

cies with a silver award. Presidents Jerry Jennings, Lee Horton, Dr. Richard E. Baer, Tom Ireland, Lee Phillips and Tom Marshall have endeavored to keep AFA in the forefront of protecting avian species.

So, what is AFA? AFA is first of all a federation — a united group of nearly 100 affiliated bird clubs representing over 50,000 aviculturists, a federation interested in all aspects of all avian species, an umbrella organization whose strength lies in its members. ●

## AFA's Conservation Commitment

Listing and brief descriptions of projects receiving AFA Conservation Fund grants from 1987-1990.

### Breeding Biology of the Mariana Crow

Investigator: Gary A. Michaels

Of the 40 true crows in the family Corvidae, the Mariana or Guam Crow (*Corvus kubaryi*) is one of the least studied and only the Hawaiian Crow (*Corvus hawaiiensis*) is rarer. Due to the introduction of the Brown Tree Snake (*Boiga irregularis*) on the island of Guam, the Guam Crows and other avian inhabitants of the island have been suffering abnormal mortality rates. In 1984 the crow was one of five species and subspecies endemic to the island which were added to the U.S. Federal Endangered Species list. At that time the population was estimated to be around 50 birds. In September of 1985, Gary Michaels traveled to the island of Guam to conduct a two months study of the species. During his study he documented the species' vocalizations and prenuptial behavior although the one nest observed failed to produce young. The population was estimated, using recordings of crow vocalizations, to be approximately 100 individuals being composed of as few as three immature birds. Gary's current plans are to return to the island and further document the species' reproductive behavior and investigate the possibility of establishing the species in captivity. A special subcommittee of the Conservation Committee has been established to deal with this latter element of the program.

### Development of a Field Based Propagation Program for the Hispaniolan Trogon

Investigators: Steve Amos, Ken Reininger, Jose Ottenwalder, Jack Clinton-Eitnrear and William Hasse

Hispaniola has 73 species of resident land birds, the largest of any island in the West Indies. Twenty species are endemic to Hispaniola. Charles Woods, Ph.D., a researcher from the Florida State Museum, has conducted extensive research on the Haitian portion of the island and lists nine species of greatest conservation concern. Of the nine, eight are softbills, the exception being the Hispaniolan Parrot. With the majority of species that inhabit tropical forests being softbills, it is of great

# A N N O U N C I N G

New Hand Feeding  
Formula!



**SCENIC BIRD FOOD HAND FEEDING FORMULA**  
is the easiest to use, just add water.

Then, wean your birds to **SCENIC BIRD FOOD**, the first **ALL NATURAL FLAVOR** extruded morsels made from real **RED APPLE, CHEESE, and CORN.**

Since 1987, our scientific research and testing have been presented to six prestigious Veterinarian and Nutrition Conferences and published in prestigious Nutrition Journals.

**SCENIC BIRD FOODS** are manufactured in an **FDA APPROVED** human food mill which guarantees cleanliness and safety for your birds. Our human grade ingredients and manufacturing make a food your birds (and you) will love to eat!

**NORTHWEST**  
503-496-0733

**OAKLAND**  
C.M. Volkman Co.  
800-273-2473 (CA)  
415-261-7780

**LOS ANGELES/SAN DIEGO**  
Our Feathered Friends  
619-280-5134

**CANADA**  
800-363-9663

**PENNSYLVANIA**  
Sybil's Aviary  
717-442-4495

**OHIO VALLEY**  
Van Dwyne's Aviary  
614-875-0888

**ST. LOUIS**  
El-Mel, Inc.  
800-243-5635

**NORTHEAST**  
800-323-4267

**MICHIGAN/WISCONSIN**  
Silvermoon Pet Supply  
517-790-9202

**MIDWEST**  
800-878-2473

**TEXAS**  
Avian Kingdom Supply  
800-256-4771

**FLORIDA/ATLANTIC COAST**  
Avian Specialties  
800-443-1441

**VENTURA/SANTA BARBARA**  
Santa Barbara Bird Farm  
805-969-1895

**MARION ZOOLOGICAL INC. 113 N. FIRST P.O. BOX 212 MARION, KANSAS 66861**

concern that our ability to deal with them aviculturally is years behind other avian groups such as parrots, waterfowl, pheasants and raptors. A propagation facility centered at the Parque Zoológico Nacional in Santo Domingo will address this issue using the endemic Hispaniolan Trogon (*Priotelus roseigaster*) as a subject. Birds will be captured under the supervision of Jose Ottenwalder, Director of Zoology, Research and Conservation. A specially designed aviary will be constructed off exhibit near the zoo's spacious walkthrough aviary. Data will be collected as to the ability of the species to adjust to captivity as well as its requirements as they relate to captive propagation. A similar effort began in Belize under the auspices of the Belize Zoo. It is currently on hold until the relocation of the zoo is completed.

