

"Animal Kingdom"
Vol LXXIII NO. 5
Oct 1970

Magazine
of the N.Y. Zool. Soc.

“WHAT'S ENDANGERED”?

New Legislation Fails to Come to Grips
with a Difficult Problem

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An Editorial by William G. Conway

The trade in wild animals and their products has always been international. In North America, the spread of colonization followed upon the heels of fur trappers who sought their quarry from Louisiana to Hudson Bay and sold their catch in Europe. They decimated the beaver and the otter, destroyed the sea mink, and very nearly eliminated the sea otter. Today, the United States has become the market and American money is behind the slaughter of untold numbers of animals around the globe - to supply American women with "fun furs," men with "gentlemen's fashions," laboratories with monkeys for experimental use, submarines with whale oil, and dogs with whale meat. Nevertheless, a new sensitivity seems to be developing in this country, and a welter of new laws recently have been passed to protect other people's wildlife from our commerce.

In New York State, the "Mason Law" was enacted to protect leopards, jaguars, tigers, cheetahs, and other animals threatened by the skin trade. Similar new statutes recently enacted are the more general New York State "Harris Law" and the Federal Endangered Species Conservation Act of 1969. Unfortunately, the most important of these laws, the federal endangered species act, has serious failings.

It fails to protect the very species that truly are endangered by United States commerce. The endangered species act protects a list of species compiled by professionals in the United States Department of the Interior and experts from all over the world. The list, prepared after the law was passed, contains 131 mammals, 118 birds, 22 reptiles and amphibians, several fish, and one mollusc. As published June 2, it included such rarities as the Bali tiger, which is extinct; the Tasmanian thylacine, which is extinct or nearly so; the Argentine pink fairy armadillo; McNeill's deer of China and Tibet; the Australian Eyrean grasswren, the Palau fantail, and the Martinique brown trembler (a bird).

Initially, the list also included the sperm whale and the baleen whales, but these were promptly withdrawn for further consideration when the whale oil industry challenged the Interior Department. The new list denied protection to the Bengal tiger, the snow leopard, the African cheetah, the African leopard, most otters, the jaguar, and the majority of other animals actually subject to substantial commerce. (The list does protect a number of species threatened by deterioration of the environment and human population growth.)

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For the most part, however, the vaunted "United States' List of Endangered Foreign Fish and Wildlife" is a mockery, protecting the species it covers from the threat of a trade which does not exist. There are probably less than 200 kouprey, large wild cattle, left in Cambodia and less than 100 white-headed guans in Trinidad. Both are on the list and rightly so, for they should be protected. At the same time, however, an animal threatened indirectly by the destruction of its forest, or even directly by pesticides and local hunting for food, constitutes a different case than one threatened by commercial exploitation. Admittedly, it is difficult for Americans to protect tigers and leopards in India from the expansion of that land's teeming population. However, we do not have to encourage direct slaughter of the great cats by allowing their skins to be sold in our country, especially when India is trying to protect her big cats and to stop poaching. If the Endangered Species Conservation Act of 1969 is to be applied only to those species already on the very brink of extinction and not abundant enough to be subject to our commerce, it is useless.

If the endangered species act is to be of value, its protection must be applied to animals whose numbers are still sizeable, species being killed by the hundreds or thousands for the American marketplace, otherwise these animals, too, will disappear.

During 1968 and 1969, 17,490 raw leopard skins, 23,347 jaguar skins, 262,030 ocelot skins, and 99,002 skins of foreign species of otters were imported into the United States. Ironically, at a recent hearing on protective legislation, one furrier claimed that the number of animals killed proved that they were in no danger, an argument appropriate to a buffalo hunter. Unfortunately, we do not know how many leopards or jaguars exist, only that their ranges are shrinking daily and that observers almost everywhere are noting the gradual disappearance of these animals. Where we do have figures, they are often shockingly low.

