

# National Parks & Conservation Magazine

The Environmental Journal December 1975



**NPCA • National Parks & Conservation Association • NPCA**

# New Courses for IUCN

**T**HE RECENT General Assembly and Technical Sessions of the International Union for the Conservation of Nature (IUCN) at Kinshasa, Zaire, Africa, may have marked a turning point in the history of this vital conservation organization.

The NPCA was represented by its President and by Mrs. W. L. Lyons Brown, a member of the Board of Trustees of NPCA and Vice President of the Garden Club of America.

Growing out of the efforts of a small group of European and American scientists who organized in 1928 as the International Office for the Protection of Nature, the IUCN has sought to touch the conscience of the world on the impending extinction of many invaluable plant and animal species. Among the names of the founders and the early participants, those of Jean-Paul Harroy of Belgium, Peter Scott of England, and Harold J. Coolidge of the United States are illustrious.

**W**ITH THE structured growth of international institutions after World War II, the IUCN emerged in 1948 as the International Union for the Protection of Nature, and in 1956 as the International Union for the Conservation of Nature and Natural Resources, to which some 81 nations are affiliated, as such or through their resources departments, as well as 20 International Organizations, and 243 private organizations, a large number from the United States. The NPCA has been a member since 1948.

Financed in large measure by charitable contributions to the World Wildlife Fund International with headquarters at Morges, Switzerland, assisted by National Appeals all over the world, the IUCN has nonetheless had the usual difficulties of private conservation organizations in raising money. The dues paid by governments, international organizations, and private organizations have never been adequate. Generous assistance was given by the Ford Foundation six years ago, and renewed three years ago, and now the United Nations Environment Fund has provided even greater assistance for the current triennium.

The General Assembly at Kinshasa was marked by drastic administrative changes. The Assembly at New Delhi in 1969 had made a shift from the Commission form of management to a more cen-

tralized Secretariat. The Kinshasa meetings reflected a partial reversal, with greater emphasis on the Commissions again. There was a widespread feeling that the outgoing Director General, Gerardo Budowski, and the outgoing Deputy, Frank G. Nicholls, should be credited with great achievements. The NPCA representatives found themselves concerned primarily with what the IUCN expects to accomplish in the future.

Donald J. Kuenen of the Netherlands continues as President and will be a strong force for cohesion during the transition. Duncan Poore of England and Raymond F. Dasman of the United States, senior ecologists, will carry great responsibilities. Lee M. Talbot of the United States becomes a Vice-President. John Perry of the United States becomes a Vice-Chairman of the vital Survival Service Commission. Perez Olindo, distinguished Kenyan conservationist, becomes a Vice-Chairman of the Commission on National Parks and Protected Areas, and Theodor R. Swem, an Assistant Director of the U.S. National Park Service, its Acting Chairman. The NPCA has affiliated to the American Committee for International Conservation, through which the private organizations in the U.S. which belong to IUCN attempt to coordinate their efforts.

**F**UNDAMENTAL to the mission of the IUCN through the years has been its work in spreading the National Park idea around the globe. During the period of European dominance in Africa, the British, Dutch, French, and others established magnificent National Parks in the countries they governed, for the protection of the plants and animals. As the Europeans withdrew, they trained native administrators to manage these irreplaceable ecological preserves. The new governments for the most part accepted these responsibilities with sensitivity and a determination to perpetuate an important tradition. All along the way, through this process, the IUCN was present with its knowledge and dedication. And a similar account could be given of its work in most of the rest of the world.

And yet we must ask ourselves now whether these efforts have kept abreast of the need. That habitat is basic to the survival of almost all endangered species is a matter of common knowl-

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# National Parks & Conservation Magazine

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FRONT COVER Organ pipe cactus, by Ed Cooper

BACK COVER Jaguar cub, by Smithsonian Institution

*A large organ pipe cactus in Organ Pipe Cactus National Monument has more than thirty stalks. These cacti grow as high as twenty-five feet and have as many as fifty branches. But the monument set aside to preserve them is threatened by mining and grazing. (See page 4.) The young jaguar on the back cover will never become a jaguar coat, because he lives in the National Zoo in Washington, D.C. However, his wild cousins have been exterminated from this country and are losing ground in Mexico and many parts of Latin America. (See page 10.)*

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# ORGAN PIPE: Trouble Along the Devil's Road

Mineral prospecting and cattle grazing threaten the integrity of one of our unique biological reserves

by J. Y. BRYAN

ONE OF America's major biological treasuries, Organ Pipe Cactus National Monument, rich in desert flora and fauna, is threatened by cattle grazing and mineral prospecting within its boundaries. Efforts to rid the monument of both activities, though vigorous and persistent, have thus far proved unsuccessful.

Organ Pipe lies along the United States-Mexican border 120 miles west of Tucson, Arizona. Father Kino, revered Spanish founder of missions in Sonora and Arizona, passed through on his way to California 274 years ago, enchanting desert Indians with his version of Christianity. Yet the trail he followed across lands now within the monument became known as El Camino del Diablo—the Devil's Road—because its rocky, sun-baked hills bristle with thorny growth in weird forms. Survival while traveling the road depended upon discovering its hidden springs and waterholes.

Still, much of that land has a southward tilt behind a shield of northerly mountains, which promotes mild winters. The area is further blessed with comparatively gentle winter rains as well as the quick gully washers characteristic of southwestern desert thunderstorms in late summer. Its annual precipitation averages a bit more than nine inches. This rainfall provides a congenial environment for an exceptional variety of plants and animals.

In fact, when 330,000 acres were

set aside in 1937 as Organ Pipe Cactus National Monument, the intention was to give permanent protection to several species that are now scarce or endangered outside the monument. These species include not only the organ pipe cactus, which survives feebly outside the park, but the even rarer senita cactus, the smokethorn, the ajo oak, and the elephant tree. Several endangered or threatened species of birds, fish, and mammals make their home in this haven, among them an endangered strain of pronghorn antelope, kit foxes, desert bighorn sheep, javelinas, vermilion flycatchers, and desert pupfish.

The monument also provides seasonal refuge for 32 species of larger migratory waterfowl, twenty-eight of shorebirds, and eighteen of raptors, as well as a multitude of songbirds.

At least forty different species of mammals also make Organ Pipe their home, including desert shrews, mice, and rats; bats; rabbits; squirrels; mule deer; and white-tailed deer. Predators that keep the prolific rodents and browsers under control are the bobcat, mountain lion, kit fox, gray fox, coyote, ringtail, coati, badger, and spotted skunk. Gray wolves, raccoons, and striped skunks have been sighted in the monument but seem not to be established there.

Even more species of amphibians and reptiles live among the organ pipes. Besides the amazingly

enduring desert tortoise, these species include desert iguanas, Arizona chuckwallas, and banded geckos as well as such inhospitable reptiles as the Gila monster, coral snake, and five species of rattlesnake—all shy fellows rarely seen because they want to be left alone—and better be!

THE MOST distinguishing feature of the monument is, of course, the organ pipe cactus. Organ pipes grow in clusters of as many as ten to fifty stalks sharing one root system. Only four to eight inches in diameter, the stalks have thorned ribs enclosing spongy cellular tissue that is capable of expanding or contracting as moisture is abundant or scarce. Whether slenderized by drought or engorged with juice, organ pipes retain some flexibility. The stalks also have some capacity for regeneration after blight. For instance, if tender blossoming tips are frosted,

the stalk ceases to elongate but may increase remarkably in girth; the root system meanwhile sends out a new stalk. Some specimens of organ pipe live as long as 150 years.

Organ pipes flower at night, with the blossom remaining open a few hours the next day. Red and fleshy when mature, the fruit is one to three inches in diameter. Many birds and animals feed on the fruit; and the Papago Indians value the flavor of its juices and gather it to make syrup, preserves, or ceremonial wine. Pioneers used the fruit similarly. In addition, pioneers and Indians alike sometimes used the woody skeleton as building material, though saguaro ribs, being longer and stronger, were more favored for this purpose.

The organ pipe depends entirely upon consumption of its enticing fruit for dispersal of its seeds, which accounts partly for its fail-

ure to flourish very far beyond the mountain barriers at the north of the monument. Furthermore, it has little capacity to germinate on alluvial plains to the northeast, north, and northwest. Transplants have survived in Phoenix and Tucson but failed to reproduce, probably because the climate is somewhat cooler than in the monument. Even under favorable conditions scarcely one seed in each quarter million survives.

Organ Pipe has proved a better refuge for saguaros than Saguaro National Monument near Tucson. Although puzzling changes in conditions near Tucson have resulted in sharply reduced germination of new saguaros and an increasing predominance of senile plants, a large population of healthy young specimens is flourishing among the organ pipes. In fact, whereas organ pipes in the United States thrive only on southward tilting slopes, saguaros can root and grow

on slopes and valley floors either way from a line of hills. Therefore, more saguaros than organ pipes grow in this monument.

THE VAST majority of Organ Pipe National Monument acreage still looks much the way it looked when Father Kino first followed El Camino del Diablo westward. In fact, a National Park Service proposal to Congress recommends that 299,600 acres of the monument be designated as wilderness. Another NPS recommendation urges that the proposed wilderness portion include an additional 10,100 acres.

The monument owes much of its wealth and variety of desert species to its position as a meeting and mingling zone for three types of desert life. Influences peculiar to the Gulf of California phase of the Sonoran Desert in Mexico flow in from the south; those characteristic of Arizona's upland succu-

NATIONAL PARK SERVICE





lent desert reach in from the northeast; others for which the California desert are noted extend across low mountains from the west.

So interesting and significant is the resulting blend of species that UNESCO's International Coordinating Council for its Man and the Biosphere program has selected Organ Pipe Cactus monument as one of twenty United States biosphere reserves. According to an excerpt from a National Park Service memorandum on the subject, "Biosphere reserves of the United States will form part of a worldwide network of reserves representing all of the recognized reserves of the world . . . where studies will be conducted to identify how changing plant and animal systems relate to each other and how man's activities affect them. Information gained will be used to implement programs to manage these ecosystems to maintain and improve them as reservoirs . . . of the genetic materials . . . represented therein. This global network will keep track of changing conditions of oceans, the atmosphere, food resources, natural disasters, and human health relative to environmental factors."

But mineral prospecting and illegal grazing within the monument jeopardize Organ Pipe's standing both as a wilderness area and as a biosphere reserve. Of the two problems, the grazing of cattle, horses, and burros poses the more immediate and visible threat. The presence of more than 33,000 acres of mining claims within the monument, however, keeps Organ Pipe vulnerable to much greater damage.

The proportions of this potential damage can be judged from the fact that holders of Milton Mine claims within the monument have secured a permit to bring in heavy earth-moving equipment similar to bulldozers. As yet the permit remains unused for lack of adequate financing and for lack of assays

*Organ pipes, rarely seen on level plains, prosper on rocky slopes in Organ Pipe Cactus monument.*

giving assurance that deep mining there would be profitable. But at least the Phelps Dodge Corporation, which operates the New Cornelia Mine at Ajo, north of the monument, could readily finance a very large and aggressive exploitation. Phelps Dodge, incidentally, has held 5,298 acres of claims within the park.

**E**VEN though the presence of these claims is contrary to the founding principle of national monuments, they are legal. When the monument was established in 1937, its lands were closed to all mining and mineral exploration. Later, an assumption that wartime demand for metals would create a need for tapping unused mineral resources persuaded Congress in October 1941 to reopen the area to mineral exploration and development. This law has never been repealed. Even so, no significant amount of any mineral has ever been mined in Organ Pipe during the thirty-four years since the monument was opened to mining. The danger is that development of more sophisticated mining and smelting techniques might enable a much bolder effort to gut out deposits now considered of small value or too costly to reach.

Recent exploration by Pangea Resources Corporation of Tucson, Arizona; expenditures of as much as \$300,000; and filing of 110 claims in September bode ill for the monument unless they are prohibited by law.

Holders of mining claims within the monument receive strong backing from such defenders as ex-governor Jack Williams of Arizona, the Department of Interior's Geological Survey, and the Department of Commerce's General Counsel. Williams, reflecting Arizona's traditional veneration for mining and cattle interests, asked for delay of wilderness designation pending development of Arizona's own land-use plan, with the emphasis clearly on the side of exploitation rather than education, esthetics, or preservation. The Geological Survey and the Department of Commerce's General

Counsel have expressed similar views favoring the supposition that valuable mineral deposits do exist in the area and should be left accessible to prospectors. William C. Rountree of Commerce has said: "Before any decision is reached on this proposal, we consider it imperative that the Interior Department undertake an extensive mineral survey to identify the extent of mineral resources in this area. . . . There are major copper deposits in the general area of the national monument and we have been advised that while only 10 percent of the area has mineral deposits which have been located, there may be valuable undetected deposits that are several thousand feet below the surface. Undiscovered deposits of copper and other scarce minerals should not be precluded from location and, where appropriate, development."