#### **Breeding Biology of the Bahama Parrot**

**Principle Investigator: Rosemarie Gnam**

Avian research grants were awarded to Rosemarie in 1984 and 1986. She continues to investigate the ecology and population dynamics of the species and is involved with the development of a comprehensive conservation strategy for the species.

#### **Conservation of the Java Hawk-eagle**

**Principle Investigators: Sebastianus Van Balen, Robin Chancellor**

This eagle inhabiting the island of Java is unknown to science in terms of its breeding biology (no nest or eggs have been discovered), population dynamics, and ecological requirements. Perhaps only 50 exist in the wild according to a recent short expedition to the island by the principle investigator. Funds provided will allow further investigation as to the species' status and ecological requirements.

#### **Status and Conservation of the Cape Parrot in Southern Africa**

**Principle Investigator: Andre Boshoff**

This species is considered "vulnerable" in the South African Red Data Book - Birds, and may prove to be an endemic species of South Africa. Funds provided will allow Andre to present his data on the species' status and conservation at the Parrot Specialist group meeting in Brazil as well as to continue his needed studies on the species in the wild.

#### **Determination of Preferred Habitat Characteristics of Ocellated Turkeys in Tikal National Park, Guatemala**

**Principle Investigator: Maria Jose Gonzalez Fuster**

The Ocellated Turkey is a monotypic species with a relict distribution in Yucatan Peninsula (Mexico), Belize, and northern Guatemala. Despite the fact that it is a big, showy bird and a tourist attraction, there is little information on this species' habitat requirements. Its situation is now critical, since Ocellated Turkeys are considered endangered because of habitat destruction throughout its range, and because of their high susceptibility to domestic poultry diseases. Maria will evaluate Ocellated Turkey habitat in Tikal National Park, El Peten, Guatemala. Tikal presents the major types of vegeta-

tion associations that are found in northern Peten, and harbors the only large, protected population of turkeys in Guatemala.

#### **Tropical Andes Film Project**

**Principle Investigators: Megan and Greg Epler Wood**

The tropical Andes is a highly threatened region which is recognized for its unusually high number of endemic species and extraordinary biological diversity.

An educational film, in Spanish, on tropical Andean natural resources, is currently in production for use by environmental professionals throughout the region. The majority of the footage (10 hours) was shot at the Reserva Natural La Planada, in Narino Province, Colombia. Many endemic species were filmed, including nesting Brown Inca Hummingbirds, Plate-billed Mountain Toucans and Club-winged Mannikins performing their unique mechanical display. In-depth, life history footage of nesting Toucan Barbets was also obtained.

Filmmakers Megan and Greg Epler Wood are working closely with local Colombian advisors to accurately target the film's message for local audiences.

The American Federation of Aviculture joins the World Wildlife Fund, New York Zoological Society, and the Institute of International Education (Fullbright) in financially supporting the film.

#### **Ecology, Breeding Biology and Conservation of the Yellow-shouldered Amazon on Margarita, Venezuela**

**Principle Investigator: Kirsten M. Silvius**

*Amazona barbadensis*, the Yellow-shouldered Amazon, is the only Venezuelan psittacine listed on CITES Appendix I. A population of less than 200 birds of the insular subspecies *A.b. rothschildi* on Margarita Island, Venezuela, is currently threatened by intensive poaching and habitat destruction. Ms. Silvius solicited funds for the initial phase of a proposed long-term study which seeks to develop a management plan for this population based on a sound understanding of its general ecology and breeding biology.

The plan will include recommendations for the legal protection of critical parrot habitat, education of the local inhabitants concerning parrot and habitat conservation and, if feasible, behavioral and habitat manipulation to increase the reproductive capacity of the parrots in the wild.

The project is jointly being funded by the AFA Conservation Fund and the Venezuelan Conservation Organization FUDENA (Foundation for the Defense of Nature).

