), F. B. Yuwono, Yahya (WWF-Ujung Kulon), and the local PHKA staff in Ujung Kulon. — Mark Auliya, *Zoologisches Forschungsinstitut und Museum Alexander Koenig (ZFMK), Section: Herpetology, Adenauerallee 160, 53113 Bonn, Germany.*

Email: M.Auliya.ZFMK@uni-bonn.de & Mirza Sharz, *Jl. Dermaga, Tamanjaya RT. 02 / 01, Sumur, Pandeglang 42283, Banten, JaBa, Indonesia. Email: kagum@hotmail.com*

STATUS OF *TOMISTOMA* IN SOUTHEAST SUMATRA. In 1995-96, a considerable amount of new information on the biology and status of false gharials (*Tomistoma schlegelii*) in Sumatra (Indonesia), was obtained through a study initiated by the CSG, and carried out cooperatively by Wildlife Management International Pty. Limited and the Indonesian Ministry of Forestry. The results of that work were summarised at the Singapore CSG meeting (1998; see Bezuijen *et al.* Pp. 10-31). The study identified two areas in southern Sumatra which had special significance for *Tomistoma* conservation in terms of the size of the remaining wild population; the documented abundance of nests; and, the existence of peat swamp forest. Peat forest appears a favoured habitat of the species and has disappeared throughout much of SE Asia [Bezuijen *et al.* 2001, *Oryx* 35(4): 301-307]. One of these areas (Berbak National Park) was afforded a high degree of protection. The other (Merang River) was not, and the conservation value of the area was subject to a series of potential threats. The extent to which both these areas and their *Tomistoma* populations were affected by the widespread forest fires in Sumatra (1997/98) was unknown.

In 2001, with financial and logistic support from Fauna & Flora International, Chicago Zoological Society, Mr. Su Zigang, CSG, Wetlands International, WMI, Indonesia Ministry of Forestry, the same WMI/Ministry of Forestry team carried out resurveys in Berbak National Park and the Merang River, and evaluated the changes that had taken place in the last 5 years. The results are included in a general report that should be available on pdf format shortly, and will be presented at the next CSG meeting. A summary of findings for each area is given below.

Merang *River (South Sumatra Province).* As in 1995-96, *Tomistoma* densities were examined separately in the upper and lower reaches of the river, where habitat varies greatly. The upper reaches support relatively intact peat swamp forest, which reduces visibility. In 2001, 0.64 *Tomistoma*/km were sighted, which was slightly higher than in 1995 (0.34/km) and 1996 (0.49/km). This area is a known nesting area for *Tomistoma*. The lower reaches of the river are bordered by modified secondary forest and cleared or burnt areas. Densities sighted in 2001 were 0.02/km, similar to previous years [0.04/km in 1990 (J. Cox unpub. data), 0.16/km in 1995 and 0.04/km in 1996]. The recent forest fires in southern Sumatra had not impacted significantly on the peat swamp forest in the upper reaches, which still remains relatively intact.

Significant changes in human activity in the Merang River had occurred since 1995-96, including a steady, upstream movement of people and increased numbers of people, huts and motorised boats. Of particular concern, logging is rapidly removing the swamp forest nesting habitat, and is the greatest current threat. It is technically illegal and actions are underway to try to contain it. The river retains a high conservation value for *Tomistoma* and other threatened fauna, as well as for the economically important freshwater fisheries, that are attracting more people to the area.

Berbak National Park (Jambi Province)

Berbak National Park is the largest protected area in Southeast Asia that still supports wild *Tomistoma* populations. Spotlight surveys and interviews with local fishermen confirmed the presence of a range of different sized individuals in two rivers previously surveyed in 1996, the Air Hitam Laut River and Simpang Melaka Creek. No *Tomistoma* were sighted in a third river, the Air Hitam Dalam River (not surveyed in 1995-96), although the species was reported to occur in the upper reaches. *Tomistoma* densities (excluding eyeshines, because *Crocodylus porosus* were present) were higher in Simpang Melaka Creek (0.40/km) than in the Air Hitam Laut River (0.03/km), which was similar to densities recorded in 1996 (0.50/km and 0.08/km respectively). Assuming that all eyeshines in Simpang Melaka Creek (where no other crocodile species has been recorded) were *Tomistoma*, average density sighted were 0.67/km in 2001 and 1.50/km in 1996. These appear to be the highest *Tomistoma* densities documented in Southeast Asia.

The susceptibility of nesting habitat to destruction by forest fires is probably the greatest threat to *Tomistoma* in Berbak National Park. Swamp forest along many kilometres of all three rivers surveyed had been destroyed by the forest fires of 1997/98. In 2001, these burnt areas were characterised by exposed topsoil, dead standing

timber and grass and shrub regrowth next to waterways. The presence of small (<3 ft total length) *Tomistoma* recorded in spotlight surveys indicates successful nesting has occurred since the fires, but much potential swamp forest nesting habitat appears to have been lost.

Eight local personnel were involved in the surveys, including provincial forestry officers, park rangers and staff from two locally based conservation NGOs, Gita Buana and Wetlands International. Field training included spotlight survey techniques, data entry and concepts in crocodile conservation and peat swamp forest ecology. A demonstration in crocodile handling and measurement was held for forestry and NGO staff at a crocodile farm in South Sumatra Province.

Recommendations. Based on the results of the 2001 survey, considerable discussion was held in Indonesia with NGO's and the Ministry of Forestry. There is strong local support for the protection of both the peat swamp forest and the *Tomistoma* population in the Merang River. Options for stopping the illegal logging were examined, and plans put in place to prepare and implement a 'Conservation and Management Program' for the Merang River. It is hoped that annual surveys of *Tomistoma* will be an integral part of this program. Funding is now being sought to assist the Indonesia Ministry of Forestry to hold a Provincial Workshop, will all key stakeholders, to advance these conservation actions. — Mark R. Bezuijen *and* Grahame J.W. Webb, *Wildlife Management International Pty Limited, Sanderson NT, Australia.*

Latin America

Honduras

CROCODILE MANAGEMENT WORKSHOP. A workshop was convened 23-25 May 2001 at the facilities of the Francisco Morazan Hydroelectric plant, El Cajon reservoir. In 1989, Honduras was the first country in Latin America to be surveyed by CITES with the objective of developing a regional plan for crocodilian management and conservation. At that time the El Cajon hydroelectric reservoir was thought to support the best population of *C. acutus* and 246 individuals were counted in the reservoir and tributary rivers. In June 1990, a second survey conducted by the General Directorate of Natural Resources (RENARTE) and Clal crocodile Farms counted 325 crocodiles and noted that the population consisted mainly of juveniles.