Regarding these assumptions, David Jones, chief of the National Park Service's Branch of Mining and Minerals, has pointed out that the whole area has in fact been open to mineral exploration for four hundred years and that nothing of significant value has been found there in all that time. As for the possibility that undetected deposits may exist several thousand feet below the surface, Mr. Jones observed that Mr. Rountree "could look under his desk and say the same thing." Most of the claims, Mr. Jones says, are held by amateur prospectors who may know little about mining but who like to see dynamite explode and make dirt fly. To these people mine shafts and slag heaps may not look objectionable, but to nearly everyone else they look hideous. In Mr. Jones' opinion, no valid reason has been offered to delay securing the area for the best and highest use yet discovered for it, which is as a nature preserve open to everyone for recreational and nonexploitative study.

Fortunately, maintenance of Organ Pipe as such a reserve has vigorous proponents in the U.S. Congress. Bills have been introduced in both House and Senate to close to future entry Organ Pipe

and the five other units of the National Park System where mining is permitted. Once the validity of the claims in Organ Pipe have been determined, the valid ones would have to be bought by the government or very tightly regulated in order to protect the monument from damage.

**T**HE PROBLEM of illegal grazing in Organ Pipe monument still persists in all its stubborn complexity. One family of ranchers with inholdings of less than two hundred acres, but possessing important water rights, obtained a grazing permit in 1937 for 545 cattle and 9 saddle horses on monument land adjacent to their ranch; then in 1942 they obtained a permit to graze 505 more for a total of 1,050 head. The permit was terminated as of December 31, 1968. Even so, despite much pressure and despite the fact that no money has been collected since that time for the privilege of grazing, the grazing continues.

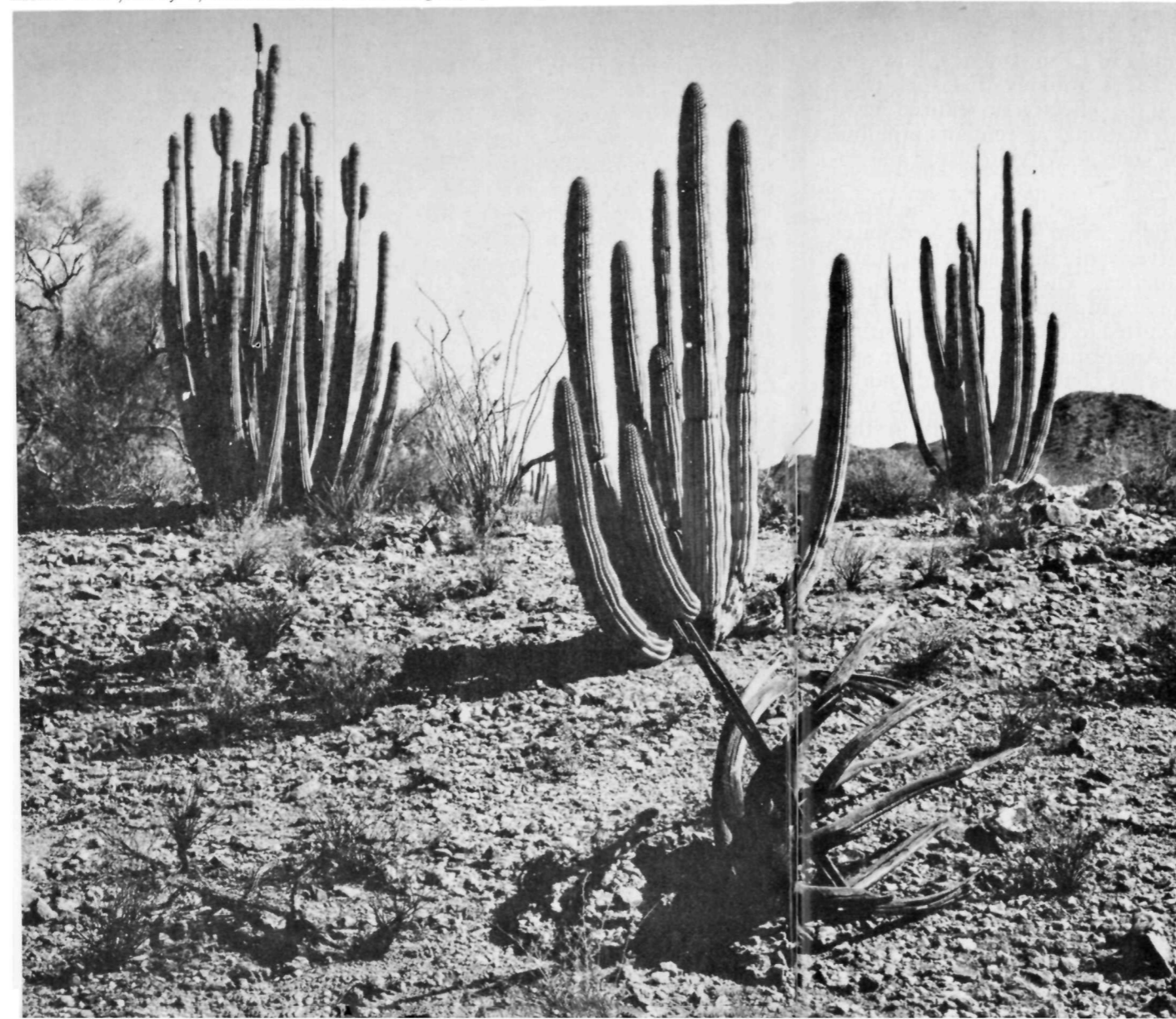
Indeed, no one officially connected with the monument can be sure how many cattle, horses, and burros are at large—whether more or less than 1,050 head. One reason is that the cattle are almost as wild as deer. In the rough terrain to be designated as wilderness the ranchers depend less upon drives to round up their stock than upon a circular line of large corral-type traps constructed around watering troughs fed by wells that they maintain. Near each trap is a line-camp shack where ranch hands can bunk for as long as necessary to trap and haul out the desired number of cattle.

Lyle McDowell, associate regional director of the National Park Service's Western Regional Office, called the damage to the monument traceable to livestock "tremendous." After close study in good years and bad, he has concluded that periods of drought that keep stock within a long walk of the watering troughs are especially damaging. The cattle graze off the most edible forage right down to the roots, loosening the soil and



Above, not one blade of grass shows around this line camp at Gachado well and cattle trap near the southern border of Organ Pipe Cactus National Monument. One family of ranchers has been illegally grazing their animals there for

more than five years. In addition, more than 33,000 acres of mining claims threaten the monument (below).



promoting erosion when rain eventually does fall. Signs of damage decline in proportion to distance from the troughs. The effect has been at work so long that, even after a season of restorative rains, grass near the traps is hard to find.

An additional hazard noted by Edward Rodriguez, superintendent of the monument, results from livestock straying across unfenced roads. Several serious accidents have occurred. During the 1975 Memorial Day weekend, for example, a nighttime collision between a cow and a car on the highway one mile south of the visitor center killed the cow and "totaled" the car.

In fairness to the ranchers, Mr. Rodriguez points out that all sorts of creatures are free to water at the ranchers' troughs most of the time because gates of the corrals are kept open except when in use to sort livestock. Moreover, some say the corrals, wells, line shacks, and windmill at Bonito Well may possibly be considered more picturesque than defacing; they represent a method of managing livestock peculiar to that portion of the Southwest. However, the monument was not established to demonstrate ranching techniques, and this minor benefit is no justification for permitting this grazing damage to continue.

The fact remains that the grazing has persisted for more than five years without a permit; that it violates the principle under which national monuments were established; that damage to the area's role as a botanical and wildlife reserve is extensive; and that neither wilderness designation nor maintenance of the park as a biosphere reserve can be properly validated until the livestock are removed. The National Park Service has filed depositions in Federal District Court at Phoenix seeking a judicial order requiring the ranchers to withdraw their stock from Organ Pipe Cactus National Monument. A responding deposition from the ranchers has also been presented. Indeed, papers ex-

pressing both points of view have been on file in that court for months, but the case has not yet been brought to trial.

**T**HE COMBINATION of grazing and mining activities is doing serious and perhaps irreparable damage to one of our country's richest desert areas. Organ Pipe Cactus National Monument was set aside to preserve a unique treasure—a fragile ecosystem of desert plants and animals—and should remain as such. But unless these incompatible and inappropriate practices in the monument are terminated—soon—by judicial or statutory action, much of the area as we have known it will be lost.

A frequent contributor to these pages, J. Y. Bryan taught creative writing and journalism at the University of Maryland before embarking on a twenty-year career with the Foreign Service. Since retiring, he has been teaching photography at the University of California at Riverside, in addition to writing about and photographing his native Southwest.

#### Editor's Note

#### STOP MINING AND GRAZING

Despite the National Park Service's clear preference for totally removing grazing and mining activities from Organ Pipe Cactus National Monument, pressures from both inside and outside the government have thus far assured the continuation of these destructive activities. NPCA members should write to newly confirmed Secretary of Interior Kleppe expressing *strong* support for elimination of *all* mining and grazing in Organ Pipe Cactus National Monument and in all other units of the National Park System. Write:

Hon. Thomas S. Kleppe  
Secretary of the Interior  
Department of the Interior  
Washington, D.C. 20240

See also page 17.



# RETREAT of the JAGUAR

The beautiful American "tiger," driven by gun and bulldozer from habitat in the United States, now holds out only in parts of Latin America

by RON NOWAK

**T**HE JAGUAR (*Panthera onca*) is the only living representative of its genus in the New World. In contrast, four species of the great or roaring cats are found in Asia and Africa: the lion (*P. leo*), tiger (*P. tigris*), leopard (*P. pardus*), and snow leopard (*P. uncia*). The American cougar, or mountain lion (*Felis concolor*), may approach the jaguar in size and shares much of its range, but it is incapable of roaring and taxonomically is closer to the house cat.

Thus, the jaguar is unique in the Americas and certainly is a candidate for being the most spectacular member of our entire American fauna. The jaguar often is mistaken for the leopard at first glance, but there is little difficulty in distinguishing the two cats after a few moments of comparison. The jaguar is usually larger, with a more stocky body, relatively shorter tail, and more massive head. The spots of the jaguar's skin are formed into larger, more prominent rosettes than those of the leopard, and additional small spots usually occur in the middle of the rosettes. Male jaguars average more than 200 pounds in weight, and an occasional specimen exceeds 300 pounds, considerably heavier than the male leopard and cougar, which average between 130 and 140

pounds. Female jaguars weigh on the average about 150 pounds.

Although European man has been in contact with the jaguar since the time of the early Spanish explorers, comparatively little has been recorded about its natural history. Unlike most other large carnivores, the jaguar has never been the subject of a detailed field study. Most writers have reported that the jaguar prefers dense lowland forests, but there is evidence that the species may be equally at home in the great stretches of open forest and luxuriant grassland that cover much of South America. The jaguar may also be found in mountain forests, and it has been known to wander great distances across dry, rugged country.

As with most other predators, the jaguar seems to be an opportunist in its feeding habits. It generally hunts at night, striking out of dense cover to make a quick rush at the intended victim. The jaguar's prey includes tapirs, peccaries, capybaras, deer, other mammals, reptiles, and fish. In some areas jaguars are reported to threaten domestic stock, and occasionally a man-eater is reported.