Today, the cheetah may be seen in numbers in only a few places. Dr. George B. Schaller tells me that studies by biologists in the famous 7,340-square-mile Kruger National Park of South Africa have shown that cheetahs there number only about 250 individuals. In the renowned Serengeti Plains of Tanzania, the cheetah population is about 150 animals. In other words, there are only 400 cheetahs remaining in a protected area as large as Massachusetts and Connecticut combined, one cheetah for every 30 square miles.

Perez Olindo, Director of the National Parks of

Kenya, wrote of illegal poaching of cheetahs in Kenya to the New York State Legislature. He pleaded for protective legislation restricting the sale of skins of leopards, cheetahs, and crocodilians in the United States marketplace. Despite his pleas and the protective conventions of most African nations, our new endangered species law does not consider African cheetahs endangered.

This brings up the question: what is an endangered species? It is not only a question of numbers.

One biologist I know takes the view that a species with a population below 2,000 is endangered and one with more is not. This is rubbish. While any animal with less than 2,000 conspecifics has every reason to feel insecure, many with larger populations also are endangered. Numerical standards of endangerment do not work at our present level of ignorance. Colonial birds are a case in point. Any bird reduced to a single nesting location is living precariously no matter how many thousands of birds may be nesting there. The record of extinction of island birds is shocking.

Of the 53 species and 52 subspecies of birds which have disappeared in the last 290 years, 50 species and 47 subspecies were island forms. Federal officials have put 65 island birds on the new federal endangered species list. However, almost none of these island species ever are imported commercially.

On the other hand the status of many more widespread animals is remarkably clouded. And most of the species subject to the import trade are in this category.

The Red Data Books of the Survival Service Commission, a wing of the International Union for Conservation of Nature and Natural Resources, are the recognized standards on the general status of rare animals. (The Red Data Books are available at the Union's offices at 1110 Morges, Switzerland.) They place "rare and endangered forms" in four categories:

1. ENDANGERED. In immediate danger of extinction; continued survival unlikely without the implementation of special protective measures.
2. RARE. Not under immediate threat of extinction, but occurring in such small numbers and/or in such a restricted or specialized habitat that it could quickly disappear. Requires careful watching.
3. DEPLETED. Although still occurring in numbers adequate for survival, it has been depleted considerably and continues to decline



The Siberian tiger is classified as critically endangered by the IUCN, yet it is not on the "United States' List of Endangered Foreign Fish and Wildlife."

at a rate which gives cause for serious concern.

- 4. INDETERMINATE. Apparently in danger, but insufficient data currently available on which to base a reliable assessment of status. Needs further study.

While helpful, these definitions are too vague and too broad. Moreover, the omission of a species from the list has been cited by fur traders as what amounts to a license to kill. All it really means is that the Survival Service Commission has not yet received adequate reports on whether or not the animal is in serious trouble.

The definition of endangered has been seriously confused by a remarkable statement from the United States Senate Commerce Committee. In its report No. 91-526, it instructed, with regard to the new endangered species act, that:

"... the committee would also stress that a given species or subspecies may be placed on the endangered list only when it is threatened with worldwide extinction; a serious reduction in numbers in a single

country is not an adequate basis for placing a species or subspecies on the endangered list when that same species or subspecies is plentiful elsewhere."

With these words, the Senate neatly emasculated the basic purpose of the legislation.

Pumas, for instance, range throughout North America, Central America, and South America. In some places, the puma remains common, but in most areas it is rare and declining in numbers. Surely the big cat is on the road to extinction over much of its range. In fact, two races of puma are listed as depleted in the Red Data Book. But, according to the Senate Commerce Committee directive, because pumas still exist in some numbers over wide areas, they do not deserve protection from commercial exploitation.

In point of fact, however, is the puma "endangered" if there are one or two healthy populations somewhere, say in Argentina? Does it matter if all the pumas in Canada, the United States, Mexico, Guatemala, and Peru are killed to make gentlemen's fall fashions, as long as there are some

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pumas in Argentina? Can we depend upon the Argentines to protect all the world's pumas? Clearly, the need for a valid concept and definition of an "endangered animal" has become crucial.

