

scientists, encouraged by a caring public, can develop technologies that accommodate animal sensibilities and also meet human needs.

The Importance of National and International Zoo Cooperation

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The more one is aware of the problems facing the animal kingdom both in the wild and in captivity, the more one appreciates that the long-term future of captive populations relies heavily on national as well as international cooperation, the sorting out of responsibilities and the willingness of people who are specializing in the breeding of threatened and endangered species to 'farm' the stocks available in the best interest of the species concerned. However, it is recognized that these goals can only be achieved if zoo directors move toward adopting the policies carried out by good livestock farmers by pooling their animal resources, sharing their husbandry techniques and creating data banks that will help to guide and look after the long term.

The chief objective of the Jersey Wildlife Preservation Trust is to establish under controlled conditions self-sustaining breeding populations of rare and endangered species. During the comparatively short life of the Trust, it has become the custodian of one of the rarest zoological collections in the world.

The development of the conservation breeding programs can be summarized in three stages:

- (A) The setting up of a breeding group of a species in the collection until it represents a self-sustaining population.
- (B) The distribution of the progeny such that viable breeding populations can materialize elsewhere.
- (C) Once a captive reservoir has been firmly established, returning surplus animals either to their native environment (if such a reintroduction is considered possible) or to another suitable habitat where the species can be studied, providing that such an introduction does not cause any imbalance in nature.

The animals in the Trust's collection represent a good cross section of endangered species. In some cases, these have been loaned to the Trust by various governments. For example, the pink pigeon, Rodrigues fruit bat and fody, the Round Island's Guenther's gecko, Telfair's skink and boa are all on loan from the Mauritius government; St. Lucia parrots from the St. Lucia government; and the pigmy hog from the government of Assam. In other cases, the Trust acts as an extension or as one of the extensions to other organizations' breeding programs, e.g., Hawaiian goose and white winged wood duck from the Wildfowl Trust, Edwards' pheasant from the World Pheasant Association, the Congo peacock from the Royal Antwerp Zoological Society, Sumatran orangutan from the Zoological Society of London and the golden lion tamarin from the National Zoological Park, Washington, D.C.

In the absence of further importations of rare animals from the wild, zoos will undoubtedly have to pool their animal resources, for with the majority of species, no one zoo or even small group of zoos can in the long run hope to guarantee the type of reservoir and viable gene pool that is necessary to repre-

sent a self-sustaining population.

The Jersey Trust is doing everything possible to create extensions to its conservation breeding programs. To date, cooperative agreements involving breeding loans of the following species have been entered into with the corresponding organizations:

Jamaican hutia: Frankfurt Zoo and West Berlin Zoo, Federal Republic of Germany; London Zoo, UK; Philadelphia Zoo, USA.

Lowland gorilla: Twycross Zoo, UK.

Meller's duck: The Wildfowl Trust, UK.

Pigmy hog: Gauhati Zoo, Assam; Zurich Zoo, Switzerland.

Spectacled bear: Chicago Zoo (Brookfield) and National Zoo, Washington, USA; Moscow Zoo, USSR; Zurich Zoo, Switzerland.

Waldrapp ibis: Altreu National Park, Switzerland; Helsinki Zoo, Finland; Norfolk Wildlife Park, UK; Philadelphia Zoo, USA.

White-eared pheasant: Antwerp Zoo, Belgium; Cleres, France; The Pheasant Trust, UK; The Seattle Zoo, USA.

At present, the Trust has over eighty animals belonging to ten species on breeding loan to eighteen different collections and is seeking to include species such as the Guenther's gecko, the Telfair's skink and the Jamaican boa in other breeding agreements. Animals are sent on loan to other organizations without any financial transaction, for it is considered that the disposal of endangered species for specific conservation breeding programs should in no way be handicapped by financial factors. In all cases, the chief priority must be to place the animals as advantageously as possible for the entire species.

In November 1976, those of us responsible for the welfare of gorillas in the British Isles and Ireland staged a meeting, the first of its kind, to organize for the benefit of the long-term management and breeding of the then fifty-seven gorillas in our twelve collections. This meeting developed into what is now known as the Anthropoid Ape Advisory Panel which has subsequently held two meetings. Panel members and their respective fields of expertise include: Mr. Roger Wheeler, Director of Edinburgh Zoo (Chairman of the Coordinating Committee); Mr. Geoffrey Greed, Director of Bristol Zoo (orangutans); Miss Molly Badham, Director of Twycross Zoo (chimpanzees and gibbons); and Dr. Jeremy Mallinson, Zoological Director of the Jersey Trust (gorillas). National studbooks have been published, and scientific advisors appointed. We are optimistic that this sort of national cooperation and coordination will aid these species in the long term. Likewise, the Conservation and Breeding subcommittee of the British Zoo Federation, under the chairmanship of Dr. Janet Kear, does as much as possible to promote and guide the animal breeding programs carried out in British zoos.

As the general public becomes more aware of the need to conserve wildlife, zoos will be judged more and more on their 'track record' for contributing to the welfare of the animals represented in their collections. I believe that the future of animals in zoos will depend increasingly on national and international cooperation and coordination. Much of this will, in turn, depend on the integrity and good will of the people in charge of the collections concerned. In the final analysis, real success will come only if zoo directors, conservationists, academics and those genuinely interested in the welfare of the animal kingdom cooperate wholeheartedly with others working in their respective fields.