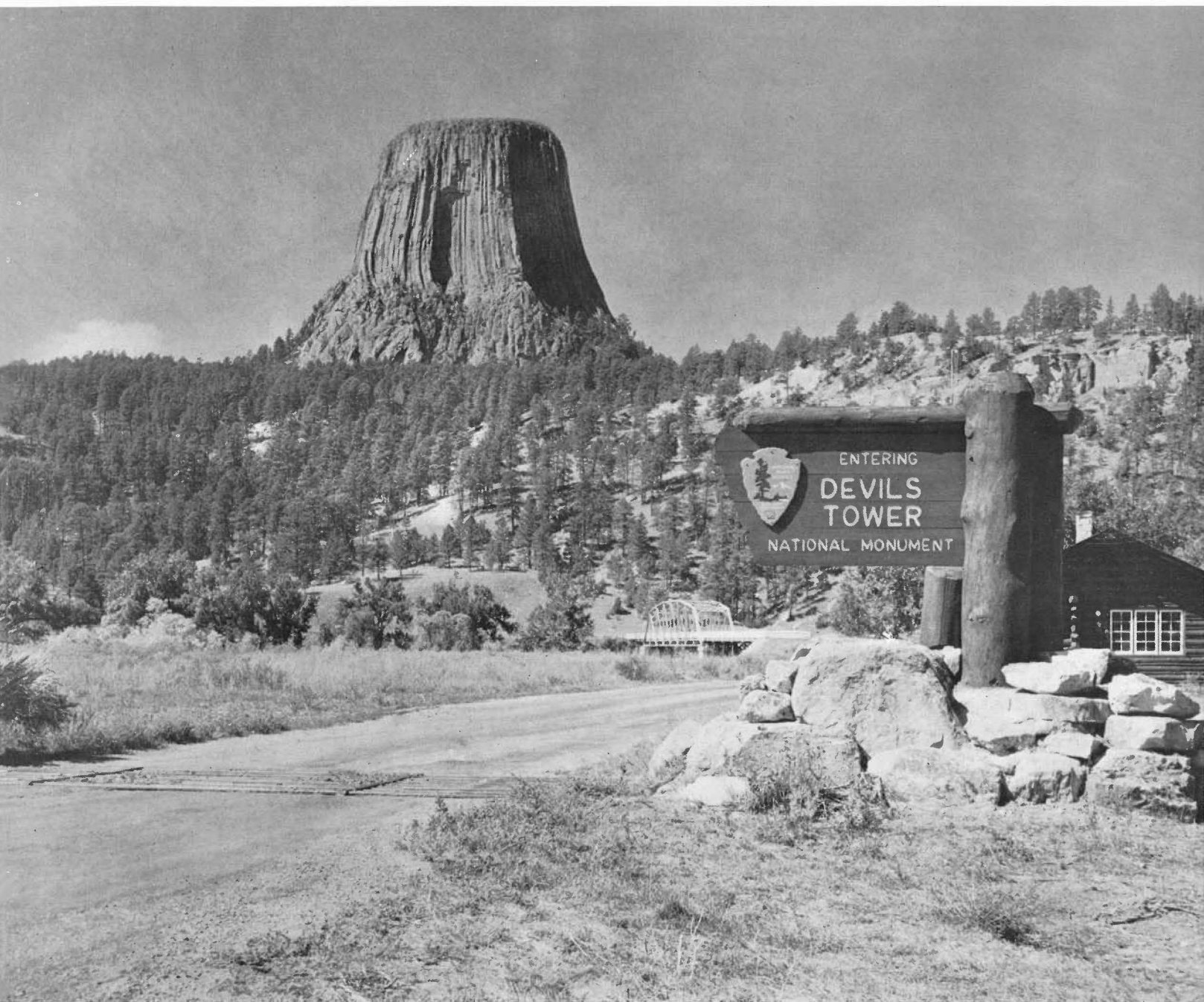


NATIONAL PARKS *Magazine*



The Devil's Tower: Wyoming

June 1961

The Editorial Page

Protection Comes First At Rainbow

WE ARE GRATEFUL to Interior Secretary Udall for including us in his reconnaissance trip to Rainbow Bridge. It is always best to look at these problems on the ground and talk personally with the people involved.

We learned that the canyons are lush and verdant in May, brilliant with flowers and with blossoming shrubs and cactuses, and fragrant as Eden. We were awed by the arched majesty of the ancient bridge itself. We came away firmly convinced that the Aztec Creek location—the so-called Site C—is the best place for protective works for Rainbow, as we intimated last month.

The best solution of all would be to lower the reservoir to the present monument boundary, making construction unnecessary, but if there must be construction, it had best be at the lowest location, Aztec Creek.

* * *

But we learned some other things, too. The magnetic and articulate commissioner of the Bureau of Reclamation, Floyd E. Dominy, made his position quite clear. He said to us that as far as he was concerned, Aztec Creek was "completely out;" they had considered it at the start and ruled it out three years ago; it would take three years to build because they would have to build a model first to see how it would work with water on both sides, and this would take a year.

The Commissioner said that it would be impossible to delay filling the reservoir of the \$325 million Glen Canyon Project for that length of time; that they will start filling the reservoir in the fall of 1962, and the water could submerge the Aztec Creek location early in 1963, less than two years from now. All this will be news to many people. We have the impression that none of it has been said before. It was worth a trip to Utah to find it out.

The Commissioner made every effort to give us a complete picture of the situation at the bridge and at the dam. Everyone got all around the dam and all the appurtenant works, inside, outside, under, over, above and below them by elevator, ladder, hoist and catwalk. This kind of full presentation makes for workable accommodations.

* * *

Last month we recommended a rapid reconsideration of the feasibility and cost of the construction of protective works on Aztec Creek. Such a study would ordi-

narily be done by the construction agency, the Bureau of Reclamation, but perhaps we may be pardoned for asking whether the Bureau is qualified to serve as the investigating agency in this case. No useful purpose would be served by an investigation by an agency firmly committed in advance against a favorable recommendation. A reappraisal by engineers directly responsible to the Secretary of the Interior might be preferable.

We still think an impartial and objective study should be made. There is reason to believe that it would show that construction in Aztec Creek can be expeditious and economical.