Like most other cats the jaguar is a solitary animal; male and female associate only briefly during mating, which may occur at any

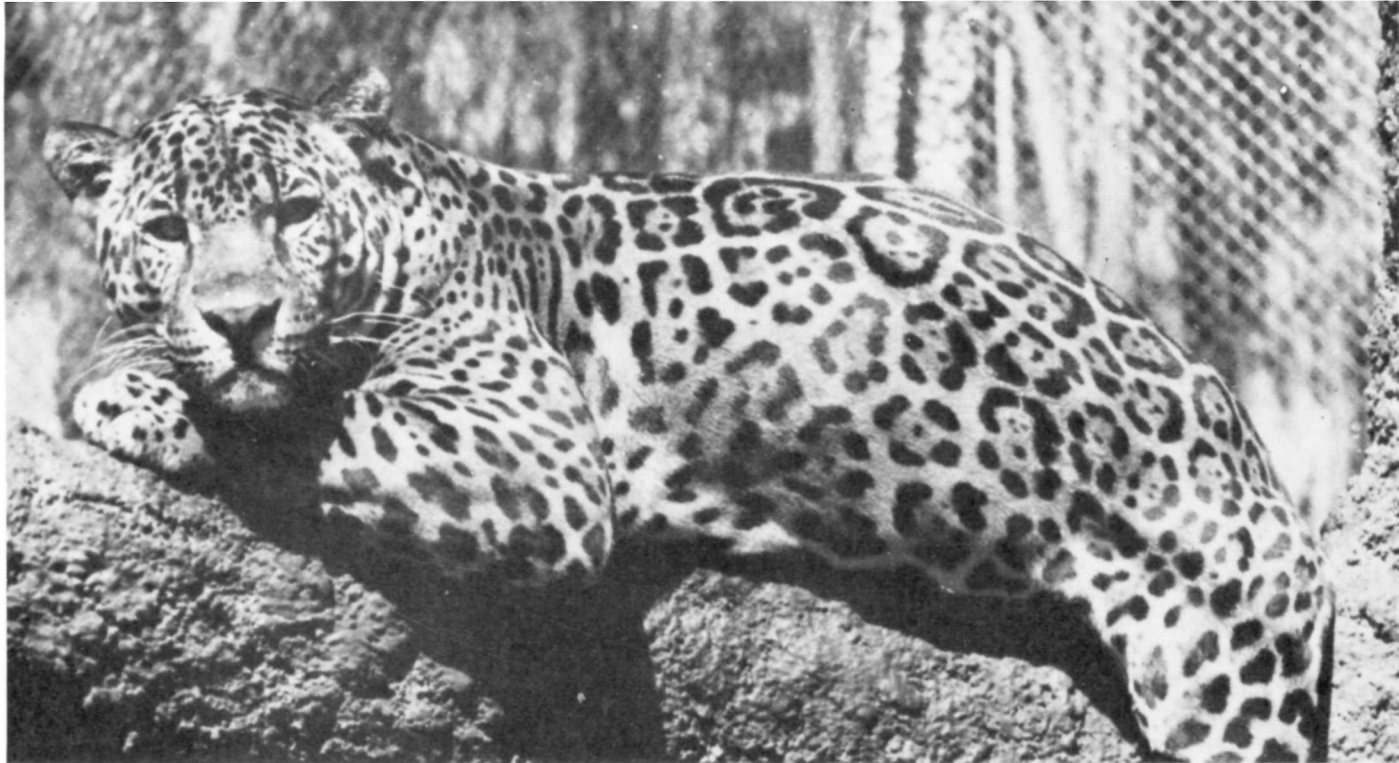
time of the year. The gestation period lasts about a hundred days, and usually two cubs are born.

The jaguar's range extends from Mexico to northern Argentina; but numbers are declining, and the species has been eliminated in some areas. Two factors have contributed to the jaguar's decline: alteration of habitat and commercial exploitation by the skin trade. Throughout Latin America, vast areas of virgin forest are rapidly being converted for human use, especially for cattle grazing. Such habitat changes make the jaguar more accessible to human hunters and bring the species into conflict with livestock interests.

The taking of jaguar skins has shown some decline as a number of nations have prohibited the hunting and/or importing and exporting of spotted cat hides. Before 1972, when the United States declared the species to be endangered and prohibited all imports, the majority of raw jaguar skins had been brought into the United States. Much illegal and legal trade continues in Latin America, however, and it is unlikely that such trade will be effectively reduced until international agreements prohibiting such activity are made and enforced.

For the past five years the World Wildlife Fund has sponsored status surveys of the jaguar in Latin America. The most serious decreases in numbers seem to have occurred in Mexico and Argentina. In Argentina the range of the species has contracted steadily northward, and probably only about a hundred jaguars are left in that country. In Mexico, where twenty years ago the jaguar was still widespread and relatively common, the species has declined drastically. Although some jaguars currently are scattered through most of the lowlands along both coasts of Mexico, north nearly to the U.S. border, the only substantial populations are in a few areas of undisturbed forest in the extreme southern part of the country. The total number of jaguars left in Mexico may be less than one thousand, and the species is declining as its habitat continues to be destroyed.





SAN DIEGO ZOO

Jaguars still occur regularly in parts of Guatemala and British Honduras, which countries border southern Mexico, but in general the species has become rare in Central America. Serious declines have also occurred on the savannas of eastern Colombia and southern Venezuela. The largest remaining populations apparently are found in the Amazon Basin in Paraguay. However, even in the heart of the Amazon jaguars have become scarce over large areas that are accessible by roads and navigable waterways, and planned developments in the region promise continued trouble for the species. In short, the jaguar cannot be said to be in imminent danger of extinction, but the species is losing ground in many areas of its habitat in Latin America.

**W**HAT may not generally be realized is that the current man-caused pressure on the jaguar population has accelerated a natural process that began more than 100,000 years ago. During certain periods of climatic moderation in the Pleistocene epoch, jaguars ranged at least as far north as Washington State, Nebraska, and Maryland. Toward the end of the Pleistocene, about 10,000 years ago, the climate became more se-

vere; fossils show that during that period jaguars were concentrated more to the south. Remains from the Late Pleistocene are especially abundant in Florida and indicate that that area provided suitable habitat for the jaguar long after the species had disappeared from most other parts of what is now the United States.

Possibly the jaguar survived until relatively recent times in Florida. Folk legend suggests that the jaguar was known to the early settlers of Florida. Such stories cannot be scientifically substantiated, and modern zoologists do not include Florida within the range of the species during recorded history. Yet in February 1968 a 250-pound male jaguar was killed by a hunter in a remote marsh inland from Vero Beach in southeastern Florida. Although the jaguar was almost certainly an escapee from a carnival, the animal had been sighted in the area for several years before its death, which indicates that the species could survive in Floridian habitat. Two other species of cats now restricted primarily to tropical Latin America—the ocelot (*Felis pardalis*) and the jaguarundi (*F. yagouarundi*)—also at one time inhabited Florida, as shown by fossil remains. These species also were

alluded to in the tales of early settlers and have been recently reintroduced in the state.

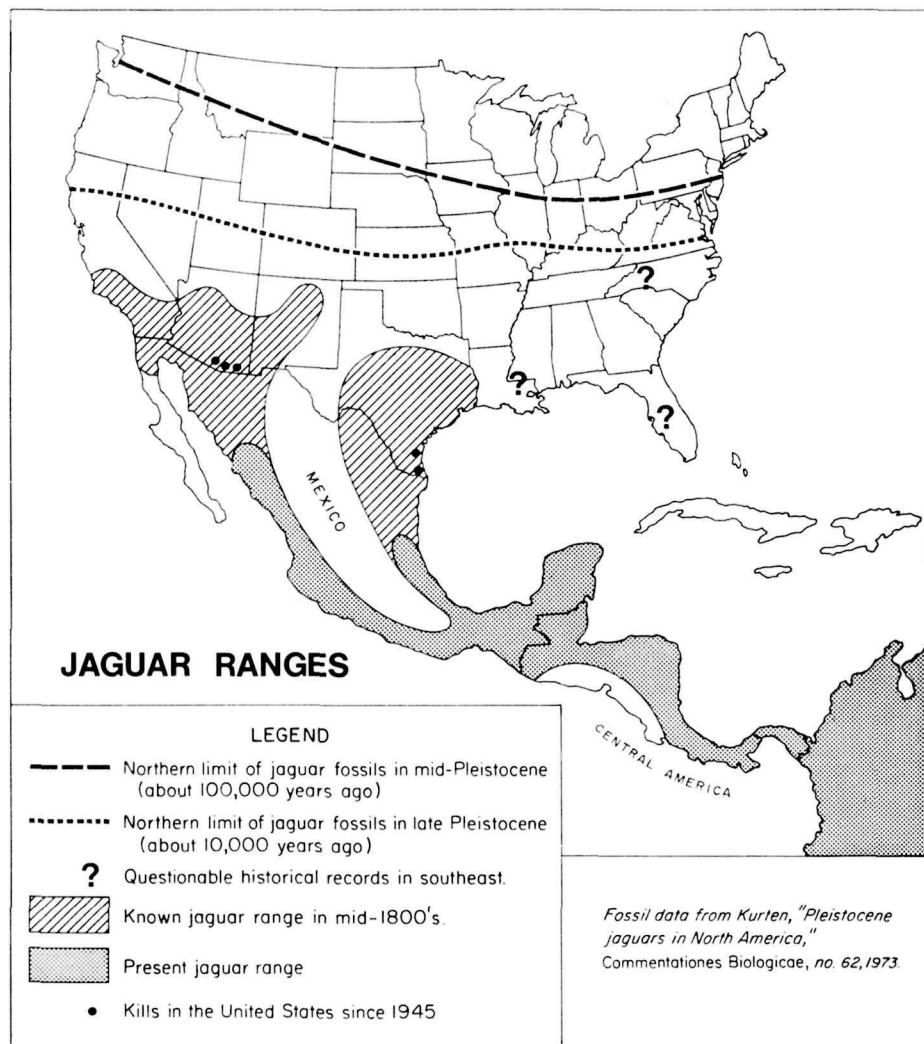
Stories of jaguars have come out of other parts of the southeastern United States as well. Several eighteenth century writers describing the Carolinas mention the existence of a species of cat that they distinguish from the cougar and bobcat. They give no detailed description of the cat, but the terms they use—"tiger" or "leopard"—suggest a large and colorful cat. One of these writers, John Lawson, states that this animal was not common in North Carolina itself but was found more to the west of the Appalachian Mountains. Oddly enough, in 1940 a party led by the renowned zoologist George Gaylord Simpson was exploring a cave near Sweetwater, Tennessee, on the western slope of the Appalachians. They were surprised to find the bones of a jaguar, "very fresh in appearance," and footprints of the same kind of animal, which "looked almost as if made in the last few minutes." Simpson realized of course that the remains actually were very old and had been preserved by the favorable environment of the cave, but he suggested that the bones and tracks tended to support the early legends of the jaguar's presence.

A number of nineteenth century naturalists wrote of the probable occurrence of the jaguar in the southeast, but only in such general terms as "east of the Mississippi River" or "as far as the Red River of Louisiana." In fact, only one specific locality record of the jaguar to the east of Texas exists that dates from the historical period. A pair of articles in the *Donaldsonville Chief* in June 1886 refer to the killing of a jaguar about ten miles east of the Mississippi River in Ascension Parish, Louisiana. Even in this case, however, the information given is so incomplete that we still cannot say with certainty that the jaguar inhabited the southeast during the time of the white man.

It could be argued that if such a striking creature ever had been present in an area, it most certainly would have been the subject of many recorded observations. It also is true, however, that several large mammals that once were common in parts of the southeast, such as the bison and elk, are mentioned in few written records.

**T**HE POSITIVELY known range of the jaguar in the United States in recent times, as proven by actual specimens or the recorded observations of trained naturalists, extended across southern Texas to the Sabine River and covered most of Arizona and parts of New Mexico and California. The species seems to have been well known to the Indians in the country east and southeast of Los Angeles. Jaguars apparently occupied and may even have bred in several of the mountain ranges interspersed among the dry lowlands of that area. A family of jaguars reportedly was found in 1855 on the south side of the Tejon Pass in the Tehachapi Mountains north of Los Angeles. The last jaguar reported in the state was killed near Palm Springs about 1860.

An old record of a jaguar killed near Springer in northeastern New Mexico suggests that the species once wandered over much of that state. In the period from 1900 to 1905, at least five jaguars were killed in the southeastern and south-central parts of New Mexico, and there were reports from along



the Rio Grande as late as 1922. Subsequently, however, the jaguar is not known to have occurred naturally in New Mexico.

Texas may have contained some of the last breeding groups of jaguars in the United States. In 1902 the U.S. Biological Survey received several reports of the species in the Big Thicket in the extreme southeastern corner of the state. It seems probable that a small, isolated jaguar population was present in this area of dense forest; but by the turn of the century the Big Thicket was becoming subject to intensified logging and environmental modification, and it is unlikely that the jaguar survived there much longer.

In the 1840s jaguars reportedly were common along watercourses in the rough country around San Antonio and westward. By the end of the nineteenth century the species had become rare in this same

area, but kills occurred as late as the 1870s in Kerr County to the northwest of San Antonio, about 1889 near the mouth of the Pecos River, and in 1903 near Goldthwaite, more than one hundred miles north of San Antonio—the last definite kill to be recorded in Texas for many years. An apparently well-established jaguar population maintained itself in the dense thickets along the lower Nueces River and northeastward to the Guadalupe River until at least the 1870s. The naturalist Edward D. Cope reported that he saw many skins of jaguars killed in this area on sale in San Antonio. By the early 1900s, however, hunting pressure from stockmen and alteration of habitat had made the jaguar extremely rare in Texas. Individual jaguars probably continued to wander from Mexico into the brush country at the southern tip of the

state, but clearing of the brushlands eliminated chances for reestablishment of a breeding population. The only recent kills occurred near San Benito, Cameron County, in 1946 and in Kleburg County in 1948, both places in extreme southern Texas.

**A**RIZONA has more twentieth century records of the jaguar than any other part of the United States. The presence of a resident population, however, is unlikely. Probably most of the sightings, especially those of recent years, were of individuals that wandered away from the northern fringes of the Mexican population.

The jaguar still was common in the coastal lowlands of Sinaloa in northwestern Mexico until the mid-twentieth century. From there individual animals could have wandered occasionally up the Yaqui River and its tributaries in Sonora and then into southeastern Arizona where most of the recently recorded sightings have been concentrated. The species is known for such long-distance movements. A. Starker Leopold, in his book *Wildlife of Mexico* (1959), mentioned one jaguar that had wandered at least five hundred miles from regularly occupied range.

