NATIONAL PARKS & *Conservation Magazine*

The Environmental Journal

December 1971

PARKS FOR THE WORLD

THE SECOND WORLD CONFERENCE on National Parks, which will be held at Grand Teton Park next September, can be an event of worldwide cultural significance. Linked with the National Park Centennial in the United States, it will celebrate the growth of the National Park idea from its origins at Yellowstone 100 years ago and its dissemination to every continent on the globe.

Hopefully, the conference will lay good plans for the future. They should be ambitious plans, for a great work is to be done. They should be practical, in the sense of having adequate reach; plans for the parks must be set into comprehensive planning for great regions, for the social management of all resources, for the stabilization of agriculture, cities, industry, population. The National Parks and equivalent reserves of the world cannot be protected, nor the systems expanded by parochial planning, nor can their significance be understood except in the broad context.

The National Parks are models for the future, not mere vestiges of the past. They are examples of the spacious and beauteous natural world in which early man lived out his life; nature may have been cruel to him, but our vestigial sense of natural beauty records his delight in the earth. For us the parks transmit this ancient knowledge, through the present urban-industrial winter, so that it may flower again in the future. The great National Parks of the world are examples, demonstrations, pilot projects, to show what the normal setting of human life on this planet should and can be in the future.

The normal setting has been, and should again be, an environment of great spaciousness, long perspectives, physical freedom, room for wandering. A Park like, say, Sequoia or Great Smoky Mountains, presents that setting in modern times to men of the crowded cities, and releases the human spirit.

Not the big cities of the ancient river civilizations, nor certainly the contemporary industrial metropolis, have been natural for man. How to reverse the urban trend, retaining the cultural values, toward a new ruralism, toward the natural environment: this is a task which contemporary man must set before himself, if he is ever again to be at home in the world. The great National Parks provide the vision.

The parks also present a basic moral imperative for our thoughtful consideration: the ecological imperative, that we must live henceforth within the network of all life, or die. Within the parks, great and small, and within the equivalent protected reserves, it has been possible to shelter many greatly endangered species of plants and animals. The parks must be multiplied and enlarged, defended and cherished, in their vital work for survival.

The parks must be seen within their societal context. Fringing most of them, and penetrating them with their influences, are all the economic, social, political, and even military pressures of the surrounding world. Park planners and managers must develop their protective and interpretive strategies within this comprehensive context; that is, within an understanding of the agricultural, industrial, urban, and recreational pressures of surrounding society.

This is not to say that they can retreat before these pressures: precisely the opposite; they must study and understand these pressures, and participate, not in submission before them, but in changing them. Survival programs, for example, within and beyond the parks, must be framed, worldwide, within projects of economic and social aid from the world community, directed toward meeting the needs of human subsistence which led to danger for the protected species in the first place.

Most of the human beings on this planet live in dire poverty, indeed in hunger, deepening into starvation. A World Community worthy of the name must end this misery. The pressures of human poverty, hunger, and ignorance on the endangered plants and animals of the globe are enormous. The misery must end, because it must end. But the reestablishment of the natural environment is not in conflict with this great humanitarian effort, and is indeed dependent on its success. Nature will never be protected in a world of social, economic, and military anarchy; nature will be but another tragic casualty of the conflict.

The partisans of the parks, of natural beauty, of the endangered plants and animals, must see their mission within the context of planetary congestion, of overcrowding, of run-away human popu-

Continued on page 35

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COVER *Coastal strip, Olympic National Park, by Philip Hyde*

National Parks & Conservation Association, established in 1919 by Stephen Mather, the first Director of the National Park Service, is an independent, private, nonprofit, public service organization, educational and scientific in character. Its responsibilities relate primarily to protecting the national parks and monuments of America, in which it endeavors to cooperate with the National Park Service while functioning as a constructive critic, and to protecting and restoring the whole environment. Life memberships are $500. Annual membership dues, including subscription to National Parks & Conservation Magazine, are: $100 sustaining, $50 supporting, $15 contributing, and $10 associate. Student memberships are $8. Single copies are $1. Contributions and bequests are needed to carry on our work. Dues in excess of $10 and contributions are deductible from federal taxable income, and gifts and bequests are deductible for federal gift and estate tax purposes. Mail membership dues, correspondence concerning subscriptions or changes of address, and postmaster notices or undeliverable copies to Association headquarters in Washington. When changing address, please allow six weeks' advance notice and include old address (send address label from latest issue) along with new address. Advertising rates and circulation data are available on request from the Advertising Manager in Washington.

JOSHUA TREE NATIONAL MONUMENT

George F. Jackson

GENE AHRENS

Civilization is rapidly changing the character of much of southern California's desert lands, but Joshua Tree National Monument, about 150 miles east of Los Angeles, remains nearly unchanged. Preserved primarily for the notable richness and variety of its desert vegetation, the monument straddles the imaginary line between the Mojave and Colorado deserts. In "high" desert country—not too hot for comfort in summer and with delightfully calm and bright winter days—Joshua Tree is a storehouse of the unusual, a place for a view of the unblighted desert environment.

The variety of wildlife found here is a continuing surprise to most visitors. More than 230 species of birds have been identified, especially around the oases; and among the animals are badger, bobcat, coyote, deer, desert fox, desert bighorn sheep, mountain lions, and numerous rodents ranging from the jackrabbit to the silky pocket mouse, one of the smallest mammals. Reptiles are abundant, including the chuckwalla, largest lizard of the area; the desert tortoise; and the colorful collared lizard. Wild flowers blossom brightly in spring, usually starting in March at the lower elevations and continuing through June at higher altitudes. Plentiful evidence of early human occupation exists, possibly dating back as far as 10,000 years.

Considerable changes in elevation within the monument give it much contrast. In the Pinto Basin the altitude is 1,700 feet; at the top of Queen Mountain, 5,677 feet. At lower elevations the "jumping" cholla cactus and the creosote bush grow profusely; at higher elevations thrives the spectacular Joshua tree, a species of yucca, in some spots attaining heights of 40 feet.

In spring the Joshua tree bears creamy-white blossoms in clusters 8 to 14 inches long. The number of grotesque shapes its "arms" can assume are infinite, and it provides endless subjects for camera studies. It is said that the Mormons gave this giant yucca its name because it seemed to be lifting supplicating arms to heaven and pointing the way to the promised land. To many desert denizens the Joshua tree *is* a "heavenly plant." It provides shelter, food, and in some cases protection from enemies. Indians used parts of the tree for food, made ropes and woven articles from its leaves, obtained various colored dyes and medicines from its roots, and even brewed an intoxicating drink from its fruit.

Joshua Tree Monument has a special magnetism for my

George F. Jackson calls himself a true desert *aficionado*. A technical writer by profession, he has done considerable free lance writing about the western United States out-of-doors. He also is interested in speleology—the scientific study and exploration of caves—and has written two books and dozens of articles on the subject.

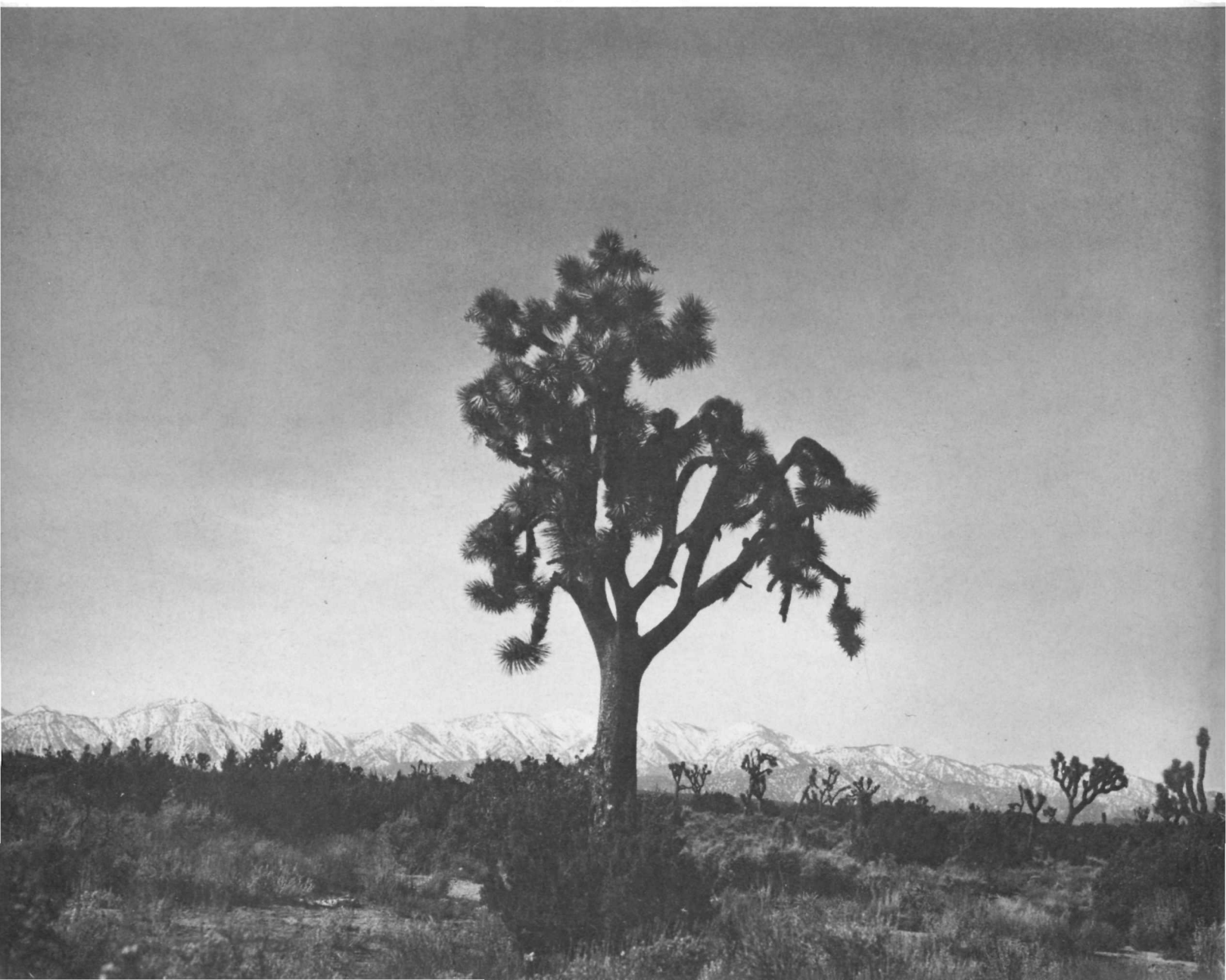
wife and me. It has drawn us back time and again to explore its rocky outcrops, mountains, and canyons. We have enjoyed its wild flowers and desert vegetation, its sunrises and sunsets, its wild creatures and hidden secrets. It is big—some 870 square miles. The air is clean and fresh, a welcome change from one of the more disturbing characteristics of modern civilization.

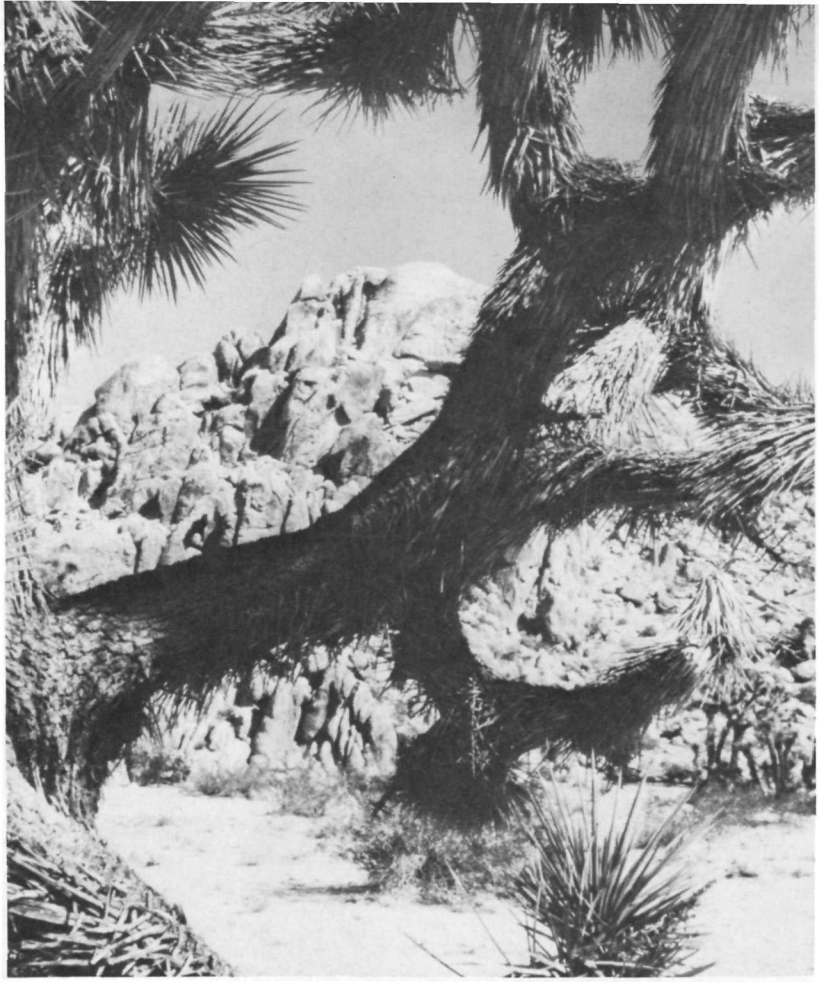
Many casual passers-by have a tendency to linger in the easy-to-reach central part of the monument, where the landscape is dominated by striking outcrops of massive light-grey and pinkish quartz monzonite. Rock scrambling here is the finest in the world, and romantically named spots such as Wonderland of Rocks, Lost Horse Valley, and Hidden Valley (a reputed rustler's hideout) are picturesque and interesting. But it is also here that the height-of-the-season winter and springtime visitor congestion occurs.