* * *

It is worth recalling in some detail that six years ago the giant Upper Colorado Storage Project was dead as the famous dodo. As originally presented, it contained the outrageous Echo Park Dam in Dinosaur Monument, which would have violated every principle of established national policy against dams and reservoirs in our parks and monuments.

The embattled conservationists had risen in wrath against the Dam, and test polls showed that the entire project would go down to ignominious defeat if pressed to a vote. Magnanimous in their victory, the conservationists declared that they would not stand in the way of the project if guarantees were written into the law against the invasion of the National Park System.

A public settlement accepting this proposal was in fact reached by all persons concerned: proponents and opponents of Echo Park Dam, and key members of Congress in both House and Senate. The Echo Park Dam was eliminated from the project.

One of the significant clauses inserted in the legislation pursuant to the Settlement was the Declaration of Intention, which says it is the intention of Congress

YOU CAN HELP PROTECT RAINBOW BRIDGE!

If you think Rainbow Bridge National Monument must be protected against the rising waters of the reservoir which will soon form behind Glen Canyon Dam on the Colorado River, you can help by writing to the Honorable Stewart L. Udall, Secretary of the Interior, Washington 25, D. C., and expressing your views.

that no dam or reservoir constructed pursuant to the Act shall be within any park or monument.

The other crucial clause is in the Mandate to the Secretary, which directs the Secretary of the Interior to take adequate protective measures to preclude impairment of Rainbow Bridge National Monument.

The Mandate merely implements the Declaration, which could well stand alone, and makes it clear that the Secretary is obliged to protect the monument against invasion by the waters of the reservoir, and that such invasion would be impairment.

These clauses merely re-state the established national policy for the protection of the entire National Park System as embodied in the National Parks Act and other basic legislation.

The real issue at Rainbow Bridge is not whether water in the monument would impair the bridge structure, or whether the water would impair the monument, except as invasion constitutes impairment, but whether the established national policy, confirmed by legislative act after act over the years, precluding dams and reservoirs in parks and monuments, is to be violated and ultimately abandoned, and protection for the National Park System as a whole is to be weakened and destroyed.

Congress could conceivably repudiate the Upper Colorado River Settlement by changing the law or by continuing to deny funds for protective works. But many Americans think that the good faith of Congress is involved in the pledges it wrote into the Act six years ago. They doubt that Congress will violate these pledges.

* * *

Unless a barrier dam can be built at the Aztec Creek location, conservationists in general will be unable to support the enlargement of Rainbow Bridge National Monument, whether as monument or park, because enlargement will preclude protection.

Protection at the Aztec Creek location is the only kind of protection compatible with enlargement. The area of the Aztec Creek dam, the pool above it, and the canyon below it could be excluded from an enlarged monument and left in the Glen Canyon Recreation Area. But the Bridge Creek barrier dam location just below the monument (the so-called Site B) and the diversion dam location just above the monument could not be excluded, and enlargement would make their construction impossible under the law.

To lower the reservoir permanently to
(Continued on page 16)

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Paul M. Tilden, Editor

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THE JUNE COVER PHOTOGRAPHS

Towering above the Belle Fourche River in northeastern Wyoming is the Devil's Tower, remnant of a basaltic mass intruded into the upper crust of the earth some fifty million years ago. Since then, erosion has removed the softer, upper rock layers to lay bare some 865 feet of the invading magma, the upper part of which exhibits the columnar structure often associated with the rapid cooling of basalt.

Front cover: National Park Service

Back-cover photograph: a bobcat resents camera and cameraman. Michigan Conservation Department

THE NATIONAL PARKS AND YOU

Few people realize that ever since the first national parks and monuments were established, various commercial interests have been trying to invade them for personal gain. The national parks and monuments were not intended for such purposes. They are established as inviolate nature sanctuaries to preserve permanently outstanding examples of the once primeval continent, with no marring of landscapes except for reasonable access by road and trail, and facilities for visitor comfort. The Association, since its founding in 1919, has worked to create an ever-growing informed public on this matter in defense of the parks.

The Board of Trustees urges you to help protect this magnificent national heritage by joining forces with the Association now. As a member you will be kept informed, through NATIONAL PARKS MAGAZINE, on current threats and other park matters.

Dues are \$5 annual, \$8 supporting, \$15 sustaining, \$25 contributing, \$150 life with no further dues, and \$1000 patron with no further dues. Contributions and bequests are also needed to help carry on this park protection work. Dues in excess of \$5 and contributions are deductible from your federal taxable income, and bequests are deductible for federal estate tax purposes. As an organization receiving such gifts, the Association is precluded by relevant laws and regulations from advocating or opposing legislation to any substantial extent; insofar as our authors may touch on legislation, they write as individuals. Send your check today, or write for further information, to National Parks Association, 1300 New Hampshire Ave., N.W., Washington 6, D.C.

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A gem of the California coastline is

Point Reyes: An Island in Time

By Anthony Netboy

THE SAN FRANCISCO BAY AREA, once regarded as the gem of California's landscape, and comparable in beauty to Italy's Bay of Naples, is rapidly filling up with people. Towns and sub-divisions, with their monotonous ranch houses and shopping centers, are proliferating, roads are being pushed out to the sea in all directions, and the lovely hills and mountains, green in winter and spring and brown in summer and autumn, are being levelled for building lots and twisting streets. Little by little the once-pastoral scene, where cattle grazed on the great Spanish *ranchos*, is vanishing. As civilization moves into the area the wheeling flocks of wildfowl diminish, the forests on the fog-bound coast are cut down, and the fields of wildflowers disappear.

Yet, at the southern tip of Marin County, about thirty miles north of the Golden Gate Bridge, there is a hundred-square-mile area where the landscape is almost untouched. Isolated from the bustling metropolis, Point Reyes Peninsula is an island in time, harboring perhaps fewer people than when Francis Drake beached the *Golden Hynde* on this lonely, wave-lashed coast in his circumnavigation of the globe in pursuit of Spanish galleons.

Point Reyes is one of several seashore areas proposed for inclusion in the national park system. The National Park Service first recommended consideration of the peninsula for a 53,000-acre national seashore recreation area in 1935. It borders, perhaps, upon the miraculous that the area, so

close to San Francisco, should still be virtually unknown. Today Point Reyes, while not yet inundated by development, is the objective of speculative builders, and its isolated grandeur cannot endure much longer. On February 11, 1961, the *San Francisco Chronicle* revealed that subdividers had invaded the heart of the peninsula, and had plotted half-acre lots overlooking the long, white beach along Drakes Bay. The subdivision plan shows a beach club, adjacent commercial development, and large beachside parking lots—but no public access.