Nonetheless, some breeding apparently did occur in Arizona. In the period 1885 to 1890 a female and her cubs were killed near the Grand Canyon. On three other occasions—about 1907, between 1909 and 1918, and in 1932—individual jaguars were killed at the Grand Canyon. The last clear evidence of breeding in the state was in 1910 when a female and her young were killed near Winslow in northeastern Arizona.

All these records and many others in Arizona are summarized by Kenneth I. Lange in the *Transactions of the Kansas Academy of Science* (1960). He lists about forty-five kills that took place in Arizona from 1885 to 1959, mostly in the southeastern corner of the state. His data suggest that kills or reliable sightings took place just about every year or two until November 1949 when a jaguar was killed near Arivaca in Pima

County. Subsequent records have been far less regular, and it is even possible that the 1949 kill represented the last natural occurrence of the jaguar in the United States.

It may be no coincidence that in 1949 the governments of the United States and Mexico initiated a large-scale poisoning and trapping program to kill predators in northern Mexico. This program apparently reduced the number of wolves that moved into the United States from the south, and it also contributed to the near extinction of the Mexican grizzly bear. The jaguar may have been affected in the same manner. The post-World War II years also saw the intensification of logging and agricultural activity in Mexico and the subsequent drastic decline of the jaguar in that country.

In 1958 and 1959, three jaguars were killed in the vicinity of Nogales, Arizona, each by hunters employing the same guide. Although there is no direct evidence, circumstances suggest the possibility that the three jaguars had been imported and released. In 1966 two more jaguars were killed, each near Fort Apache in east-central Arizona, far to the north of most recent reports. It seems probable that these animals also had been introduced by humans. The same situation is thought to have happened in the case of a jaguar killed near Presidio in southwestern Texas in 1963. And in 1972 and 1973 at least ten hunters killed jaguars in the area southwest of Albuquerque, New Mexico, where the species had not been seen since the turn of the century.

Each hunter employed the same man who had guided the three hunters who had killed jaguars in Arizona in 1958 and 1959. Eventually it was learned that this guide had conducted jaguar hunts in British Honduras but had been unable to continue this business after March 1972 when the jaguar was placed on the U.S. endangered species list and American sportsmen were no longer legally able to bring their trophies home. At that time, however, there were no prohibitions on killing endangered species within the borders of the United

States, so the guide apparently hit upon the idea of smuggling jaguars into the country and releasing them for his clients to make what they thought were legal kills. The new Endangered Species Act of 1973 placed the jaguar under complete federal protection in the United States and also maintained the ban on imports.

The day of the Arizona jaguar was not quite over with the questionable records of the 1950s and 1960s. In October 1971 two fourteen-year-old boys were duck hunting just east of Nogales when they encountered a jaguar. They killed the animal, and for the moment at least there is no evidence to suggest that it represented anything other than a natural occurrence.

**C**ONSIDERING the deteriorating status of the species in Mexico and its present restriction largely to the southern parts of that country, there seems little chance that a jaguar ever again will wander across the U.S. border. Even if individuals should appear and protective laws could be enforced, there would be almost no possibility of a population becoming reestablished because of habitat changes that have occurred and the potential conflict with human interests. The long and intriguing story of the jaguar in the United States seems to have come to an end, and we are poorer for having lost this beautiful animal. ■

**Dr. Ron Nowak, wildlife biologist, has published many articles and reports on large carnivorous mammals.**

*Editor's Note: The jaguar is on the U.S. endangered species list and on Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora—the species most strictly protected by signatory nations—which the United States has ratified. Ratification of the Convention by all involved countries would help to control the trade in jaguar furs. Countries with jaguar populations should be encouraged to preserve large tracts of undisturbed wilderness as habitat.*

# CHATAHOOCHEE RIVER OF FLOWERED STONES

Georgia's "enchanted" river is proposed for preservation as a national recreation area

by ANDREW YOUNG

**T**HE Chattahoochee—"River of Flowered Stones" the Creek Indians called it—spills down from the Blue Ridge Mountains in northern Georgia, glides past the city of Atlanta, and flows onward to the Gulf of Mexico. Pastel granite rocks in the river bed reminded the Creeks of underwater flowers; hence their poetic name for the river. Just across the river boundary of the Creek Nation, the Cherokee Indians once thrived in the Chattahoochee Valley, which they called "The Enchanted Land."

In an age of often unchecked urban sprawl, this river has survived in a relatively unspoiled natural condition, yet it is readily accessible to 1.5 million people. In fact, all year long it attracts visitors from throughout the Southeast and others who come to Atlanta.

As the Chattahoochee passes through the Atlanta area, it is wild and serene. It provides the hiker, canoeist, camper, or cyclist with a variety of landscapes and the history buff with sites recording the presence of Indians 10,000 years ago, the coming of Georgia settlers, and the Civil War. The stream wends its way around islands and shoals interspersed with calm passages. At several points, massive granite palisades rise above the watercourse. The valley is as much as five miles wide and is bordered by ridges from 150 to 400 feet high.

The flood plain through most of the corridor is about half a mile wide at some locations. Narrow valleys with small streams; broader valleys with marshes and larger streams; and a variety of narrow and broad ridges, sheer cliffs, and steep and gentle slopes are a few of the natural features of the river area.

Among the many varieties of trees and shrubs that grow in the region are the oak and hickory, which predominate in the stable forests along the river, stands of beech in many of the ravines, mountain camellia, and umbrella magnolia. Each spring brings wildflowers like trillium and ladyslippers, and in the fall come rattlesnake orchids and gentians. Rock outcrops display many unusual mosses and lichens.

Deer, squirrel, rabbit, and fox are among the wildlife that live along the Chattahoochee. Birdlife includes waterfowl, osprey, and red-tailed hawk.

The stretch of the Chattahoochee in the Atlanta area is the most scenic of the 48-mile stretch between Peachtree Creek and Lake Lanier to the northeast, and it is also outstanding for sport fishing. The relatively low temperature of the water, the favorable pool/riffle ratio, and the abundance of food make the river excellent habitat for brown, rainbow, and brook trout.



Canoeists on the Chattahoochee at Cobb Palisades are treated to spectacular scenery on either side of the river.

**B**UT the Chattahoochee River is in peril. Southward from the confluence of Peachtree Creek and the Chattahoochee in Atlanta, the stream is badly polluted. A few miles upstream, several wild tracts of adjacent land are in danger of conversion to the familiar landscape of high-rise buildings.

The Chattahoochee can be saved, and indeed for several years vigorous efforts have been underway to preserve the river area. Since the late 1960s, a citizen group called Friends of the River and a coalition of conservation organizations have spurred progress toward survival of the Chattahoochee. Donations from private sources and the state and local governments have provided \$7 million for acquiring 747 acres of land, the value of which has since climbed to \$12 million. In 1973 the

Georgia legislature passed the Metropolitan River Protection Act, which put strict controls on construction and development in the river area. However, the Chattahoochee has been found deserving of even greater protection.

In 1971 the federal Bureau of Outdoor Recreation produced a plan for preserving the natural and historical values of the Chattahoochee and for using some of the area for outdoor recreational opportunities. That proposal was never acted upon. In 1972 a study by the Atlanta Regional Commission (ARC) recommended a federal-state-local partnership designed to protect the river and its corridor. And in 1975 the Georgia Department of Natural Resources, in cooperation with ARC and local citizen groups, carefully surveyed the stream and its environs and came

up with a new plan for the establishment and management of the Chattahoochee River National Recreation Area (NRA).

The plan to preserve the Chattahoochee calls for space and facilities for family camping, primitive camping, picnicking, hiking trails, canoe beaches, scenic overlooks, and access points for fishing and other recreational activities. Botanical gardens, wildlife sanctuaries, and an education center would further environmental awareness and scientific research. An historical and archaeological center would interpret the area's colorful history, from the early Indian settlement a hundred centuries ago, to the taking of Atlanta during the Civil War, to the present.

Legislation based on this plan has been introduced in Congress. It would provide for preservation of

the natural integrity of the corridor along a forty-eight-mile segment of the Chattahoochee from Lake Lanier, northeast of Atlanta, to Peachtree Creek, which is about five miles from "Five Points," the heart of the city. Fourteen tracts of land covering 5,454 acres along the river would be acquired at an estimated cost of \$52 million. This land, the corridor, and the river acreage already held by the state of Georgia would be managed by the Park Service as a national recreation area. An additional \$11.7 million would be authorized for planning and construction of facilities.

Compelling reasons exist for establishing the Chattahoochee River NRA now. The Chattahoochee provides drinking water for one-third of the population of Georgia, and further development can only exacerbate the pollution

problem. The cost of land proposed for public acquisition inevitably will escalate. Some of that land is now valued at \$24,000 an acre. In addition, most of the land in question is held by developers, and they have indicated an interest in selling their property. But they insist that they cannot afford to hold the land indefinitely without developing it.

Congressional sponsors of the Chattahoochee legislation strongly believe that federal funding and management by the National Park Service are necessary to ensure the river's integrity and to protect the area's resources. Yet the Park Service now has a backlog of about \$600 million in unfunded land acquisition authorizations. The Service is also woefully understaffed. Some seven thousand people employed by the Park Service (one thousand below the authorized

level), must operate more than 275 National Park Service units.

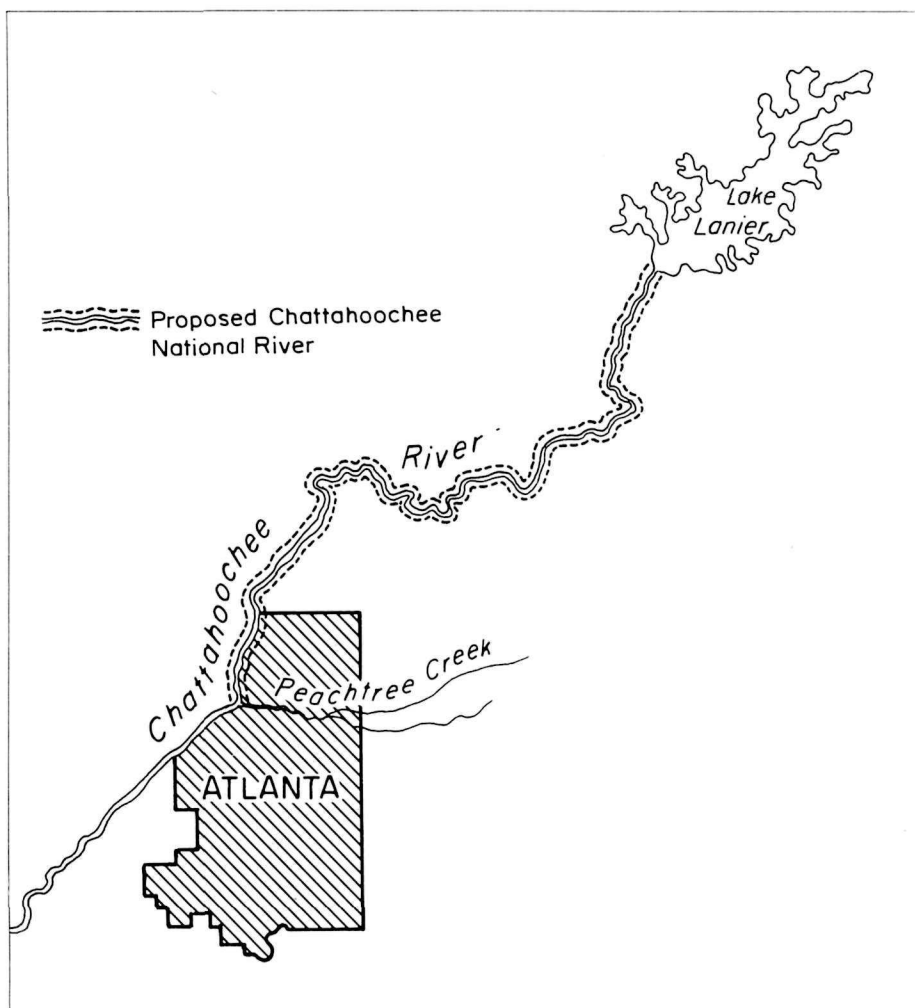
As *National Parks & Conservation Magazine* has repeatedly pointed out during the past year and a half, we have given inadequate attention and money to parks and recreation: Funding for the combined programs of the National Park Service, the U.S. Fish and Wildlife Service, and the Bureau of Outdoor Recreation amounted to only about 0.2 percent of the total federal budget for fiscal year 1976. Higher outlays should be made available for the National Park Service and the Land and Water Conservation Fund.

With respect to the Chattahoochee, local initiatives began the process of saving this river, and they will continue. Land already acquired can be turned over to a federally managed national recreation area for the Chattahoochee.

Private donors could help purchase and hold some of the most immediately threatened tracts along the river if Congress authorizes future federal acquisition of this land.