Currently, crocodile management in El Cajon has centered on protection from illegal hunting and some small education programs with local people. However, this has been inadequate in the face of the growing human population and their demands for productive activities. The workshop was proposed to provide national technicians and wetlands managers with improved capacity in theoretical and technical aspects of biology, ecology and behavior, and monitoring techniques. Presentations were made by Hector Martinez, (crocodile natural history), Carlos Cerrato (techniques of monitoring), Mario Espinal (planing field work and captive propagation), Leonel Marineros (legisation) and Franklin Casteneda (biological indicators).

During the workshop, night surveys were conducted in the two major rivers entering the reservoir using standard spotlight techniques. In the Rio Humaya (41 km) 212 crocodiles were seen and in the Rio Yure (22 km) 104 crocodiles for a mean density of 5crocodiles/km surveyed.

The workshop concluded that this preliminary survey did not constitute a complete census of the reservoir, but gave an indication of population density in two of three major tributary rivers. These populations consisted of mostly recently hatched young (< 50 cm) and subadults (1.0 – 1.5 m) with a conspicuous absence of adults seen. This is thought to be caused by continuing illegal hunting making surviving adults difficult to observe. The results confirm again that El Cajon is the most important site in Honduras for crocodiles and is one of the significant concentrations of the species anywhere in its range and comparable to the population at Lago Enriquillo, Dominican Republic.

A series of recommendations were made to continue surveys to characterize the population size and structure, compile information to determine population trends, conduct education campaigns among local residents about the importance of crocodiles ecologically and economically, and to declare the reservoir a sanctuary for crocodiles where the species can be monitored and studied. — freely translated from a report by the participants of the workshop, submitted by Mario Espinal, *Residencia Cerro*

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North America

Mexico

MORELET'S CROCODILE AT YUCATAN PENINSULA. Probably many of us do not know more about the crocodiles in this part of Mexico than reported by Powell (1965) or more recently by Marco Lazcano and Gonzalo Merediz from Sian Ka'an Biosphere Reserve or Cancun.

I am pleased to report than in a recent trip with the purpose to speak to local investigators and to go to field at night for monitoring wild populations, I saw some Morelet's crocodiles *Crocodylus moreletii* in the three states that form this area, Campeche, Yucatan and Quintana Roo. All the information generated will be useful to classify this species in its proper appendix of CITES.

The trip started in Tuxtla Gutierrez, Chiapas and lasted 13 days (from January 28th to February 9th. It was sponsored by Miguel Alvarez del Toro Zoo, AZCARM (Mexican Association of Zoos, Breeding centers and Aquariums, Industrias Moreletii and Cocodrilos Mexicanos (two facilities registered with CITES for breeding *C. moreletii*).

In Yucatan, Antonio Pani, a Zootechnist Engineer who works at Reserva Estatal El Palmar with a mangrove project and crocodiles, took us to Sisal. There we observed 10 crocodiles in 2 km of channels, and captured eight of them. All were measured and marked. Their sizes averaged 1.53 m, five were males and three females. From those animals, only one was a recapture from those Antonio had marked in the place months before.

Next night we visited another Reserve called Dzilam de Bravo. In Rio Angosto (Narrow river), 17 crocodiles were observed in 4 km and 5 captured. The sizes of the crocodiles seen were: 1 between 50.1 to 100 cm; 7 between 100.1 to 150 cm; 7 between 150.1 to 200 cm and 2 from 200.1 to 250 cm. Five crocodiles were captured and marked. All of them where males and measured between 70 to 225 cm.

In Quintana Roo, the first place monitored was Yum Balam Biosphere Reserve. With Jose Juan Perez, Biologist and Sub director of the reserve, we visited Rio Yalikin (Yalikin River). We saw 25 Morelet's crocodiles and also captured two juvenile American crocodiles (118 and 124 cm of TL). The Morelet's crocodiles we saw were larger than 150 cm (adults). Only three between 100 to 150 cm were seen . We captured only two Morelet's crocodile because the water was too shallow, they measured 226 and 102 cm respectively, the first was the biggest captured in this trip, it weighed more than 50 kg.

Another place visited in Quintana Roo was San Felipe Bacalar Lagoon. There, with Pilar Navarro, veterinarian and Director of the Wild Life Integral Center, we only observed 7 shy Morelet's crocodiles. It was very difficult to get close to even a 6 months old crocodile. The other six crocodiles were larger than 150 cm of total length. In this place we saw two nests that were active in 2001.

The third state visited was Campeche. There with Javier Omar Gomez Duarte, Biologist and teacher of a Technical High School at the University of Campeche, we monitored Hampolol, another Wild Life Integral Center managed by The Campeche University. There we saw seventeen crocodiles in 1.2 km From those, eight were hatchlings of 2001 (currently they are six months of age), measuring less than 50 cm; another seven measured between 50.1 to 100 cm, and we only saw two adults from 160 and 193.5 cm. Nine crocs were captured, seven were lesser than 50 cm of total length, one was 82.3 cm of TL, and one was a reproductive female of 193.5 cm of TL.