Without entering some parts of the monument that are reserved for ecological studies, we have spent many enjoyable hours in interesting and lovely spots that most visitors seldom see. That some of these areas are not shown on maps nor mentioned in guide leaflets is due to the unthinking vandalism by former visitors. However, if they believe you are seriously interested, rangers will tell you how to see some of the things that are carefully shielded from the attentions of casual visitors.

One easily visited spot is the Barker Dam area, where a dam constructed by early cattlemen has impounded a small lake. Here many species of wildlife may be seen during early morning hours. On one just-after-daylight picture-taking jaunt near the lake, we rounded a sharp corner in a narrow rocky canyon and came face-to-face with a pair of mountain lions! Which pair of us was the most surprised is hard to say. Only 6 feet apart, we all froze for a split second. Then, with amazingly graceful and effortless leaps, the big cats disappeared over the canyon rim. Hardly a heartbeat passed between sighting and vanishing. We simply saw them, then they were gone. The encounter was so swift that—except for our pounding hearts—we could scarcely believe we had blundered within almost touching distance of a pair of America's most wary and man-shy creatures. The only photographs we got were of tracks and a tuft of tawny hair from a nearby bush.

Snow-dusted Santa Rosa Mountains form the backdrop for a 40-foot-high Joshua tree. WELDON F. HEALD

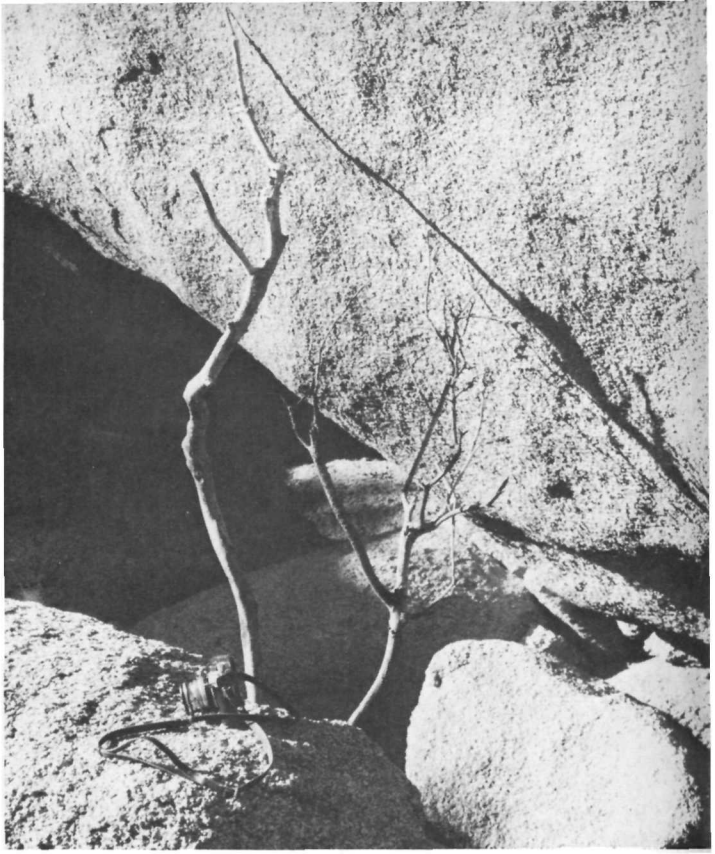




Dead Joshua tree leaves lie flattened against the sides of tree branches ("arms") for a number of years before falling off. New growth takes place on the ends of branches. The dark green leaves of a Joshua tree take on a peculiar hue in the infrared photograph below.

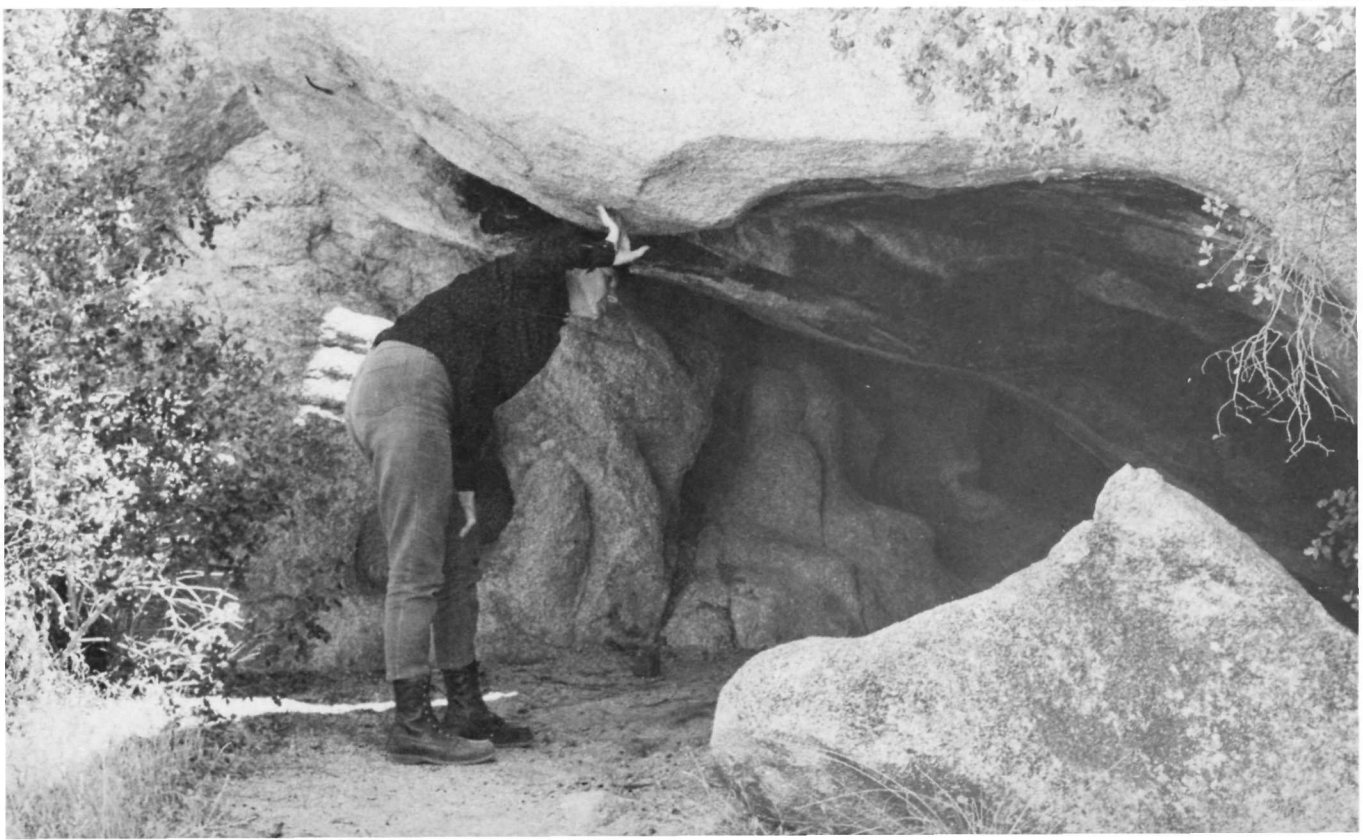
Visitors who wander outside the most heavily used areas of the monument often are rewarded with glimpses of the monument's natural inhabitants—such as the curious coyote at right as well as badger, bobcat, deer, desert fox, desert bighorn sheep, mountain lions, and numerous rodents, birds, and reptiles.

PHOTOGRAPHS BY GEORGE F. JACKSON



The first people in the Joshua tree area may have lived as long as 10,000 years ago. The ceiling of the cave below was blackened by Indian fires, and the holes in the wall beside the cave home at left were probably made by Indians. Many rock walls are showcases for pictographs (rock paintings) such as those on the facing page. These have been retouched with paint by unthinking visitors. The mortar hole and pestle, used by ancient Indians for grinding seeds and nuts, were found by the author on a recent visit to the monument. Archeologists found fork-tipped "spirit sticks" (above) within or in front of almost every cave shelter. Very few are still in place.

PHOTOGRAPHS BY GEORGE F. JACKSON



Lest any visitor be alarmed about meeting a mountain lion face-to-face, it should be mentioned that they seldom visit the parts of the monument open to the general public. However, cautious early morning hikers in the dam area may be rewarded with a glimpse of a bobcat beating a hasty retreat over the outthrusts of boulders. Not so easily frightened are many species of birds. On one trip we saw snowy egrets. In soft ground around the lake the tracks of coyote, fox, and deer may be seen—but the makers of the tracks not so easily. Nearby are old Indian bedrock mortar holes and many petroglyphs carved into the rocky walls bordering an old campground. Most of them are badly vandalized.

In recent years the Park Service has installed a self-guiding nature trail from Hidden Valley campground to the Barker Dam area, and on days of heavy visitation the spot tends to lose its primitive charm.

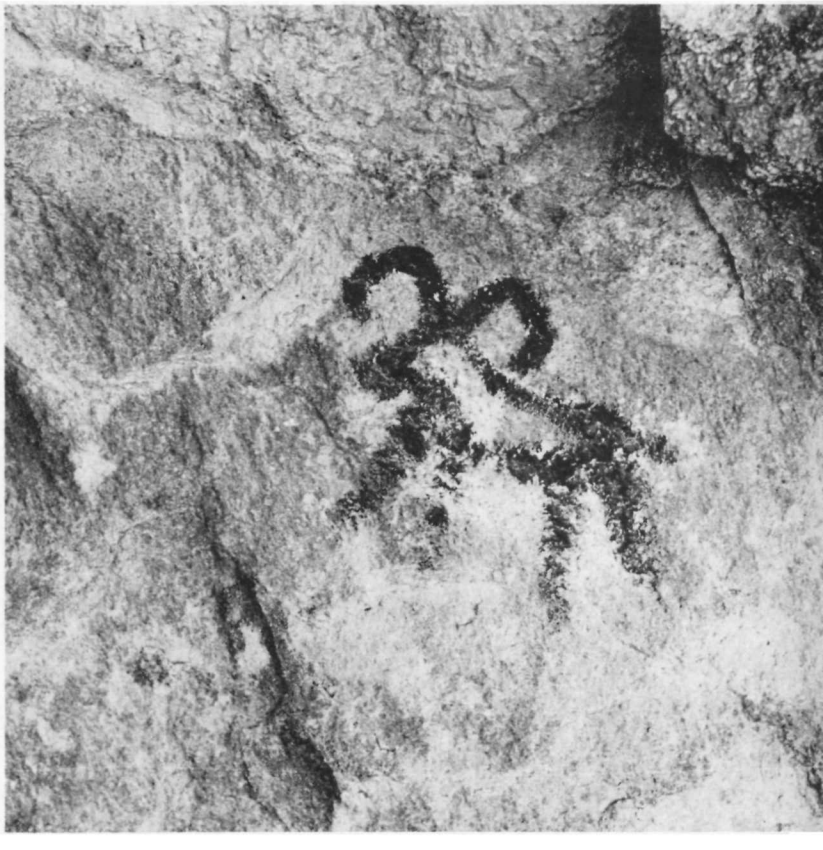
In addition to several nature trails there are many other opportunities for hikers to stretch their legs. One of them is the trail to the top of Ryan Mountain, elevation 5,461 feet. The 1½-mile ascent is best for well-conditioned hikers and offers fine specimens of desert plants along the trail and outstanding views of the north central parts of the monument. The more remote trail to Lost Horse Mine has good displays of Mojave yucca, Joshua trees, nolina, and many wild flowers. At the old mine the towering headframe is unusually complete.