#### **Preliminary Study on the Impact of Hurricane Gilbert on the Psittacine Population of Yucatan**

**Principle Investigator:**

**Joann M. Andrews, president, Pro-Natura, Yucatan**

As a result of Hurricane Gilbert (September 14, 1988), considerable damage was inflicted upon the coastline of the Peninsula of Yucatan as well as upon the interior vegetation of the state of Yucatan. Many trees lost all of their leaves and were badly scoured by strong winds. Furthermore, wild fruitbearing trees are now lacking their customary flowering fruits and edible seeds, these having been ripped off by the 200 m.p.h. winds.

As a result of this phenomenon, flower and fruit eating fauna, notably birds and bats, have been observed in very unusual places and engaged in activities never noted before. For instance, Keel-billed Toucans have been seen in Merida Gardens in search of food; warblers on the east coast have been observed in new localities; and Red-winged Blackbirds, most frequently found in Cozumel, have flown in large numbers to the mainland.

Among the birds suffering from the lack of wild fruit are the local parrots, *Amazona albifrons nana* and *A. xantholora*. In the area of Oxkutkob, located in central Yucatan, both species of Amazons have invaded citrus groves. Labeled a plague by the local inhabitants as they destroy the oranges ready for harvest, they are being shot at and sometimes killed or captured by the angry farmers. Dr. John Ehrenberg traveled to the area to verify the report on the invasion by these birds. He reported that at 4 p.m. on December 12, 1988 over 1,000 parrots descended on the orange trees in the municipality of Dzan, and started to feed on the oranges. By 5 p.m. they flew off.

With the financial assistance of the AFA Conservation Fund, the conservation organization Pro-Natura will contract a local ornithologist and botanist to conduct a two-week study the results of which will be the development and implementation of a survival plan designed to protect the local parrot population in Yucatan.

#### **Macaw Conservation in Belize and Honduras, Central America**

**Principle Investigator: Michael Kreger**

While containing large and remote populations of macaws little is known regarding their population parameters, dietary requirements or other aspects of their life history and ecology. Not only is such information desirable but it is necessary if a comprehensive conservation strategy is to be developed within these countries to secure their populations of macaws. This study will investigate the life history and ecology of the Scarlet Macaw, *Ara macao* in both countries as well as implement several conservation efforts including nest boxes, educational campaigns and habitat enrichment.

#### **The use of starch-gel electrophoresis to access the degree of genetic variability in a captive population of Socorro Doves**

**Principle Investigator: Luis F. Baptista**

As part of the Socorro Dove reintroduction project we plan to conduct some studies using starch-gel electrophoresis to access the degree of genetic variability in the captive population. As we do not yet know whether the technique will work, we wish to construct a pilot study comparing proteins of Socorro Doves, Mourning Doves and hybrids. We also have a hybrid between Socorro x *Streptopelia* and it is desirable to look at its proteins as well. This technique has been used with other species.

If this technique proves feasible, we shall be able to: 1. Select birds for pairing to promote maximum outcrossing; 2. Detect hybrids and backcrosses, if these exist in the captive population; 3. Say something about the inheritance of the alleles involved.

#### **Natural history of the El Oro Parakeet, *Pyrrhura orcesi***

**Principle Investigator: Sergio Lasso**

The El Oro Parakeet was only recently discovered (1980) and described in the ornitholo-

gical literature (1987). Additional information is needed to fill in the major "gaps" that exist in the literature on its life history and ecology. The current population is quite small. Due to this, consideration as a candidate in the Red Data Book (RDB) as a threatened species has been discussed. The purpose of this study is to gather additional information on the species' population, habitat preference, behavior, territoriality, feeding and nesting. Such data is necessary if a reserve is to be established effectively providing the needed resources to maintain a viable population of this species.

**Cooperative breeding and habitat utilization by the Toucan Barbet, *Semnornis ramphastinus***

**Principle Investigators: Carla Restrepo & Marta Lucy Mondragon**

The study will concentrate upon the social organization of Toucan Barbets paying special attention to their cooperative breeding system and reproductive behavior. Specific objectives include: 1. Determining the role of helpers during the incubation, nestling, and fledgling period as well as their role in defending the nests against predators; 2. Determining the role of helpers in maintaining territories outside the reproduction period; 3. Determining territory-quality and changes in size throughout the year.

**Campaign for the preservation of the Seven-colored Tanager, *Tangara fastuosa***

**Principle Investigator: Maria Tereza Jorge Padua**

The species is listed in the Red Data Book as being endangered mainly due to its desirability as a cage bird. This study will investigate means of controlling the illegal trade in the species by means of an educational campaign involving posters, pamphlets and other media coverage.