Another place visited in Campeche was Los Petenes Biosphere Reserve. Under some bridges from Isla Arena to El Remate peten, six Morelet's crocodiles were observed, those sites reminded me of "alligator holes" because there were crocodile caves, fishes and crustaceans in a place that serve as a water reservoir in the dry season. Another five crocodiles were seen in the channels near the road and in some shallow lagoons. The sizes of those crocodiles were: 2 from 50.1 to 100 cm; 4 from 100.1 to 150 cm; 1 from 150.1 to 200 cm and 4 from 200.1 to 250 cm of total length. In El Remate peten, four juvenile crocodiles were seen: one was six months old, two were 90 cm and one 100.1 cm. From local people and from Javier Omar, we heard in almost all the "petenes" (freshwater emanations surrounded by brackish water or dry lands), crocodiles are found. In our transect by Isla Arena to El Remate we captured three

crocodiles, they measured 137, 126 and 100.1 cm of TL, all of them were males.

Another goal of this trip was to visit all the farms or zoos working with Morelet's crocodile. These were El Centenario Zoo (Merida), and The Queen's Zoo (Tizimin), both in Yucatan. Crococun Farm (Puerto Morelos), X-Caret Zoo (Playa del Carmen) and Payo Obispo Zoo (Chetumal) in Quintana Roo. CET-MAR (Campeche) and El Fenix farm, Parque Sandoval, Cocodrilo Maya farm and Isla del Carmen Zoo at Isla del Carmen in Campeche.

Table 1. Survey results, January - February 2002. *C. moreletii*.

Location State Date	Captured / Seen	Survey Distance	Density Seen /Km
Sisal Yucatan 29/01/02	8/10	2 Km	5.0/Km
Dzilam Yucatan 30/01/02	5/17	4 Km	4.3/Km
Rio Yalikin Quintana Roo 31/01/02	2/25	3 Km	8.3/Km
San Filipe Bacalar QR 5/02/02	0/7	7 Km	1.0/Km
Hampolol Campeche 6/02/02	9/17	1.2 Km	14/km
Isla Arena- El Remate Campeche 7/02/02	3/15	15 Km*	1.0/Km
TOTAL	27/91		2.8/Km

* 15 Km = Distance by road. Crossing many small ponds, channels and dry land.

I wish to thank all the people that made this trip possible, specially our families and the families of those who gave us a place for sleep and food. Also appreciated was the help of collaborators of each investigator and the experience of the boatmen. Special thanks to Dr. Marco Lazcano and Dr. Javier Carballar for their information at Amigos de Sian Ka'an and for letting me review Marco's personal library. — Luis Sigler, *Zoology Investigator. Miguel Álvarez del Toro Zoo. crocosigler@prodigy.net.mx*

MORELET'S CROCODILE ON RIA CELESTUN, YUCATAN. On 26 October 2000, we conducted a spotlight census of Morelet's crocodile (*Crocodylus moreletii*) on Ria Celestun. The survey was part of a Rapid Assessment Program requested by PRONATURA PENINSULA DE YUCATAN A.C. to El Colegio de la Frontera Sur (ECOSUR) campus Chetumal, in order to evaluate the species diversity of butterflies, amphibians, reptiles and mammals from Ria Celestun Biosphere Reserve, Yucatan-Campeche, Mexico. In this census, we surveyed both edges of the northern portion of the Ria from the Celestun bridge to Pajaros island on a boat with a 25 HP outboard motor and using 12 V spotlights. As a result, we recorded a total of 18 individuals, 12 of them were classified as juveniles and subadults between 55 and 120 cm total length, whereas the other six (probably adults) were recorded as "eyes only" since they were too wary to approach enough to estimate the class size. We captured two females 110 and 115.5 cm total length to verify species identification. According to this census and personal comments from local people and Perran Ross who had previously visited this area, Morelet's crocodile is a common inhabitant on this estuarine system. — J. Rogelio Cedeño-Vázquez, René Calderón and Carmen Pozo. *El Colegio de la Frontera Sur. Carr. Chetumal-Bacalar Km 2, 77049 Chetumal, Quintana Roo México.*

USA

CROCODILES RESURFACE IN FLORIDA, INCLUDING ON BEACHES. Crocodiles are on the prowl in south Florida. The sharp-toothed cousins of the American alligator are listed as an endangered species. But recent sightings of crocs in the surf off the beach at Boca Raton and among yachts moored in the Intracoastal Waterway at Jupiter

have prompted speculation that the once-imperiled reptiles are making a comeback.

If true, it would mark a major victory for conservationists working to reverse the American crocodile's seeming inevitable slide toward extinction in the US. It would also mean that surfers and ocean swimmers in south Florida will have to watch out for more than just sharks.

"They are increasing in numbers, and they are reoccupying areas within their historic range, but now there are people in those areas," says Dawn Jennings, a biologist with the US Fish and Wildlife Service in Vero Beach.

Unlike alligators, which prefer fresh water, crocodiles are generally found in brackish water and can tolerate salt water for limited periods. As a result, crocodiles may show up in places alligators never frequent - like oceanfront beaches.

With as many as 1.5 million alligators in Florida, locals are familiar with the sight of these muck-black denizens in fresh-water lakes, canals, and even golf-course water hazards. But it has been many, many years since Floridians have seen crocodiles lined up like logs on Miami Beach or lurking in the shallows of Lake Worth near the mansions of Palm Beach.

Estimates of the current crocodile population range from 400 to 1,000 adults. "When most of the work with crocodiles began in 1978, we had a total of 20 to 22 crocodile nests annually," says Paul Moler of the Florida Fish and Wildlife Conservation Commission. "Now we are seeing between 40 and 50 nests annually."

Prime crocodile nesting areas are in the mangrove wetlands in protected parks at the southern tip of the Florida Peninsula. A highly productive nesting area has also developed in the 168 miles of man-made cooling canals built for the Turkey Point Nuclear Power Plant, on the southwest shore of Biscayne Bay. Now, the question is whether these areas are becoming overpopulated, forcing younger animals to migrate in search of new nesting areas. The youngsters have a strong incentive to move away. "Crocodiles will eat crocodiles," says Mr. Moler. A joint team of federal and state biologists is set to begin an investigation this week to determine what might have lured at least five crocodiles to coastal Palm Beach County in early December. David Hitzig, of the Busch Wildlife Sanctuary in Jupiter, helped rescue and care for the crocs after they were captured. He says one theory is that someone may have raised the crocodiles illegally in captivity and decided to release them when they grew too big. "It is kind of bizarre to see crocodiles this far north," he says. The other theory is that the croc population is outgrowing its existing habitat. If scientists verify that migration is the result of sustained population growth, the Fish and Wildlife Service is prepared to recommend that the American crocodile be reclassified from "endangered" to "threatened" on the Endangered Species List. In terms of regulations, the crocodile would still be afforded all the protections of federal law. The "threatened" classification would simply acknowledge that progress is being made and that continued vigilance is necessary, says Ms. Jennings.