Evidence of early human occupation of the monument areas is plentiful, ranging from prehistoric sites to relatively modern Indian encampments. The first white men found two groups of Indians living in the region, the Chemehuevi and Serrano, both speaking Shoshone dialects. But even earlier, perhaps shortly after the most recent ice age, a more primitive people lived here. Along an ancient river terrace in the Pinto Basin archeologists have discovered split camel and horse bones in the same spot as chipped artifacts. Are they of the same date? No one knows for certain, but an age of possibly 10,000 years has been postulated for the sites. Arrowpoints unearthed here have been given the name "Pinto points."

Indians of a later era—and until the advent of white men—also lived in the lands now encompassed by the monument. Most of the known campsites and cave dwellings are along an ancient trail that entered the monument in the southeast corner and ran diagonally across it to the northwest corner. Of necessity many of the sites are off limits to random visitors, but sincere individuals may get permission (although not in the "busy season") to investigate these places.

Thousands of visitors have set up camp beside old Indian campsites and near petroglyphs (rock carvings) and other Indian artifacts and never realized it. Of course, the petroglyphs are badly weathered and very dim and hard to recognize. On several visits a year or so ago, my wife and I camped just a few feet from some old petroglyphs in an old Indian campground without realizing they were there. Early one morning the rays of the rising sun happened to strike a rock face at just the right angle to reveal old carvings barely visible at other times. Investigation revealed dirt-covered bedrock mortar holes and what seemed to be crude steps chiseled deeply into the rock face.

Not all the sites are hard to recognize or have almost unintelligible rock art. Close to the spot mentioned above is a



small cave that can be entered only on hands and knees. Inside, the ceiling is covered with old pictographs (rock paintings) in red and black. Outside, the cliff wall shows traces of smoke for some distance upward, indicating that Indians must have camped there for many years. Nearby, a larger cave—more easily entered—has a soot-blackened ceiling and charcoal mixed with the sandy dirt on the floor.

Studies by authorities indicate that the Indians sometimes lived in the open and at other times in the caves and shelters formed by the huge, jumbled rock masses. They were dry, sheltered from the elements, and often not far from "tanks" (rain catchment basins) or other water. Smoke-grimed ceilings and walls testify to the length of time some of the caves were occupied. Early gold seekers and cattlemen probably used the same spots when camping, adding their own soot to already blackened walls. Early archeologists found many artifacts in these caves, but today untouched sites are extremely rare.

An intriguing find on the first archeological surveys were "spirit sticks," located in or near almost every hole in the rocks investigated. Usually propped against ceilings or at the entrances to caves and rock shelters, the sticks were made from many kinds of wood and varied in length from a few inches to several feet. All had forks near their upper ends. Braced sometimes with rocks at their bases, they seem to have had no particular utilitarian purpose. Occasionally a straight stick, with the end split to make a fork, was used. One writer mentions sticks with small bunches of eagle feathers tied to them. The exact meaning of these sticks is not clear to investigators, and modern Indians tell only vague stories about them. The sticks most likely had a spiritual significance of some kind.

Although monument rangers told us that they knew of no spirit sticks *in situ*, a long and careful search near one of the primitive campgrounds revealed two small caves with what we believed to be some original sticks still in place. We did not disturb them. After all, they *could* be guardian sticks, and we had no wish to offend any "spirits" that might keep us from further enjoyment of one of America's finest deserts. ■

PHILIP HYDE

Ron Zobel

Olympic Strip and Lake Ozette

INSECURE WILDERNESS

ALL PHOTOS BY PENNY LONNECKER ZOBEL

Within 150 miles of the bustling cities of Puget Sound there is an opportunity to be alone with one's thoughts on a trail that forever erases the steps of yesterday. Here, on the wild beaches of the Olympic coastal strip the visitor may take advantage of a special national park experience, the wilderness beach hike.

STRANGERS to the Olympic shores of Washington State often are alienated by the gloom of rain and eeriness of fog that so often envelop the rocky islets and pinnacles of the Washington coast and its coastal section of Olympic National Park. But for many visitors, realization of the part that water plays in creating the coast and its forest relieves the rain clouds of their gloom. It really is not gloom that is dripping and flowing, but life itself; and then the eeriness of fog gradually becomes mysterious beauty.

Added to Olympic National Park on January 6, 1953, by proclamation of President Truman, the 50-mile-long coastal strip of the park extends south from the mouth of the Ozette River to the boundary of the Quinault Indian Reservation. Varying in width from three miles to a quarter of a mile, the northern end of the strip includes the western shore of large and primitive Lake Ozette.

The northern two-thirds of the Olympic strip is as undeveloped as any shoreline facing the Pacific between Canada and Mexico. Roads reach the ocean only at the mouths of the Hoh and Quillayute Rivers. This part of the coast is characterized by sweeping crescent beaches separated by rocky headlands. From Cape Alava to Rialto Beach, and from Third Beach to the Hoh River, the backpacker reigns supreme. Here, within 150 miles of the megalopolis on the shores of Puget Sound, urbanites may find a special park experience—the wilderness beach hike. Wild beaches of the ocean strip, ice-clad mountains, and damp rain forests of the interior—truly, Olympic is far more than one park.

In the southern third of the strip Highway 101 runs along the coast from Ruby Beach to the Quinault Indian lands. Here the coast is straighter and easily accessible to the motorized visitor by short trails. It is also accessible to noisy logging trucks and does not have the wilderness quality of the northern part.

A beach hike usually starts with a walk along a plank trail through the coastal forest, which receives from 80 to 115 inches of rain annually. Here the abundant moisture has created a lush and complex community of vegetation pungent with the smell of growth and rot. Dominant trees are western hemlock and western red cedar, with Sitka spruce adding its hue of purplish bark as one nears the ocean.

Forest trees rise from a moss-carpeted floor that also supports a variety of ferns, some of which are shoulder-high. Salal, salmonberry, and evergreen huckleberry entwine everything and each other, so that all available space is utilized by some form of plant life. In early summer the white flowers of Canadian dogwood grace the woods, and by August the flowers have produced red berries.

Ample moisture has made deep root systems unnecessary for the huge trees of the coastal strip, leaving them vulnerable to the high winds of winter and spring. Both visible shelf

fungus and invisible bacteria are forever busy returning fallen trees to the soil from which they came. Seedlings sprouting from decaying logs attest to the emergence of new life from the relics of death.

At the edge of the sea a natural trail is provided for the hiker by the beach itself—a trail distinguished from all others by its constant movement with the tidal forces of moon and sun. For years the combination of littoral drift and tidal action have stranded wayward logs and trees on beaches, eventually to be bleached and worn a silvery-white. Driftwood, often piled higher than a man, provides convenient shelter and easily gathered campfire wood. The beach hiker finds himself completely involved with his surroundings. He constantly hears the sound of the surf and smells the salt air. The vistas are ever-changing before his eyes as the tide ebbs and flows.

Offshore, memorializing a former coast like huge tombstones, are the islets, rocks, islands, and pinnacles, commonly known as "seastacks," created in the ocean's constant war with the land. Sometimes topped with a headdress of evergreen, seastacks occur in a variety of shapes, some bearing odd names like Dahdayla and Cakesosta. Others, as the Giant's Graveyard, Cake Rock, and Hand and Foot, are enlarged versions of forms familiar to the human eye. With every step along the coast one views the stacks with fresh perspective, endowing them with new shapes and forms. Such a continually changing panorama lends the beach a new dimension with every passing moment.

The offshore islands in the Flattery Rocks and Quillayute Needles national wildlife refuges, together with the ocean strip of the park, provide a haven for both permanent and migratory bird populations. Most of the islands and rocks in the refuges are incorporated in the recently established Washington Islands Wilderness Area.

The most familiar sounds on the Olympic coast are the cantankerous caw of the northwestern crow and the high-pitched salute of the gull population. The gulls, with pompous strut, resemble well-dressed country gentlemen surveying their estates. The red bill of the oyster-catcher makes that bird easy to identify. Sandpipers play tag with the edge of the sea in their constant search for sand fleas—which actually are crustaceans—and the colorful harlequin ducks float at ease among surf-licked rocks. And perched atop a tree on a seastack there may be a lonely-looking bald eagle, staring at intruders with an if-I-go-you-go-too look.

Now and then the backpacker may discover a black bear dining on the carcass of a dead seal or stealing food at a campsite. Columbian black-tailed deer trot unafraid down to the beach. Harbor seals may be seen poking their heads above the waves offshore. With luck the hiker may see one of the smaller mammals, a weasel perhaps. And now, for the first time in Olympic waters since the early nineteenth

At Sand Point in the Olympic coastal strip the photographer catches a Columbian black-tailed deer dining on the lush vegetation of the forest floor.

century, the visitor may see a playful sea otter, a group of thirty having been transplanted from Alaskan waters in the summer of 1970.

In that narrow strip of beach between high and low tide, land, sea, and air nurture life-forms in great abundance. It is a complex and harmonious world within a world, supporting mussels, clams, barnacles, starfish, flowerlike green anemones, eel grass, crabs, isopods, and many another living thing. Much of this life depends on the rise and fall of the tide, which brings food in the form of plankton with every cycle.

MANY READERS will remember the protest hikes on the Olympic strip, led by Justice William O. Douglas, against commercial pressures for a highway along this wild portion of the national park. Although not much has been heard about these plans for a few years, conservationists would do well to remember that there exists here a potential for management of the Olympic Park coast as an area for mass recreational use. There will continue to be such a potential unless the strip is incorporated in a wilderness plan for Olympic National Park. That plan has not been made public as yet.

A road through the northern two-thirds of the coastal strip would be wholly destructive and would defeat even its own purpose. Not only would it deny the special wilderness-shore experience to the many who now enjoy it, but such a road would not even give motorists a good view. Unlike the highways along the Oregon and California coasts, the existing highway in the Kalaloch area presents few ocean and beach vistas because of heavy forest cover. Thus a road through the rest of the strip would not even serve those who think they need it. Today no reasonably healthy person is denied the scenic magnificence and wilderness qualities of a primitive shore. Let the petroleum addicts cruise the Kalaloch road. One way to make sure that this coast is never developed is to place it in the National Wilderness Preservation System.

At the northern end of the Olympic coastal strip is 12-square-mile Lake Ozette. The only public access to the lake is a 21-mile road from Highway 112 to the Lake Ozette Ranger Station, one of a group of buildings that served the Coast Guard during World War II.

In the late 1880's and early 1890's settlers entered the Lake Ozette region by rounding Cape Flattery from the Strait of Juan de Fuca, proceeding down coast to the mouth of the Ozette River, and then up the river to the lake. Later an overland trail was blazed to Clallam Bay. The settlers were primarily of Scandinavian origin. The isolated settlement grew, and at one time it had 130 families, a church, two post offices, and even a Ladies' Aid Society. In 1897 the area was designated as a Forest Reserve, an action that destroyed local hopes for a road and future growth. By the turn of the century economic hardship had forced most of the pioneers to abandon their homesteads. Today the ruins of frontier dwellings may be found throughout the vicinity, and Lake Ozette is sometimes called "the ghost lake."

After many of the settlers had given up claims to their homesteads, President McKinley reduced the Forest Reserve by some 750,000 acres on the claim that it was chiefly valuable as agricultural land. The exclusion included lands in western Clallam County from Lake Ozette south.

