

INTERNATIONAL ZOO NEWS

Berlin Zoo, Germany

The keeping and breeding of black rhinoceroses is a speciality of Berlin Zoo. Sixteen calves were born here between 1981 and 2006 [see under Blaszkiewitz, B., in Recent Articles, below, p. 252]. On 3 April the 22-year-old Ine (herself born at the zoo in 1986) gave birth to her third calf. The young male has been given the Swahili name Kito, which means 'jewel'. His father Jasper was born in 1991 at Dvur Králové and has lived in Berlin since 1999. Kito is the fourth calf he has sired here. With 17 black rhino births, Berlin Zoo is among the most successful breeders of this threatened rhinoceros species.

Dr Bernhard Blaszkiewitz

Dallas World Aquarium, Texas, U.S.A.

Drawings of the ribbon sea-dragon (*Haliichthys taeniophorus*) first appeared in the rock art of Arnhem Land, north-western Australia, more than 6,000 years ago. In Aboriginal art, the 'rainbow serpent' is depicted as a long mythical creature that resembles parts of different animals - a kangaroo's head, the body of a python decorated with lilies, and a crocodile's tail. Researchers who studied the images originally believed that the living model for the rainbow serpent was a seahorse, but after collaboration with fish experts from the Australian Museum they decided that the ribbon sea-dragon was more likely the inspiration for the drawings. The ribbon sea-dragon or pipe horse is a member of the Syngnathidae (pipefish and seahorse) family. It has a natural range that extends from New Guinea along the northern and western coasts of Australia. Unlike its temperate-water relatives, the

leafy and weedy sea-dragons, the ribbon sea-dragon is found in tropical coastal reef and sea grass areas.

On 28 August 2005 the aquarium received three female ribbon sea-dragons from Australia, becoming one of the few aquariums in the world to have seen, much less maintained, these amazing animals. The supplier, who has provided us with some of our most unique and beautiful fish over the years, had been looking for these elusive creatures for more than 12 years. After living in their 1,000-gallon [3,800-liter] quarantine tank for just two weeks, the females began dropping eggs, proving their fertility. From that point on, they continued to drop eggs every two weeks without fail.

On 27 October 2006 we introduced a first male to the females in the off-exhibit tank. Within 48 hours, the 'brood patch' or pouch under his tail was full of eggs. Very little scientific literature has been written about the biology or behavior of these fascinating fish. On the assumption that we had only two weeks before the male would give birth, we quickly prepared a rearing tank, or 'baby tank' as we call it. We now have five baby tanks and a 500-gallon [1,900-liter] 'grow out' tank as well. These rearing tanks are connected to the main system and can be separated as needed.

We also began culturing microscopic live food sources such as algae, rotifers and brine shrimp (*Artemia* sp.) nauplii. (The adults feed on live adult mysid shrimp and frozen mysid shrimp.)

On 11 November 2006, our dreams came true with the birth of the first-ever captive-born ribbon sea-dragon. In the hours following the appearance of the first baby, we watched in amazement as the male opened the flaps on his pouch and continued to release offspring. More than 70 babies were born that day. In the 18

months since the first births, our sea-dragons have produced literally thousands of young in numerous birthing events. As in nature, not all of the young survive, but we have been able to rear many of them to adulthood and have recently seen second-generation reproduction.

In September 2007, we introduced the first captive-born ribbon sea-dragons to the public, as we unveiled the New Guinea exhibit to our visitors. Since that time, we have begun to share our good fortune with other AZA member institutions. In fall 2007, we sent some of our sea-dragons to Omaha's Henry Doorly Zoo and the Vancouver and Tennessee Aquariums. Just recently the staff of the Audubon Aquarium of the Americas visited to personally pick up a group, and very soon both the Sea Life Park Aquarium in Weymouth, England, and the Stuttgart Aquarium, Germany, will be home to some of our young animals.



A juvenile ribbon sea-dragon at Dallas World Aquarium. (Photo: Luis Mazariegos)

In April 2008, the aquarium hosted the first-ever Sea-dragon Husbandry Symposium. More than 40 participants (representing more than 20 AZA institutions and including several international participants) attended the three-day event, and shared sea-dragon husbandry information through presentations and discussions. Pang Quong of PQ Aquatics in Australia and Dr Mike Garner of Northwest Zoopath in Washington were featured speakers. The ribbon sea-dragons were introduced to this group of biologists, possibly kicking off a new trend in sea-dragon displays.

We continue to be fascinated by the behavior of these unusual fishes, and have been documenting and collecting data in multiple areas from breeding and feeding behaviors to coloration and growth rates. In addition to collaborations with other AZA members, we have been working with graduate students at Texas A&M University, who will be conducting research studies on the genetics of these unique syngnathids, and we plan in the near future to publish our findings in scientific journals. We believe that the ribbon sea-dragons will be excellent ambassadors for the conservation of fragile coral reef ecosystems, and with 2008 as the International Year of the Reef, there is no better time to share their story.

Abridged from Paula Branshaw Carlson in *Connect* (Association of Zoos and Aquariums), June 2008

Edinburgh Zoo, Scotland, U.K.

After a lifetime of studying, filming and fostering understanding of wild chimpanzees in the Gombe National Park in Tanzania, Dr Jane Goodall has begun a passionate defence of keeping the animals in captivity. Speaking at Edinburgh Zoo in May when she opened a new £1.6-million enclosure housing colonies of squirrel and capuchin monkeys, Dr Goodall said that the choice for conservationists was between 'playing safe' by