But not all conservationists agree that down-listing is the right move right now. "The animal is faring better than it did 20 years ago," says Joe Wasilewski, a biologist who has spent 13 years studying crocodiles in the Turkey Point canals. "But we really don't know enough about these animals to say that now we should down-list them. "Crocodile experts acknowledge that there is now a greater possibility of crocodile-human encounters. They advise that American crocodiles should be treated the same way knowledgeable Floridians treat alligators - with respect rather than fear. "Both alligators and crocodiles are dangerous animals," says Mr. Wasilewski. "But American crocodiles are very shy and non-aggressive.

There has never been a fatal attack by a crocodile in Florida on a person. "For all the talk of resurgent crocs, however, their comeback faces significant obstacles. Crocodiles are very particular about where they place their nests, and most of the prime mangrove-fringed nesting grounds of an earlier era have since become condos and marinas. Another limiting factor is cold weather. "Crocodiles are tropical. So here in the US, they are constrained to live at the southern tip of Florida," says Moler. "There is no room for a major expansion in the number of crocodiles." — Warren Richey *Staff writer of The Christian Science Monitor. This article first appeared in the Christian Science Monitor on March 12,2002 and is reproduced with permission.*

SNAP IT UP DINERS- GATORS BACK. Oklahomans hungry enough to eat an alligator can do so legally now that the state Wildlife Department has given restaurants the green light to serve the critter. "We feel like right now we can go ahead and let them do it," Dennis Maxwell, the department's assistant chief of law enforcement, said Thursday.

Last week, Wildlife Department officials said the sale of alligator was a felony in Oklahoma. "We quit selling it. I didn't want one of my employees getting arrested," Paul Seikel, owner of Pearl's Oyster Bar and Trapper's Fishcamp & Grill, said Thursday. "We put it back on the menu today." Seikel said he has sold alligator meat at his Oklahoma City restaurants for 15 years. The restaurants sell about 20,000 pounds of gator each year, he said.

The Oklahoma Restaurant Association requested information from the Wildlife Department last week after the alligator sales issue was raised, said Rebecca Reynolds, spokeswoman for the association, which represents 4,000 locations statewide. "We're pleased with the outcome," Reynolds said Thursday. Restaurants may serve alligator as long as it is bought from a legitimate distributor, she said. It is a popular menu item, both as an appetizer and as an entree.

The alligator controversy surfaced after Mark Garvey was issued a warning citation for selling alligator jerky at Beef Jerky Emporium in Northpark Mall, 12100 N May Ave. The Wildlife Department's Maxwell cited an Oklahoma law prohibiting the possession of "any endangered or threatened species or parts thereof." The American alligator, named to the federal endangered species list in 1967, has made a complete recovery, but is listed today as "threatened due to similarity of appearance" to protect the American crocodile, according to the Congressional Research Service Reports.

Maxwell said the department reversed its stance after checking with Attorney General Drew Edmondson's office. "We just pointed them to the right statutes," said Charlie Price, a spokesman for the attorney general. "Alligator is legal as of today," Garvey said. "Everybody's puttin' it back on the menus. We're puttin' it back on the shelf." — By K.S. McNutt *Reprinted from "The Daily Oklahoman" February 15, 2002*
[Mr. Garvey and the Oklahoma Restaurant Association conferred with CSG and received our support for their position-*Eds.*]

CALIFORNIA CROCODILE LAW-CORRESPONDENCE.

26 March 2002
Robert C. Hight, Director
California Department of Fish and Game
1416 Ninth St.
Sacremento CA 95814

Re: Alligator and crocodile conservation
Dear Mr. Hight

I write to call your attention to the continued existence and enforcement of California Penal Code 653 o and p which restricts commercial importation and possession with intent to sell of alligators and crocodiles and their parts and products. This statute was enacted at a time when all crocodilian populations were thought to be endangered and such a commercial ban was an appropriate conservation response. This is no longer the case.

This section of the code is completely inconsistent with changes in the US Endangered Species Act and international regulations (CITES) regarding legal possession and importation of alligator and crocodile products that are legally and sustainably produced on farms and ranches. Such products are carefully controlled and regulated and do not represent any threat to the survival or conservation of wild populations of crocodiles and alligators. Quite to the contrary, the commercial use and sale of these materials provides both direct (in the form of license fees, export levies) and indirect (in the form of political and public support by a constituency receiving economic benefits) support for conservation of crocodilians and their habitats. The current law is therefore an impediment to these conservation advantages in direct opposition to its original intent.

The Crocodile Specialist Group of SSC-IUCN has worked for many years to ensure that commercial crocodilian use complied with national and international regulations and was beneficial to conservation. We would like to open a dialogue with your department on reviewing your current law and its enforcement. We believe that California can continue to provide conservation support to crocodilians and

other exotic species while also recognizing and allowing legitimate commercial trade in legal products. We would be pleased to place our expertise and resources at your disposal to achieve this and would appreciate your reply indicating how we could best proceed together on such action.

Yours Sincerely, James Perran Ross
Executive Officer Crocodile Specialist Group

Mr. James Perran Ross April 19, 2002
Executive Officer Crocodile Specialist Group
University of Florida
Post Office Box 117800
Gainesville, Florida 32611-7800

Dear Mr. Ross:

Mr. Robert C. Hight, Director, Department of Fish and Game, has asked me to respond to your letter regarding the continued existence and enforcement of California Penal Code sections 653(o) and (p).