**Assessing the status of Madagascar's endemic land birds**

**Principle Investigator: Michael S. Putnam**

The objectives of this study are: 1. to measure the density of endemic forest birds in representative habitats in protected areas; 2. to begin assessing whether there are sufficiently large populations of endemic birds in protected areas to assure their long term survival; to begin characterizing the different geographic bird communities in their major habitats; 4. to provide ornithological training to a Malagasy student, and; 5. to compare different census methods in each habitat. This will facilitate follow-up monitoring by Malagasy investigators and facilitate the censusing of other protected areas.

**Determination of the status of the Glaucous Macaw and Hyacinth Macaw in Argentina and Paraguay**

**Principle Investigator: Dr. Manuel Nores**

The aim of this project is to determine the status of both species of macaws, in suitable habitat, throughout Argentina, Paraguay and along the Paraguay River of Brazil. In order to locate areas of former occurrence of the Glaucous Macaw, holes in river gullies will be searched for feathers or other items (e.g. coconut hulls) indicating that the macaws

were present. Information derived from the literature, museums, bird dealers, private zoos, and from local inhabitants will determine the specific areas targeted for the investigation. In addition, habitats in Paraguay similar to the ones where the species inhabits in neighboring areas of Brazil will be visited.

**The genetics of the Puerto Rican Parrot, *Amazona vittata***

**Principle Investigator: M. Kelly Brock**

The primary objective of the proposed study is to evaluate whether or not there could be a genetic basis for the reproductive difficulties and the slow population recovery currently experienced by the endangered Puerto Rican Parrot. Second, a genetic management plan will be proposed to the U.S. Fish and Wildlife Service and El Departamento de Recursos Naturales de Puerto Rico to aid in the recovery of the species.

Specifically, the study will look at and compare the amount of genetic variation in three species of Amazon parrots. It is predicted that the Puerto Rican Parrots will exhibit greatly reduced genetic diversity and that there will be a high level of relatedness among individuals in the population, which could be manifested in inbreeding depression.

**Support for the Centro para la Conservacion de los Psitacidos Mexicanos**  
**Principle Investigator: John Ehrenberg, M.D. Sc. D., Merida, Mexico**

**Conservation of Madagascar Birds**  
**Principle Investigator: Michael Putnam**

**First Workshop on the Management and Conservation of Macaws in Mesoamerica**  
**Principle Investigator: Sherry Thorn, ICBP/Honduras** ●

## Nine Years of AFA-sponsored Research

### Summary of Research Proposals Funded by AFA 1982 - 1990

#### 1982 . . .

1. Estimation of the population parameters of the Green-cheeked Amazon (*Amazona viridigenalis*) in northeastern Mexico — J. Clinton-Eitniear, McAllen TX.

Results presented at 1983 AFA convention.

Clinton-Eitniear, J., Status of the Green-cheeked Amazon in northern Mexico. *Watchbird*, Dec/Jan 1986, pp. 22-24.

2. Seasonal evaluation of excretory sex steroid hormones in juvenile psittacines; non-invasive applications to a functional appraisal of sexual identity of mature birds — A. Bercovitz, San Diego Zoo, San Diego, CA.  
Bercovitz, A.B.; Frey, F. Jr.; and Bain, J.; Endocrine fecology of immature birds. *Watchbird*, Apr/May 1984, pp. 38-44.
3. Detection of Chlamydia psittaci infection in exotic birds — J. M. Gaskin, University of Florida, Gainesville, FL.  
Gaskin, J., Avian Reoviruses: Are

they for real? *Watchbird*, Dec/Jan, 1988, p. 24.

4. Development and efficacy of a live budgerigar fledgling disease virus vaccine for use in breeder budgerigars (*Melopsittacus undulatus*) — P.D. Lukert and R.B. Davis, University of Georgia, Athens, GA.  
Lukert, P.D., and Davis, R.B., Psittacine papovavirus, *AFA Watchbird*, Aug/Sept 1984, p. 14.

5. Solid food requirements and water tolerance of cockatiel chicks from hatching to five weeks of age. C.R. Grau and T.E. Roudybush, University of California, Davis, CA.

Results presented at 1983 AFA Convention as well as Western Poultry Disease Conference.

Roudybush, T.E., and Grau, C.R., Solid food requirements for hand-rearing cockatiels, *AFA Watchbird*, June/July 1984, pp. 40-45.

#### 1983 . . .

1. Breeding biology of the Bahamas Parrot (*Amazona leucocephala bahamensis*). R. Gnam, City Uni-