There must be logical criteria for calling a species endangered, for the implementation of laws that protect foreign wildlife from the United States marketplace. These criteria should satisfy the commercial pressures for utilizing healthy wild animal populations without endangering the existence of the species, just as American hunting regulations generally satisfy the pressures to kill wild animals for sport. In my view, there are five clear commandments for designating a species endangered by commerce:

1. Prohibited species should be animals which are threatened by commerce and actually imported or likely to be imported.
2. The protected list should include those species subject to regular importation but not being taken on a sustained-yield basis. And the burden of proof should lie with the importer.
3. Where endangered populations or subspecies of an animal may not be distinguished surely from more abundant populations, the full species must be protected.

The African cheetah, which is not on the federal list, is diminishing in numbers. The Asiatic cheetah, which is listed, is extinct or nearly so.



4. Species listed should be those whose ranges or populations are shrinking or already small.
5. Animals should be protected with the objective of maintaining wildlife populations large and widespread enough to fulfill their ecological roles, and to withstand natural disasters such as drought and disease, and predictable man-made catastrophes such as oil slicks.

Surely, the first principle is obvious. Why protect the Mexican grizzly bear, which is apparently extinct and which has never been imported, and ignore the polar bear whose skins are imported and whose population has been the concern of conservationists for years?

The second rule, requiring importers to operate on a sustained-yield basis, is simply common sense. A farmer who sends as many chickens to market as he can without regard to the size of his flock and the next year's production of chicks will soon be out of business.

Healthy populations of most wild animals will produce more young than can survive within their limited habitats. This surplus can be killed without endangering the breeding population. A classic example is that of the Alaskan fur seal of the Pribilof Islands.

At the turn of the century the great seal herds were subject to unmanaged slaughter, like that going on today with the big cats, the otters, the whales, and the crocodilians. Finally, less than 150,000 fur seals remained. Only then did the United States, Russia, Japan, and Canada sit down and draw up a treaty which eliminated pelagic sealing and put the United States in charge of managing the Pribilof herds on a sustained-yield basis. Today, the seals number more than a million and annual harvests of up to 50,000 seals are possible without endangering the species, because careful census techniques guide a limited and managed kill.

It is still slaughter and still repugnant, but the seal's commercial value has helped protect the future of its kind. Perhaps now the fur seal has a chance of being preserved until man reaches a higher level of understanding and intellect and once and for all gives up killing wild creatures.

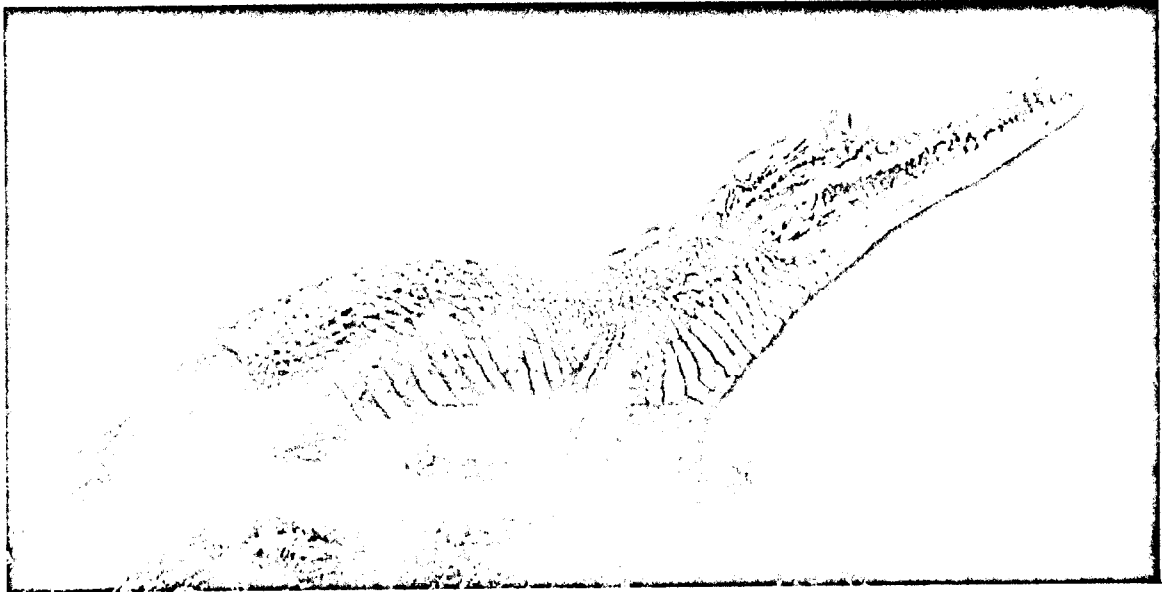
The same management principles are not observed for the big cats or for any other wild land animal killed for the United States fur and hide industry anywhere in the world. For example, the industry does not know how many cheetahs there are, it does not manage them in any way, and it takes as many skins as the market will consume or that it can get. Yet the only cheetah on the federal list is the Asiatic cheetah which is nearly extinct.