All codified laws (as opposed to regulations) in California are adopted by the California State Legislature. Existence of and amendments to the various codes, e.g., Penal Code, Vehicle Code, Fish and Game Code, etc., can only be made by the Legislature. Any proposals you may have to amend Penal Code sections 653 (o) and (p) must be addressed to the California State Legislature at the State Capitol, Sacramento, California 95814 and not to the Department.

The Department is responsible for the management and protection of California's living wildlife resources. Our concern regarding crocodilians is the threat live animals pose to those resources. The primary duty of Fish and Game wardens is enforcement of the Fish and Game Code. For that reason, our enforcement effort is specifically focused on those sections in the Fish and Game Code restricting the importation and possession of live crocodilians.

Enforcement of the California Penal Code, including sections 653(o) and (p), is the primary duty of city police and county sheriffs' departments. The Department has no authority over the enforcement policies or activities of these agencies.

If you have any further questions, please feel free to contact me at the letterhead address or telephone number.
Sincerely,

Gregory L. Laret, Chief
Conservation Education and Enforcement Branch

Zoos

PARENTAL CARE OF CUBAN CROCODILES HATCHED AT MIAMI METROZOO. Miami Metrozoo received a pair of *Crocodylus rhombifer* in 1998. A male from the Louisville Zoo estimated to have hatched in 1985 and a female from Crocodilian Conservation Services (Bruce Schwedick, Plant City, FL) that has been captive in the U.S. since its importation from Cuba in 1958. It was about two feet in length when imported (G. McDuffy pers. com. to B. Schwedick). The animals were initially housed in an off-exhibit area where the female nested for the first time. Twenty four eggs were laid on 15 March 2000. Most of these were damaged. Only three were fertile and none hatched, although two went to term. The animals were moved to a display enclosure in January 2001. Courtship was observed almost immediately after their release into the display. Breeding behavior was again observed in March and April, and the female fed little during April. On the morning of 4 May a nest mound of soil and vegetation was discovered in the enclosure. Five days later the nest was excavated and 26 eggs discovered. All the eggs were banded and one was slightly cracked. Eight eggs were removed for artificial incubation and the rest returned to the nest and reburied.

The artificially incubated eggs were maintained at 31.5° C and seven of these hatched after 85-90 days. The remaining egg contained a full term dead embryo. No activity was observed in the nest on display. Nightly video recordings of the nest were made beginning at around day 75 of incubation, but the female showed no interest in it. Finally on 23 August after 111 days of incubation the nest was opened by zoo staff. While digging into the egg chamber vocalizations were heard. Five eggs had pipped and contained live babies and a sixth egg was manually opened to reveal another live baby. Three other eggs contained dead fully formed embryos. The 12 remaing eggs had no visible embryos. Thus three eggs were missed when the nest was originally opened and the total clutch

was 29 eggs. Temperature measured inside the egg chamber during excavation was 31° C.

The pipped eggs were replaced in the nest and left uncovered save for a thin layer of grass stems. The adult pair was then released back onto the display from their shift pen. Attempts to lure the female to the nest were unsuccessful, however, the male showed some interest. He rested with his snout on the edge of the nest "bowl" and later lay across the entire nest. At one point the female picked up a 4-5 cm rock in her mouth and the male quickly ran over to her.

Finally, after many attempts to imitate hatchling vocalizations, one of the keepers made a popping sound with his mouth and a finger. This gained an immediate response from the female and she moved directly to the nest from the pool. She picked up a hatching egg in her jaws and walked to the pool followed closely by the male. Upon reaching the pool she opened the egg releasing the hatchling. She was attracted to the nest one or two more times and eventually picked up an empty eggshell that had been rolled out of the nest after a baby hatched on its own. She carried this to the pool as if it contained a baby and then dropped it. She again returned to the nest and was bitten on the jaw by a baby who only had its head out of the shell. This appeared to cause her to leave the nest. Further attempts to entice her to the nest were unsuccessful.

The remaining four unhatched eggs were further cracked by the keepers using a long pole. These later hatched on their own. Two hatchlings were then placed in the pool using the pole and an attached pool skimmer net. This caused a strong defensive reaction in the female, so the three remaining hatchlings were left in the nest for fear of them being trampled by their mother. It is interesting that the bare handle of the pole caused no reaction, but the net end most certainly did.

At approximately 19:30 hrs the female was videotaped carrying a hatchling to the pool. At 20:30 she was recorded taking another empty eggshell from the nest to the water. The following morning only one hatchling remained out of the pool. It is assumed that the female carried a second hatchling that night (taping stopped before staff arrived in the morning), although it could have walked to pool on its own. The final hatchling was placed in the pool with the skimmer net again causing an immediate reaction from the female. Although not unexpected, this may be the first recorded instance of parental care in *C. rhombifer*.

As of this writing (1 February 2002) all of the hatchlings are alive and well. The last six hatchlings remain on display with both parents who actively and aggressively defend them. The hatchlings are feeding on crickets, small fish, newborn mice and horsemeat.

Sizes at hatching for both groups are as follows:

	Artificial Incubation N=6		Exhibit nest N= 7	
	mean	range	mean	range
SVL	13.9 cm	13.0-14.5	14.6	14.4-15.0
TL	29.5	28.4-32.0	29.7	29.0-30.2
Mass	65.1	62-70	57.8	56- 60

The first seven hatchlings have grown faster due to a more controlled environment indoors and habituation to humans. — Steve Conners, *Miami Metrozoo, 12400 SW 152 St. Miami, FL 33177, USA.*

REPORT FROM THE DANISH CROCODILE EXHIBITION. With 4 species of crocodilian bred this year – *P. palpebrosus, C. c. crocodilus, O. tetraspis* and *A. mississippiensis* – the Krokodille Zoo continues to grow bigger. This year's breeding success follows on from the regular breeding of *P. palpebrosus* (since 1997), *O. tetraspis* and *A. mississippiensis* (last 2 years).

For those unaware of the zoo, it is located on the island of Falster in Denmark – about 1 hour from the capital, Copenhagen. The zoo started off as a small private interest of Rene Hedegaard in the early 1990's. He began building enclosures in a farm building on his property. During the latter half of the 1990's, the crocodilian collection grew to include members of over 17 species.