To forestall further invasion of Point Reyes, Congressman Clem Miller and Senators Engle and Kuchel of California have introduced bills to establish the Point Reyes National Seashore. Based on a report prepared by the Na-



Aerial view of the Point Reyes coastline, at left, looks across Double Point toward the crest of Inverness Ridge, and reveals the progression of ecological types found near the southern end of Drakes Bay, from beach through grassland to brushland and forest. The photograph above illustrates the beaches and promontories typical of the Drakes Bay shoreline.

tional Park Service with funds appropriated by the 86th Congress, the proposed forty-five mile seashore would become a recreation area in every sense of the word for the people of Marin and surrounding counties.

Point Reyes, lying entirely in Marin County, offers multifaceted attractions for public recreation. Geologically, it reveals four distinct features: the long, straight depression occupied by Tomales Bay, Olema Valley, and Bolinas Lagoon that is the physiographical expression of the San Andreas fault, along which the 1906 San Francisco earthquake took place; the high country of Inverness Ridge; the rolling middle ground west of the ridge, and the promontory of Point Reyes itself.

Climate and topography have here created a classic type of California sea-

scape. A dense forest of Douglas fir, mingled with the rare Bishop pine and occasional fog-swathed redwoods, occupies the southerly end of Inverness Ridge. Mixed with the firs, or flanking them at lower levels, are groves of California laurel, madrone, tanbark oak, live oak, maple, and wax myrtle, and a profusion of shrubs—rhododendron, blue-blossom, honeysuckle, wild rose and huckleberry. Here the mountain beaver builds its colonies amid the thickets and tangles of fallen logs. Below the ridge crest, and bordering the forest, is an extensive belt of woodland interspersed with grasslands, habitat of deer, rabbits, quail and many kinds of song birds. The brush-covered slopes impart their special quality to the upland landscape, displaying thickets of chaparral and wind-swept plants on the

bluffs overlooking the open Pacific.

An extensive zone of grassy lowlands gives the peninsula the wide dimensions needed for public recreation. An array of wildflowers, dominated by lupine, decorates this area in spring wherever grazing has not been excessive.

The long, white, sandy beaches are held together by struggling dune plants, many of which produce a notable wildflower spectacle. Saltwater marshes, brackish lagoons, and fresh water ponds attract a great variety of waterfowl. Geese, pelicans, herons, an occasional swan, sandpipers, and cormorants feed among plants exposed by low tides, while sea lions and hair seals—sometimes joined by huge, lumbering elephant seals—cavort off the promontory of the proposed seashore.



All photographs courtesy of National Park Service

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At left: The dense grass and shrub vegetation of the lower valleys of Point Reyes gradually blends into open stands of timber on higher elevations. Below: A typical forest-and-meadow scene in the uplands of Inverness Ridge area.

»



The great sweep of curving shoreline and the lowlands and hills have a rich historical background. The Coast Miwok Indians built their settlements on the higher lands, and lived mainly off the abundant marine life. The 113 known aboriginal villages suggest a fairly heavy Indian population until the first white men—probably those of the Drake expedition—broke in upon it in 1579.

Drakes Bay then, as now, offered a fairly snug harbor, sheltered from northerly winds but exposed to southern storms. Here, in 1595, the Spanish explorer Sebastian Rodrigues Cermeño suffered the first recorded shipwreck in California waters when his vessel, the *San Augustin*, was blown ashore near the mouth of Drakes Estero. Seven years later, in 1602, the expedition of Sebastian Vizcaino, sailing north from Mexico, stopped briefly near Point Reyes and gave the anchorage its name. Captains and crews of the Spanish galleons of the sixteenth century on their voyage home to Mexico—not having seen land for six months—knew their position when they made this landfall.

Little is known concerning the peninsula during the two hundred years between the sixteenth and the nineteenth centuries; but in the early nineteenth century, Drakes Bay was familiar to American, British, Mexican and Russian traders, whalers and fur hunters. Scores of ships, lost in dense fog and

buffeted by the fierce storms, foundered off Point Reyes. Finally, in 1870, a lighthouse was built at the southern tip of the peninsula, flashing its lights to caution navigators along the coast.

Several large Mexican cattle ranches were established on the peninsula, and later it became famous for its dairy products—and still is today. Produce was transported from Drakes Estero and Tomales Bay to the San Francisco market in coastal schooners. A sawmill and settlement arose at Woodville in 1851; lime kilns and a quarry were established in 1852; the town of Bolinas, overlooking Duxbury Reef, originated in 1863; and a railroad came halfway down the northern coast to Olema in 1882. Other hamlets appeared in different parts of the peninsula, but popu-

lation on the whole remained sparse.

During the Prohibition Era this sequestered locality was a haven for smugglers and bootleggers, and in World War II artillery observation posts and beach patrols were established to defend San Francisco.

Most of the Olema-Bolinas Valley was controlled by the Mission San Rafael, in Mexican days. In the 1820's, most of the Indians were moved to San Rafael so that when the mission was secularized in 1834 the peninsula was vacant. Probably the first white family to move in was that of Rafael Garcia, a retired Mexican corporal. After the United States took control of California in 1846, the Mexican land grants were legalized; but the large *ranchos* changed hands often, and were

subdivided into smaller parcels by sales and inheritance. Today the peninsula is almost entirely privately owned, in tracts ranging from less than one acre to more than 4000 acres.

The proposed national seashore area is designed so as not to disturb the existing economy of the peninsula, and yet cater to the mass recreation for the myriad people of the counties bordering San Francisco Bay.