**T**HE gentle Chattahoochee has abiding friends throughout Georgia; it now needs the same kind of friends among people across the nation who are working to protect our invaluable natural environments. A visit to the Chattahoochee inspires concern for the people now and in the future who might appreciate the majesty of the land and waters of this metropolitan stream. The river cries out for salvation and, with that salvation, a refreshing new dimension in urban life. ■

**Congressman Andrew Young** represents the Fifth District of Georgia, which includes most of Atlanta and its northern suburbs. The Chattahoochee River flows along a substantial portion of this district, and Mr. Young enjoys canoeing on the Chattahoochee and hiking in the stream's valley.



*Editor's Note*

**EXPAND THE LWCF**

Even at \$300 million per year the Land and Water Conservation Fund is inadequate. There is more than a \$½ billion backlog of acquisitions authorized by Congress but not funded. If this backlog is to be funded and if the many new proposed areas that should be preserved as open space are to be acquired, then more money must be made available. In testimony on invitation NPCA has urged expanding the LWCF to \$900 million; but the Administration is opposed, even though the money comes from entrance fees at park units and revenues from outer continental shelf oil and gas leasing, rather than from taxpayers and the general treasury. Write the President to urge him to support expansion of the Land and Water Conservation Fund. Write:

Hon. Gerald R. Ford  
The White House  
Washington, D.C. 20500

FEDERAL GRAPHICS

# NPCA at work

One of the greatest potential tragedies in national park history is that mining and mineral entry are permitted in six spectacular areas of the National Park System—Death Valley National Monument, California–Nevada; Glacier Bay National Monument, Alaska; Organ Pipe Cactus National Monument, Arizona; Mount McKinley National Park, Alaska; Coronado National Memorial, Arizona; and Crater Lake National Park, Oregon.

In recent invited testimony in the U.S. House and Senate, NPCA maintained that mining operations, present and future, must be eliminated from these areas and precluded in any areas added to the National Park System in the future. NPCA pointed out that this system comprises less than 2 percent of the lands of the United States and “should be held inviolate to the ravages of mining. Surely these few places can be spared in our seemingly never-ending consumption of . . . resources.”

In response to charges by proponents of mining in the parks that preservation of public lands such as park ecosystems—of wilderness, scenic, wildlife, and many other natural values—constitutes an unjustifiable “single-use” management approach, NPCA stated that we can think of “few other uses of land which necessitate single-purpose management more than does *mining*, especially surface mining. Disruption and destruction of the natural balance and diversity of an area render it incompatible and unenjoyable for most other activities. Charges that inclusion of an area in the National Park System ‘locks it up’ are without foundation—all parks and monuments are open to the public. In contrast, . . . no area [is more] ‘locked up’—not just from human visitation and enjoyment, but from habitation by plant and animal life—than the bottom of an open-pit mine or the high wall of a strip mine.”

NPCA comments on areas that represent those currently most threatened by mining follow:

• *Death Valley National Monument*: The Tenneco Corporation plans

to open new open-pit mines for colemanite (a calcium borate) inside the monument, perhaps even in view of scenic Zabriskie Point overlook. Patented claims in the monument number 267, whereas unpatented claims reach into the thousands. The potential irreparable damage to Death Valley from this mining is almost unimaginable.



NPCA agrees with the National Park Service that the designation of wilderness at Death Valley National Monument is dependent upon revocation of the mineral entry provision in a 1933 law. This Association emphasized that it was not the intent of Congress to extract mineral wealth when it reopened the monument to entry under the mining laws shortly after its establishment. Actually, this was a compromise resulting from pressure from Inyo County, California, and had been agreed upon prior to the signing of the executive order creating the monument.

In a letter to Congress on March 3, 1933, then-director of the National Park Service Horace Albright said, “In recommending the establishment of this area as a national monument, however, it was not the desire to prevent prospecting and mining within the area, as such activities would in no way interfere with the preservation of the characteristics of the area sought to be preserved. In fact, the picturesque miner is one of the characteristics which give the area the color of the

early pioneer days, and his continuance there would be a very desirable feature of the area under national monument status.”

This romantic vision was enough to get Congress to permit mining in Death Valley, but NPCA stated that, in contrast, today the vision is not so romantic. The grizzled miner and his burro searching for gold, silver, and antimony are gone; in their place are the bulldozer, the helicopter, and sophisticated mining equipment extracting talc and borax from large open-pit mines. Ironically, modern mining practices threaten to destroy the remnants of the picturesque old mines and ghost towns, as well as the natural values of the monument.

The abuses of the mining privilege have led to destructive scarring, usurpation of wildlife watering sites, and illegal habitation for nonmining activities. The proliferation of mining roads and attendant scarring of the landscape are detrimental to the fragile biota of the monument and destructive of the inspiration visitors seek. The January Magazine will carry an article on the mining threats in Death Valley.

• *Glacier Bay National Monument*: Mining activities pose a real threat to this unique area of rapidly receding glaciers and a wealth of flora and fauna. In 1936, during the Depression, this area was hastily opened to mining, and now more than 400 established claims exist within its boundaries. As described in the May 1975 magazine, one company proposes to extract its patented copper-nickel deposit—even though the ore body is located under Brady Glacier! [Following NPCA requests earlier this year, the Park Service was unsuccessful in having this area temporarily withdrawn from new mining claim location during an ongoing mineral survey. The Administration does not support a moratorium or obtaining existing valid rights here.]

• *Organ Pipe Cactus National Monument*: (See page 4.)

• *Mount McKinley National Park*: The type of unauthorized abuses such as timber cutting and destruction caused by miners staking new claims that have occurred at this park are symptomatic of what could be expected in other areas of the park system should mining operations become active there.

NPCA testimony concluded that the sections of laws that allow mining in the six NPS areas must be repealed and that Congress should enact a moratorium on all mining activity within the units of the National Park System of sufficient duration to allow thorough investigation of existing mining claims and to allow for suitable congressional action to acquire existing valid claims and close down invalid ones.

Many conservation groups join with NPCA in opposing this threat to our national parks and in calling for an immediate, retroactive moratorium; removal of areas from future mineral entry; acquisition of mining claims by the Park Service; and giving the Secretary of the Interior authority and incentive to condemn and buy out existing valid claims.

Those attending a recent meeting on this subject at NPCA agreed that any mining in a national park area is inconsistent with the purposes for which these areas were set aside. Our National Park System areas have been recognized as worthy of being set apart to be preserved for the use of *present*

*and future* generations. The 1916 Act that created the National Park Service gave our nation a mandate for protection, and even a small deep-mining operation with associated effects such as haul trucks would disturb vegetation and wildlife habitat and deprive at least one generation of park visitors of scenic values. The larger operations and strip mining would undoubtedly leave serious permanent scars on our national park ecosystems and destroy natural values forever. If our national parks are not inviolate, how much greater is the danger to our wilderness areas and wild and scenic rivers?

**Not a single species of plant** has been added to the list of species protected under the Endangered Species Act of 1973, NPCA protested in recent testimony presented on invitation at congressional oversight hearings on the administration of the Act.

The Smithsonian "Report on Endangered and Threatened Plant Species of the United States," presented to Congress on December 15, 1974, pursuant to the Endangered Species Act of 1973,

clearly, scientifically, and, NPCA believes, definitively shows that at least 2,000 species, subspecies, and varieties of plants in the United States are in danger. The list includes 100 recently extinct or possibly extinct species. About 750 species of plants are identified as endangered and 1,200 as threatened. The report lists 30 percent of the cacti in the United States and a *conservative* 50 percent of Hawaiian species of plants as endangered or threatened.

The Smithsonian study lists seventy-seven plants that are commercially exploited and need urgent protection and points out that many additional commercially exploited plants are not listed.

Yet none of these species is now protected under the Act. NPCA testimony pointed out that all the Administration has accomplished for endangered plants of the United States so far is to issue a notice of intent to *review* the status of more than 3,000 vascular plants and that this notice was not published until July 1975, seven months after the Smithsonian report.

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The Convention on International Trade in Endangered Species of Wild Fauna and Flora was ratified by the U.S. Senate in 1973 and, following ratification by the necessary number of nations, entered into force on July 1, 1975. Nevertheless, NPCA testified, the Administration has yet to publish implementing regulations, to add any of the species of plants identified in the appendices of the convention to our endangered species list, or to take other protective action. Under pressure, on September 26, 1975, the Interior Department published *proposed* rules for listing the species of plants and animals from Appendix I, the most seriously endangered species. However, none of the plants on this appendix are native to the United States.

Certainly, NPCA noted, much of this delay by the Interior Department can be attributed to insufficient budgetary and personnel allocations for the Office of Endangered Species. At present, only two botanists are employed for the task, and they have been at work for only a few months. Many species of plants will not be saved unless the Administration makes a larger commitment of personnel and funds.

Another factor that has contributed to the Administration's inattention to the endangered plant problem is that the Endangered Species Act of 1973 does not give the plant kingdom equal treatment.

The Smithsonian was required by the act to provide *recommendations* to Congress as to methods of adequately conserving endangered or threatened plants. The Smithsonian emphasizes the urgent need for preservation of habitat. The problem of providing critical habitat for plants, however, necessitates the amending of the Endangered Species Act.

NPCA urged that Congress amend several sections of the act. For one thing, under present law, land acquisition for plant habitat can be undertaken only for plants on appendices to the Convention. The act should be amended to provide land acquisition authority for plants similar to that for animals. Among other important sections discussed by NPCA is one that, in reference to plants, limits the definition of "species" down to the subspecies level. This should be amended

to include population segments in common spatial arrangements for plants as well as for animals.

**Two of the most powerful coalitions** in the American environmental movement joined forces recently to endorse Assistant Secretary of the Interior Nathaniel P. Reed's recommendations for relocating the site of a giant jetport once proposed for location in Florida's Big Cypress.

The Everglades Coalition and the Environmental Coalition for North America endorsed Reed's recommendations to Governor Reuben Askew of Florida that a new location known as site 14, which is much closer to Miami and more environmentally acceptable, be designated for use as southern Florida's new jetport and that a "temporary" airstrip and facilities that have intruded into the Big Cypress National Preserve be moved to site 14. This endorsement was contingent on assurances that water quality in the area of site 14 would not be impaired. NPCA leads the Everglades Coalition.

Several years ago airport interests in Florida planned to locate the giant jetport just seven miles north of the Everglades National Park boundary, which would have cut off water supplies to the park and would have resulted in noise, pollution, and development in the area. Following a campaign by the coalitions, the federal government decided to deny support to the project in the Big Cypress.

An agreement that is now five years old permitted a training airstrip that had already been constructed to be used pending its prompt removal to a different location. Removal is even more crucial now since the Big Cypress was added to the National Park System in 1974.

Meeting jointly at the offices of NPCA in October 1975, the two coalitions announced their endorsement of Reed's proposals and urged the governor, the Federal Aviation Administration, and the Dade County Commission to take appropriate steps to implement promptly this solution to the jetport problem.

The Everglades Coalition, organized in the spring of 1969 to block the original jetport plans, is composed of most of the major conservation organizations of the nation and the United

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Automobile Workers and the United Steelworkers. NPCA President A. W. Smith and National Audubon Society President Elvis J. Stahr are co-chairmen.

The Environmental Coalition for North America, consisting of individuals associated with most of the same organizations and others, was brought together in the spring of 1970 to oppose the Florida jetport and other destructive developments and to work for constructive environmental causes. In his private capacity Mr. Smith serves as chairman of this coalition.

**The proposed Kaiparowits powerplant is a high-risk economic gamble**, in addition to posing the grave environmental threats to our National Park System detailed in the July 1975 issue of this Magazine.

In-depth studies of the hydrological problems of the entire Colorado River basin, conducted by NPCA, reveal that Lake Powell, from which the huge coal-fired plant in Utah would obtain its water, will fail to provide the required water as planned.

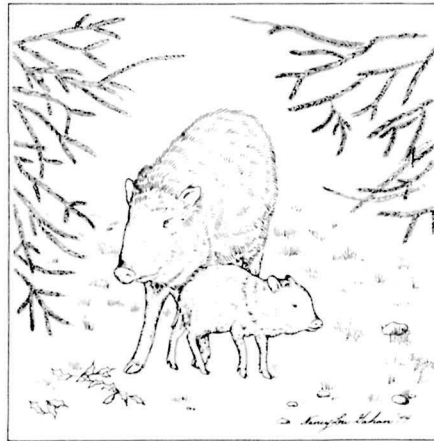
In oral testimony at public hearings in Phoenix, Arizona, concerning the draft environmental impact statement (DEIS) on the Kaiparowits power project, and in subsequent detailed documents submitted to the Bureau of Land Management, NPCA Arizona Representative Robert L. Coshland said the DEIS fails to reveal realistically the deficient water resources on which the success or failure of the project so critically hinges; furthermore, by failing to indicate any alternate source of those resources, the DEIS implies that no alternative exists.