With local government aid, Rene was able to construct better enclosures, expand the collection to 19 species, and open the zoo to the public in July of 2000, with 35,000 visitors in that first year.

As well as one of the largest collections of different crocodilian species in the world, the Croc Zoo also has the largest crocodile in Scandinavia: Samson, the 4 metre Nile crocodile.

The zoo focuses on both conservation, and education. From every entry fee, 1 Danish Crown

goes toward crocodilian conservation programs. Last year, around US $1800 went to the Chinese Alligator Fund. This year, hopefully around US$3000 will be donated to Venezuelan crocodile programs, whilst next year, Rene will support *C. mindorensis* conservation.

Rene was also involved with importing young *A. sinensis* into Europe for selected private keepers in 1997, 1998, 1999 and 2001. These efforts raised around US$40,000 for the Chinese captive breeding efforts, and have been reported previously in the CSG Newsletter (see Wiegmann, 2000,CSG Newsletter vol 19(1) and Britton and Wiegmann, 1999, CSG Newsletter vol 18(1)).

The zoo allows school groups to visit each morning, then opens to the general public at midday. A classroom with quizzes and prizes for the kids further enhances the educational nature of the croc zoo.

With further government interest, a 6000m² Tropical Hall is planned for a new location on the island, built specifically to house all 23 species. Once this new facility is developed, indications from market research are that up to 300,000 visitors per year could be expected – and 1.5 Danish Crown will be donated from each entry toward croc conservation projects.

In the meantime, new, semi-outdoor pond enclosures are being prepared for both American and Chinese alligators. These would be used for the animals during the Danish summer months.

With the collection currently at 19 species of crocodilian, plans are underway to obtain a *Melanosuchus niger* from a zoo in the Czech Republic, and there is the possibility of acquiring *Crocodylus intermedius* from Venezuela in the near future. Rene is also liaising with Chris Banks of Melbourne Zoo about the chance of being involved with the *C. mindorensis* Recovery Plan.

Any CSG members and supporters are welcome at the zoo, and Rene would be happy to show you around behind the scenes. For any further information, please contact Rene Hedegaard: rh.croczoo@get2.net.dk

The collection of crocodilians comprises around 60 animals from 19 species. A complete list of the species is as follows:

Alligator mississippiensis, Alligator sinensis, Caiman crocodilus, Caiman yacare, Caiman latirostris, Paleosuchus palpebrosus, Paleosuchus trigonatus, Crocodylus cataphractus. Crocodylus johnstoni, Crocodylus moreletii. Crocodylus niloticus, Crocodylus noveaguineae, Crocodylus palustris. Crocodylus porosus. Crocodylus rhombifer, Crocodylus siamensis, Osteolaemus tetraspis, Tomistoma schlegelii, Gavialus gangeticus

— Rene Hedegaard Pederson, *Danish Crocodile Exhibition (Krokodille Zoo) Ovstrupvej 9 Eskilstrup, DK 4893 Fax: +45 5445 4243 Email: rh.croczoo@get2net.dk and* Colin Stevenson, *coleosuchus@hotmail.com*

Meetings

16th Working Meeting

7-10 October 2002

Gainesville FL USA

A brochure with full details of the meeting was sent with the last Newsletter in January. Arrangements for the meeting are in high gear. The organizing committee is meeting regularly and delegating tasks to a growing army of helpers. The fine details of program, social events, facilities are taking shape.

All potential participants are urged to register for the meeting and reserve hotel space immediately. Registration and hotel reservation can be done by credit card (see following) and are fully refundable until shortly before the meeting. Your early registration and hotel reservation enables us to judge numbers and plan accordingly and also provides us with additional facilities at the hotel.

Registration may be made by mail, e-mail to 16thCSG@fwc.state.fl.us or through the CSG website at www.flmnh.ufl.edu/natsci/herpetology/crocs.htm. The secure site allows registration payment by credit card. The advance registration fee is $180 and includes participation at the meeting, programs, a T-shirt, meeting abstracts, welcome cocktails, banquet and one copy of the Proceedings. To encourage early registration fees are fully refundable up to 4 October 2002. Registration at the meeting will be an additional

$20. Student registration is $50 and requires verification of student status.
Hotel reservations must be made directly to the Sheraton Hotel Gainesville at toll free telephone 888 627 8043 or on-line at www.sheratongainesville.com . Specify "Crocodile Specialist Group" to obtain the reduced meeting rate of $79+9% taxes/night.

To present a paper or poster submit an abstract to: Allan R. Woodward, Florida Fish and Wildlife Conservation Commission. 4001 S. Main Street, Gainesville FL 32601, USA, Fax 352 376-5359, e-mail woodwaa@fwc.state.fl.us
Abstracts should be submitted electronically in Microsoft word.doc, .rtf or .txt format, or on a virus free diskette, or by fax. Format the abstract as follows:
Title: ALL CAPS, 90 characters maximum.
Author(s): family name and one initial, presenting author first.
Address for correspondence (e-mail preferred)
Type of presentation:[Spoken, Poster, other].
Preferred medium [powerpoint, slides, overheads, video, other]
Description of the work: 200 words maximum.

Abstracts not conforming to this format will not be considered. Presentations will only be accepted if the presenting author is a registered participant. Presenting authors will be notified of receipt of the abstract and of acceptance by 30 June 2002. Abstracts received after 30 June 2002 will be accepted at the discretion of the review committee and on a space available basis.

We wish to express our thanks again to meeting sponsors **Alligator Adventure, Crystal River Alligator Farm** and **Louisiana Fur and Alligator Council** and invite additional support and sponsorship from others. To become a sponsor or offer support to the meeting please contact H. Franklin Percival at <PercivalF@wec.ufl.edu>

CASTILLO PRIZE FOR CROCODILIAN CONSERVATION. A gift of a handsome handmade silver pitcher has been presented to the CSG by Mrs Lily Castillo and her family of Guerrero and Mexico City. The Castillo family have been prominent artisans and artists in metals for three generations and their work is widely sought by collectors. Their pieces include a fishing award for US President Lyndon Johnson. chalices used for the Pope's visit to USA in 1987 and a silver cross and frame in the Vatican. Their work combines traditional silver work and prehispanic motifs.