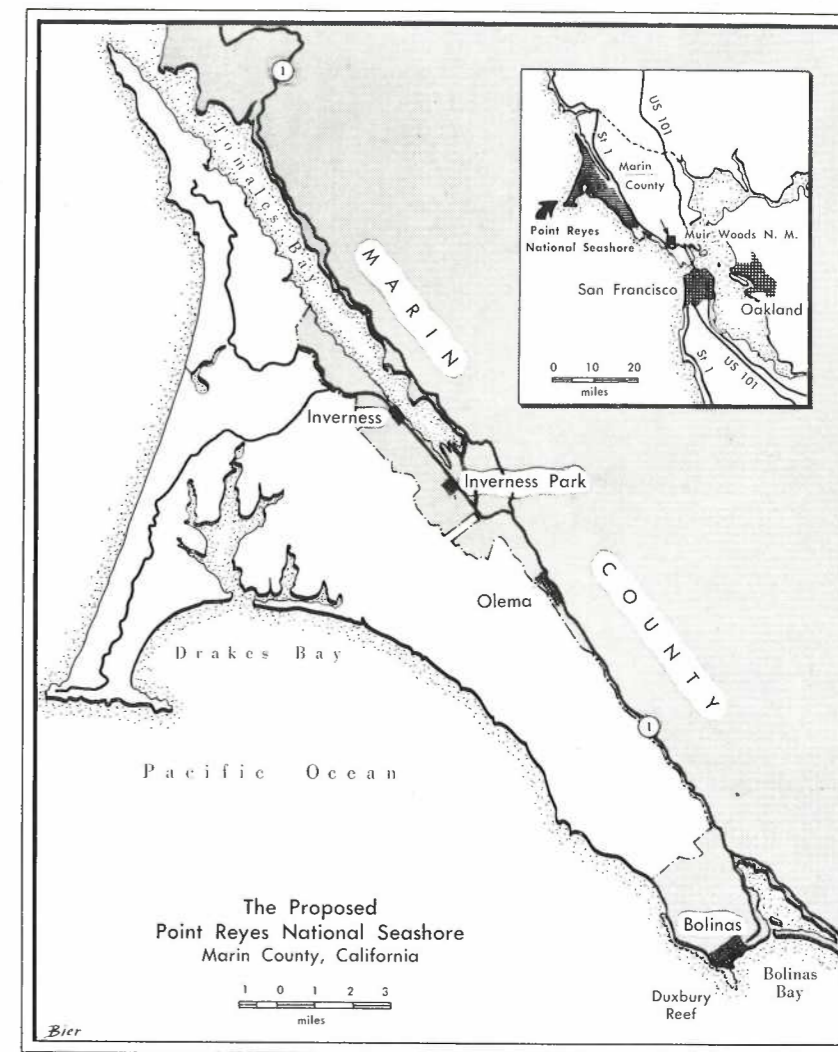
Point Reyes Peninsula comprises roughly 64,000 acres. Under the bills to establish seashore parks, introduced in the 87th Congress, 32,000 acres would be set aside as a public-use area, 21,000 acres as ranching or pastoral area, and about 11,000 acres for expansion of the established communities. Timber cutting, which started in 1958 on the southern part of Inverness Ridge—and which was halted by the California Department of Forestry in 1960—would not be permitted.

Park Boundary Lines

Boundary lines for the public-use area have been drawn so as to interfere as little as possible with the dairy ranches. The pastoral-zone lands would be leased back to the ranchers for continuance of that sort of land use. Point Reyes lighthouse and the Coast Guard station would remain, and commercial fishing would be permitted. Roads would be built to make the peninsula more accessible, including an extension of Highway 101, a coastal artery.

The seashore area would cater to recreational needs of the public without disturbing natural beauty. Access to the beaches, now curtailed, would be assured. Some twenty-five miles of horse- and hiking-trails are contemplated, including short stretches at numerous points along the coast. Beach developments would consist of a complex of facilities, centered largely at Drakes Bay and Tomales Bay. Picnic areas located along the seashore, on Inverness Ridge, and in the wooded canyons, would accommodate a total of about 2000 people at a time. About five hundred campground facilities are planned in three major centers—Inverness Ridge, Drakes Estero, and the Bolinas Club area. Nearby communities would be expected to improve their accommodations to care for the influx of visitors.

Riding stables could be developed on



Of the 64,000-odd acres that comprise the Point Reyes Peninsula, 53,000 acres would be incorporated into the proposed seashore area (unshaded, above). Balance of the peninsula—about 11,000 acres—would be earmarked for expansion of already-established communities.

the Bear Valley Ranch, utilizing existing barns and corrals that are near the entrance to the proposed seashore area. Facilities for pleasure boating would be confined to Tomales Bay and Point Reyes proper, near the Coast Guard station and commercial fishing docks. There would be opportunities for surf fishing from the beaches, deep-sea salmon trolling in Drakes Bay, abalone fishing on reefs of rocky shores, and clamming on the tidal flats. Parking would be provided at scenic overlooks.

Interpretive facilities, such as roadside and trailside exhibits and self-guiding nature trails, are also planned. The government would fence the boundary between the public-use and ranching areas. Concessioners would operate most public-use facilities.

Cost of the total development, as

published in the preliminary National Park Service land-use plan, will ultimately amount to \$7,230,000, to be financed by a combination of private, State, and federal interests.

Senator Engle, in introducing his Point Reyes bill earlier this year, told the Congress that: "Time is of the essence. The public decision on the future of this beautiful island in time cannot be postponed much longer; the peninsula soon will be developed in one way or another . . ."

"If we act sensibly and foresightedly now, while the opportunity remains, we shall have preserved for America and for California and for the people of Marin County a priceless heritage to be enjoyed many times over, not only by our generation, but also by those which follow." ■



The creamy white blossoms of the saguaro cactus—the State flower of Arizona—form huge clusters in May, and will give way to bright scarlet fruits later in the year. This cactus, a plant of the Lower Sonoran

life zone, is largely limited in this country to southern Arizona, being especially abundant in Saguaro National Monument, a few miles east of Tucson, where it forms a veritable forest of great, grotesque “fingers.”

Flower Photography in the Parks

By Natt N. Dodge

A LONG, FLASHY CONVERTIBLE CAME to a stop at the Desert View parking area in Grand Canyon National Park. Its driver picked up a Polaroid Land camera from the seat beside him, and strode over to the rim overlook, from which a superb view of the Grand Canyon stretched west to the dim horizon and north to the Vermilion and Echo Cliffs of northern Arizona. The man stood for a moment, overwhelmed by the magnificence of the scene; then, remembering the camera, he took a snapshot of the view, turned, and walked slowly back to the car, counting the seconds as he went. Opening the back of the camera, he removed the picture and handed it to the woman inside the car. The woman scanned it critically and nodded. “Oh, I guess that’s worth getting out to look at.”

Picture-taking has become a major activity among visitors to the national parks and monuments—but who ever heard of anyone using a camera to determine whether a view of the Grand Canyon is worth walking a few yards?

