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# The amazing Danish crocodile collection



Nile crocodiles at the DCZ.  
 Courtesy Rene Hedegaard/DCZ

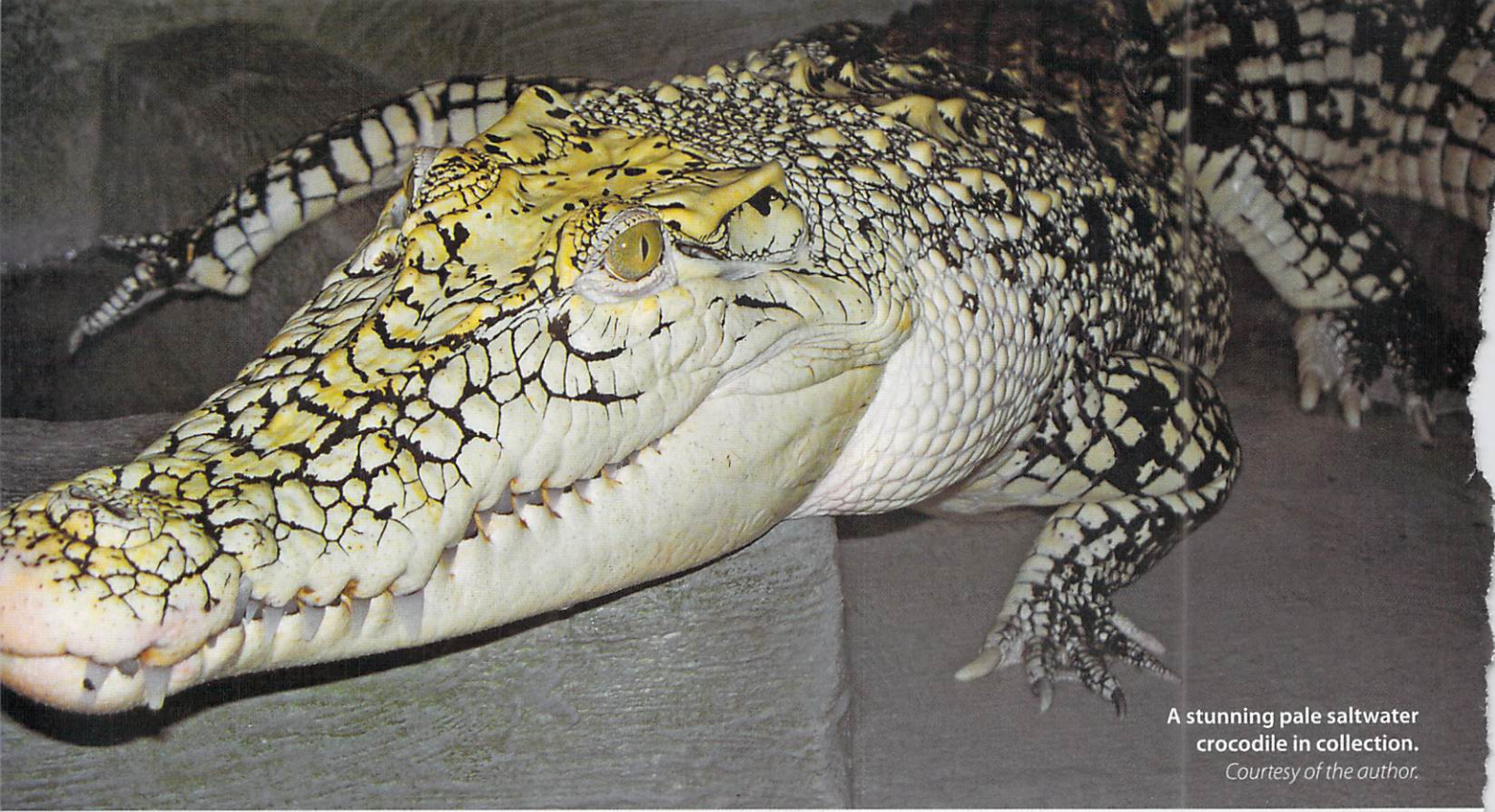
When you think about crocodiles, they tend to bring to mind images of tropical areas. It is hard to believe that a few million years ago, ancient crocodylians roamed across the continent we now call Europe. Just as remarkable today, perhaps, is the fact that if you're interested in seeing all the world's crocodylians in 2011, there are just two places to go – and one of them is Denmark. Colin Stevenson reports.

