

Crocodile Specialist Group Steering Committee Meeting

Skukuza, Kruger National Park, South Africa

22 May 2016

Zoos Report

1. We cannot express enough how great loss to the CSG and to the international zoo community was the passing of Ralf Sommerlad. Ralf was a tireless champion for crocodilians both in captivity and in the wild. He was a great communicator, an intermediary, a messenger that carried and transmitted information, ideas, and initiatives between Europe, North American and Asia. In so doing, Ralf helped the zoo community coordinate its crocodilian conservation efforts, focusing regional associations on specific projects, as well as combining forces when conservation programs required more resources than could be supplied by a single association.

He was a great partner for me in my role as Vice-chair for this group, sharing ideas and information, constantly keeping me up to date with zoo activities in Europe relative to crocodilians. Toward the closing of the 2014 CSG working meeting in Lake Charles, Ralf took me aside, along with Fabian Schmidt (Zoo Leipzig), and told me that he would no longer be able to provide the support that he had for so many years and urged me to collaborate with Fabian instead. So, Fabian Schmidt is now assisting me with European matters.

2. Activities in North American zoos
 - a. The Association of Zoos & Aquariums (AZA) Crocodilian Advisory Group (CAG) continues to promote the exhibition of crocodilians in North American zoos, aquariums and other living institutions.
 - i. The “Crocodilian Biology and Captive Management” professional training school, developed and given by the CAG, held its 16th annual course just last month. There are now more than 310 alumni of this course, most still working in zoos and many now in leadership positions within their departments. An increasing number of these alumni are now in positions to influence the exhibition of more crocodilians in their institutions and also to direct conservation funds toward crocodilian projects.
 - ii. The CAG maintains official studbooks on 8 species of critically endangered or endangered crocodilians. Kim Lovich, Curator of Herpetology at the San Diego Zoo, has taken over the *Mecistops cataphractus* SSP program upon the retirement of John Groves. The collaborative reintroduction project for *cataphractus* at the National Zoo in Abidjan, Ivory Coast, involving support and assistance from the San Diego Zoo and Albuquerque Biopark Zoo, which was detailed in my 2014 report, continues to develop. Zoo professionals from both San Diego and Albuquerque have made repeated trips there to train local keeper staff, provide

material assistance, and assist with husbandry and management. More than 75 captive born West African slender-snouted crocodiles have been hatched since this project was initiated and are now being cared for in newly renovated grow-out facilities on the zoo grounds. With further zoo support as well as outside grant funding, Dr. Matt Shirley is continuing to survey national parks and other protected areas in Ivory Coast to determine existing crocodile population status and to identify prime areas for the eventual release of the captive born crocodiles. This collaborative effort has spread beyond the original initiative of breeding crocodiles, as other zoo personnel, including primatologists, other mammal specialists, aviculturists, and veterinarians, to assist with many other endangered species maintained at the zoo.

- iii. The other developing collaborative effort between North American and *in situ* zoos that I reported on previously, the captive breeding and reintroduction of Siamese crocodiles in Cambodia, also continues to grow. Lonnie McCaskill, the Siamese crocodile SSP Coordinator for the CAG, now the Curator of Animals at Prospect Park Zoo, has been providing assistance along with FFI Cambodia to the Phenom Tamao Zoo. The breeding program has produced offspring over the past few seasons and headstarted crocodiles have been transported into remote protected areas for soft release into appropriate habitat

The Detroit Zoo has sent captive-born Siamese crocodiles from their pair to St. Augustine Alligator Farm Zoological Park to join their hatchlings in preparation for shipping these crocodiles to Cambodia to supplement the genetic diversity of their breeding stock and for release of some into protected areas.

- iv. Since my last report to the CSG Steering Committee, the CAG donated:
 - \$2000 in emergency funding to allow Lonnie McCaskill to travel to Cambodia to train zoo keepers in the safe capture of wild crocodiles. A large dam project in the Areng River valley, long thought to be dead politically, suddenly was approved. Crocodiles were captured and transferred to other government approved reintroduction sites.
 - \$5000 to Crocodylus Porosus Philippines Inc, for a Community-Based Sustainable Ecotourism (CBST) model for the Philippine crocodile in Siargao Island.
 - \$4645 to Jeff Lang to hire a person to radio track gharial for 6 months on the Chambal.
 - The Los Angeles Zoo imported a 35-year-old female Tomistoma from Singapore Zoo in October 2015, to pair with their male.
 - The Virginia Aquarium & Marine Science Center also imported a pair of young Tomistoma from Borneo for this exhibit.
- b. The traveling exhibition “*Crocs: Ancient Predators in a Modern World*”, produced by Peeling Productions, opened January 27, 2016 at the National Geographic Museum. This exhibition, including, multimedia exhibits, informational graphics, museum dioramas and live animals, has the potential to reach millions of museum visitors over the next few years. It includes an examination of the behaviour, ecology and physiology of crocodylians, their evolutionary history, and their relationships with humans. One section, entitled “Use them or Lose them”, regarding sustainable