Although a great many park visitors take scenic pictures as permanent records of their trips, more and more are specializing on certain features which are especially well-presented in these preserves; historic houses, native wildlife, prehistoric petroglyphs, geological formations, or wildflowers, for some examples. Not only are such features—and all others—carefully protected in the national parks, but accurate information about them is available for the visitor who plans to use park photographs in classroom work, to illustrate talks, or merely to expand his own knowledge. Little wonder that the national park system has been called “the university of the out-of-doors.”

Because amateur photography is a

particularly desirable form of park use, National Park Service personnel are pleased to assist camera-equipped visitors with information as to where they may find the subjects they hope to photograph. Park rangers and naturalists also will suggest the times of the year and the times of day that are best suited to a particular goal in picture taking, and will give pointers that will help the camera enthusiast take home high-quality photographs. In wildflower photography, for example, such “assists” are of considerable importance. Many people look forward to their vacation as the high point of the year, and the satisfaction of using that time to secure good photographs to fill gaps in a collection of wildflower pictures is a major objective; its accomplishment a prime achievement.

Haven for Plant Life

Since all native vegetation is protected in the national parks and monuments, flowering trees, shrubs, and herbs are not subject to the destructive influences of mankind and his livestock. Their blossoms are available to the photographer in unimpaired beauty and in natural surroundings. Nevertheless, capturing wildflowers on film is not without its difficulties, whether on color film or black-and-white, with still or movie camera. Each has certain advantages and drawbacks; but there are problems common to all.

The first consideration of the wildflower photographer is timing; he must

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The foliage and seed-heads of a western anemone stand out in sharp detail against a cloudy sky in Mount Rainier National Park. Photographer may often find it possible to place the camera below flower to use sky as backdrop.





All photographs courtesy of National Park Service

At the left: Flowering in April, the "giant dagger" yucca is the Easter lily of Big Bend National Park, Texas. The human figure in the picture provides necessary size scale.

In the photograph below, the flowers and spines of a claret cup cactus stand out in relief against a shaded background. A colored cardboard sheet may also be useful as background.



of bloom. Although park personnel cannot forecast an exact date, their observations make estimates reasonably close; a letter to the park superintendent will usually bring a reply useful as a reasonably accurate guide in planning a park flower-photography trip.

Fortunately for the photo-enthusiast who is not in a position to select a vacation period, flowers are in bloom in one or more of the national parks and monuments nearly every month of the year. At Saguaro, Organ Pipe Cactus, Big Bend, and Carlsbad Caverns—all fairly close to the Mexican border—the early spring annuals sometimes put in their appearance by mid-February, with a series of colorful displays following one another through March and April. Some of the cactuses are at their best in May.

The Eastern Flowers

June is the flower month in a number of Eastern units of the national park system. Magnificent displays of rhododendrons, mountain laurel, azaleas, and flowering dogwood in spring-time attract myriad photo-minded visitors to Shenandoah and Great Smokies National Parks, and the Blue Ridge Parkway.

Midsummer, following the seasonal showers that usually begin in July, is blossom-time throughout the mesa and foothill country of the Rocky Mountain

region. During July, August, and September, in high mountain parks like Glacier, Olympic, Crater Lake, Lassen Volcanic, Yosemite, and Mount Rainier, a veritable floral parade, crowding close on the edges of the melting snowfields, marches up the slopes and across sub-alpine meadows to timberline. Even before late summer flowers have gone to seed, shrubs and trees don their autumn foliage finery and blaze a trail of gorgeous yellows, reds, oranges, and browns from the heather and huckleberry thickets of North Pacific coastal slopes through the scrub oak and quaking aspen woodlands of the Rockies, and east to the hardwood forests of New England.

Compared to the color film addict, the user of black-and-white is at a distinct disadvantage in capturing the beauty of mass wildflower displays. To meet this challenge, the black-and-white photographer needs an assortment of filters and a knowledge of how to use them to obtain contrast between flower color and foliage. To assure a clear-cut foreground and yet retain sharp focus in the distance, a steady support for the camera, small diaphragm opening, and reasonably long exposure are needed. The big "must" is that the flowers remain motionless during the time the shutter is open.

Whether attempting to record extensive flower fields, or to picture individual blossoms, the photographer will

find, if he is a still-camera user, that the wind is his chief adversary. Even on a fairly calm day there are usually enough vagrant breezes to stir movement among the blossoms, forcing the photographer to wait for a lull after "getting all set" to make an exposure. And, as likely as not, just as the breeze slackens and all is still, a wandering cloud will blot out the sun, requiring either a revised meter reading or another wait until the shadow has passed.

The practical answer to the double problem of wind and cloud shadows is to be afield early in the morning. From sunrise to about ten o'clock, sun and wind are usually at their cooperative best. Although cloud shadows plague the motion-picture cameraman, breezes are no drawback; in fact, they provide natural movement in the flower fields which is the stock-in-trade of the cinema. Another advantage of early-

morning photography is that fewer people are abroad, and the enthusiast will encounter less annoyance from "kibitzers" than later in the day.

Taking close-ups of individual flowering plants, or of single blossoms, requires camera equipment that will focus sharply on objects close to the lens. Here again, desirable depth of field—especially with color film—calls for a small diaphragm aperture and extended exposure. For photographing flowers in deep shade, or those that bloom only at night, a light source such as that provided by synchronized flash equipment or battery-operated floodlight is necessary.

For either black-and-white or color close-ups of flowers, a plain background that will contrast with the color or shade of blossoms and foliage is essential. Such a background may be obtained in several ways. One of the most effective—although sometimes difficult or impossible to obtain—is the sky. If the blossom is on a tree or shrub, or the plant grows atop a rock or on a ridge, the photographer may find it possible to place the camera below the subject, so that nothing but the sky is behind it.

If the flower is in bright sunlight, deep shade provides an excellent background. Although a flower with a suitably shaded background is a rarity, the cameraman will usually be able to cast a shadow himself; or he may ask a companion to stand in such a position that his shadow falls behind and beyond the subject, which remains in sunshine.