**T**he Danish Crocodile Zoo (DCZ), known locally as the Krokodille Zoo, is one of the few collections worldwide that specialises in crocodylians. Owner Rene Hedegaard is a true crocodile expert, having been fascinated by these animals since childhood. The DCZ holds 22 of the 23 recognised species, and plans are well underway for the 23rd species – in this case, the Orinoco crocodile – to join the others in Denmark sometime during 2011.

The collection is located about an hour from Copenhagen on the Danish island of Falster. It extends over an area of some 7000m<sup>2</sup> (1.75 acres), with 27 display enclosures, and a further 25 which are off-display. Whilst crocodylians are the main



Rene and his daughter Jenny with a Chinese alligator.  
 Courtesy Rene Hedegaard/DCZ



**A stunning pale saltwater crocodile in collection.**  
*Courtesy of the author.*

focus, other reptiles to be seen include green anacondas and crocodile monitors, along with many turtles and tortoises, as well as some parrots and tamarins. Rene has also arranged to show clouded leopards in the future, with enclosure designs already underway for these magnificent wild cats.

There is now an increasing number of facilities around the world that are focusing on crocodylians. At the time of writing though, only St Augustine's Alligator Farm in Florida houses all 23 species. Atagawa Alligator and Tropical Garden in Japan at one stage displayed this number, but now has only around 18 species. La Ferme Aux Crocodiles at Pierrelatte in southern France is also a large facility, with perhaps a dozen species on display. Several others are being planned, or in varying stages of completion both in Europe and elsewhere in the world.

## Origins

Having been fascinated with crocodiles as a child, Rene always thought he would have something to do with crocodiles when he grew up. His first crocodylian was a pet American alligator! This was soon joined by dwarf and spectacled caimans. From there, the collection grew until he had 15 species, and at this point, he realised that he needed to develop it into a full-time concern.

The Danish Crocodile Zoo opened to the public in 2000. It was constructed on Rene's property, from large farm buildings. After a thorough renovation with state-of-the-art insulation added, and some artistic rock-work to increase the visual appeal of the enclosures, the zoo started to welcome its first visitors. It immediately proved popular – especially with local schools, as Rene's enthusiasm for these animals allows him to

share this passion with small tour groups.

Given the size of the collection, the zoo is also used by photographers and scientists, and has been the source of animals for various non-invasive research projects. The experience that Rene has achieved with all these crocodylians also means his advice is often sought by other zoos. His knowledge and contributions to crocodile conservation have also resulted in him being asked to join the Crocodile Specialist Group of the IUCN (the prestigious International Union for the Conservation of Nature and Natural Resources).

## Breeding by design

Rene designs and builds each enclosure himself. The basis for his enclosures is that the total floor space becomes the pool. The land area is then built to form a shelf over and around much of the pool. This design minimises stress on the animals, as they can easily escape from prying eyes or perceived danger. When keeping crocodylians in captivity, reducing stress to a minimum is a major factor in the design of their housing and their successful husbandry.

The land areas are all heated with various lighting arrangements, allowing the animals to thermo-regulate to their individual requirements. Substrates are chosen to suit the species: sand for Nile crocodiles, for example, and wood chips for those such as the dwarf caimans and dwarf crocodiles that tend to inhabit forested areas. Then at the first signs of breeding behaviour, extra substrate is added to facilitate nesting.

Heating of most pools is accomplished simply by heating the entire building: leave your coat at the door, as the thermostat is set to a tropical temperature throughout the zoo. However, newer ponds, such as the



**The fish-eating gharial.**  
*Courtesy Rene Hedegaard/DCZ*

large black caiman enclosure and the gharial exhibit have highly controllable heating.

### Zoo tour

Upon entering the zoo, a large viewing window opens on to the gharial exhibit. This is one of the few places you can see gharials in European zoos. The animals are remarkably active, and timing a visit for feeding time, or booking a guided tour from Rene is recommended for those with a serious interest in these narrow-snouted, fish-eating crocodilians.

Next to the gharial exhibit is the new black caiman enclosure. This is home to a pair of stunning animals. The male is around 4m (13ft) long, and the pair looks promisingly compatible!

Further along is a group of young Cuban crocodiles. By far the most agile and active of all crocodilians, these young crocs are amusing in their enthusiasm. When feeding these guys, tongs are very much essential...

Once into the zoo itself, a stroll along the walkways will take you past the remaining species of crocodilians, as well as the anacondas, crocodile monitors and tortoises that include some large sulcatas. The larger animals are housed in spacious enclosures, with smaller specimens in large terrariums.