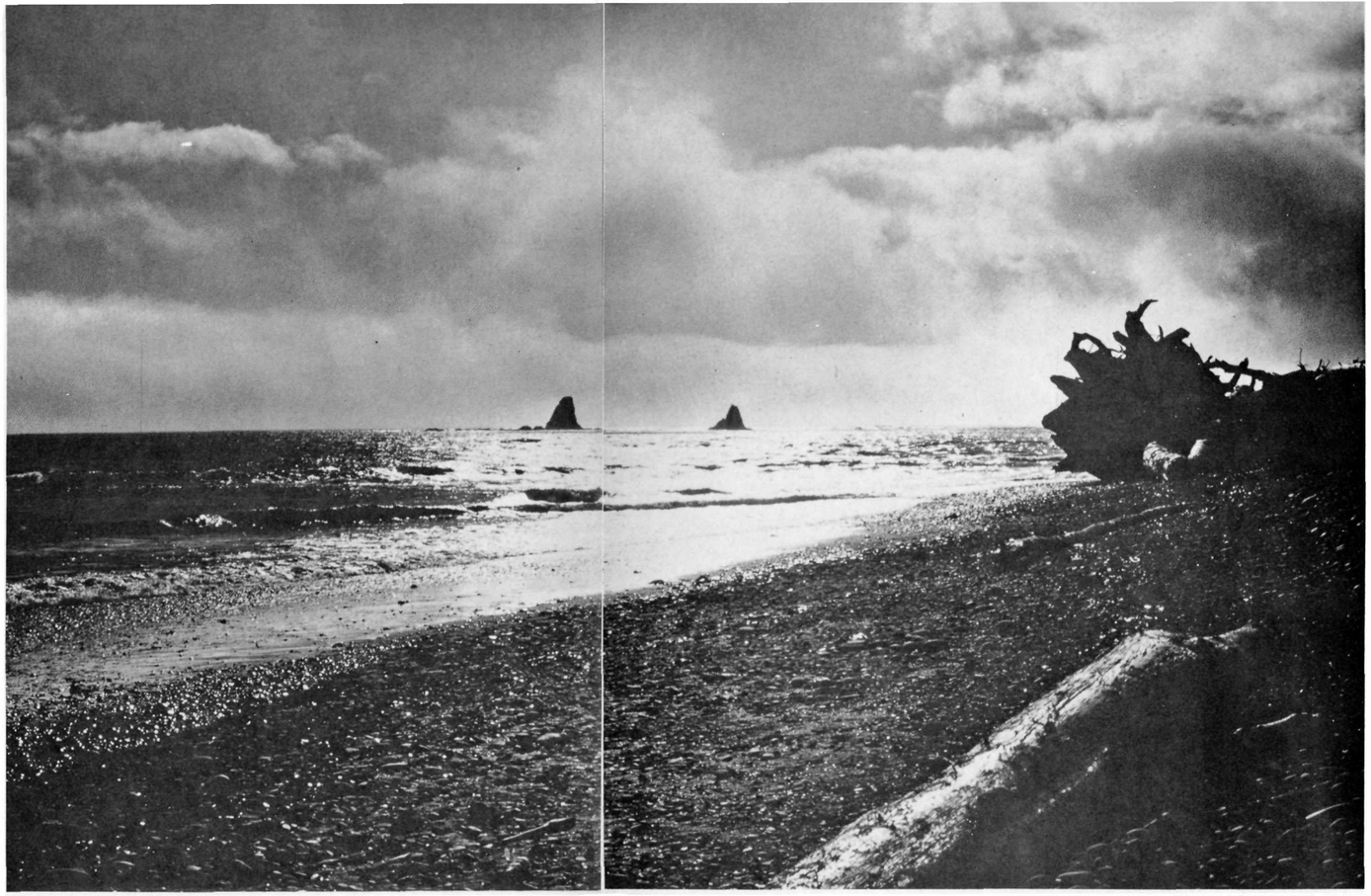
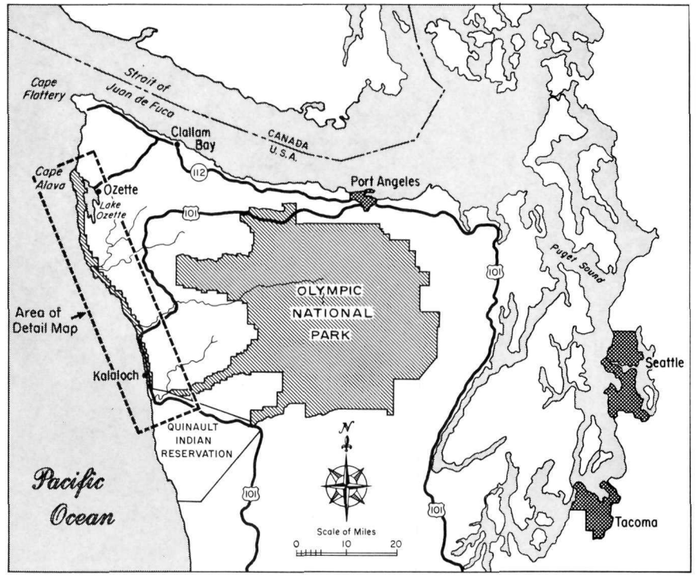


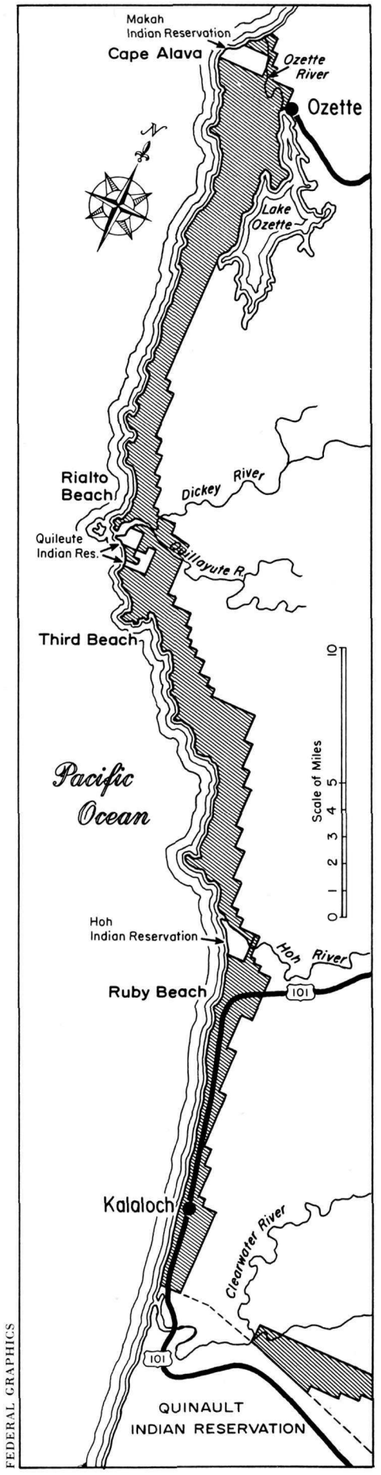
PHOTO BY PENNY LONNECKER ZOBEL

The many offshore monoliths or "seastacks" that lend charm and mystery to the Olympic strip remind park visitors that at one time in the geological past the Washington coastline lay west of its present position. Under ceaseless attacks of the Pacific the land has slowly retreated, leaving the seastacks as remnants of the former coast.

Much of the land deleted from the Forest Reserve subsequently came into possession of a few large timber companies under the Timber and Stone Act, which required that the land be valuable as timberland and not suitable for agriculture. Other acreages were taken under the Forest Land Lieu Act, under terms of which land companies organized by the railroads were able to swap desert and canyon lands for the tall spruce, fir, and hemlock of Clallam County. People on the west end of the Olympic Peninsula called these operations "the big steal."

In the middle of the twentieth century one does not expect to find a big lake, almost completely undeveloped, within 3 miles of the ocean in a forest setting. Development on Lake Ozette today consists of one small resort and a few cottages.





FEDERAL GRAPHICS

Ron Zobel has been the ranger at the Lake Ozette Ranger Station, in the Pacific Coast Area of Washington's Olympic National Park, for three seasons. He and his wife, Penny Lonnecker Zobel, who supplied most of the photographs for this article, attended the School of Journalism at the University of Iowa.

Only the western shore of the lake is within park boundaries. Its waters are under state control, and the land around the rest of the lake is mostly privately owned. The federal government owns two large islands in Lake Ozette and some land along the shore at the south end outside park boundaries. The state controls some timberland east and south of the lake, but the bulk of the surrounding lands is in the hands of large timber companies. The road into Ozette is lined with clearcuts. From a boat the clearcut hills above the lake become more visible every year, and logging roads worm their way over the lands to the east.

Development here seems only to be waiting for men with the necessary money. Large numbers of cottages and resorts on the east side of the lake would destroy the wilderness flavor of the lake for park visitors on its west shore. In addition, it is doubtful that such a large lake, which has a single small outlet, could withstand the various kinds of pollution generated by large-scale development.

Olympic National Park is limited in size to 892,000 acres. When the boundaries of the coastal strip were set forth in 1953, the acreage limitation would not allow for both more land around the lake and future acquisition of inholdings, as available, in the park itself. A small increase in the acreage limitation of the park will probably be necessary if primitive Lake Ozette is to be protected in its present condition and the status quo maintained in the rest of the park. The increase, though small, would meet with the bitter opposition of every powerful special interest on the Olympic Peninsula; but if natural beauty had as much influence as money and power, Lake Ozette would be within the park boundary and the hills visible from the lake protected by scenic easements. The resort and cottages on the lake could be tolerated with relative comfort.

A simple map of the Olympic strip could lead one to think that this portion of the park is securely protected. The area, however, suffers from a bad case of administrative confusion, as at Lake Ozette. The state owns the tidelands, and national park regulations do not apply on the beach and in the tidepools. Park rangers are powerless to enforce rules against destruction of beach or tidepool wildlife. The tidelands of the Olympic strip should be in the park or, failing this, park regulations should at least apply.

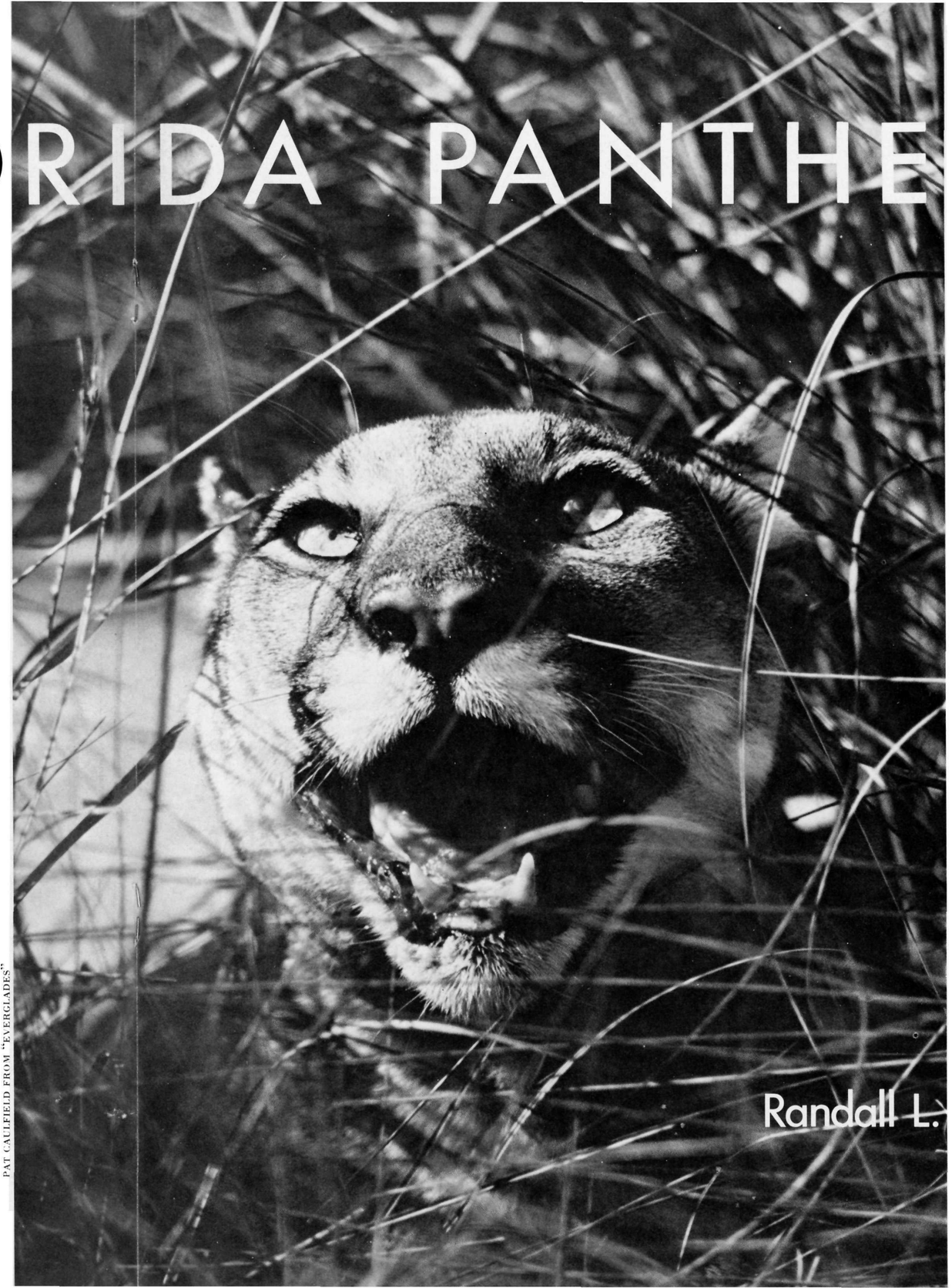
But regulations are one thing, and enforcement another. At Olympic, the Service needs more men to provide the protection required at the ocean strip. Rangers spend much time collecting campground fees, telling visitors where the comfort stations are, and investigating troubles in the developed part of the coastal strip, and the more primitive areas suffer. It is not the fault of the ranger staff—there simply is not enough manpower.