Expedition "Props"

Since most flowers are relatively small, it is often convenient to take one or more sufficiently large artificial backgrounds on a photographic expedition. A piece of stiff cardboard about three feet square makes an excellent background. Since the cardboard has two faces, it provides two background possibilities. One side should be white, the other dull (never glossy) black. For color pictures, the background cards may be blue, green, brown, gray, or tan. Bright colors like red, yellow,

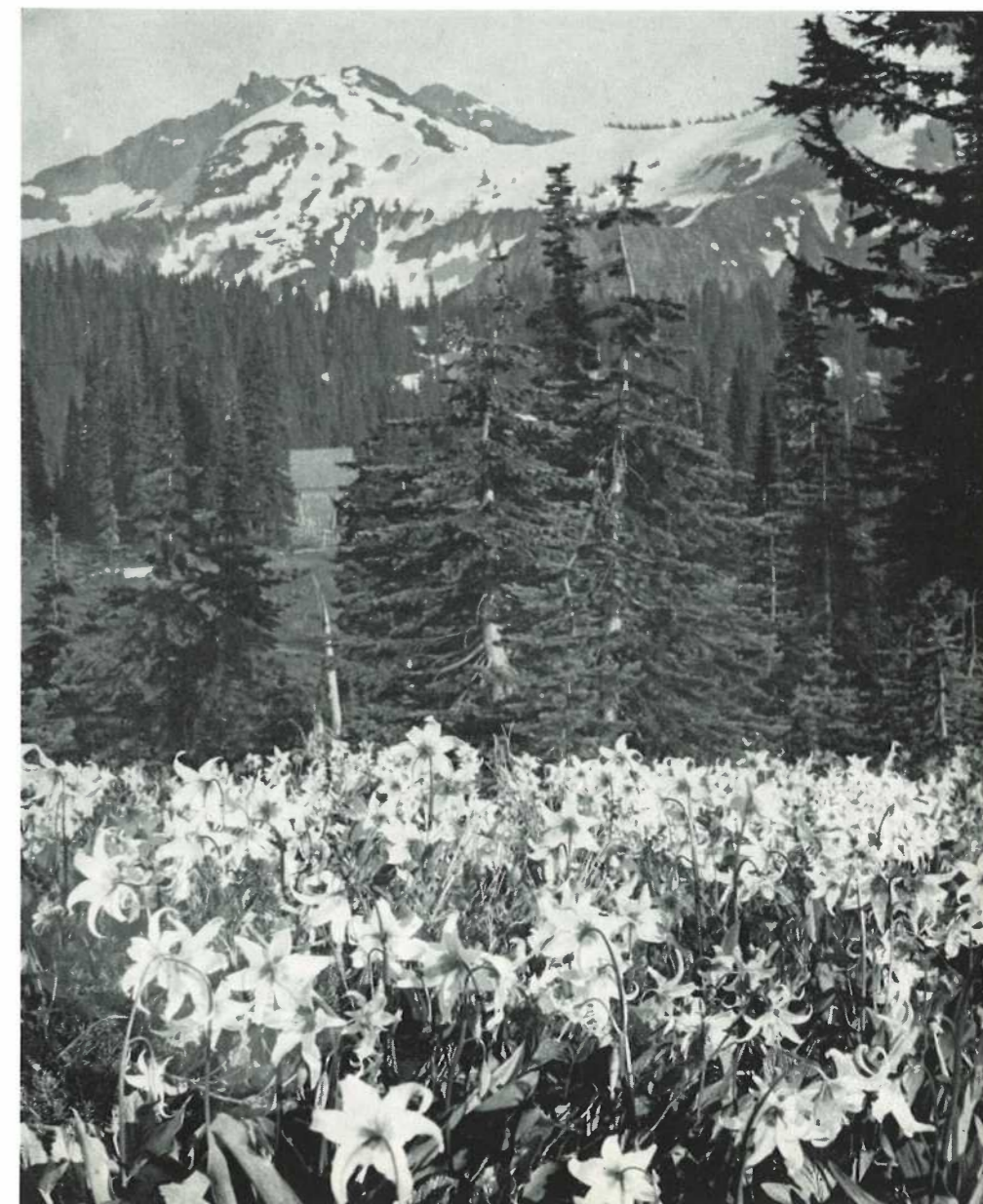
or purple appear unnatural on film, and usually detract from the effectiveness of the flower, whose details of form, texture, and color are greatly desirable in a close-up picture.

Other details, if present naturally, embellish a flower picture. These could be insects, a few drops of water on petals, or the rarely-recorded visit of a hummingbird. When appropriate, foliage, fruits, and other plant parts not only add to the "naturalness" of a flower composition, but are worthy photographic subjects in themselves.

The increasing popularity of wildflower photography has proved a boon to nature conservation. Twenty years ago the practice of picking and carrying home big bouquets of wildflowers was widespread throughout the country, and was the cause of occasional reprimands and sometimes disciplinary action by uniformed personnel in the

national parks and monuments. With the advent of wildflower photography, climaxed by the perfection of color film, park visitors found it possible and legally permissible to take home entire flower fields and still leave them intact.

Flower photographs never wilt, nor will time, seasonal changes, or inclement weather cause them to lose their freshness and sparkle. Fragrance cannot be captured on film, but the happy hours spent with a camera among acres of blossoms may be captured for the future. With every showing of the pictures, the hum of insects busy among the blooms, the calls of birds from the trees bordering a meadow, and the lingering perfume of a million blossoms return as mementos of a summer vacation with the camera among the wildflowers of our national parks and monuments. ■



A field of avalanche fawn lilies makes a fine foreground for picture taken in Mount Rainier National Park. The absence of wind and a small diaphragm opening made this picture possible.

THE ELEPHANT SEAL

BY FRANK G. ASHBROOK

THE WORLD IS FAMILIAR WITH THE great noses of famous people—noses like those of Cleopatra, Cyrano de Bergerac, or even one of our moderns, Jimmy Durante, who capitalized on his generous nozzle as a comic means for ascent to popularity.

Paralleling these notable noses in the lesser animal kingdom is that of the elephant seal, a marine mammal most aptly named because of its conspicuously enlarged proboscis, or trunk, and its elephantine body. When the male makes a great to-do with his trunk, it is not for comedy, however; it is purely for "bluff" and protection. The exclusive function of this phenomenal "schozzola" is its participation in the distinctive vocalization that precedes most combats between males—a noise that is often so effective that a fight is unnecessary. Such a formalized display is simply the "big act" that serves as a substitute for force and combat.

