

CAPTIVE BREEDING OF AMPHIBIANS AND REPTILES

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Keywords: conservation, management, amphibians, reptiles, captive breeding

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Summary

Amphibians and reptiles become rare and endangered due to persecution and/or habitat loss; therefore, the importance of captive breeding as a component of a conservation strategy for these groups has increased. Nongovernmental organizations (NGOs) and professional institutions are involved in captive-breeding conservation programs. Even the establishment of farms (e.g., crocodile farms) has proven to be a very efficient tool in conservation; in such farms, for instance, crocodylians are bred in captivity and killed to sell their meat and skin without any further need of persecution on free-ranging specimens. In addition, a quota of juveniles is sent free to the wild, in order to increase the total population size of free-living animals.

1. Introduction

Traditionally speaking, the breeding in captivity of selected animal species has always been the preferred tool of conservation in the pioneering age of conservation biology. This period began when the "golden age" of zoos as exhibitions of exotic captives to astonish the people of the western world had just finished its splendor, and when it began to be perceived that the violent action of humans would cause rarefaction or even extirpation of many animal species all over the world.

It is quite intuitive that this action has had an enormous impact on bird and mammal conservation, not only in the western countries, but also in the eastern and developing countries (e.g., the giant panda in China). Nonetheless, it is only recently that scientists have started to realize that lower vertebrates, including amphibians and reptiles, may

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Biographical Sketches

Wolfgang Böhme was born November 21, 1944 in Schönberg (Holstein), Germany. Studies included zoology, botany, and paleontology at the University of Kiel, Germany, where a doctorate in zoology was conferred in 1971 by Prof. Dr. Wolf Herre. The following positions were held: from August 1971, curator of herpetology at the Zoologisches Forschungsinstitut and Museum A. Koenig (ZFMK), Bonn, Germany; in addition from 1989, deputy director of the institute and head of the vertebrate department; 1988, habilitation (degree of a so-called *Privatdozent*) at the University of Bonn; 1996, awarded with the title of a professor. Fields of study have included the systematics, ecology, and biogeography of amphibians and reptiles, with focus on lizards (lacertids, scincids, chameleons, and varanids). Has served as editor of the *Handbuch der Reptilien und Amphibien Europas*, several other monographs, and authored 300 scientific articles. Supervisor of 46 master's and 14 doctoral students as of the end of 2002.

Claudia Corti was born February 19, 1954, graduated in biology in 1981, and received a doctorate in environmental sciences in 1988. Since 1991 she has been a full-time researcher at the department of animal biology at the University of Pavia and holds the position of associate professor of ethology. Basic and applied research was carried out on intraspecific variations of social behavior in feral equids and in corvids, nest predation and defensive adaptations in birds, behavior and ecology of colonial waterbirds, and ecology of fragmented populations in agro-ecosystems.

Luca M. Luiselli obtained a doctoral degree in natural sciences at the University of Rome "La Sapienza" with a thesis on the comparative eco-ethology of some populations of Italian vipers. Since 1996 he has been a research associate with several industry organizations of the Ente Nazionale Idrocarburi (ENI; Italian petrol) group in Nigeria, as well as with conservation organizations in both Africa and Italy. He has been working for the environmental departments of several oil companies, conservation organizations (e.g., Cercopan), and for the Rivers State University in Nigeria. He is also a researcher associated with the National Park of Gran Sasso-Laga, the National Park of Majella, and the Duchessa Mountains Natural Park. He is chairman for Nigeria of the IUCN/SSC Declining Amphibian Populations Task Force (DAPTF), and has won three international scientific research prizes (two by Chelonian Research Foundation, and one by IUCN/SSC DAPTF). He is also coeditor of *Amphibia-Reptilia* and is on the advisory editorial board of *Herpetozoa*. Between 1992 and 2002, he has published over 70 papers in peer-reviewed journals, including high impact periodicals (e.g., *Nature*, *Oikos*, *Canadian Journal of Zoology*, etc.). His main research interests are on the ecology of snakes in tropical and temperate regions, and on the modeling of forest reptile communities in areas under strong environmental stress.