It is reasonable to continue to import Alaskan fur seal skins so long as it can be demonstrated that the herds are carefully managed, and it is logical to stop the importation of cheetah skins until it can be shown that the future of this species has been studied and provided for.

The application of the third principle demands an understanding of speciation and the way animals have been added to the endangered species list. Many geographic populations of wild animals are subspecifically distinct. The federal list protects certain local races whose status is known to be precarious but, following the Senate Commerce Committee directive, not the whole species. Thus the Sinai leopard (*Panthera pardus jarvisi*) and the

white in its coat, and being slightly smaller — usually. But the Bengal's color pattern is so variable that often the hides of young specimens cannot be distinguished from that of Sumatran, Javan, or Bali tigers. It is almost hopeless to try to identify an animal's race — one kind of tiger from another — from the fragments found in coats, mufflers, purses, and other finished products. The only way a list of proscribed animals can protect rare regional populations or subspecies is by prohibiting the importation of the full species with all of its races and populations. Otherwise the law will be unenforceable.

The fourth rule, that species protected from importation should be those whose range or



Morelet's crocodile (above) is classified by the IUCN as critically endangered; it is not on the federal list. Three relict subspecies of the leopard (at right) are listed, but populations elsewhere, threatened by the fur trade, are not.

Barbary leopard (*Panthera pardus tulliana*) are listed — but not the many other races of leopard now being killed by the thousands for fur coats. Following our puma analogy, the new federal list would allow the last Kenya leopard to be poached and its skin sold in Chicago, for there might be a healthy population of the same race in Tanzania or someplace else.

In actual practice, an experienced taxonomist can normally separate about 85 percent of the specimens of one subspecies from those of another in the same species. The distinctions between races may involve only size, gradations of color, average length of hair, and obscure skeletal characteristics.

For instance, the Sumatran tiger, which is on the protected list, differs from the unlisted Bengal tiger in having more numerous stripes, a little less

population is shrinking or already small, is easily applied to some animals but not to others.

Consider the case of the world's great whales: for years whale experts have been dismally consistent and accurate in predicting decreasing whale numbers and catches. Each year their predictions have been accompanied by recommendations that the catch be restricted. Just as consistently, their recommendations have been ignored by the whaling nations.

When the giant blue whale, the humpback, and the right whale became too scarce to catch in Antarctica, the whalers turned to the fin whale. After reviewing whale populations in 1963, biologists predicted that, if unrestricted whaling continued in the 1963-64 season, a dangerously high number of the diminishing fin whales would



The sea otter, once nearly eliminated by fur trappers, is now recovering. The IUCN lists a subspecies as depleted; the sea otter is not on the federal endangered species list.

be taken. They estimated 14,000 individuals; 13,780 fin whales were killed. The following year, the whalers could find only 7,308 to kill. Rather than return with empty holds, they killed 20,000 sei whales, a third of the total population of this species. There is no question that the whales are in trouble.