Usually the great snout hangs limply over the bull seal's muzzle, and almost falls into his mouth when he yawns or barks. But when the "old boy" becomes excited, he puts his nose out of joint and really "blows up a storm." The female elephant seal has only an ordinary snout, so she must express her emotions in a less spectacular manner. As a group, however, the elephant seals are a noisy lot, snoring, sneezing, coughing, grunting, sighing and yawning.

Because of scarcity, limited distribution, and relatively inaccessible hauling grounds, the northern elephant seal—despite its tremendous size and past economic importance—remains one of the least known of the large North American mammals. The huge bulk and grotesque head of the bull makes him appear like a creature from another

world. This impression is heightened by the animal's remarkable indifference to the presence of man—an indifference that contributed to its virtual extinction during the nineteenth century.

The elephant seal, largest of all seals, is known to scientists as *Mirounga angustirostris*. Males may grow as long as fifteen feet and weigh to more than four thousand pounds. The southern species, living in the Antarctic, is larger, ranging up to more than sixteen feet long and weighing up to five thousand pounds. Females are much smaller, eight to ten feet long, and of about one-third the weight of the male.

Like all other "true" or earless seals, the hind flippers of the elephant seal turn backward. They are of little use on land, but serve very well in the sea as propellers, while the front flippers are held against the mammal's sides. The sea elephant is a powerful, graceful swimmer, and can dive deeply in search of food. This seal can stop while swimming, stand upright in the water, and look all around, using its front flippers to balance itself. It can also float with only its eyes and nostrils showing—or it can rest on its back with head and hind flippers out of the water.

In the daytime, the seals laboriously worm their huge dark yellowish-brown hulks onto the sandy beaches in groups, to rest by the edge of the sea. The hot sun seems to annoy them, as does the buzzing of the flies that are plentiful about them. To abate the fly nuisance,

Mr. Ashbrook, recently retired with high honor from the Department of Interior's Fish and Wildlife Service, is a resident of Riverside, California. He is author of several books and numerous articles.

the seal tosses sand on its back with its flippers, or proceeds to a shore cave where it can fall asleep.

During the spring and summer, elephant seals have a ragged and moth-eaten appearance, for when they molt they shed not only hair but also the superficial layers of skin. The hauling grounds are littered with scraps of shed skin with hair still attached, and the molting process gives the animals a piebald appearance.

Slow-swimming fish are the chief diet of the elephant seal, with an occasional mouthful of seaweed. The animal's ability to dive is shown by some of the food items to be found in its stomach; some of the animal contents live in not less than three thousand feet of water, while some live as deep as seven thousand feet.

Elephant Seal Habitat

Formerly, the rookeries of the elephant seal were spread along the Pacific Coast of North America from Magdalena Bay, in Baja California, to San Francisco Bay; but during the last part of the nineteenth century, unrestricted commercial hunting for blubber had wiped out all the known colonies. In 1892—some years after the presumed extinction of the species—C. H. Townsend discovered a single small herd on Guadalupe Island, an oceanic island lying about 120 miles off the coast of northern Baja California.

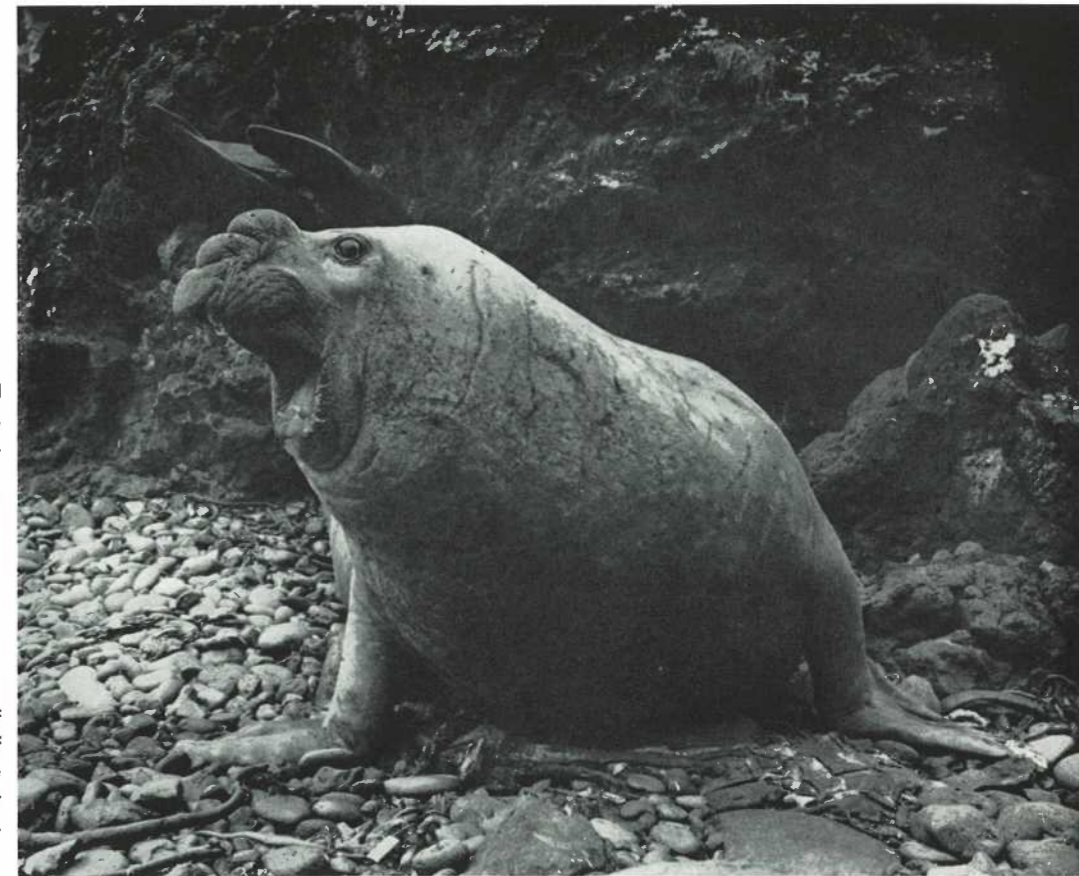
This rock bastion is about two hundred miles south-southeast of Ensenada, Mexico. A picturesque paved road extends along the eighty-six miles between the rugged hills and white beaches from Tijuana to Ensenada. There is no regular boat service to Guadalupe Island, but arrangements can be made in Ensenada to go by

When "sounding off," the bull elephant seal braces himself with the front flippers, and, with mouth wide open, inflates the proboscis.