The coastal strip of Olympic Park is an area of great beauty. That beauty is one, however, that today's visitor can only hope will exist should he wish to return in the future. It should be the mission of conservationists all over the nation to make that hope a certainty. ■

Below, the welter of drift logs that marks high-tide line on Olympic shores must be explored by youthful hikers and will furnish fuel for the family campfire. Right, the great majority of hikers on the Olympic coastal strip is content to enjoy a wilderness experience in a gemlike setting of sea and forest. However, an administrative difficulty faced here by the National Park Service is state ownership of beaches and tidepools, a situation that leaves Service ranger personnel powerless to enforce protective regulations for marine plants and animals.

PHOTOS BY PENNY LONNECKER ZOBEL

FLORIDA PANTHER



PAT CAULFIELD FROM "EVERGLADES"

Randall L. Eaton

Every beginning student of mammalogy soon learns that among the terrestrial mammals of the New World the cougar, or mountain lion, has the greatest natural range. Thus the cougar is found as far north as southeastern Alaska and as far south as Tierra del Fuego, at the southernmost tip of South America.

The range of the cougar may have been continuous over this vast distance up to perhaps 2,000 years ago. Today, however, the distribution of the animal is not continuous, and populations tend to be separated into races. In the United States the cougar is commonly but mistakenly thought of as a western mammal, but until perhaps 150 years ago it was common also to the eastern deciduous forests, where early settlers called it the panther. In actual fact, the cougar may have been more common in those days east of the Mississippi River, in a region of abundant white-tailed deer, than it ever was in the West. The eastern races of the cougar still exist, but representatives are rare, and the races are classified as endangered.

Bruce Wright of New Brunswick has spent half a lifetime searching out and studying the elusive northeastern cougar, or panther, whose numbers undoubtedly have increased during the past 30 years. Wright has learned much about the panther's habits in the northeast, in his role as naturalist-detective, and thinks that the animal has extended its range from its last refuge in the heavily forested and lightly populated province of New Brunswick into eastern Quebec and south into the United States.

The only other population of the once abundant eastern cougar is the cat called the Florida panther. Little is known about this mammal other than the outstanding fact of its scarcity, and it is listed as an endangered race by both the International Union for the Conservation of Nature and the federal Fish and Wildlife Service.

During the spring of 1970 I taught a graduate course in terrestrial ecology at Florida Atlantic University in Boca Raton. The course required several field trips into Everglades National Park, and at this time I began to take an active interest in the Florida panther. During that spring and the following summer I interviewed park personnel and was able to examine their files of cat sightings, some of which apparently were panther. I went into the field and eventually found what seemed to be a panther "scat," or dropping, containing deer hair.

Later in 1971 I carried out a questionnaire survey and some short field trips into northern Florida to see if I could determine the present extent of the panther's range and to learn more about its status. My findings were interesting. The Florida panther is undoubtedly a rare mammal. However, it is found not only in Florida but also in several of the other southeastern states. This is encouraging. On the other hand, it was dismaying to find so few people willing to recognize that the Florida panther is an endangered race and in need of absolute protection. Panthers are regularly reported by tourists in the Everglades National

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Park, but many of these reported cougars are probably bobcats.

Significant recordings of panther in upstate Florida come from the northwestern part of the state. One adult was seen by Pat Quinn, a zoologist, on the Perdido River, common border of Florida and Alabama, 25 miles north of Pensacola. In 1969 Larry Johnson, of the Florida Fresh Water Fish and Game Commission, saw two panthers cross a road at the Yellow River not far from Crestview in Santa Rosa County. Additional sightings have been made at Eglin Air Force Base, in northwest Florida. The base includes a large relatively wild habitat of several hundred thousands of acres that supports a large deer population. In March 1970, Joe Knowles, wildlife biologist at Eglin Air Force Base, saw an adult panther and two cubs near Hog Creek in Walton County.

The most northerly sightings of Florida panther in recent years have been made in Alabama and North and South Carolina. W. J. Hamrick, a game biologist, saw a panther in 1966, 5 miles north of Jackson in Clarke County, Alabama. Dr. Syd Johnson, a wildlife biologist, made a plaster cast of a panther track 40 miles north of Mobile, Alabama, in 1961. Two panthers were seen in this area attempting to secure deer from live traps, and in 1948 a male adult panther was killed in St. Clair County in the same state. Richard Payne, working as a graduate student in wildlife at the Atomic Energy Commission's Savannah River Plant in South Carolina, saw a panther in 1964. In 1959 an adult panther was killed in southwestern North Carolina. Dr. Ernie Provost, of the University of Georgia, ascribes the northerly spread of panthers to the increased deer populations of the Southeast. His theory is supported by the fact that those areas of northwest Florida with the largest number of recent sightings, in no-hunting blocks of St. Regis Paper Company land, for example, also harbor dense populations of deer.

FLORIDA GAME & FRESH WATER FISH COMMISSION

Few conclusions can be drawn at this point concerning the status of the Florida panther. Estimates of total population range from 50 to 300 individuals.

It is a matter of interest that panthers have been bred successfully in a roadside zoo at Bonita Springs in southern Florida. However, attempts to reintroduce these panthers into the wild have been unsuccessful. Two panthers released from the zoo into Everglades National Park were shot a few days later at nearby Homestead. So far as I know there are no captive panthers other than those at the Bonita Springs roadside zoo.

Although the Florida panther is protected by federal law as an endangered race, and by Florida and North Carolina separately, these laws are not enough. A number of killings have been recorded in spite of federal and state laws, and undoubtedly many more killings are unrecorded. I know of cases in which game wardens have shot at panthers. In 1971 a sheriff's posse in southern Georgia went out to kill a reported panther. Enforcement of game laws throughout the Southeast is difficult, and there is no way of knowing how many panthers are killed illegally.

It is likely that the best hope of the Florida panther today is in Everglades National Park, in wildlife refuges like Loxahatchee, and on suitable federal lands like Eglin Air Force Base in northwestern Florida.

For the present, however, the following steps should be taken to insure the future of the Florida panther:

Encourage those southeastern states that have not yet afforded protection for the animal to do so and to fully publicize the reasons for their actions.

Initiate biological studies in each state to provide basic life history and distribution data to be used in establishing good predator management practices.

Initiate a captive breeding program to maintain a genetically pure stock of Florida panthers that could be used in restocking programs should they become necessary.

These are the steps that need to be taken immediately. Another and even more important step would be a change of attitude on the part of the public toward the big predators, and indeed toward all wild animals. The American naturalist Alexander F. Skutch thought much and wrote much about this needed change and concluded that the matter really constitutes a moral problem. Summing up his own feelings in the matter, Skutch wrote many years ago that the truly mature human being would desire "a code of morals that will direct his dealings not only with other members of his own society or of his own species but with all those beings which may be somehow benefited or harmed by his deeds." ■

Exploring Earthman's World with Darwin Lambert

Two Temptations— Two Corrections

Joseph Sittler

The environmental crisis presents theologians and preachers with two temptations that must be avoided and with two venerable items of commonly accepted doctrine that must be reinterpreted.

The temptations are, first, to make a preaching gimmick out of depletion, pollution, and overpopulation and to hope, by supplying the waning influence of pulpit-rhetoric with the juicy and dramatic data of catastrophe, to recover the power of the sermon.

This tactic is both useless and dangerous. It is useless because lamentation does not furnish inspiration. Detailed explications of the threatening obvious does not, in itself, do more than depress. Nor does it suggest such alternatives as might translate the negative energies of past evils into positive constructions. It is both easy and exciting to beat people over the head. And the disturbing of the complacent, although perhaps salutary to the preacher, is in the long run useless. Indeed, the practice may only raise the expectations of an even more exciting disturbance next Sunday; and the poor preacher will find himself operating with a situation of rising expectations and, in trying to satisfy them, will run out of lamentations.

The second temptation is simply to add the environmental crisis to the already overloaded agenda of moral imperatives that confronts our generation; that is, to *moralize* the issue.

To fall into this temptation is to betray one's duty as a religious leader. It supplants hard analysis by lugubrious exhortation. It enables one to transfer to moral admonition the task that real thought should undertake. The environmental problem is, on the surface, a matter of cans and bottles and dirty air and polluted water. But *under* the surface the problem is a matter of deep and damning idolatry. Martin Luther said, "That in which you really trust, in life and in death—that is your God!" What our gods really are is disclosed to us in the things we want most, feel we cannot do without—indefinite growth, more and more things, a disposable Kleenex culture, a consumers' heaven.

The first doctrine that must be freshly understood is in Genesis—that man is "to have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the earth . . . ." The term "to have dominion over" has been falsely understood as "domination," a kind of political word meaning "to exercise control over"; so this verse has been generally interpreted to mean that superior, arrogant, general-manager man was meant by the Creator to strut around the creation with his hat on—his extracting, refining, fabricating, gargantuanly consuming appetite running at insatiable top speed.

That interpretation belies both the love of God for the infinite variety of the natural world he has made and the meaning of the tenderness with which the Scripture speaks (as in the 104th Psalm)—"the springs that give drink to every beast of the field, the birds . . . that sing among the branches . . . the sea, great and wide, which teems with things innumerable, living things both small and great . . . ."

In the Semitic language the verb "to have dominion over" means something quite different from what has been thought when translating from Hebrew into Latin, which was one of the earlier translations of the Bible. The proper translation would be "to exercise tender care for"—almost 180 degrees of shift in meaning. Thus, understanding Genesis in its context, man was ordered so to live with God's other creation, the earth, that he regard her as the object of his guardianship. He is to have dominion in the sense of exercising his intelligence to see that her integrity is not abused. He is to honor and respect and use nature as a gift of God.

The second ancient doctrine that must be radically reinterpreted is the doctrine of man's independence. That man is independent is a plain lie. He comes *from* nature, he *is* by the processes of nature, he lives in every moment in absolute dependence upon nature. Man can live five weeks without food, five days without water, and about five minutes without air. Man cannot be man *against* nature; he can only be man *with* nature. If out of ignorance or apathy or aggressiveness he tears the fabric of which his own life is a part, he destroys himself as well as the mighty structure from whose womb he was born, in whose web he has had his unfolding history, and whose support and companionship-in-life is the primal place and ground of his existence.

If, then, religious teachers can avoid the temptations presented in the environmental crisis and correct the baneful misinterpretations of the scriptural word about God and man and nature, they can play a fundamental role in that reeducation of the mind and spirit and practice of contemporary man. For the root of the problem is in joyful and intelligent fellowship with our sister, the earth—and *that* concept, utterly basic to the massive changes we must make if we are to survive as human beings—is a religious concept, a spiritual vision.

Religious? Spiritual? These are gossamer words to stop a fateful process with. But let us not be deceived; these words mean that man must honor and love the creation that is the womb and web of his life. If he does not, he will die. Nature's reprisals are slow—but sure. Nature, like God, will not be mocked. ■

Dr. Joseph Sittler, distinguished lecturer, preacher, professor, and author of several books on theology, is presently Professor of Theology at The University of Chicago.

EDWARD ASHPOLE

FRANCE'S CAMARGUE Edward Ashpole

an outpost of wildness

We sprayed ourselves with Monsieur Jacques de Caffarelli's "mosquito bomb," as he called his dispenser of insect repellent, but we were nevertheless heavily escorted by mosquitoes as we skirted the shallow waters of the Etang du Fournelet. Birds glided by in the strong sunshine, but nothing else disturbed the immense stillness of the Camargue landscape. No wind ruffled the vegetation, or the lagoon, or distracted the attention of the mosquitoes.

"The mosquitoes are my friends," said M. de Caffarelli in his charming, but struggling, English. "They keep away many visitors to the Camargue. It is unfortunate, but you cannot have both the Camargue and many visitors, and I love the Camargue all my life."

Fortunately for both M. de Caffarelli and the Zoological and Botanical Reserve of the Camargue, of which he is the director, the supply of mosquitoes is plentiful. Nevertheless, the question of the relationship between the general public and this great reserve poses a delicate ethical problem for M. de Caffarelli and his colleagues. The aim of the Société National de Protection de la Nature et d'Acclimatation de France is to foster an interest in and a respect for nature. But at the same time, in the face of great pressure from tourism in the region, they are forced to keep the general public out of the most important and picturesque part of the Camargue in order to conserve it. The tourist and those who seek the stillness and quiet of the wilderness can only view the landscape of the reserve from its boundaries. A low fence marks the boundary, but visually it is wide open, and one can look across the flat landscape and lagoons to the horizon in most directions.