To see the many and varied crocodilian species altogether is fascinating, but some of the individuals are simply eye-opening. The large male African slender snouted crocodile at the zoo is simply massive. Measuring around 4m (13ft) in length, this is a tremendous example of the species, showing the huge size they can attain, as compared to photographs in books that generally show much smaller specimens. For reptile enthusiasts, it is quite something to stroll around and see Tomistoma, Cuban crocodiles, Philippine crocodiles and American crocodiles, as well as all members of the alligator and caiman group in a single locality.

A feature not to be missed in summer is the more open alligator swamp. Set in a conservatory-style area, this is where the American and Chinese alligators live. Lushly planted, with green iguanas running about, it is one of the more naturalistic enclosures at the zoo. Of course, in summer, the alligators are at their active best. During the cooler months, these two species retire to dens.

The large male crocodile at the zoo, Samson, is a popular animal, and will return to the zoo shortly. He has been away for a few years at a special exhibit in Norway that featured around 30 of Rene's crocodilians, consisting of about 15 species

in enclosures especially designed by Rene. This was a particularly successful partnership between Rene and the Bergen Aquarium, which not only saw record visitors at the aquarium, but also resulted in huge donations for crocodile conservation.

### Breeding success

Rene has a remarkable record when it comes to breeding crocodilians. To date, he has been successful with 11 species: the dwarf caiman, spectacled caiman, Chinese and American alligators, broad-snouted caiman, dwarf crocodile, Nile crocodile, African slender-snouted crocodile, Siamese crocodile, Cuban crocodile and the New Guinea crocodile. This breeding record is only bettered again by St Augustine's Alligator Farm. Considering that in Europe the animals need to be maintained inside, this is an even more impressive accomplishment by Rene.

For some of these species, the Danish Crocodile Zoo was the first place in Europe to breed them. A particularly notable success this year was the first breeding in Europe of the Chinese alligator.

Many factors of course need to come together to achieve successful breeding. You need compatible pairs, a good-sized enclosure of proper design, correct heating, suitable substrate, a good diet, and an eye

for how the animals are behaving. With some species, finding a compatible pair is daunting. Keepers of the

smooth-fronted caiman may know of the difficulty in keeping pairs of this species, with males liable to kill their prospective partners...not the way to procreate!

The highly endangered Philippine crocodile is another species that is difficult to breed. Rene put together the first legal group of this species in Europe, with the aim of establishing a breeding programme at several zoos. This crocodilian is another that is again notoriously hard to pair-up successfully.

For some species, seasonal manipulation of temperatures is required in order to be successful – particularly the alligators. Care needs to be taken, however, as too low a drop in temperature can be fatal for the alligators. This is an all-too-common occurrence in zoos aiming to 'winter' their alligators.



The DCZ achieved a European first-breeding with the Chinese alligator in 2010. Courtesy Rene Hedegaard/DCZ



American alligator.

Incubating the eggs brings its own challenges. Over the years, Rene has established a very high success rate for incubation. Very high humidity and precise temperature control are vital factors in this area, but also keeping a close eye on their development and knowledge of what to look for are equally important.

Large earthworms are used to form the basis of the initial diet of the hatchlings. Their high nutritional value and easy digestibility for the young crocodilians make them an ideal rearing food.

In certain circumstances, some eggs have been allowed to develop within the nest at the zoo. Visitors have then been fortunate to be able to watch the young crocodiles emerge from the nest with the aid of the parents. For several months, two young Siamese crocodiles shared the enclosure with their parents, making a great exhibit.

## Conservation success

After five years of paperwork and trips to the Philippines, Rene was finally able to import 15 Philippine crocodiles, with pairs of these now represented at five other zoos, leaving a group of five of these animals remaining at the Danish Crocodile Zoo. Readers will be interested to know that two UK zoos are involved in this programme, with both Chester and London having a pair of this species as part of Rene's breeding programme.

Outside of South America, the DCZ has the largest collection of black caimans in the world, comprised of 15 animals. The black caiman is an amazing crocodilian, being jet black with pale stripes, which means it is a very striking species. The head of the largest male is especially broad and powerful - it is a truly impressive animal.

Rene began working on importing this species many years ago. A failed black caiman ranch in Ecuador gave him the opportunity. Since the ranch was having problems, Rene was asked to help them out. The result was that he alone was given permission to import the black caimans. In doing so, he also arranged for the release into the wild of the remaining black caimans that were housed there. The large male is paired with a large female, and whilst it is early days yet, they appear to be

comfortable with each other and hopes are high that this will be the first pair to breed outside of South America.

