

AFA Funds 3 Projects: Ocellated Turkey, Hornbill and Halfmoon Conure

During the recent meeting of the AFA Board of Directors, funding was approved for the following conservation projects:

Captive Breeding Project for the Southern Ground Hornbill at the National Zoological Gardens

(*Bucorvus cafer*)

by Eugene R. Marais, Chief Nature Conservator
National Zoological Gardens, Pretoria

Introduction

The Southern Ground Hornbill (SGH) and its northern congener, the Abyssinian Ground Hornbill *B. abyssinicus* (AGH), are the largest and most carnivorous hornbills in the

Photo by Dottie Petrucci



The Abyssinian Ground Hornbill (*Bucorvus abyssinicus*) is a terrestrial hornbill from northern Africa, Gambia to Somalia and Ethiopia. The male has a bright red throat and neck whereas the female has a complete blue throat and neck.

Photo courtesy of Vogelpark, Walsrode, W. Germany



The Halfmoon Consortium is concentrating on the *clarae* subspecies of the Halfmoon or Orange-fronted Conure. The nominate subspecies, *canicularis*, has a light horn-colored lower mandible as can be seen on the bird on the left. Both subspecies, *eburnirostrum* and *clarae*, are similar in having grey and blackish sides on the lower mandibles respectively. Both of these subspecies have narrower orange frontal bands with most birds belonging to *clarae* not having the orange extend to the eyes. Both have greenish abdomens and lower breasts. Without seeing the front of the bird on the right, it could be either of these two subspecies.

Photo by Dale R. Thompson and George D. Dodge



The beautiful Ocellated Turkey (*Agriocharis ocellata*) comes from Mexico, Guatemala and Belize. It generally inhabits thick jungle and is both rare in its native habitat and in captivity. It is much smaller than the commonly known turkey found in North America.

world. These birds inhabit wooded savanna and steppe, spending most of the day walking around in search of small prey animals but taking to trees and rocky outcrops to rest and nest.

The SGH is widely distributed in the moist savanna of Africa south of the equator with a total range of about 4.5 million sq. km of which less than 2% extends into South Africa. Outside the limits of South Africa it is not recorded as having declined in its range, but within the country over the last fifty years has disappeared from about 70% of its original distribution (Cyrus & Robson 1980, Vernon 1986, Tarboton *et al.* 1987). Only land that is provided for game reserves, forestry or tribal lands support populations of the birds.

They occur in small groups varying from 2 to 11 individuals. In the Kruger National Park (KNP), 98% of the SGH population are groups of this size, 72% are groups of three to five and 2% is solitary (Kemp 1990). Groups occupy territory of about 100 sq. km per group. A number of reasons have been suggested as contributing to this decline including dense human settlement, felling of trees in savanna, forestation of grasslands, direct persecution and indirect poisoning.

Breeding Program

With the current status of the SGH in South Africa in mind, an attempt was made to establish a breeding program at the National Zoological Gardens (NZG). On the suggestion of Dr. Alan Kemp of the Transvaal Museum, it was decided to harvest second hatched chicks, which die of starvation in nature. This was agreed to by the National Parks Board and, since the mid-1980s, a handful of chicks have been harvested in the KNP. Unfortunately only a few have been successfully reared. Fortunately a few adult birds have been acquired and currently the NZG has two males and two females, with the strong possibility of an additional three birds from Zimbabwe. Two other institutions, namely Umgeni River Bird Park (URBP) and World of Birds at Hout Bay, are also currently very interested in being part of the joint effort in breeding the SGH. The URBP currently has an adult female.

During 1990 a breeding unit was constructed at the NZG covering an area of about 400m of natural bush in a quiet corner of the zoo. The birds have settled down extremely well

and during July 1991 started to excavate a nesting area in a stoney ridge.

In the KNP, adult turnover has been estimated at 1.5% per annum, groups fledge on average one chick every 9.3 years which attain maturity at about six years of age (Kemp 1990). With this slow reproductive rate, it is of great importance to establish as many breeding groups as possible, thus maximizing production. Both species of ground hornbill have been bred repeatedly in captivity (e.g. Olney 1985). Observations on captive breeding of the AGH suggest that captive propagation can far exceed that in the wild, by rearing both hatchlings and by removing fledglings to produce rapid and repeated relaying (Penny 1975). ●

Arizona Seed Crackers Society Conservation Project: Halfmoon Conure Breeding Program

by Gary Clifton
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Abstract

The ASCS Halfmoon Breeding Consortium was initiated in 1991 and is intended to maintain a genetically viable population for a minimum of 50 years – longer if possible. The grant requested is in the amount of \$2000.00 to be used for computer software and purchase of founder stock.

Introduction

The Halfmoon Conure, *Aratinga canicularis*, consists of a nominate and two sub-species. The project will be concentrating on the *A.c. clarae* subspecies, whose native habitat is confined to western Mexico. While native populations do not appear to be in imminent danger (Forshaw, *Parrots of the World*, p. 394), no one can predict future status for this species. This sub-species frequently appears at USDA auctions when confiscated birds are sold, indicating some popularity with those persons caught smuggling birds from Mexico. Legal export from Mexico halted over a decade ago. In captivity, Halfmoons seem to be largely neglected as a result of displacement in the pet trade. When freely imported, this species was popular and inexpensive, often sold as a "dwarf parrot." When Mexico halted exportation, other inexpensive species replaced the Halfmoon Conure in the pet trade, while captive propagators largely have ignored Halfmoons in

favor of more colorful, more expensive species such as Sun Conures or Jenday Conures. As a result, the Halfmoon now faces an uncertain future in captivity.