NPCA predicts that, barring major policy changes that will take a long time to effect, and assuming continuation of the most recent precipitation rates, Lake Powell will probably fail to provide the required water beyond about twenty-three years instead of the thirty-five-year period during which the project is planned to pay off. Increased consumption of Colorado River water in the Upper Basin (Wyoming, Colorado, Utah, and New Mexico) can be expected to bring the level of the reservoir down to the inactive level by about 2005. NPCA believes that companies investing in Kaiparowits should be forewarned of the prospect of suffering enormous

production and financial losses resulting from water failure beginning at that time or possibly earlier.

NPCA calculated probable annual reservoir statistics in future decades based on government data and a thorough analysis of projections of water-consuming plans in the Upper Colorado Basin. Various conflicting directives that the U.S. Bureau of Reclamation will be trying to observe during the operation of reservoirs in the next thirty years were considered.

Coshland's study criticizes the



NANCY LOU GAHAN

Bureau of Reclamation's projections of water flow as overly optimistic.

It points out that eminent dendrochronologist Dr. Charles W. Stockton at the University of Arizona's Laboratory of Tree-Ring Research has found that the period 1905-1929, which is frequently included in Bureau of Reclamation projections, was the wettest quarter of a century in the past 450 years in the Upper Colorado Basin. The Bureau also includes statistics for the years 1931-1967, labeling this a "critical period." The Stockton studies show them to be more the rule than the exception.

With luck, another wet cycle could occur during the Kaiparowits project's life, but the odds are seventeen-to-one against it. Worse yet, the likelihood of an even drier cycle than that of the Bureau's so-called critical period is somewhat greater than that of a wet cycle, putting even the twenty-three year operational period into serious jeopardy. The participating companies will be gambling at long odds not only on losing their multibillion-dollar investment, but on an extended period of reduced revenues for which they will be unprepared to compensate with alternative sources of power.

NPCA opposes the project due to the severe adverse environmental impacts that it would have on this area of the Southwest. The plant would emit some 300 tons of air pollutants each day and would bring many undesirable developments into the region. Kaiparowits is a symbol of the planned proliferation of other coal-burning plants in an area that includes one-fifth of the acreage of the National Park System, and NPCA is working toward safeguarding national park areas by attaining proper enforcement of the Clean Air Act.

"The adverse environmental impacts contained in the DEIS are too high a price to pay for a project that is subject to the very questionable economic viability demonstrated in this study," NPCA concluded.

**The Senate confirmed Thomas S. Kleppe as the new Secretary of the Interior** on October 9. NPCA had viewed Kleppe's nomination by President Ford with apprehension due to his lack of experience in the environmental field, which would seem to be a major liability.

Concerning the nomination, NPCA President A. W. Smith told Senator Henry M. Jackson, Chairman of the Senate Interior and Insular Affairs Committee that the position of Secretary of the Interior should be filled by a "Great Conservator." NPCA cited many problems that would confront the Secretary, including national park matters such as management of concessions in the parks, the need for interdepartmental planning to eliminate overcrowding in the parks by spreading out visitation to other areas, the need to support more public transit into and within the parks, wilderness and wildlife protection, the threat of mining in the parks, and land management.

The allocation and expenditure of funds for the Department of Interior is a grave issue that will need outstanding leadership on the part of the Secretary, especially with regard to acquiring and administering new public lands and developing adequate personnel levels. The Alaska public interest lands—eighty million acres—particularly need a strong protector.

Problems related to energy and mineral resources and the development of the outer continental shelf are of prime importance to the country, and the

Secretary of the Interior is the person who controls all of them.

Although opposed to his appointment on the basis of his lack of background and a proven record in the environmental field, NPCA wishes Mr. Kleppe well in carrying out the immense task he has before him, and we hope for a mutually rewarding future relationship.

**Attempting to save the Congaree Swamp from chain saws**, conservationists in the Southeast are escalating efforts to have this area in South Carolina added to the National Park System.

This swamp, along the Congaree River southeast of Columbia, is the only large tract of virgin riverbottom hardwood swamp left in the United States. However, one family owns the core area of about 17,000 acres and has decided to log it gradually at the rate of about 500 to 1,000 acres per year.

In 1963 the National Park Service studied the Congaree and recommended designation of a 21,000-acre national monument. Unfortunately, no action was taken on the proposal. Then in October 1972 John Dennis, a naturalist with extensive knowledge of the Congaree, wrote an article for this Magazine entitled "Big Trees of the Congaree Swamp," which began to revive interest in saving the area.

More recently, in September 1975 a dedicated group of activists—the Congaree Swamp National Preserve Association and the South Carolina Environmental Coalition—in South Carolina organized a tremendously successful "Congaree Action Now" rally in Columbia. Nearly 800 concerned citizens from throughout the Southeast joined with biologists, economists, foresters, and leaders of national conservation organizations in support of action to save the Congaree.

T. Detry Jarvis, representing NPCA, reaffirmed for those at the rally that the Congaree does indeed have national significance meriting inclusion in the National Park System. The "swamp," known as the "Greatest Unprotected Forest in the Continent," contains at least six national record-size trees, including our largest overcup oak, loblolly pine, sweetgum, bitternut hickory, possumhaw, and swamp privet, as well as nearly twenty state record trees.

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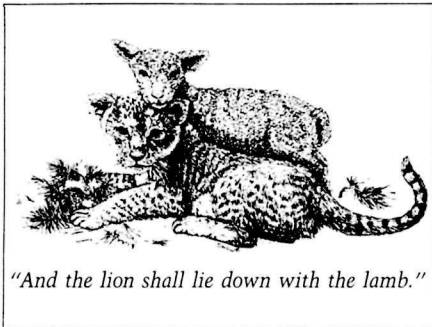
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NPCA President A. W. Smith recently contacted NPS Director Gary Everhardt to urge that the 1963 Park Service recommendation be independently updated, and to suggest that if the area is included in the National Park System, it seems to best fit the newly established category of "national preserve," the designation given to the Big Cypress Swamp of Florida and the Big Thicket in Texas when these areas were added to the National Park System.

Recent news about the New River Gorge in West Virginia includes NPCA's testimony presented on invitation before the Senate Appro-



"And the lion shall lie down with the lamb."

CAROL SNOW

priations Subcommittee on the Interior concerning the Bureau of Outdoor Recreation's (BOR) study and recommendations on the New River Gorge of West Virginia.

NPCA praised the report's complete and detailed discussion of the physical characteristics of the New River area but criticized BOR's recommendations for protecting the area.

The BOR report recommends a 50,000-acre, 66-mile corridor extending 500 feet back from the rim of the gorge. Of this area the report further recommends that 49,000 acres be "protected" by local zoning and the remaining 1,000 acres protected by fee acquisition. NPCA objects to this proposal because development and encroachment incompatible with a natural area—such as new housing and resorts, mining, road construction, timber harvesting, and transmission corridors—would be likely to occur on the gorge rim. NPCA supports the need for greater land control through scenic easements, fee acquisition, and donation of lands—the latter a possibility BOR did not explore in its report.

BOR recommends that the 66-mile corridor along the river be designated

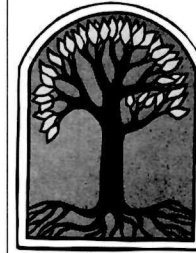
as a component of the National Wild and Scenic Rivers System. The report considered and rejected designating the 50,000 acres in question as a national recreation area (NRA) on the basis that this area does not meet certain criteria for diverse recreation. However, BOR failed to take into account the possibility of establishing an 83,000-acre NRA. The additional acreage, which would include land on the plateau areas back from the rim, could accommodate more people to provide the high recreation carrying capacity that is necessary for an NRA. NPCA agrees with BOR that the area does not qualify as a national park because of the existence of a commercial railroad, an active deep mine, and extensive strip mine scars, but the Association supports either a 50,000-acre wild and scenic river designation or an 83,000-acre NRA designation.

An important factor in the ultimate designation of the area will be the amount of coal underlying the gorge area. The BOR report failed to provide conclusive projections of the cost of acquisition of mineral rights.

The battle to save the historic Chesterbrook tract of land adjacent to Valley Forge State Park in Pennsylvania from real estate development was described in our July 1973 Magazine in an article entitled "Chesterbrook: Subdivision or Scenic Vista?" Among the casualties of such development would have been Brigadier-General Louis L. Duportail's Revolutionary War quarters where he drew up the site plans for the Valley Forge encampment and the Lee-Bradford House—both places on the National Register of Historic Sites.

Now, more than two years later, the fate of that historic piece of land is still in doubt.

NPCA recently testified before the House Subcommittee on Parks and Recreation in support of the establishment of the Valley Forge National Historic Park as a unit of the National Park System. (Valley Forge is presently a state park.) In addition, NPCA strongly urged that the 865-acre Chesterbrook tract be acquired for inclusion in the Valley Forge park, citing the land's historical importance and its importance as the last scenic area adjacent to Valley Forge.



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## news notes

**A conservation victory at Tocks Island** was signaled by the recent announcement by the U.S. Army Corps of Engineers that it recommends that Congress deauthorize the \$400-million dam project on the Delaware River in New Jersey and Pennsylvania. The Tocks Island Dam, which was proposed by the Corps until it was pressured into its recent recommendation, would dam the free-flowing Delaware and create a 37-mile-long reservoir.

The Corps first proposed the dam in 1955 to help meet the water-related needs of the Delaware River Basin, and Congress authorized it in 1962. However, the unconstructed project was put aside during the Vietnam War and later funds were deferred annually as a result of a flood of criticism from environmentalists, local residents, and municipalities who objected to the habitat destruction, eutrophication, pollution, loss of historical and archaeological sites, and the loss of the Delaware shad fishery that would be caused by the dam's construction.

The final coup-de-grace to the Tocks Island project was delivered by the Delaware River Basin Commission, whose members include Governor Byrne of New Jersey, Governor Carey of New York, Governor Shapp of Pennsylvania, Governor Tribbitt of Delaware, and Mr. Thomas Schweigert representing the Department of the Interior. Governors Byrne, Carey, and Tribbitt voted against the project; Governor Shapp supported it; and Mr. Schweigert abstained.

The vote came on the heels of a \$1.5 million project reevaluation study made by consultants for the Corps at the insistence of Congress. The study revealed that the reservoir, touted for its "recreational benefits," would be too polluted for boating and swimming, and that other alternatives could do the same job as the dam with less environmental damage.

In the face of opposition from the majority of the states that would be affected by the Tocks Island Dam, the Corps recommended deauthorization and urged the development of alternate plans to address the water-related needs of the region. Congress had not

yet made the final determination at press time.

The dam's critics have included Russell W. Peterson, chairman of the Council on Environmental Quality; Russell E. Train, administrator of the Environmental Protection Agency; the Delaware Valley Conservation Association; Save the Delaware Coalition; and NPCA.

**Summer job openings in the national parks** for 1976 are very limited in terms of positions that pay wages, but there are numerous opportunities for interesting volunteer work.

For new applicants, competition is stiff for paid seasonal jobs in the parks. In 1975 some 90,000 new applicants made inquiries to the Park Service concerning seasonal jobs. About 1,800 of these were hired, while the balance of seasonal employees hired were repeaters. (Some have worked up to forty consecutive summers with the National Park Service.)

However, some newcomers to park employment can land jobs as tour guides, interpretive aides, trail crew members, or fire-control aides. Park ranger jobs are coveted and usually go to those with NPS experience. In general there are more job opportunities at the lesser-known areas.

For the first time, the Service will attempt to coordinate applications and minimize the need for duplicate applications by having all applicants processed by regional offices rather than individual park areas. Job seekers must send either a letter application or Civil Service Standard Form 171 (Personal Qualifications Statement) to a regional NPS office, as soon as possible after January 1 and before February 15. The regional office will then supply the applicant with additional information on the nature and location of available seasonal jobs as well as other required forms.

A special program for people 15 through 18 years old is the Youth Conservation Corps. The teenagers are paid a minimum wage for work on conservation projects in national parks, forests and other public lands. Most YCC workers come from communities near their jobs. In some cases they commute and in others they live in YCC camps. For more information about YCC, contact Grover Barham,

Youth Programs Coordinator, National Park Service, Department of the Interior, Washington, D.C. 20240.

Volunteers for the Park Service's Volunteers-in-Parks (VIP) program should apply directly to the national park, national monument, or other NPS area of interest. There is a wide variety of work for volunteers, who often experience great personal rewards—including invaluable experience—while helping the park. More than 8,000 volunteers participate annually in the VIP program.

Many of the jobs involve public contact, including giving information or participation in living history projects. For instance, a nine-year-old boy at Morristown National Historical Park in New Jersey demonstrates in costume how children of the Revolutionary War era played. The VIP program welcomes volunteers of all age groups.

Volunteers may want to assist in a variety of historical, archeological, and natural science projects. Often imaginative volunteers help set up new pro-

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*Eddie Bauer*

Dept. DNP, 1737 Airport Way S., Seattle, Wa. 98134

grams. Most volunteers commute to work; sometimes transportation costs are covered. VIPs can receive workmen's compensation as well.