The pitcher they have donated to CSG is 21 cm high and 20 cm base with a handle formed in the image of a crocodile. After consultation with Mrs. Castillo, we propose to award this pitcher as a prize for significant contributions to crocodilian conservation to be presented at the 16th Working Meeting in Gainesville in October. A small committee has been established to evaluate nominations for the prize. Nominations to receive the prize should be sent confidentially to the Executive Officer CSG — Perran Ross, Box 117800, University of Florida, Gainesville, FL 32611 USA, prosscsg@flmnh.ufl.edu

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FOURTH WORKING MEETING OF MEXICAN CROCODILE RESEARCHERS. 21 – 24 August at the University of Campeche, Campeche, Yucatan, Mexico. Invitations are extended to crocodilian

workers in neighboring countries (Belize, Guatemala, USA) and to all interested CSG members. A focus of the discussion will be the current revisions and new data on the status of *C. morlletii* in Mexico for future CITES applications. Inquiries should be addressed to — Manuel Muniz <moreletii@psi.net.mx>

Publications

CROCODILIAN BIOLOGY AND EVOLUTION. Edited by Gordon C. Grigg, Frank Seebacher and Craig Franklin. Surrey Beatty and Sons, Chipping Norton NSW, 2001, is the published proceedings of the conference of the same name held at the University of Queensland, Australia, in July 1998. Thirty five of the 42 presented papers have been elaborated and reviewed for publication in this very valuable volume. The contents are organized under five major headings: Paleobiology, Phylogentics and Molecular Biology, Functional Morphology and Biomechanics, Reproductive and Developmental Biology, Physiology and Physiological Ecology, and Ecology and Behavior.

The conference and the volume are notable for the interdisciplinary mix of paleontological and neontological investigations that inform and complement each other in numerous ways. Each section has a preface and includes at least one seminal paper encapsulating the state-of-the-art knowledge of crocodilians. Of particular importance are papers summarizing crocodilian phylogenetics by Chris Brochu and Lou Densmore, and a pair of papers by Steve Salisbury and Eberhart Frey in which Dino Frey's careful morphological analyses and interpretations of crocodilian structure are for the first time available in English. Lou Guillette and colleagues Andy Rooney and Matt Milnes summarize current thinking on endocrine disruption. Recent developments in osmoregulation (Alison Leslie and Laurie Taplin), skin gland chemistry (Paul Weldon), thermoregulation (Gordon Grigg and Frank Seebacher), hatchling calls (Adam Britton) and courtship behavior (Kent Vliet) all advance our understanding of major themes in crocodilian biology. Numerous other papers develop details of the picture and provide valuable data. This volume brings together most of the current thinking about crocodiles. A decade ago, Wildlife Management, Crocodiles and Alligators by Webb, Manolis and Whitehead 1987 and American Zoologist Volume 29 No. 3 1989 provided the then current synthesis on crocodilians. Grigg *et al.* 2001 is the update and should be on every crocodilian biologist's bookshelf. Orders can be placed with the publisher at surreybeatty@iform.com.au

CSG On Line

CSG WEB PAGE UPDATE. The CSG webpage at http://www.flmnh.ufl.edu/natsci/herpetology/crocs.htm has been newly updated and reformated by web manager F. Wayne King. A smarter appearance, streamlined structure, revised contents and updated links all improve the page's utility and appeal.

The site now also links to the CSG 16th Meeting site and the secure link allows registration for the meeting by credit card.

Website use peaked in early 2001 at over 1 million 'hits' per month then dropped to a low of 317,000/mo in the third quarter before the site content was renewed. Since the renewal and update, use is running at around 950,000 hits/mo, representing around 55,000 individual visits with an average time on the site at 8-9 minutes. The website clearly makes CSG materials available to a very wide audience and is an important medium of information exchange.

THE BASKING SPOT. Check out the crocodilian page at: http://baskingspot.com/spe-crocodilians.html The right hand column is loaded with links to various newspapers, TV, and other media sources dealing with crocs, turtles, and other reptiles. If the news is the latest something that was reported earlier, links to those earlier reports are usually present in the article. — F. W. King. kaiman@flmnh.ufl.edu>.

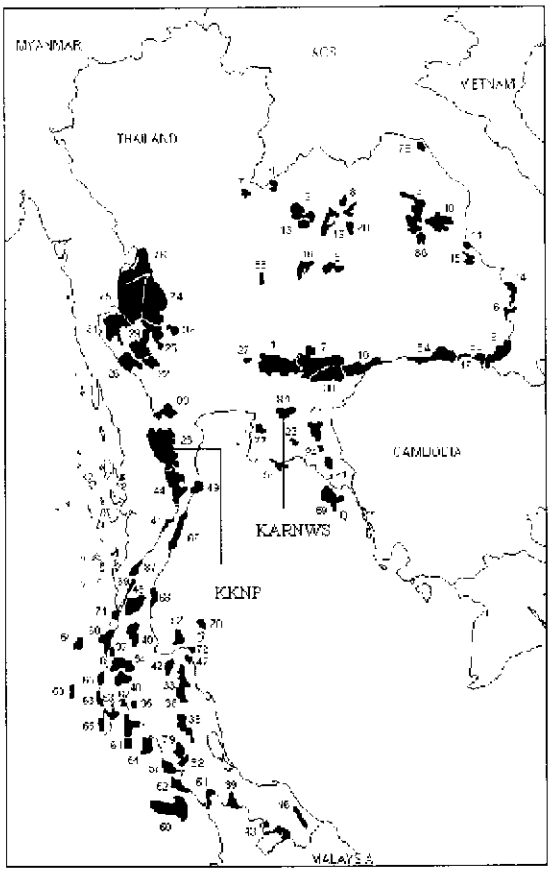
CICEA WEB PAGES FOR CROCODILE RESEARCHERS. The Centro Regional de Innovación Agroindustrial, (CICEA) Universidad Juarez Autonoma de Tabasco, Mexico, has established crocodilian research as a priority and has compiled two valuable resources in Spanish for crocodilian researchers.
BIECALyC:
http://www.ujat.mx/dacbiol/biecalyc/Inicio.htm

is a data bank of resources and references on crocodilians, focussing on Spanish sources, but including extensive material from the English literature as well.
http://www.ujat.mx/dacbiol/cocodrilo/Inicio.htm is a manual of operations for crocodile farming and husbandry based on research conducted at the Center. The Center hopes to continue this work given suitable funding. — Beatriz Figueroa, *Calle Imperial 3, Piso 2B, Valladolid, Spain.*