The Camargue Reserve is one of the few remaining wild regions in western Europe, and it provides a unique series of habitats for a unique range of wildlife. It has therefore great value as a natural laboratory, and visiting researchers from many countries come there to study, staying at the society's two guest houses at the reserve.

Its 33,000 acres are largely covered by lagoons (*étanges*) and their shallow connecting waterways, with the largest lagoon, the great Etang de Vaccarès, as the major feature of the reserve. Although agriculture, tourism, and industry all flourish in and around the Camargue, the wild, uninhabited state of the reserve is protected.

Established 40 years ago, it is leased for the next 67 years to the society by the Salt Company of the Camargue, which owns this land and other parts of Camargue.

The Camargue is part of a delta formed in recent geological times between the two arms of the Rhône—the Grand and Petit Rhône. For the last couple hundred miles, the Rhône flows to the sea gently, bringing nothing coarser than fine silt and sand to the Camargue, where natural stones are nowhere to be seen.

There are only a few species of large plants in the Camargue. But those that do grow in its salty soil—the shrub *Tamarix*, the saltwort *Salicornia*, and *Statis limonium* (sea lavender)—help to create the characteristic delta landscape. Mammals are few also. As we walked through the reserve, M. de Caffarelli pointed out a hollow of freshly exposed soil in the sun-cracked earth where a wild boar had recently wallowed. Later we passed the tracks of foxes, but the only mammals we saw in the flesh that day were several black fighting bulls, grazing quietly at a safe distance. They had wandered in from a neighboring ranch and M. de Caffarelli eyed them critically through his binoculars. "The bulls should not be in the reserve," he said. "They do not need our protection." The black bulls of the Camargue, of course, do not figure in the conservation programs of the naturalists. But they are nevertheless an established part of the Camargue, adding vitality and excitement to the region, even when not fighting in the nearby arenas of Arles or Nîmes, for which they are bred with care and pride in the *manades* (ranches) that surround the reserve.

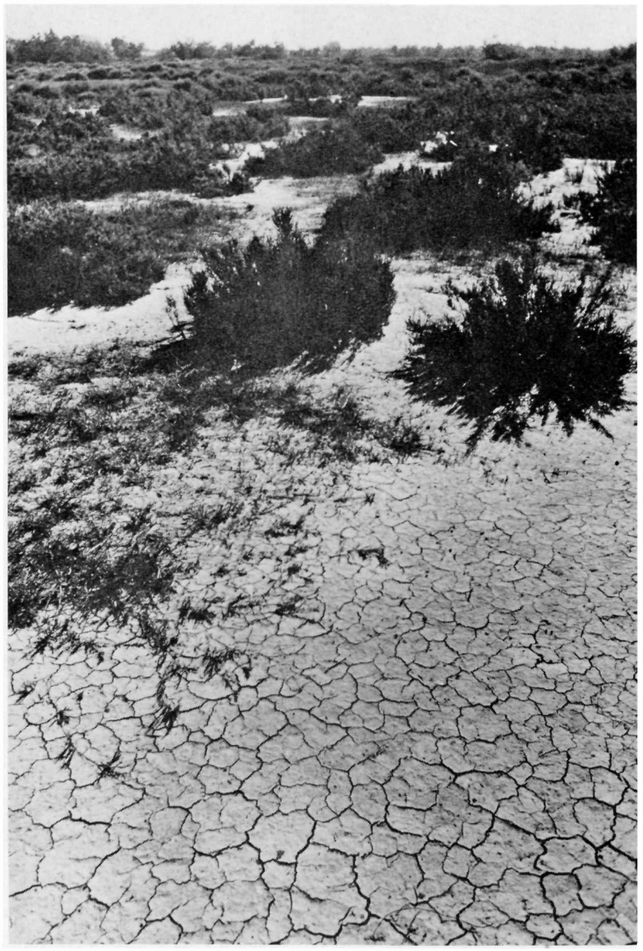
The most numerous life-forms in the great delta are the birds; several species rare in Europe nest nowhere else in France, such as the greater flamingo (about 5,000 pairs), the squacco heron (50 to 100 pairs), the gull-billed teal (250 to 300 pairs), the pratincole (150 to 200 pairs), and the bearded tit. The region is one of the most important for bird life in Europe. The large number of species (323 have been recorded) and the large number of individuals to be

seen of each species make the Camargue a place of fascination for ornithologists.

The scientific center of this rich preserve is the Biological Research Station at Tour du Vallat, an estate of unspoiled country which borders the reserve. It is at the station that most of the research into the natural history and ecology of the Camargue is carried out. It was created by Dr. Luc Hoffmann, a Swiss who first came to the Camargue as a young biologist in 1947. He returned to establish the station in 1954. Dr. Hoffmann directs a permanent staff of five biologists and six field and technical aides. He also oversees a constant stream of professional scientists, students, and serious amateurs who visit the station for short periods of study and work.

When I arrived at Tour du Vallat from Arles, one of Dr. Hoffmann's assistants, John Walmsley, was sitting on a fence outside, waiting for me. Walmsley, who came from Lancashire 3 years ago and rarely leaves the Camargue, was scanning the wide open skies with his binoculars. He is one of four men responsible for the various bird traps at Tour du Vallat. The traps must be visited continuously during daylight, 7 days a week, on foot, on motor scooters, or on horseback in bad weather. "Birds can be left in the traps only for half-an-hour or so, depending on the species," he explained.

Back in the station's ringing-room, he took a record card from a deep deck of cards on the desk. The latest batch of captive birds included garden warblers, goldfinches, redstarts, and spotted flycatchers. They were securely held in little cloth bags and, hung on a line of hooks in the wall, danced jerkily by the desk. With dexterity and care, Walmsley removed each bird in turn, recording its species, sex, condition, moult, parasites, where and when caught, and so on. He then ringed it, weighed it in a tin can, and released



Camargue Reserve lies in the Rhône delta in southern France, a region of salty wetlands that supports a few species of large plants and mammals and hundreds of species of birds. Above, flamingos fly over the Etang de Vaccarès, the largest lagoon and dominant feature of the reserve. At right is one of the birds for which Camargue provides habitat: the little egret. Pictured on page 22 is another, the common heron. Below, a visiting researcher captures a bird, which will be weighed, tagged, and released.

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it through the open window. "Ringing doesn't trouble the birds at all," he said. "I've had birds catch passing mosquitoes while I've been examining them."

The Tour du Vallat Biological Station serves as a main control point in an internationally organized network of bird stations. It is the headquarters of the International Wildfowl Research Bureau, of which Dr. Hoffmann is the honorary director. (The station even has its own X-ray room for X-raying ducks for shot, which they sometimes contain.)

Walmsley and his three colleagues record and ring up to 1,000 birds a week during the autumn migration period, and over 20,000 birds a year. "The main movements of birds in the Camargue are in the spring, when birds are going north, and in the autumn, when they are going south," he said. The data recorded on the cards and the information coming back about birds ringed in the Camargue—from other bird stations in Europe which capture them, or from people who find or shoot them—provides the main means of tracking the movements and range of species, their life spans and populations.

Walmsley finished ringing his batch of birds and we set off to collect another batch from the traps. Four methods of collecting birds are used by the station: mist nets, Heligoland traps, duck traps, and nassettes. Alan Johnson, an English ornithologist and specialist in wading birds, uses the nassettes for catching wading birds at Saline de Giraud, where the Camargue borders the Mediterranean.

"It doesn't matter which way birds fly into these mist nets; they simply drop into a pocket of the net," explained Walmsley, as he removed a trapped goldfinch and popped it into one of the cloth bags attached to his belt. We visited several mist nets and collected several birds. Again, back in the ringing-room, John Walmsley recorded, ringed, and released each bird. Then out we went again—on motor scooters this time—to visit a more distant group of nets. This is the daily round for those who ring birds at Tour du Vallat: from dawn to dusk, 7 days a week. Hard but enjoyable work for an ornithologist.

But research at Tour du Vallat deals with the Camargue as a whole, not only its birds. "We are interested in all aspects of the Camargue's ecology and conservation," said Dr. Hoffmann in his office at the station. "Birds figure so prominently in our work because birds are the most prominent aspect of life in the Camargue."

The yearly round of visits of migratory birds lasts for 5 months: from the beginning of June to the end of November. Species follow species, each exploiting its niche in the Camargue's abundant and varied resources before moving on. The vast numbers of birds which pass through the Camargue, staying for periods of a few days to a few months, make an immense impact on its ecosystem that, as yet, is barely understood by naturalists. With the coming of winter the most important bird community of all moves in: the many species of ducks that come from their breeding grounds in northern and central Europe to feed on plant seeds and rice that accumulate during the autumn in the dried out marshes—a food supply left untouched by preceding groups of birds. John Walmsley told me that as many as 200,000 waterfowl make the reserve and neighboring lagoons their winter home.

At present the Camargue can feed this vast, changing bird population throughout the year; its biological resources are rich indeed. But the pressures on the reserve from rice culture, other agriculture, tourism, and salt harvesting are beginning to show and must soon be reconciled with the demands of nature for the unique biology of the Camargue to survive. If this environment should disappear, the effects on the bird populations of a number of European countries would be drastic. "No species of the Camargue has yet been brought to extinction, but several have been drastically reduced in numbers," said Dr. Hoffmann.

A worrying problem for conservationists such as Dr. Hoffmann and M. de Caffarelli is that of too much fresh water. From April to September, rice culture pours great quantities of fresh water into Vaccarès, thus changing the salinity of the lagoon and its ecosystem. True, much of the fresh water from the rice paddies is pumped into the Rhône, but not yet enough. "Local farmers welcome fresh water from the rice culture," explained Dr. Hoffmann, "but they are mistaken. The salt table beneath the Camargue is the real source of salt from the farmers' point of view, not salt water coming in from the sea to fill Vaccarès. So this could be left, thus retaining the true ecological situation, and the salt water table could be drained in agricultural areas. In this way both farmers and conservationists can have what they need.

"Today we have the Camargue divided up for several purposes. Scientific research and nature conservation takes place in the reserve, in the Tour du Vallat estate, and in the Imperial and Malagroy lagoons which border the reserve. Agriculture is pursued mainly in the north. Salt is harvested in the southeast and southwest. But a considerable amount of land remains to be committed. If we wish to retain an environment that will continue to support the animals and, above all, the birds that now inhabit the Camargue, this land must not fall to modern agricultural and industrial development. But the economic value of land in the Camargue has become too great to expect it to be kept in a primitive state simply to satisfy the interests of scientists and naturalists. The conservation of the Camargue must therefore be to everyone's advantage.

"The French Government now has plans for a National Nature Reserve, to be developed under a combination of public and private ownership. The plan aims to reconcile all the demands on the Camargue, and there would be compensation to private ownership where conservation affects private industry. When this plan is realized, we shall have here a unique National Nature Reserve, and one of the most beautiful in Europe."

We went back to Arles that evening by the little road which skirts the great Vaccarès. The sun had just set. The Camargue was bathed in a copper glow. The lagoon lay motionless under a clear sky. We halted the car and got out to take some pictures. Only one thing disturbed us and the stillness of the evening scene—M. de Caffarelli's mosquitoes. ■

Once a biology teacher, Englishman Edward Ashpole left that career 10 years ago to become a science writer and newspaper columnist. To pursue his interest in national parks and wildlife reserves, Ashpole has traveled to several foreign countries in addition to France, including distant Australia.

NPCA at work

Protecting the Snake During mid-September the National Parks and Recreation Subcommittee of the Senate Committee on Interior and Insular Affairs held public hearings in Washington on a proposal by Senator Packwood (S. 717) to establish a Hells Canyon–Snake National River in Idaho, Oregon, and Washington. The national river, of three units (Seven Devils, Imnaha, and Snake), would protect a 120-mile reach of the middle Snake for public use along with some 750,000 acres of adjacent lands in watersheds of tributaries through a combination of land acquisition and scenic or conservation easements. It would also foreclose hydropower dams within its boundaries, other than those currently under construction. The national river would be administered by the Secretary of Agriculture.

Commenting for NPCA on the proposal, on invitation, Dr. Walter S. Boardman, Association consultant on conservation matters, termed it "an excellent bill, and one which has our full support." The proposed unit's combination of wilderness and high-use recreation areas within a region of outstanding natural attractions would, Dr. Boardman said, give visitors a chance to enjoy a vast out-of-doors country according to individual preference. He pointed out that the hydropower installations presently contemplated for the middle Snake would be immensely costly in terms of environmental damage and would include destruction of one of the world's deepest canyons among other scenic national assets. Alternative energy sources, including geothermal energy sources of the Northwest, should be thoroughly explored before further hydropower development is allowed to take place on the middle Snake, Dr. Boardman said, adding that NPCA also would like to see energy needs projected more realistically, with policies aimed at reducing rather than increasing consumer demand. Needed now, in view of the hydropower proposals, is the protection that could be afforded by a Hells Canyon–Snake National River.