utilization, was removed by museum officials after a complaint by an animal rights organization. In Summer, the exhibition will move to the American Museum of Natural History in New York City where it will remain for the next year (hopefully with the sustainable utilization elements back in place).

- c. The organizers of the *Crocfest* fundraising events (Colette Adams, Curt Harbsmeier, Shawn Heflick and Flavio Morrissiey) for crocodilian conservation projects continue to hold these events at least twice a year. Since its founding in 2009 *Crocfest* has managed to solicit donations of ever increasing amounts of money, donations for each year topping the last. This is not a small endeavour. Since its inception, *Crocfest* has collected close to \$200,000 for crocodiles. Prior to each event, the organizers select a crocodilian project for which funds will be raised. The Summer 2014 fundraiser raised over \$18,000 (which was combined with an additional \$4800 from a sister event in Canada). For Christmas 2015, they raised \$35,000 for Philippine crocodiles. The June 2015 *Crocfest* raised \$23,000 for Jeff Lang's Gharial ecology project on the Chambal River; the December 2015 event raised \$32,000 for Matt Shirley's work *M. cataphractus* in the Ivory Coast and with Abidjan Zoo. The Summer *CrocFest* 2016 will benefit the *Alligator sinensis* reintroduction plan organized by Steven Platt, WCS Myanmar.
 - i. At the *Christmas Crocfest 2015*, the organizers announced the creation of an award to honor Ralf Sommerlad and all he had done for crocodilians. The recipient of the inaugural *Ralf Sommerlad Crocodile Conservation Award* was the Virginia Aquarium & Marine Science Center. The organizers highlighted the work of Mark Swingle and Chip Harshaw. The *Crocfest* official announcement of the award included this summary "In the early 2000s, Mark Swingle and Chip Harshaw began investigating the possibility of opening a crocodilian exhibit that would have real conservation value and expose the public to a crocodilian rarely displayed in U.S. collections. After researching possible species and consulting with the AZA Crocodilian Advisory Group, they chose the Malayan gharial, *Tomistoma schlegelii*. And so began a strong commitment to the species that continues today. In 2005, they opened a temporary exhibit and displayed a young *Tomistoma* for the first time. By 2007, they identified a pair of unrelated, adult captive *Tomistoma* (one in Florida, USA, and one in Toronto, Canada) that were available and in need of a facility for captive breeding efforts. In 2008, Chip attended a *Tomistoma* Task Force (TTF) conservation workshop in Thailand, establishing Virginia Aquarium's commitment to international conservation of this species. At that meeting, Chip first met Ralf Sommerlad, forging a friendship that would last until Ralf's death. That same year, construction began on a 12,000 square foot (1100 m²) series of exhibits called "Restless Planet", which included the Malaysian Peat Swamp exhibit intended for the adult Malayan Gharials. The exhibit opened to the public in November 2009 to overwhelming success. In 2010, with Ralf's encouragement, Chip flew to East Kalimantan to work with Rob Stuebing and survey *Tomistoma* in Danau Mesangat, a huge wetlands area in east central Kalimantan, critical to *Tomistoma* conservation in Indonesia. In 2014, Mark and Chip became members of the IUCN-SSC Crocodile Specialist Group. In 2015, Virginia Aquarium imported a new pair of juvenile *Tomistoms* from Kuching, the capital of the Malaysian state of Sarawak on Borneo, the first U.S. legal import of *Tomistoma* from a range country since 1974. In addition, over the last 10 years, Virginia Aquarium has financially

supported a number of *in-situ* crocodylian conservation projects benefiting the world's most endangered crocodylians.”