Correction

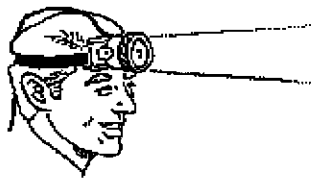
SIAMESE CROCODILE PHOTO. I was interested to read an article on p. 79 of the CSG Newsletter (Vol. 20, No. 4) about photographs of wild Siamese crocodiles from Thailand. The article is particular confusing. Firstly, the first camera-trap photographs of Siamese crocodiles from Thailand, and in fact from anywhere in its range where taken in March 2001 by me and a field team from WCS and Royal Forest Department in the course of a tiger survey at Kaeng Krachan National Park, in western Thailand. The species appears to maintain a small population in the park and this is the subject of an in press article, Platt, S. G., A. J. Lynam, Y. Temsiripong and M. Karnpanakngarn (in press). OCCURRENCE OF THE SIAMESE CROCODILE (*CROCODYLUS SIAMENSIS*) IN KAENG KRACHAN NATIONAL PARK, Thailand. Natural History Bulletin of the Siam Society.
Separately, Yosapong Temsiripong recorded hand held camera photographs of an individual at Khao Ang Rue Nai, which is in eastern Thailand, 3 hrs from Bangkok. To my knowledge, camera-trap photographs of the individual at KARN have not been taken, nor are they necessary because the individual is apparently quite predictable in its movements thus making it amenable to taking photographs. Yosapong has most admirably demonstrated this fact. Hope this clears up the confusion. —
Antony J. Lynam *Associate Conservation Ecologist, Thailand Country Program Coordinator, Wildlife Conservation Society P.O. Box 170, Laksi, Bangkok Thailand 10210, E-mail:* tlynam@wcs.org

[The editors apologize for the confusion and thank Mr. Lyman for so clearly correcting the record.]



National Parks of Thailand showing recent crocodile sightings. KKNP- Kaeng Krachan National Park. KARNWS- Khao Ang Rue Nai.

Personals



FRANK SEEBACHER fseebach@bio.usyd.edu.au is now at Sydney University and busy with a field project on metabolic enzyme activity in wild American alligators at Rockefeller Refuge in Louisiana in colloboration with Ruth Elsey and 'Scoter" Trosclair and Helga Guderley from Laval University in Quebec, Canada. Frank has also been working with Craig Franklin at University of Queensland, Australia, in an experimental laboratory program on cardiac control in *C. porosus.*

RONIS DA SILVEIRA, *Universidade Federal do Amazonas, Instituto de Ciências Biológicas, Departamento de Biologia, Campus Universitário - Av. General Rodrigo Otávio Jordão Ramos Nº 3000, Bloco A/Mini Campus, Manaus/AM, CEP 69077-000, Brasil: ronis@inpa.gov.br*, finished his PhD Thesis on black and spectacled caiman in the Mamirauá Reserve and the Anavilhanas Archipelago, under supervision of Bill Magnusson at INPA in June 2001. Now he is teaching Ecology and Conservation Biology at the Universidade do Amazonas in Manaus. He is planning also to supervise students in the Ecology Postgraduate Program at INPA. Other good news is that his wife Bárbara is pregnant, and their second baby will be born next August. Congratulations etc. can be send to his new professional address.

JUAN VILLALBA-MACIAS, *Estacion M'Bopicua, Casilla de Correo 62086, Fray Bentos, Uruguay*, has written to inform us that since 1999 he has been the coordinator for environmental work for EUFORES, an NGO in Uruguay. Since the beginning of this year he and his family have been living on a ranch run by the organization as a conservation center. The area, 300 km from Montevideo, is tranquil and supports a rich vertebrate fauna. There are plans to develop farming of *Caiman latirostris* at the center. Juan's daughter Victoria, 4 years old, is already showing signs of being a future CSG member.

ALBERTO YANOSKY, Cnel. R. Franco 381, CC 1132, Asunción - Paraguay, Tel./Fax 595-21-227777 y 229097 - Mobile 0981-959175. *http://www.guyra.org.py*, formerly in Argentina, moved to Paraguay in 1994 to work at Fundación Moisés Bertoni (FMB). He left FMB as deputy director in October last year to join Guyra Paraguay, a four years old NGO with a new vision in its planning. Guyra Paraguay, according to Alberto, will become an authority on Paraguayan biodiversity, with a particular focus on birds and their habitats, and to act as a catalyst for increased community participation in nature conservation. The organisation has the mission of leading, promoting and coordinating progress towards the conservation and sustainable use of biodiversity, with a special focus on birds, through advocacy, research, public awareness and active community participation. Alberto Yanosky is the CEO of Guyra Paraguay,

EDITORIAL POLICY - All news on crocodilian conservation, research, management, captive propagation, trade, laws and regulations is welcome. Photographs and other graphic materials are particularly welcome. Information is usually published, as submitted, over the author's name and mailing address. The editors also extract material from correspondence or other sources and these items are attributed to the source. If inaccuracies do appear, please call them to the attention of the editors so that corrections can be published in later issues. The opinions expressed herein are those of the individuals identified and are not the opinions of CSG, the SSC, or the IUCN-World Conservation Union unless so indicated.

Steering Committee of the Crocodile Specialist Group

Chairman: Professor Harry Messel, School of Physics, University of Sydney, Australia.
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