Wilderness in refuges The Association recently was invited to express its views on wilderness evaluations or proposals for two East Coast wildlife refuges—the Martin in the Chesapeake Bay region of Maryland and the St. Marks on the Florida west coast, south of Tallahassee. In the Martin Refuge the Bureau of Sport Fisheries and Wildlife has been conducting a management program for the benefit of the osprey and black duck, and its wilderness evaluation for that unit has indicated that the program might be foreclosed by wilderness designation. Thus the Bureau has recommended against inclusion of Martin Refuge in the national wilderness system.

However, in testimony on the matter, NPCA has pointed out that the Wilderness Act seems to make provision for situations of this kind, and that necessary small structures for osprey nesting would not be inconsistent with the purposes of the Act. Wilderness status would, the Association said, offer protection from future development and ought to be sought for the refuge. The Association complimented the Bureau and its Division of Wildlife Refuges on their innovations and success in managing and protecting the osprey at the Martin Refuge, and pointed out that the presence of many of the big birds in the area would add greatly to the quality of a wilderness experience there.

For the St. Marks Refuge in Florida the Bureau has proposed a tract of 11,800 acres out of the refuge's 65,000 acres for wilderness classification. However, the Association recommended that two additional tracts totaling 1,350 acres be incorporated into the plan as a minimum target. With inclusion of the two tracts and possible inclusion of another of 1,500 acres, active management for waterfowl and timber could still go forward on more than 50,000 acres of the refuge, NPCA said. Comments on both the Martin and St. Marks refuges were offered for the Association by John W. Grandy IV, administrative assistant for wildlife.

Oregon Dunes hearing On October 19 the National Parks and Recreation Subcommittee of the House's Interior and Insular Affairs Committee held public hearings in Washington on creation of an Oregon Dunes National Recreation Area. On invitation, the Association presented its views on the bill (HR 8763), which would establish the recreation area on nearly 40 miles of Oregon shore and dunelands.

The Association's analysis of the measure concluded that its administrative provisions were sound and workable, and that the bill itself, like its counterpart in the Senate (on which NPCA testified on invitation a month earlier) was a strong one. The proposal would forbid mining in the recreation area but would allow timber harvesting and withdrawal of surface or groundwaters under safeguards which the Association felt would be sufficient to prevent adverse ecological effects on the unit. The Association said, however, that the measure needed a prohibitive section against use of off-road vehicles which, it pointed out, were capable of producing severe damage in delicate areas like the Oregon Dunes.

The bill provides for an Advisory Council for the Recreation Area, a feature endorsed by NPCA as having been effective in certain other units of the park system. The Association recommended early adoption of the Oregon Dunes measure in order to forestall commercial development, threat of which has hung over the area for a number of years past.

Back Bay Refuge During the past month the Association lent its support to protective plans of the Bureau of Sport Fisheries and Wildlife at Back Bay National Wildlife Refuge in southeastern Virginia, where for several years much damage has been done by beach-buggies and other off-road vehicles. The first national conservation organization to join local and state groups in defense of the refuge, NPCA, in a letter to C. Edward Carlson, regional director of the Bureau in Atlanta, commended the Bureau on its plan to ban beach-buggies and other motorized traffic in the refuge except for vehicles of refuge personnel and those of landowners beyond

refuge boundaries to the south, which would be subject to a permit system. Such a plan is supposed to be ready for the summer season of 1972.

In its letter to the regional director the Association insisted, however, that the Bureau's plan for a 1.3-mile blacktop road into the refuge for visitor and personnel use be reevaluated, saying that a hard-surfaced road would increase existing pressures for a major highway through the area and south along the Virginia shore into North Carolina. (Shore property developers, commercial interests, and local city governments have been pressing strongly for such a road for several years.) The letter said that while the Association recognized the right of the public to use and enjoy the refuge in ways compatible with its primary objectives, the private vehicle represented one of the least suitable means of public transportation in such a delicate area. Some better alternatives would be those developed over the years by the National Parks and Conservation Association, and outlined in two recent Association publications: *Preserving Wilderness in the National Parks* and *Toward an Environmental Policy.*

NPCA publication The second and most recent of the two volumes mentioned above, *Toward an Environmental Policy,* is now available from the Association at $5.95, postpaid, for the paperbound edition and $12.95 for the hard-cover volume. The book, of 197 pages in 8½" x 11" size, illustrated, contains, as its subtitle states, the policy and editorial comment of the Association over the years of its expanded program (1958 to 1971). The other volume, *Preserving Wilderness in Our National Parks,* may be purchased from the Association at $3.95 postpaid, paperbound, or $10.95 in hard cover. Both books contain a wealth of comment and planning that bears on situations like that presently found at Back Bay Wildlife Refuge in Virginia, where the private automobile is threatening the integrity of a national reservation.

Speaking engagements During September and October the President of the Association, A. W. Smith, filled several speaking engagements. On September 21 he was the opening speaker for the Environmental Education and Action section of an Environmental Study Series, undertaken jointly by the Audubon Naturalist Society of the Central Atlantic States and the Junoir League of Washington, D.C. The talk, under the title of "Challenge for Survival," was presented at the Society's headquarters in Chevy Chase, Maryland.

On the 12th of October Mr. Smith addressed the Conservation Committee of the Garden Club of America in New York City on the subject of the current environmental situation in relation to the operation of the profit motive, considering particularly such relationships in the activities of the large industrial and commercial corporations.

On October 16th, President Smith spoke to the Humane Society of the United States at Newport, Rhode Island, on the role of the humane movement in ecological concerns.

At the Seventh Annual Water Resources Conference, sponsored by the American Water Resources Association and held in Washington, D.C., October 26, Mr. Smith spoke on the topic "Ecological River Basin Management."

Salt marsh at Wellfleet When conservationists look at salt marshes nowadays, more often than not they are thinking in terms of preventing destruction by filling, paving, or pollution. In an unusual reversal of the pattern, however, they are currently urging re-creation of a salt marsh at Wellfleet, on Cape Cod in Massachusetts, a marsh which may one day lie mostly within Cape Cod National Seashore. Here a freshwater marsh was formed from a salty one many years ago by construction of a dike and road, the dike being equipped with a gate-valve that allowed fresh water to escape the marsh while preventing entrance of seawater at high tide.

Now the dike and road are crumbling with age and use, and the question for Wellfleet is whether to rebuild the dike with another gate-valve or put in a bridge and allow salt water to reclaim the marshland and control the nature of its plants and animals. Many people in Wellfleet and elsewhere have been arguing for the latter course. Since a substantial part of the marsh lies within authorized boundaries of the national seashore, NPCA recently has asked the National Park Service for its views on the effects such a change might have on its property. The Association has indicated its support for allowing the marsh to revert to its original condition—on the assumption of no adverse effect on the seashore—while at the same time noting that final resolution of the matter seems to lie in the hands of the people of Wellfleet.

Wildlife measures A trio of bills aimed at tightening and extending existing laws on bald and golden eagles, to accord protection to hawks and owls, and to amend the Endangered Species Act to include both rare and endangered species was considered in October public hearings by the House Subcommittee on Fisheries and Wildlife Conservation, Merchant Marine and Fisheries Committee. On invitation, the Association submitted its views on all three bills.

NPCA told the subcommittee that in its opinion the purposes of the bills were admirable. It made certain suggestions, however, as to how the bills might be strengthened and broadened in scope. For example, under present terms of the Endangered Species Act, the skins of some endangered subspecies of cats still may be imported into this country because they cannot be distinguished after preparation from those of nonendangered subspecies. The Association recommended that imports of both endangered and nonendangered subspecies be curtailed in cases where their products were not distinguishable.

In respect to the bill according further protection to hawks and owls NPCA recommended a broadening to include all birds of prey, pointing out that populations of birds like the Coopers and sharp-shinned hawks, peregrine falcon, osprey, and some others have been declining in recent years for a number of reasons—pesticides and other environmental contaminants, shooting, and habitat destruction. The Associa-

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A. Total no. copies (net pressrun)	57,166	58,000
B. Paid circulation		
1. Sales through dealers and carriers, street vendors, and sales	None	None
2. Mail subscriptions	52,166	51,464
C. Total paid circulation	52,166	51,464
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I certify that the statements made by me are correct and complete: *William Nolan*

tion felt that strong protection now might prevent some of these birds from occupying the list of endangered species at a later date.

The bill proposing increased penalties for eagle killing was strongly supported by the Association on the grounds that penalties now imposed seem not to have been sufficient to prevent violations of the kind recently reported from the West.

The Cannikin shot NPCA at Work for the November Magazine brought members up-to-date as of presstime for that issue on the course of legal events prior to the explosion of the Cannikin test shot on Amchitka Island in the Alaska Aleutians. Recapitulated briefly, seven conservation, environmental, and socially concerned organizations, including the National Parks & Conservation Association, had appealed a decision of District Court for the District of Columbia permitting the government, through the Atomic Energy Commission, to proceed with the test.

A U.S. Court of Appeals panel had remanded the case to District Court for further consideration, saying that the chances of conservationists and other plaintiffs to prove their arguments against the test had been foreclosed by District Court because the plaintiffs had been denied access to certain environmental impact reports of government agencies that could have been adverse to the test. The reports in question had been classified by the government as secret. Proper procedure under the National Environmental Policy Act, the appeals panel said, would include "setting forth the environmental factors involved."

During the course of the legal maneuvering that followed the remand, the President gave his approval to the test. Attorneys for the seven organizations finally were allowed to inspect most of the classified documents. The case was carried to the Supreme Court, which in a 4 to 3 decision declined to halt the blast. The Cannikin shot was then set off.

One could suppose that the Cannikin shot represented a defeat for the environmentalists and other parties involved. But at least one important conservation point had emerged from the complicated struggle.

The parties involved had made no pretense of competence to judge in affairs of national security; but they had contended that the Atomic Energy Commission, and by inference other governmental agencies, was not exempted from the provisions of the National Environmental Policy Act by the specialized or secret nature of its work. In this the Court of Appeals agreed. "In our view the claim of absolute immunity for documents, in possession of an executive department or agency, upon the bald assertion of its head, is not sound law," it said.

Tinicum Marsh The Association recently was invited to testify on the establishment of a Tinicum Marsh Environmental Center on a marshland in southeastern Pennsylvania.

The matter was the subject of a hearing in late October by the Subcommittee on Fisheries and Wildlife of the House Committee on Merchant Marine and Fisheries. The Association presented a statement endorsing the proposal, which embraces some 1,200 acres of marsh.

conservation news

COALITION CRITICIZES PREDATOR CONTROL PROGRAM

The Environmental Coalition for North America, a non-profit, public service conservation and environmental organization headquartered in Washington, D.C., recently has expressed deep concern over the predator control program of the Bureau of Sport Fisheries and Wildlife's Division of Wildlife Services.

In a letter to Secretary of the Interior Rogers C. B. Morton the Coalition has pointed out that the division's control program, currently under study by a Secretary's advisory commission, is responsible for the deaths of several hundreds of thousands of wild animals every year, including coyotes, bobcats, badgers, bears, foxes, opossums, skunks, raccoons, beavers, porcupines, and endangered species like mountain lions. Additionally, the letter said, the program kills hundreds of house pets and non-target species every year, radically alters natural predator-prey relationships, and poses significant hazards to human health and safety.

In its letter the Coalition was critical of assumptions that the predator control program is effectively controlling "predators" and that control is economically justified. It pointed out that as long ago as 1963 a commission appointed by the then Secretary of the Interior—the so-called Leopold Commission—had gone into the matter and had concluded that the predator control program bore little relation to genuine need and even less to the scientific principles of wildlife management. It urged the Secretary to declare a moratorium on the Division's predator control activities pending completion and evaluation of the current advisory committee study.

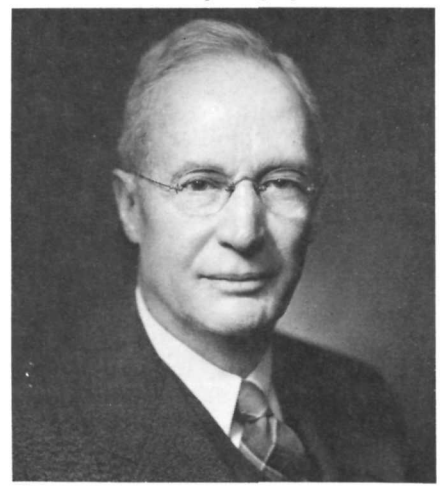
Chairman of the Environmental Coalition is A. W. Smith, president of the National Parks & Conservation Association.