In contrast to whales, the populations of many forest animals are a mystery. We may not realize the danger these creatures face until they become so rare and localized they are almost gone, like the Zanzibar colobus monkey. It is a case of not being able to see the monkeys for the trees. Nevertheless, 634,000 live wild monkeys of several species were imported into the United States from 1958 through 1960. Most were purchased for laboratory use, many were bought for the pet store trade, and the commerce in monkeys continues. In 1968, 124,440 monkeys were imported. Although the high purposes of importation of monkeys for research may be more understandable, its effects upon wild animal forest populations are just as dangerous as those of the skin trade.

Hiding in the forest is harder for the tiger. Although its numbers may have exceeded 40,000 at the turn of the century, a recent IUCN report

offers the following present-day estimates:

* Caspian tiger	Iran Afghanistan	15-20 a few
Siberian tiger	Russia China Korea	60-70 about 50 40-50
Chinese tiger	China	a few
Indo-Chinese tiger	Yunnan Burma Thailand etc.	 ?
* Sumatran tiger	Sumatra	?
* Javan tiger	Java	10+
* Bali tiger	Bali	extinct
Bengal tiger	India Pakistan	1,900-2,500 50-100

** On the United States List of Endangered Foreign Fish and Wildlife.*

It is incomprehensible that all the different kinds of tigers were not placed upon the endangered species list. Even the most optimistic estimates of the most abundant race place its numbers at less than 3,000. The need for adequate criteria for designating animals "endangered" could hardly be more clear. After all, if an animal's status is truly questionable, it should be given protection until the matter is investigated. Let us postpone a few private profits to error on the side of conservation. If a mistake is made on behalf of short-term commerce, extinction is irreversible.

The Philippines monkey-eating eagle, of which fewer than 100 still exist in the wild, is on the federal list.





Listed by the IUCN as rare, the polar bear is not on the Department of Interior's endangered species list.

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The fifth and final principle, in the protection of wild animals from commercial exploitation, is basic to the idea of conservation itself. Part of the intent of the endangered species act was to preserve sizeable populations of wild animals. When a species is clearly in danger of "world-wide extinction," on the other hand, the value of protecting it is small. By this time, it has little chance of recovering and none of playing out its role in the scheme of natural communities.

Our aim must be to preserve significant populations of as many wild creatures as humanly possible. The importation ban is futile play-acting if we are not attempting to prevent destruction of commercially-endangered wild creatures. The law must concentrate upon, not avoid, the plight of those exploited species which still range widely enough over their original homelands to give some hope for potential survival and continued contribution to the earth's ecology.

Fortunately, there are signs that reason may prevail in some parts of the animal products industry. In August, the Furriers Joint Council of New York announced that its members will not "cut, fashion, or fabricate" skins of tigers, leopards, cheetahs, jaguars, and other animals threatened with extinction by a demand for their hides (not a great hardship, for more than 98 percent of the fur business comes from minks and other ranch bred animals). Unfortunately, the exploitative stand of management in the American fur industry is at disgraceful variance with that of the workers and with the attitude of the German furriers, who recently voted a voluntary ban on the importation

of leopard, tiger, and jaguar skins and asked their government to take immediate steps to pass protective legislation.

To the best of my knowledge, not one American fur or hide company has yet conducted any serious scientific research upon any of the wild creatures whose lives sustain part of their business. Not one has made any attempt whatsoever to operate on a sustained-yield basis which might be expected to preserve the living resources it is exploiting. Few fur or hide company officials have any real knowledge of the natural history or the population dynamics of the species with which they deal. Some cannot even identify skins and hides properly, although they can grade their quality within a hair.

Yet, the animal products industry is challenging the protection of species ranging from whales to leopards and claiming, among other things, that too little is known about these wild animals for them to be designated endangered by zoologists.

There is a need for more information on the populations and the future of species that are being exploited commercially. Why not let the industry contribute toward the financing of such research through a tax on skin importations? According to the Department of Commerce, the value of the jaguar skins imported in 1968 was \$1,466,272; cheetah, \$169,264; ocelot, \$5,915,504; leopard, \$2,267,638; a total of \$9,818,678 for the four species. Even a two percent tax on value would support a significant research program, which would help us to better preserve the big cats and the fur business, too.