



# ON THE EDGE



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## Crane Rearing Techniques

by Dr. Robert H. Horwich

*Dr. Horwich is a researcher with the International Crane Foundation in Baraboo, Wisconsin. His work focuses on developing new techniques for rearing cranes in captivity. WPTI provided a grant of \$2,000 in support of this research effort.*

Of the 15 species of cranes, seven are threatened with extinction. The whooping, Siberian, and red crowned cranes have such reduced numbers that their existence may depend on continued conservation programs. The hooded, white naped, black necked, and wattled cranes have a population in the low thousands.

Using the International Crane Foundation's methods for successfully hand rearing crane chicks, I have developed a method for imprinting the chicks on characteristics of their own species and thus, I hope, preparing them for release back into the wild.

This past year at our facilities in Wisconsin we successfully reared nine common sandhill crane chicks. These were initially imprinted on a mounted crane body in brooding posture with a speaker emanating crane brooding calls. The chicks were fed through a hole in the door of their enclosure with a puppet resembling a sandhill crane adult with a functional beak, red head patch, and an amber eye. Attempts were made to minimize their seeing and hearing humans and we tried to instill some fear of humans in the chicks.

During the first week after hatching, we transferred the chicks "maternal" attachment to a human in a crane costume by using the same feeding puppet and brooding vocalizations. Using this costume we were then able to lead the chicks into the field, as a mother crane would do, to facilitate their learning to feed on natural foods.

Based on my earlier studies of young animals, I was able to determine the proper ages at which their environment should be



*The bare-faced ibis is benefiting from efforts to protect its dwindling population. Photo, Phillip Coffey.*

## Waldrapp Ibis: Strategy for Survival

By David Waugh

*Dr. Waugh is the Training Officer at the International Training Center at JWPT. WPTI and JWPT have each provided grants of \$2,572 to construct breeding aviaries for the bare-faced ibis at Rabat Zoo, Morocco.*

The bare-faced or bald or Waldrapp ibis (*Geronticus eremita*) once had a large population spread throughout many countries around the Mediterranean, and in the Middle East migrating to over-winter in Africa.

Now classified as an endangered species in the Red Data Book, its once widespread population had long ago been fragmented into a tiny eastern population in Turkey and a larger western population in North Africa, principally in Morocco. It remains to be proven whether there are any differences between birds of the present-day eastern and western populations.

Causes of the decline of this species have varied over the years. Bare-faced ibis

have been hunted, young birds have been taken from nests for food, cliff nesting sites have been regularly disturbed or lost completely, essential feeding sites during the breeding season have been lost to agricultural encroachment (especially that involving land drainage) and birds have even had their reproductive output reduced through the effects of pesticides newly introduced into the food chain.

The recent droughts in North Africa have also had an effect on the ibis since their preferred food types and feeding sites have been seriously reduced. It is not yet known what effect the drought has had in the little-known wintering areas of the western and eastern populations.

The bare-faced ibis will use traditional nest sites year after year, but can also be an itinerant breeder, suddenly turning up at a site for a number of seasons and then