The Student Conservation Association offers young people in high school and college the opportunity for volunteer work in national parks or forests.

Assistance has been requested by the parks and forests to enable them to offer additional visitor services and to accomplish certain projects that they otherwise could not afford.

High school work group applicants must be at least 16 years of age. There is no charge for participation, and some financial aid for travel and equipment is available to eligible participants.

Positions as Park or Forest Assistants are open to college undergraduates and graduates 18 and older. A variety of openings are available, including volunteer jobs assisting rangers, biologists, interpretive staff, and others. Volunteers receive travel and subsistence grants to defray reasonable expenses; some receive on-site housing.

A program list, giving a brief description of duties at each location, is available along with applications be-

ginning this month. Applications are competitive and will not be accepted after March 1; the date the completed application is received is a factor in the selection. Write to the Student Conservation Association, Olympic View Drive, Route 1, Box 573A, Vashon, Washington 98070.

**The State Department has accepted a diplomatic plan on the Cabin Creek coal mining issue, U.S. Congressman Max Baucus of Montana recently announced.** The Canadian mining project would subject the Flathead River, which forms the western boundary of Glacier National Park, and Flathead Lake, an important natural and economic resource, to serious pollution. Elk, moose, grizzly bears, wolves, lynx, bald eagles, and other wildlife in and near the park would be endangered.

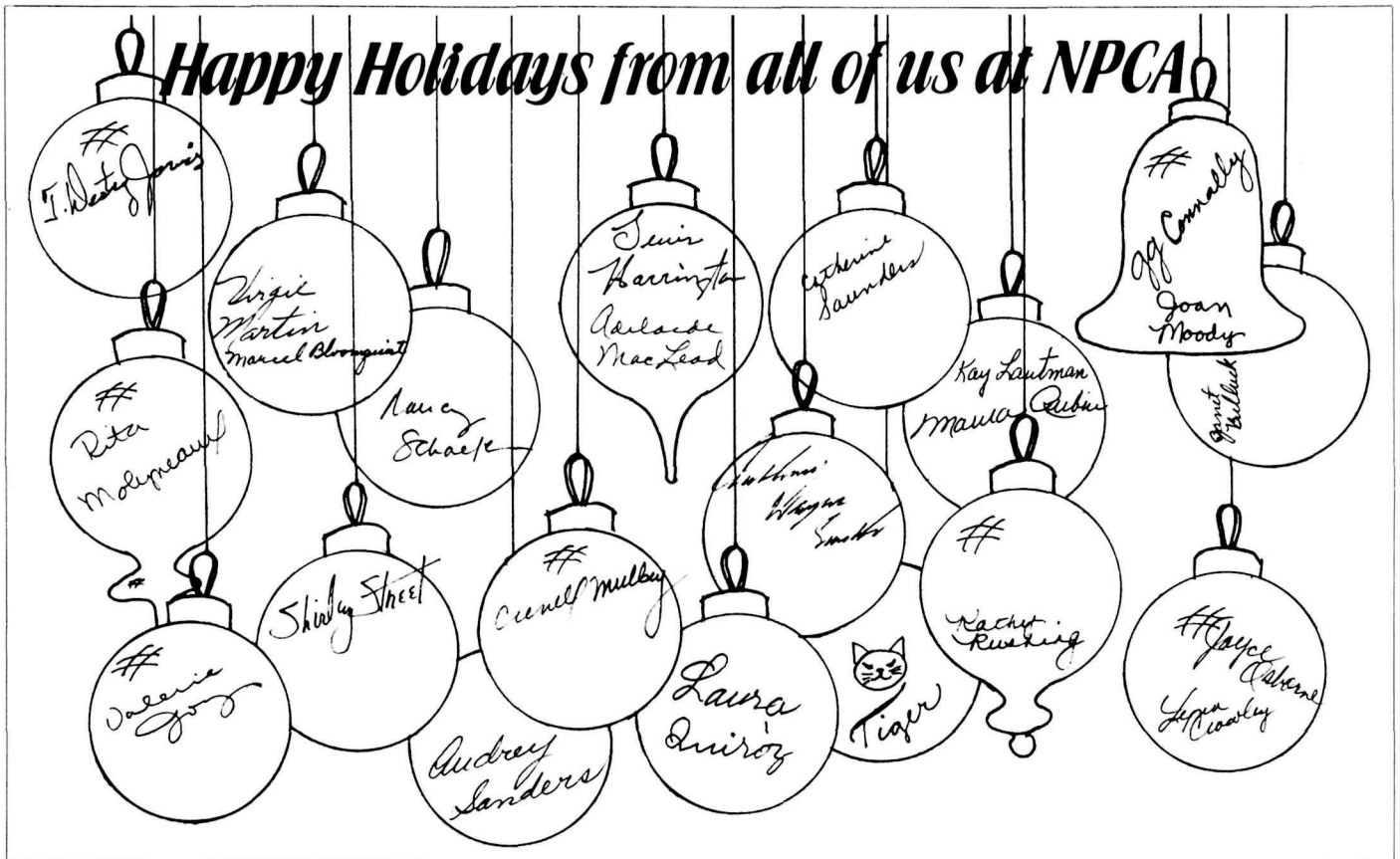
Baucus and NPCA, which participates in the Flathead Coalition, a citizens group organized to fight mining at Cabin Creek, have been urging the State Department to act to bring multilateral agreement with Canadian officials on alternatives to the development. (See November Magazine.)

On October 2 Baucus urged Ambassador-at-Large Robert McCloskey and Under Assistant Secretary of State Richard Vine to seek immediate talks on the Cabin Creek issue between the state of Montana, the Province of British Columbia, and the Canadian Ministry of External Affairs. Baucus recommended that the talks seek the following objectives:

- To clarify that America will regard negative impacts on the aquatic life and the esthetic quality of the Flathead drainage resulting from Canadian coal mining along Cabin Creek, British Columbia, as violations of the Boundary Waters Treaty of 1909, and to determine the means of evaluating possible effects of such pollution.

- To analyze the views and interests of those Americans and Canadians in the Flathead region whose lives and property would be most affected by pollution from coal mining along Cabin Creek.

- To establish the position of each participating government on the Cabin Creek issue and to guarantee that conclusions over Cabin Creek will not be influenced by other border issues.



# THE INCENSE TREE

"They presented unto him gifts; gold, frankincense and myrrh."

Matthew 2:11

Nearly two thousand years ago, when the three wise men traveled to Bethlehem with their gifts, frankincense was already a treasured substance, indispensable for ritual and ceremony, ranking with gold as a suitable gift for royalty. Brought to Egypt by traders from East Africa as early as 4000 B.C., the aromatic resin perfumed palaces and temples for milleniums before the birth of Christ. Egyptian wall paintings and bas reliefs from the time of Queen Hat-Shep-Sut (c.1500 B.C.) show frankincense being burned on the altar of her temple to Amun at Deir-el-Bahari.

When the Queen built this, her funerary temple on the banks of the Nile, she sent an expedition to *Punt o To Neter*—"The Land of Aromas"—to bring back frankincense trees to adorn its terraced gardens and provide incense for its altars. The wall paintings that record this expedition show the trees being loaded onto Egyptian sailing vessels for the long journey from the Horn of Africa through the Red Sea to Egypt.

The aromatic shrubs of the genus *Boswellia*, species *B. carteri*, *B. frereana*, and *B. bhua-dajiana*, which are the sources of the resin we call frankincense, grow wild only in a remote corner of Somalia, East Africa—the biblical Land of Punt. There, the vast, barren, and empty swell of sun-baked earth that forms the high Mid-jurtanian plateau breaks off abruptly and drops steeply from a height of 7,000 feet in a breathtaking escarpment watered by rushing streams and shaded by immense cedar trees to the coastal plain bordering the Gulf of Aden.

On these rugged cliffs amid tumbling



boulders grow the frankincense trees, their gnarled and twisted trunks lifting delicate green leaves into the crisp, clear air. Each small tree—they reach a height of only about twenty feet—is anchored to its own boulder of pumice, its roots reaching through and around the porous rock to the soil below.

The aromatic resin of these trees is harvested as it has been from time immemorial by Somali shepherds who tend their flocks of nimble-footed goats and sheep along the cliffs. By tradition, each family, or tribe, in this region has

the right to harvest from certain trees. They gash the trunks at regular intervals during the summer months so that the resin oozes out and accumulates in lumps that, when hardened, they gather into baskets. Then they carry the yearly harvest down the mountain to coastal villages where the brittle, golden resin is broken up into coarse chunks and roughly sorted.

The living frankincense trees are so inaccessible that few foreigners have ever seen them. Until this century no roads crossed the arid plateau or descended the escarpment; and the Somalis of the coastal plain, cut off from commerce with people of the interior by the forbidding barrier of mountain and plateau, turned seaward toward the Arabian peninsula, which lies to the north across the Gulf of Aden. Thus, at the small, whitewashed seaside villages, Arab traders still bargain with the Somalis for the raw incense as they have for centuries. And waiting offshore to carry the cargo across to Aden, their dhows—the small, wooden Arab sailing vessels that have plied these waters since the days of Sinbad the Sailor—lie at anchor.

In Aden, the frankincense is blended with sandalwood from Arabia, ambergris from the shores of the Indian Ocean, and sugar and spices from the Indies to form the fragrant mixture we know as incense.

Although frankincense from the Land of Punt now travels far beyond Egypt to distant corners of the world, it still grows wild only on the rocky cliffs of northern Somalia, still is harvested just as it was thousands of years ago, and still carries with it the pungent and evocative resinous scent of its remote, mountainous home. ■



ROBERT C. GILDART

*This deer resting in the grass along the Flathead River is just one of many animals that are in danger due to plans to construct a huge coal mine that would send many pollutants into the river from a site just eight miles north of Glacier National Park and to proposals for oil and gas leasing across the river from the park.*

- To identify possible areas of conflict in the interpretation of the Boundary Waters Treaty of 1909 and to gather information in the event that the International Joint Commission must be brought in to resolve the issue.

Baucus reports that State Department officials notified him several days later that his proposals had been accepted and that the State Department will hold a public hearing in Kalispell, Montana, on December 2 to determine the interests of people living in the Flathead region.

Certain Canadian officials are claiming that no action needs to be taken until Rio Algom, the company exploring for coal along Cabin Creek, files the necessary permit applications for mining, but meanwhile Rio is investing heavily in planning—making a reversal of their position unlikely in the future.

"To believe otherwise and thus postpone appropriate action could very well cause irreversible damage to the property of Americans residing in Montana," Baucus told McCloskey.

Conversations with company offi-

cials on an April visit to Toronto and an August inspection of the Cabin Creek site confirmed for Baucus that "Rio Algom has every intention of applying for a coal production lease."

Baucus expressed concern that pending oil and gas lease applications in the Flathead National Forest, located across the Flathead River from the national park, would undermine the State Department's position on the Cabin Creek issue.

Furthermore, *The Daily Inter Lake* of Kalispell, Montana, reports that although the proposed mining in the Cabin Creek area has not begun yet, exploration, involving heavy equipment, may be causing silt in the Flathead River's tributaries.

"It makes no sense to prevent Canadian pollution of the Flathead River if we're planning to do it ourselves by allowing oil and gas exploration and production," Baucus said. Lease applications for 236,000 acres of Forest Service land have been submitted to the Bureau of Land Management (BLM) for the purpose of oil and gas exploration. The Forest Service will soon submit a final recommendation to BLM; based on the draft environmental impact statement, a significant amount of leasing will probably be approved.

"I have asked the BLM to delay approval of any gas and oil lease applications in the Flathead until the Cabin Creek issue is resolved," Baucus said. "I am also preparing a bill to place 219 miles of the Flathead River's three forks into wild and scenic river status. I hope that such a designation would enable the Forest Service to re-evaluate its position on whether the area can be managed properly while gas and oil exploration or production is occurring."

Baucus stated that wild and scenic river designation would require a federal policy aimed at protecting the natural values of the Flathead River.

**More Notes . . .** The National Park Service, complying with a court order (see September 1975 Magazine), has asked for an eighteen-month moratorium on logging in the vicinity of Redwood National Park. . . . A proposed subdivision on the southern edge of Glacier National Park, Montana, is one of the latest threats to grizzly bear habitat.

## reader comment

### Advertising by Concessioners

National Park Concessions, Inc., agrees with and supports the National Park Service policy not to permit group meetings, as such, during the peak visitor period each summer. This period has been generally defined by the National Park Service for Mammoth Cave National Park as the period June 1 through Labor Day. . . .

I regret that the ad appearing in the Park City Rodeo program was offensive to you and/or your membership. [October Magazine, p. 20] The Park City Rodeo is an activity of the local Park City Lions Club, a nonprofit civic organization, to raise funds to build a medical doctors office and to encourage a medical doctor to serve this community. The program message, paid for by National Park Concessions, Inc., as such, was not in any sense an effort to "drum up" business, but a well intended response to support a worthwhile community effort. . . .