In collecting all these crocodilian species, serious conservation efforts have been integral for each project. To date, Rene and his croc zoo have contributed over £31,000 (US\$50,000) to crocodile conservation projects, supporting Philippine crocodiles, gharials, Chinese alligators, black caimans, Orinoco crocodiles, Cuban and American crocodiles...a long list of accomplishments.

True to his word, Rene also donates a percentage of each entry fee toward crocodile conservation. So when you visit the zoo, not only will you see a stunning collection of crocodilians, you will also be contributing directly to conservation projects for these magnificent animals.

## Planning a visit

First of all, it is best to check out the zoo's website at: <http://www.krokodillezoo.dk> Make sure you click on the British flag, unless you can read Danish. The website will have current prices, opening hours and times, with the zoo normally being closed during December and January. However, guided tours can be booked throughout the year.

The crocodile zoo is fairly small, so a couple of hours would be sufficient to see it all thoroughly. A guided tour, though, is recommended, as you can ask Rene about the animals in more detail. Most of the staff speak English.

The island of Falster is about one hour south of Copenhagen. Flying to Copenhagen is easy and quite cheap. Trains run from Copenhagen to Eskilstrup, and it is a short cab ride from there to the Crocodile Zoo.

If you are travelling by car, your Satnav will guide you there.

Around Denmark, there are about 52 zoos of varying sizes. Check out: <http://nordiczoos.dk/index.asp> for information on zoos within Scandinavia. If driving, the DCZ is about 40 mins from a ferry to Germany, and there are also many zoos to explore in Germany, Holland etc if you were to make a trip of it.

Should you want to stay within Eskilstrup, there is Motel Højmølle Kro. If you go to [www.Booking.com](http://www.Booking.com) and type in Eskilstrup, you will see the details. ■

## List of species currently resident at the Danish Crocodile Zoo

### Spectacled caiman.



### Crocodilians

*Alligator mississippiensis*, American alligator  
*Alligator sinensis*, Chinese alligator  
*Caiman crocodilus*, spectacled caiman  
*Caiman latirostris*, broad-snouted caiman  
*Caiman yacare*, yacare caiman  
*Melanosuchus niger*, black caiman  
*Paleosuchus palpebrosus*, dwarf caiman  
*Paleosuchus trigonatus*, smooth-fronted caiman  
*Crocodylus acutus*, American crocodile  
*Crocodylus cataphractus*, African slender-snouted crocodile (now *Mecistops cataphractus*)  
*Crocodylus johnstoni*, freshwater crocodile  
*Crocodylus mindorensis*, Philippine crocodile  
*Crocodylus moreletii*, Morelet's crocodile  
*Crocodylus niloticus*, Nile crocodile  
*Crocodylus novaeguineae*, New Guinea crocodile  
*Crocodylus palustris*, mugger, or marsh crocodile  
*Crocodylus porosus*, saltwater crocodile  
*Crocodylus rhombifer*, Cuban crocodile  
*Crocodylus siamensis*, Siamese crocodile  
*Osteolaemus tetraspis*, dwarf crocodile  
*Tomistoma schlegelii*, Tomistoma  
*Gavialis gangeticus*, gharial

### Snakes:

*Eunectes murinus*, green anaconda  
*Python molurus*, Burmese python

### Lizards:

*Iguana iguana*, green iguana  
*Physignathus coccinus*, green water dragon  
*Shinisaurus crocodilurus*, crocodile lizard  
*Varanus rudicollis*, roughneck monitor  
*Varanus salvadorii*, crocodile monitor

### Turtles:

*Centrochelys (Geochelone) sulcata*, African spurred tortoise  
*Podocnemis expansa*, Arrau river turtle  
*Chelodina longicollis*, eastern snake-necked turtle  
*Phrynops hilarii*, Hilaire's side-necked turtle  
*Orlita borneensis*, Malaysian giant turtle  
*Trachemys scripta elegans*, red-eared slider  
*Podocnemis unifilis*, Terrecay river turtle

### Birds:

*Ara militaris*, military macaw  
*Trichoglossus haematodus moluccanus*, rainbow lorikeet

### Mammals:

*Saguinus oedipus*, cottontop tamarin

Philippine crocodile.

## The Danish Crocodile Zoo

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