3. Activities in Europe

- a. This information, provided by Fabian Schmidt, was also made available to the European Regional Chair, so there may be duplication of elements here with that report.
- b. Recognition of cryptic species and species complexes among Africa crocodile taxa has prompted the need for genetic typing of captive crocodiles in zoos, to properly identify individuals to species, to ensure that mating pair or groups are monotypic, and to identify hybrid individuals produced prior to the recognition of this diversity and prevent these individuals from being involved in further breeding. The European Association of Zoos and Aquaria (EAZA) has maintained an *Osteolaemus* studbook for some time, kept by Fabian Schmidt. Virtually all dwarf crocodiles in EAZA collections have been genetically typed. (Schmidt, F., Franke, FA., Shirley, MH., Vliet, KA. & Villanova, VL. 2015: The importance of genetic research in zoo breeding programmes for threatened species: the African dwarf crocodiles (genus *Osteolaemus*) as a case study. *International Zoo Yearbook* 49: 125-136).
- c. Numerous European zoos, organized through Cologne Zoo, continue to support *in situ* efforts of the Mabuwaya Foundation to conserve the Philippine crocodile.
- d. Numerous zoos have provided support for population and habitat surveys of *Tomistoma schlegelii* in Sabangau Peat Swamp Forest, Central Kalimantan, Indonesia. This project is organized through Fundacion Bioparc, but includes the support of Bioparc Fuengirola, Zoo Leipzig, Chester Zoo, Zoo Dvur Kralove, La Ferme des Cocodriles, and Taipei Zoo.
- e. Paignton Zoo, UK, has been organizing a program of genetic screening of *Crocodylus rhombifer* within EAZA collections in an effort to identify and remove any possible hybrid individuals in preparation for a cooperative breeding program. These efforts are similar to those of AZA zoos in the USA when the Cuban crocodile SSP program first began there.
- f. On a related note, Skansen-Akvariet in Sweden sent a group of 10 small captive-born *C. rhombifer* to Cuba, apparently at the request of the Director of the CITES Management Authority of Cuba. These were progeny of a pair given by Fidel Castro. The request was to supplement the number of pure Cuban crocodiles in the captive breeding facility.
- g. I should also note that two of the oldest crocodiles in captivity passed away since my last Zoos Report. Both were in the Rotterdam Zoo, both were *Mecistops* though one (the male) was a Central African form and the other (a female) a West African. Both animals came into Rotterdam Zoo around 1933 as a gift of the then famous singer and striptease dancer Josephine Baker. From their size, they were thought to have hatched in about 1929-1930. These two crocodiles were the last survivors in the zoo of the bombing of the Rotterdam city center in 1940. The female, died in June 2014 with an approximate age of 85 years. The male died only a few months later.

- h. And an old alligator at the Honolulu Zoo died in April 2015. He arrived at the zoo in 1953. The zoo's first director had bought him from an alligator farm in San Antonio. He was 10' at the time and the farm employees told him he was at least 20 years old. This would have made him about 82 years old at his death.

4. Activities in Latin America

- a. Several AZA zoos provided economic support for Ariel Espinoza Blanco for his PhD project on "Population parameters, habitat quality and effect of past reintroductions of the Orinoco crocodile in Venezuela: evaluation of conservation actions". The institutions included the Dallas World Aquarium, St. Augustine Alligator Farm, Ellen Trout Zoo, The Phoenix Herpetological Society, Wildlife Discovery Center, and Crocodile Conservation Center of Florida. Almost \$5,200 were collected through the organizational efforts of Colette Adams at the Gladys Porter Zoo, which also then coordinated the international money transfer to Venezuela. Ariel sent a brief report on the progress of his research and will be sending information to all the contributors.
 - b. The Dallas World Aquarium (DWA) supported the Venezuelan Crocodile Specialist Group (VCSG) with \$3000 for crocodilian training course offered to Venezuelan young professionals. The class was given in Thomas Blohm's "Hato Masagural" in February 2015. The VCSG also received support from Rene Hedegard's Danish Krokodille Zoo. In February 2016, the DWA again supported the crocodilian class in Venezuela with an additional \$5000.
 - c. In Colombia, two groups: Fundacion Palmarcito and the National University (Federico Medem's headquarters "Estacion Roberto Franco) have released captive-bred Orinoco crocodiles in 2015 and 2016 and are tracking their movements.
5. Bruce Shwedick, Chair of the Tomistoma Task Force (TTF), Rob Stuebing, and the TTF have promoted an initiative for a public awareness campaign called World Tomistoma Day for August, 2016. Many zoos in Asia, Europe and North America have already announced plans to celebrate this with tours, exhibits, socials, and information regarding the plight of Tomistoma.

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