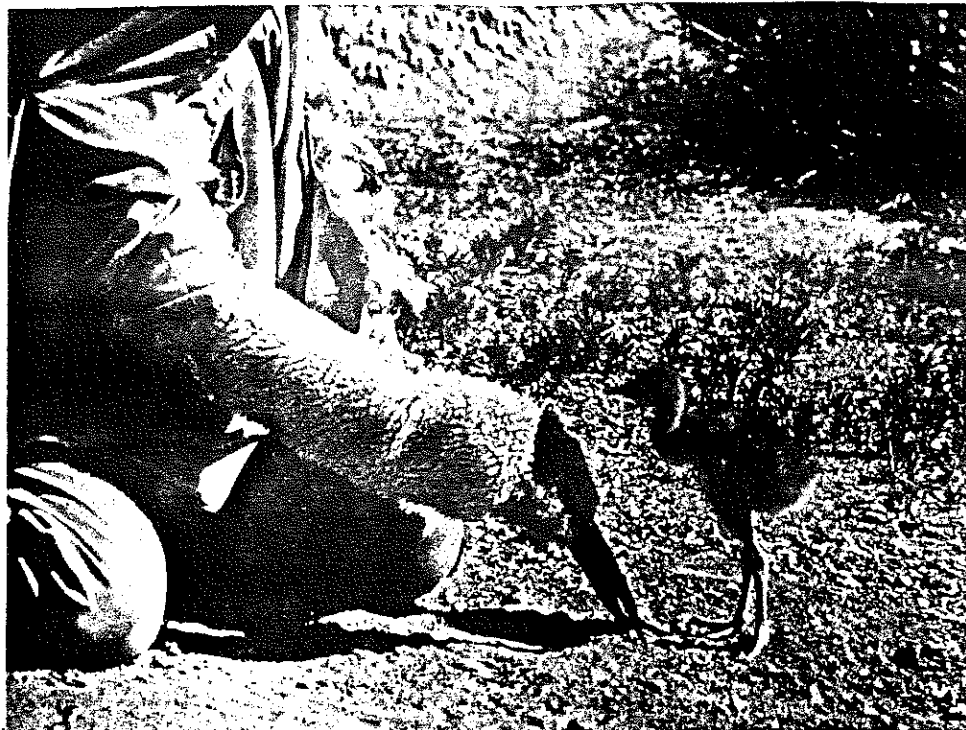
## Crane Rearing Techniques

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changed. For example, we could anticipate their peak of foraging at 7-8 weeks by introducing them to a field situation a few weeks earlier.

The final phase of the project now involves the release of the chicks. We have built large temporary enclosures at Necedah National Wildlife Refuge and we will shortly be moving the chicks there. They have been tagged with individualized color bands and radio transmitters. As they begin foraging more on their own and as they fledge, we will remove the enclosures and gradually withdraw their costumed "mother."

We expect the chicks to join with the migrating flocks of sandhill cranes which stage at Necedah in the fall. We will monitor their movements and behaviors during the fall migration, follow them to their migratory area in Florida, and attempt to find them again in Wisconsin in the following spring. The success of these chicks in the wild will mean a new method for bolstering the diminishing populations of wild endangered cranes.



A costumed "mother" with a young sandhill crane. Photo, Rich Besser.



The original costumed figure used in the 1984 pilot study for crane hand rearing techniques. Photo, Robert Horwich.

## WPTI Grants Awarded

July 1, 1985 to October 1, 1985

Recipient	Project	Amount
JWPT/National Zoo, Rabat, Morocco	Construction of Bare-faced Ibis Breeding Aviaries	\$ 2,572
J. Berger/Smithsonian Institute	Study of Bison Genetics	1,000
JWPT	Nubel Bird Propagation Center Equipment	6,450
JWPT	Technical Research Unit Equipment	6,450
JWPT	Ruffed Lemur Range Construction	7,740
JWPT	X-Ray Processor	1,290
JWPT	Pigmy Hog/Hispid Hare Fieldwork	2,904
JWPT/Black River Captive Breeding Center, Mauritius	Black River Project	5,640
JWPT	Visiting Fellows Program	1,897
J. Hoth/University of Mexico	Volcano Rabbit Field Study	1,867
F. Bramley/Staten Island Zoo	St. Vincent Parrot Poster	42
A. Coimbra-Filho/Rio de Janeiro Primate Center	Muriqui Breeding Program	9,000
P. Calabrese/National Forest Service, Asuncion, Paraguay	Tagua Breeding Pilot Project	750
C. Giacomini/ Fundacao Zoo, Brazil	Training Scholarship	2,000
T. Clark/Biota Research	Black-footed Ferret Fieldwork	2,188
JWPT	Animal Fund (Adoptions)	1,489
	Total	\$ 53,279