This uncertainty of status both in the wild and in captivity, as well as desirable pet qualities of this species, are among the factors that make it an ideal subject for a breeding consortium such as the ASCS project. Impact on wild populations isn't a consideration as adequate birds are available in captivity and from confiscations of smuggled shipments. The species is neither glamorous enough nor seriously enough threatened at present to attract interest from the zoological community. Surplus production from the Consortium should also help meet a demand currently being filled by smuggled birds. This species breeds readily in captivity, though it isn't generally as prolific as some other conure species.

Arizona Seed Crackers Society (ASCS) was formed in Mesa, Arizona in May 1982. Currently there are approximately 120 memberships (most are couples). ASCS is an AFA-affiliated club and has been strongly supportive of AFA for several years. ASCS is not organized for pecuniary benefit, but is committed to avian conservation and education. In the event of dissolution, ASCS bylaws dictate that proceeds remaining (after debts are paid) shall be donated to the AFA Conservation Fund.

ASCS began the Halfmoon Breeding Consortium with a goal of establishing and maintaining a genetically viable, self-sustaining population of Halfmoon Conures (*A.c. clarae*) to ensure survival of this species in captivity. The population will be managed as a collective whole in order to ensure maximum genetic diversity.

Proposal

The ASCS Halfmoon Conure Breeding Program (The Consortium) is a multi-dimensional breeding loan arrangement wherein various breeders work with pairs of birds owned by the ASCS Consortium. Applications are accepted annually, then reviewed for acceptance into the Consortium. Pairs of birds are placed with approved Consortium breeders and offspring are divided between the Consortium and the participating breeder. Participants sign and return a Memorandum of Participation (agreeing to the terms and conditions



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of the Consortium Agreement) before receiving birds. In some instances, Consortium owned birds are placed for pairing with birds owned privately by participants.

The entire population is managed as a whole to preserve genetic diversity; the SPARKS computer program will be used as soon as funds are available for its purchase. All matings or pairing of birds will be directed by the Consortium. An initial generation or founder stock of 16 unrelated pairs is considered a bare minimum, obviously the more pairs in the founder stock the longer inbreeding can be prevented. At this time club members could accommodate a maximum of about 128 pairs, though, if the population demands more space, participation could be extended to non-ASCS members. Space or warehousing difficulties aren't considered an issue at this time. Ultimately a stable population of 100 to 200 pairs is anticipated, with birds surplused out yearly as they are replaced by younger siblings reaching sexual maturity. By using this strategy, the Consortium hopes to stretch a generation to perhaps five or ten years (or longer), considering sexual maturity is reached at one to two years in this species. If a ten year generation can be achieved with reliability, 50 years will represent five generations rather than 25 or more. This can have a dramatic impact on how long inbreeding can be prevented (in terms of years), which is felt to be vital in working with a limited number of bloodlines.

Emphasis will be placed on the *A.c. clarae* sub-species indigenous and limited to western Mexico. A stud-book will be maintained for this sub-species, though assistance and cooperation will be offered to the avicultural community interested in *A.c. canicularis* and *A.c. eburnirostrum*. At this time the Consortium has no plans to accommodate separate populations of either the nominate or the other sub-species. *A.c. canicularis* and *A.c. eburnirostrum* will not be interbred or hybridized with *A.c. clarae*.

Budget

First year enrollment for the SPARKS computer program is \$250 for non-members of ISIS, with a yearly support fee of \$200. Thus far, Halfmoon Conures have cost an average of \$100 each. ASCS is exploring the possibility of getting donations of

confiscated birds from U.S. Fish and Wildlife (rather than the birds being sold at auction as is the current practice), but such an arrangement hasn't been reached yet. Donations, from USFWS or private aviculturists, aren't a reliable source of birds. In some cases, shipping charges could be nearly as high as the cost of the bird. Additionally, the Consortium is liable for sexing, necropsy and certain other veterinary expenses. Thus far ASCS has conducted special fundraising activities to start the Consortium, resulting in \$3725 raised in 1991. So far (1991 to 3/92) expenses have totalled \$3760.93, primarily for purchase of birds. A total of 32 birds have been purchased so far, though not all are unrelated. In addition, there have been sexing expenses and veterinary bills. The deficit of \$35.93 has been met by ASCS general funds.

Within three to five years, the Consortium should be self-supporting financially as sufficient surplus offspring are produced. In the meantime, additional club fundraising activities are planned in addition to this grant request.

An AFA grant, if awarded, would be used specifically for one year of SPARKS software expense, with remaining funds to be used only for purchase of additional founder stock at an anticipated average cost of \$100 per bird. At this time, an additional 18 unrelated birds are required to complete a minimum founder stock.

Background

Of 23 applications received for participation in the Consortium, the three principal investigators are among six applicants with experience breeding Halfmoon Conures. Twelve of the remaining 17 applicants have experience with closely related species, the remaining five applicants were approved to receive progeny.

Mike Cunningham of the Los Angeles Zoo, Ron Johnson of Miami Metrozoo and Mickey Ollsen of Wildlife World Zoo (Phoenix area) are available for phone consultations. Dr. Dan Burke of Mesa, Arizona, 1155 S. Power Rd. 113, Mesa Az 85208, phone (602) 396-4900, is the local avian veterinarian selected for use by the Consortium. Arizona State University in Tucson is available for diagnostic services (necropsy) through Dr. Burke. Additional support facilities aren't considered a requirement at this time. ●