DR. CHARLES G. WOODBURY

Dr. Charles G. Woodbury, for many years a trustee of the National Parks and Conservation Association and long-time member of the board's executive committee, died in Washington, D.C., during the latter part of September at the age of 87.

For many years Dr. Woodbury had been director of the bureau of raw products research for the National Canners Associa-

Dr. Charles G. Woodbury
a 1952 photograph



A CITIZEN'S VOICE IN GOVERNMENT

Organizations like the National Parks & Conservation Association, which enjoy special privileges of tax exemption, may not advocate or oppose legislation to any substantial extent.

Individual citizens of a democracy, however, enjoy the right and share the responsibility of participating in the legislative process. One of the ways citizens of a democracy can take part in their government at state and federal levels is by keeping in touch with their representatives in the legislature; by writing, telegraphing, or telephoning their views; by visiting and talking with their representatives in the national capital or in the home town between sessions. Every American has two senators and one congressman with whom he may keep contact in this manner.

The best source of information for such purposes is the official *Congressional Directory*, which can be bought through the Government Printing Office, Washington, D.C. 20402, at the price of $5.50. It tells you who your senators and congressmen are and lists the membership of the various Congressional committees. It also gives full information on the personnel of the various executive bureaus of the government whom one may contact about administrative programs and policies.

tion, from which position he retired in 1942.

Dr. Woodbury was born in Portland, Michigan, and was a graduate of Michigan State University with a master's degree from that institution and a doctoral degree in science from Purdue University. During the many years of his active interest in conservation and preservation he had also served on the Secretary of the Interior's Advisory Board on National Parks, Monuments, and Historic Sites. He was first elected to NPCA's Board of Trustees in 1938, and became a member of the board's executive committee in 1942.

APPLES OF YESTERYEAR

The Worcester County Horticultural Society, based at Worcester, Massachusetts, has for several years been operating an admirable program for preservation of old-time apple varieties, with emphasis on kinds that originated in New England or nearby states. The Society's preservation orchard, which already has more than a hundred apple varieties of earlier days, is located at North Grafton, but will relocate in 1973 to a tract at Old Sturbridge Village, widely known regional museum of early New England life.

The Society is still searching for several old-time apples, including the Danvers Sweet, Fall Orange, Haskell, Minster, Jacobs Sweet, Murphy, and Moores Sweet. NPCA members in the northeast who possess any of these varieties, or know where they may be located, could further the aim of this genetic preservation program by getting in touch with the Society at 30 Elm Street, Worcester, Massachusetts 01608. Mrs. Richard O. Gifford is the Society's secretary.

conservation docket

Every Congress considers thousands of bills related to environmental problems. We cannot list them all; therefore, below is a selection of those so far introduced in this Congress, together with their House of Representatives (HR) or Senate (S) numbers and the committee(s) to which each has been referred. Members, as citizens, are free to write to these committees to request that they be put on a list for notification when bills come up for public hearing. When notified of hearings, they can ask to testify or they can submit statements for the record. To obtain copies of bills, write to the House Documents Room, U.S. Capitol, Washington, D.C. 20515, or to the Senate Documents Room, U.S. Capitol, Washington, D.C. 20510. When requesting bills, enclose a self-addressed label.

National park, monument, historic site, or recreation area legislation recently intro-

duced and referred to House or Senate Interior and Insular Affairs committees, or otherwise acted upon, includes:

PARK: HR 7136, to establish existing Arches National Monument in Utah as Arches National Park; passed by the House and then vacated; S 30, a Senate-passed bill for the same purpose, passed in its place with amendments.

PARK: HR 7137, to revise the boundaries of Canyonlands National Park in Utah; passed by the House and then vacated, and an amended version of S 26, already passed by the Senate, passed in its place.

PARK: HR 8213, designating existing Capitol Reef National Monument in Utah as Capitol Reef National Park; vacated by the House, which then passed an amended version of S 29, a measure already passed by the Senate for the same purpose.

PARK: HR 11080, to provide for addition of certain lands to Redwood National Park in California; ordered reported favorably to the House by the Committee on Ways and Means.

HISTORIC SITE: HR 1126, to authorize the Secretary of the Interior to establish the George Washington Boyhood Home National Historic Site in Virginia.

HISTORIC SITE: S 2572, to authorize the Secretary of the Interior to enlarge the Jefferson Memorial National Historic Site.

HISTORIC MONUMENTS: S 1152, to facilitate the preservation of historic monuments; passed by Senate with amendments and cleared for House.

HISTORICAL PARK: HR 11260, introduced to authorize the Secretary of the Interior to acquire certain property for inclusion in the Independence National Historical Park in Philadelphia.

CAPITAL PARK: HR 11391, to authorize additional funds for land acquisition at Piscataway Park in Maryland, a unit of the National Capital Parks, across the Potomac River from Mount Vernon in Virginia.

SEASHORE: HR 11260, to authorize the Interior Secretary to conduct a study of certain islands in Massachusetts to determine if they should be incorporated into the Cape Cod National Seashore.

CEILINGS & BOUNDARIES: S 2650, to provide for increases in appropriation ceilings and boundary changes in certain units of the park system.

RECREATION AREA: HR 10874, to provide for establishment of an Upper Mississippi River National Recreation Area of up to 650,000 acres in Illinois, Iowa, Minnesota, Missouri, and Wisconsin.

RECREATION AREA: S. 1977, as amended, to establish an Oregon Dunes National Recreation Area on the coast of Oregon; ordered favorably reported by the Senate Interior and Insular Affairs Committee in executive session.

RECREATION AREA: S 2706, introduced to authorize a Stonewall National Recreation and Cultural Area in Colorado.

Measures recently introduced on fish and wildlife matters have been:

HORSES & BURROS: HR 9890, requiring protection, management, and control of wild free-roaming horses and burros on public lands; passed by the House and then vacated, and a bill already passed by the Senate, S 1116, passed with amendments. The Senate disagreed with the House on an amendment to S 1116 and requested a conference with the House.

ATLANTIC SALMON: HR 3304, as amended, to amend the Fisherman's Protective Act to conserve and protect the Atlantic salmon; passed House under suspension of rules.

WILDLIFE PROGRAMS: HR 9754, to establish wildlife, fish and game conservation and rehabilitation programs on various lands of federal agencies; approved by subcommittee for House full Committee on Merchant Marine and Fisheries.

Proposed legislation affecting the nation's rivers, shores, estuaries, and water resources generally recently introduced or acted upon has been:

COAST AND ESTUARY: S 582, to establish a national policy and develop a national program for management, beneficial use, protection, and development of the land and water resources of the nation's coastal and estuarine zones; ordered favorably reported by the Senate's Committee on Commerce.

WILD RIVER: HR 11153, introduced to amend the Wild and Scenic Rivers Act of 1968 by designating the Green River in Wyoming from its source in the Bridger National Forest downstream to the Fontenelle reservoir as a potential addition to the national wild rivers system.

WETLANDS: HR 11364, to authorize the Secretary of the Interior to classify and inventory wetland resources, to measure wetlands degradation, and to evaluate the environmental contribution of wetlands.

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NATIONAL PARKS & Conservation Magazine

The Environmental Journal **Volume 45, 1971**

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lations. This is not to suggest that organizations like the International Union for the Conservation of Nature should become primary evangels for population stabilization and reduction. But it is to say that in their protective work the population reference must always be made; for without population stability, and eventual reduction, the preservation of nature will be impossible.

A number of immediate issues have a certain priority in any long-range program of Parks for the World. Such a program should be the basic business of the Second World Conference. First of all, park systems and specific parks should look toward the maximum internal protection of natural areas, of the wilderness-area or scientific-reserve type. Region-wide recreational facilities should be provided in the surrounding country for visitation and enjoyment by the many people who will desire them in, hopefully, eventually, a reasonably affluent world. This is the regional planning approach which had been pioneered by NPCA. We advanced it as early as the First World Conference on National Parks a decade ago.

Secondly, the present early trend toward duplicative mechanical transportation facilities in the parks should be braked. In the United States the existing road systems in the parks will be adequate if used properly for mass transportation; they should not be duplicated by railways. In other countries, where road systems have not been elaborated, the situation may be different, but overdevelopment and mechanization, which violate the essential natural atmosphere, must be avoided.

The present shift of attention from natural-area parks to urban parks, which is taking place in the United States, carries danger for the urban resident himself; he needs the escape to wilderness. More parks are needed in the cities; yet this has been the function of the cities themselves; more federal financial aid should be provided. Whether the National Park Service should involve itself in the management of what are essentially local enterprises is questionable. The World Community will need both; as does the United States. A serious budgetary issue is involved in the United States; with our big parks in need of funds for enlargement, protection, and interpretation, should the money be diverted to projects which have always been the province of the states and the cities? No doubt it must be provided for both; but separate systems for finance and management may be preferable.

The balance between recreation and protection raises a perennial dilemma for park system planners. The National Parks must not become resorts; with all due respect to Grand Teton Lodge, they should not be convention centers. Also with due respect to the President's views in recent comments, they are not for mass occupation by camping trailers or otherwise. There are other places for such things. As the National Park idea develops and spreads throughout the world, the protective purpose should be kept foremost. The National Parks are for solitude, beauty, meditation, adventure, even for danger, but not for crowd entertainment or luxury living,

We trust that the Conference will mark the historic contribution made to the World Community by the International Union for the Conservation of Nature over its quarter-century of life. To men like its President, Dr. Harold J. Coolidge, and the Chairman of its International Commission on National Parks, Dr. Jean-Paul Harroy, to name but two in a distinguished galaxy, the world owes deep thanks. Additional supportive international institutions must now be built, beginning at the United Nations Conference on the Human Environment next year, to amplify the effect of their work.

The Environmental Conference, the UN Conference on the Law of the Sea the following year, and that on Population the year after are good signs of the times: of the rapidly emerging human interest and concern for the natural environment, and of the emergence of planetary institutional order.

The technology of transportation and communication which has knit the planet closer together in the past 500 years forces the creation of a genuine World Community, which must also be a Community of Life. There are many strands in this fabric of growth and efflorescence. The emergence of a World National Park System is one such strand.

The proposal for a World Heritage Trust is a vital aspect of that System; the elements of historic and cultural preservation which are part of that proposal are essential and inseparable. The Second World Conference on National Parks, granted a program of amplitude and imagination, can help to launch great new and creative currents in the world.

—Anthony Wayne Smith

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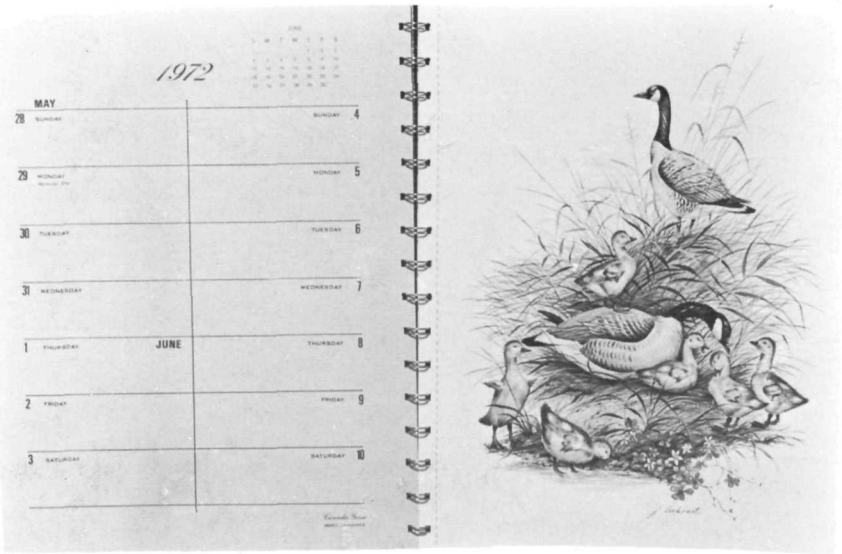

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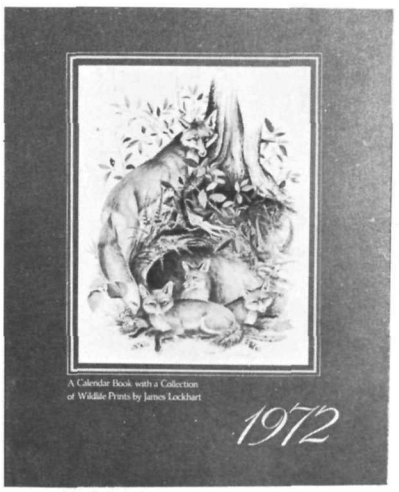

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