G. B. Hanson

*President and General Manager  
National Park Concessions, Inc.*

*Despite Mr. Hanson's excuses and claim that he was not trying to drum up business, the fact remains that the ad offering "banquets, wedding parties, bridge parties, group meeting facilities, and special occasion dinners" appeared in the Park City Rodeo program newspaper in June during peak visitor season. Moreover, an identical ad appeared in the Glasgow Daily Times, Glasgow, Kentucky, on May 22. It is difficult to believe that these ads were not intended to drum up business. Such ads at that time of year indicate availability of concession facilities during peak season for non-park-related functions that compete with the general public visiting the park for normal park experiences.*

*We hope that Mr. Hanson's advertisements will be more carefully worded in the future.*

### In the Eyes of the Public Beholders

Your May issue contained a letter from Mr. Robert Tyson, which I read with interest and with fury because Mr.

Tyson has evidently decided to appoint himself censor of the souvenirs available to the general public in the national parks. I regard myself as equally dedicated a conservationist as Mr. Tyson probably is, and I am also the president of a souvenir manufacturing and importing company so that I can see both sides of the coin perhaps a little more clearly.

If Mr. Tyson were to wander through our business, he would find Beethoven being played on the radio in my office, hard rock being played by the girl in the computer room, hillbilly music in our warehouse, and a type of muzak, which puts me to sleep, in our general office. . . .

What I am driving at is . . . that there is no one uniform taste in this country either in music or in souvenirs; and although I have been in this business over twenty years, and have tried to raise the level according to what I believe is tasteful, my taste runs toward classical music, the opera and modern art, which I know would not agree with the taste of 90 percent of the public that buys the souvenirs we make. Still I do what I can, as do the retail concessionaires in the national parks, the manufacturers selling to them, and the National Park Service officials. I am writing to reply that I don't believe that we should get into the situation of "Quis custodiet custodiam" ("Who guards the guardians?" "Who censors the censors?").

The souvenirs on sale may not meet each person's standards, but . . . The merchandise is geared toward what the general public wants, and we . . . have learned from bitter experience that somebody has to regard each souvenir item as tasteful or else you are going to get badly hurt in the pocketbook. Esthetics, as I mentioned previously, should not become the province of one dictator.

*Charles Feingersh  
Charles Products, Inc.  
Rockville, Maryland*

**Pilots Refuse Dangerous Air Cargo**  
In regard to your article on "Air Shipments of plutonium and other radioactive materials" [September issue, NPCA at Work] the Airline Pilots Association has spearheaded the fight against unsafe carriage of hazardous materials in commercial passen-

ger/cargo aircraft. Last February they decided it was time for a strong, unified stand by the pilots, and they now refuse to carry, except for certain exceptions, hazardous material.

Before every flight the captain must receive from the company, on his flight release, a notice saying whether any hazardous materials have been boarded. If hazardous cargo, other than articles specifically agreed upon, are entered, the captain will refuse to take them.

Other federal agencies have done little to enforce safety rules in regard to this matter, therefore the pilots themselves have to act as "policemen." This certainly is not the best solution, but it will have to be one solution until Congress and the regulatory agencies act to prevent the potential disasters caused by shipping dangerous materials aboard commercial passenger airlines.

*James J. Kee, Jr.  
Captain, Braniff International  
Dallas, Texas*

## conservation docket

Selected bills introduced in the 94th Congress that may be of interest to NPCA members follow. Descriptions indicate those who introduced the bills and the committees to which bills were referred.

**Mining in the Parks:** S 2371 and HR 9540—The Senate bill regulates present mining activities and repeals laws permitting mining in units of the National Park System. Sen. Lee Metcalf (D-Mont.). The House bill prohibits mining in units of the National Park System. Rep. John Seiberling (D-Ohio). Senate and House Interior.

**Alaskan Lands:** HR 9346 and HR 9587—Two bills to establish units of the National Park System and designate components of the National Wild and Scenic Rivers System. An attempt to speed up action on Alaskan lands, the bills do not include the proposals

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for national forest designations, which proved controversial in formerly introduced bills. HR 9346 includes more land than does HR 9587. Rep. Morris Udall (D-Ariz.) and Rep. Roy Taylor (D-N.C.). Interior.

**Big Thicket:** HR 9747 and S 2501—To acquire land in the Big Thicket National Preserve in Texas by means of legislative taking. Rep. Alan Steelman (R-Tex.). Sen. Lloyd Bentsen (D-Tex.). Senate and House Interior.

**Wyoming Wilderness:** HR 9263, HR 9264, HR 9265—Three bills to establish wilderness areas. 256,576 acres of Bighorn National Forest would be designated as Cloud Peak Wilderness. In

Shoshone National Forest, 112,000 acres and 196,000 acres would be designated as Popo Agie Wilderness and Glacier Wilderness respectively. Rep. Teno Roncalio (D-Wyo.). Interior.

**Dolores River:** S 2126—To designate the Dolores River in Utah as a component of the National Wild and Scenic Rivers System. Sen. Edwin Jacob Garn (R-Utah). Interior.

**Escalapa River:** HR 9157—To designate the Escalapa River in Alabama as a component of the National Wild and Scenic Rivers System. Rep. Jack Edwards (R-Ala.). Interior.

**Point Reyes:** S 2472—To designate Point Reyes National Seashore as a

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**C & O Canal:** HR 9947—To expand the boundaries of the Chesapeake and Ohio Canal National Historical Park between the North Branch of the Potomac River and Cumberland, Maryland. Rep. Gilbert Gude (R-Md.). Interior.

**Potomac River:** HR 3102 and S 2561—To protect the banks of the Potomac River by obtaining scenic easements and acquiring land. Rep. Gilbert Gude (R-Md.), Senators J. Glenn Beall and Charles McC. Mathias (R-Md.). Senate and House Interior.

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edge. That National Parks and Equivalent Reserves are among the best areas for the preservation of habitat is likewise well understood. But wilderness parks can easily become the domain of poachers, the playgrounds of crowds, including tourists, or the curtilage of palaces for dictators.

The question is whether the genuine tradition of the protection of wildlife and native vegetation in National Parks, as it germinated in America and spread around the world, can be perpetuated within the National Park Systems of the planet as pressures of over-population and industrialization mount.

Among the vital tools the IUCN developed in its all-important work were the Red Data books, looseleaf compilations listing and describing the endangered mammals, reptiles and amphibians, birds, fish, and flowering plants of the planet. These volumes were and are invaluable scientific treatises, constantly updated, with which the work for survival must begin.

But can these efforts be focused more than they have been in the past on defining courses of action to be taken by governments, private organizations, and the institutions of the United Nations, to stop the march of extinction in each specific case? Can they look beyond the ecological and biological problems on which they are focused into the sociological, political, and economic issues within which the survival problems are embedded? Can they embrace the broad issues of proliferation, poverty, famine, pollution, and resource exhaustion with which the world is struggling and which have their inevitable effect on the survival of species?

**WE** WOULD ARGUE that the time has come for a serious review of accomplishments. A report from the IUCN might well be in order within the next year or two on the number and nature of the new National Parks which have been established in Africa, Asia, Australasia, and Latin America, and certainly North America, in, say, the last ten years. The report would have to deal with the quality of these reservations for survival purposes. It might well look ahead to recommendations for the establishment of new areas during the next decade, and perhaps the next quarter century. What happens in this connection before the end of the century may well spell doom

or survival for countless beautiful creatures everywhere.

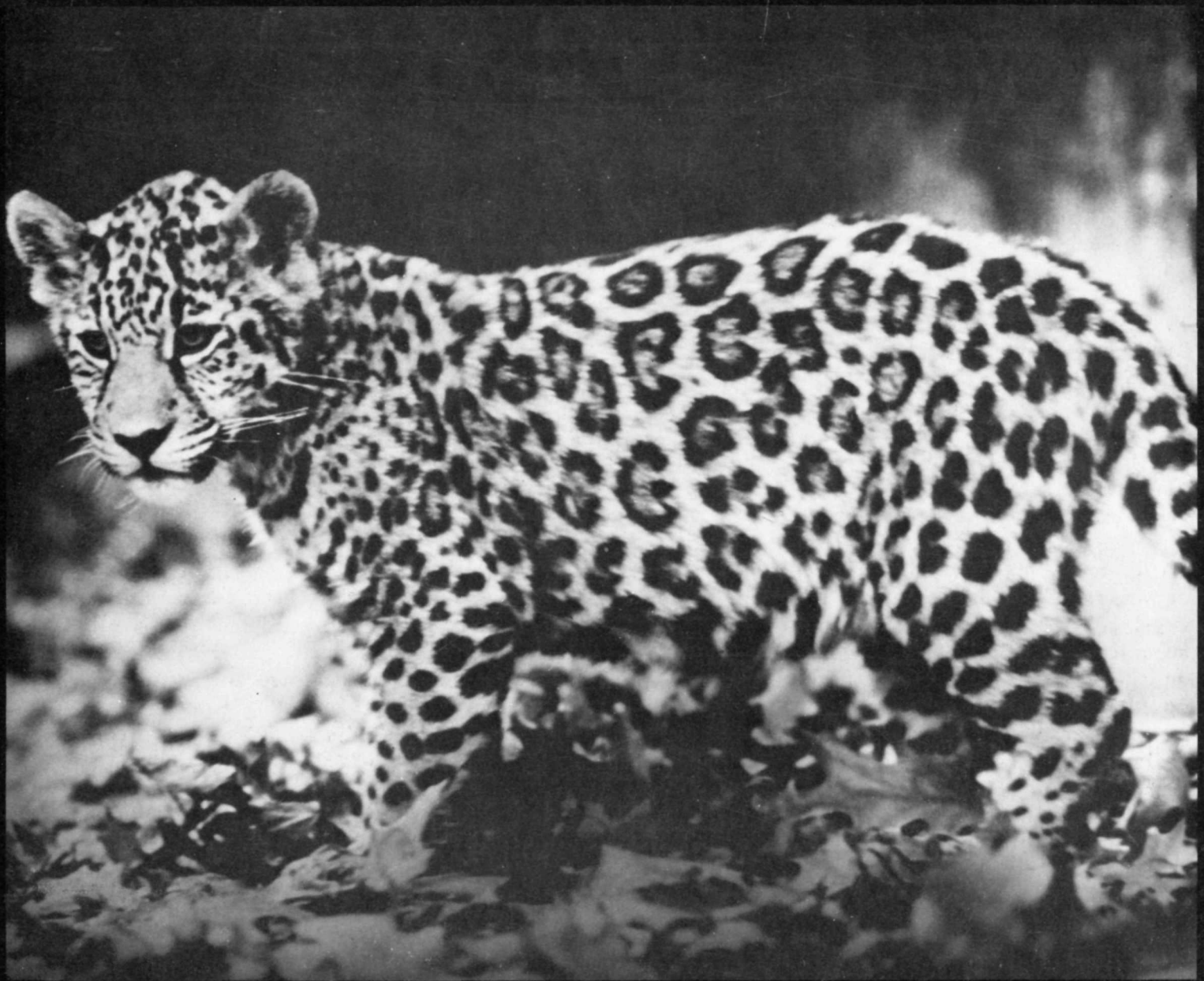
And a comparable review of results in reversing trends toward the extinction of specific endangered plants and animals would be in order in connection with the Red Data books. For many years now the dedicated people who have labored to produce these volumes have been telling conservationists everywhere that the dangers were intolerable. It would be well to make a careful tabulation of the instances in which species have been rescued from the brink. We are apprehensive that the number of victories may be small. And if so, the world should face the facts, and ways and means should be found for salvation.

**O**NE OF THE issues to which the IUCN turned its attention during the administration of Dr. Budowski was tropical forestry. The industrial nations, which dominate the economies of the world, have been ravenous for pulpwood and lumber. The trans-national corporations have staked out claims in the emerging countries and have not always used methods of exploitation which maintained the resource. Clearcutting and high-grading have apparently been all too prevalent. As forests were cleared, tropical soils were exposed to sunlight and destroyed. The wildlife of the jungles retreated, declined, and vanished. The native communities of men, seated within the abundance of the forests, gave way to urban deserts.

The IUCN should be championing the cause of ecological forestry everywhere; that is, forestry based on individual tree selection, group selection, shelterwood, or small-patch clearcutting, as contrasted with high-grading and large-block clearcutting. The governments of the industrial countries on which trans-national corporations are based should compel their companies to follow ecological practices in other lands; and the governments of the countries which are seeking to industrialize should enact stringent regulations at home. Can the IUCN contribute to the solution of this problem?

We have some further questions as to how the IUCN can best function as a catalyst in respect to the International Organizations of the UN system and the governments affiliated to IUCN which we hope to explore in subsequent commentaries.

— Anthony Wayne Smith



**A HEARTFELT HOLIDAY GREETING AND THANK YOU**

to members and friends of NPCA. Because of you—your dues, your generous contributions, your help in enlisting new members—we have been able to do battle on behalf of parks, wildlife, and wilderness during 1975. Thank you—and Happy New Year!

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