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Strikingly illustrated in this photograph of a bull elephant seal, taken on the Island of Guadalupe, off the Mexican coast, is the size of the mammal's proboscis. The outside snout usually hangs limply over the bull's muzzle.

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Official Coast Guard photograph



private boat to see the seals. If one wishes to go fishing and also see the seals, he may embark on a small craft leaving San Pedro, Long Beach (Pierpont Landing), or at San Diego, in California. These ships go to the east side of Guadalupe Island, docking at the northeast anchorage, where the elephant seals haul out. It is only a matter of minutes to get near them just outside the breakers—which, incidentally, is practically on the beach.

For the greater part of the year, a herd of elephant seals forms a placid, social group. Fighting is but half-hearted. In breeding season, however—from December to March—the males become extremely belligerent. Bloody combats develop, and vigorous competition ensues for favoritism and position among the females.

When ready to "sound off," the bull seal braces himself with the front flippers, elevates his muzzle, and with mouth open inflates his proboscis. This action produces a long, sonorous snort, which develops into a series of explosive puffs.

Dr. George A. Bartholomew, of the University of California, has studied elephant seals in their natural habitat for many years; he says that this objective bellowing is possible because the curvature of the proboscis directs the "snort" downward into the open mouth. The reverberations transform the snort into a resonant snore, which is clearly audible at half a mile.

The effectiveness of a challenge by a

harem bull in repulsing the approaches of other males attracted by his "wives" is unbelievable. Such a blast from a dominant male often drives away ambitious males as effectively as actual physical combat; but the grandiose bluff is not foolproof, for some contestants prefer to fight rather than run. When the sonorous challenge strikes the ears of a really aggressive male, the dominant one has "nosed" his way into a fight.

Bulls Join Battle

The bulls stalk toward each other like Chinese heavyweight wrestlers, moving about cautiously and sparring for advantageous position. Their thick, bullish necks are raised, their heads pointed skyward, their chests almost in contact. The proboscises are drawn back on their foreheads to prevent injury. The huge mammals sway from side to side, making lightning-like passes at each other with open mouths, trying to sink their teeth into the neck and shoulders of the opponent. One bull



In the above view, a bull elephant seal sounds a challenge to other males, with proboscis inflated and extending partly into the animal's mouth. Noticeable in the photograph is the heavy shield of thick skin on the male's neck and shoulders.

will lunge downward and forward, making a fierce grab at his opponent's neck or shoulder. If he sinks his long, strong canines deep into the flesh, he begins a series of violent lateral shakes, like a dog shaking a rat. These movements are so powerful that they may toss the massive forequarters of the other animal from side to side. When the attacking bull loosens his grip, they break, and both assume their elevated, threatening posture and again bellow fiercely. Sometimes both animals lunge, grab, and shake simultaneously, or one may lunge so rapidly and repeatedly that it keeps the other off balance, forcing it to give ground. Even when an animal is being thrashed and shaken so severely that it is forced to rapid retreat, it makes every effort to remain oriented, so that only its neck, chest and shoulders—which are covered with a shield of thick, naked hide—are accessible to its opponent.

Except for occasional punctured eyes, the wounds inflicted are usually superficial. Sometimes, however, one sees a badly-battered bull with a patch of skin and blubber more than a foot long torn from its back, or a bull with a lacerated or torn proboscis. These fierce encounters seldom last long, for the fight ends as soon as the defeated animal can pull free and retreat. A harem master is reluctant to leave the territory where his wives are located.

Life Pattern Obscure

Not much is known of this seal's reproductive life. Breeding occurs in December through March. Cows haul out on a beach away from where the bellowing dominant bulls are stationed, and give birth to dusky, black pups, about four feet long. Two weeks later, the cows breed again. The mating usually takes place on land. Cows nursing pups are often accompanied

by yearlings, which indicate a long association with the mothers.

It is a splendid thing to see the stout matron seals in groups, lying upon their sides, each one's newborn pup beside her. The bulls, not content with a single female, keep bellowing for a harem as large as their fighting skill can manage.

With the cessation of commercial hunting, the species began a recovery, and with the extended protection of the Mexican Government its numbers have increased prodigiously during the last two decades. Today, there are more than 10,000 elephant seals, and if protection from man's predation continues to be afforded, the species may again become common among California's fauna; they may be seen once again swimming along the coast as far north as Point Reyes, immediately north of San Francisco, the known northern limit of their range. ■

Your National Parks Association at Work

NPA Expresses Views On Three Park Bills

During the past April, the Subcommittee on Public Lands of the Senate Committee on Interior and Insular Affairs held hearings in Washington, D.C., to take testimony on several Senate bills to bring additional areas into the national park system.

Under consideration were the bills of Senators Engle and Kuchel, S. 476, to create a Point Reyes National Seashore; Senator Yarborough's S. 4, to create a Padre Island National Seashore; and Senator Beall's S. 77, to create a Chesapeake and Ohio National Historical Park. Testifying at the three hearings for the National Parks Association, in each instance upon invitation of Senator Clinton Anderson, chairman of the Committee on Interior and Insular Affairs, was Executive Secretary Anthony Wayne Smith.

In respect to the Engle-Kuchel bill for establishment of Point Reyes Seashore, Secretary Smith pointed out that the peninsula under consideration, while close to a great city area, is still in a relatively unspoiled condition despite the spread of urban congestion around the San Francisco Bay area, and that the combination of dairy country and wild natural shoreland found at Point Reyes is well worthy of preservation.

Concerning the establishment of a Padre Island National Seashore on the Texas coast, Mr. Smith said that the Association had carefully examined the qualifications of the proposed area, and had found it to be of national significance and of a quality suitable for inclusion in the park system. [A general article on Padre Island is to be found in *National Parks Magazine* for May, 1960.] The Secretary recommended extension of the seaward boundary to a point two miles from shore, and the inclusion of the entire Laguna Madre, on the west side of the Seashore. He emphasized the importance of incorporating the full limit of Padre Island between existing State or county parks at each end of the Seashore.

Regarding the C & O National Historical Park proposal, Mr. Smith said that the Association had had ample opportunity to analyze its merits, felt the bill was a good one, and the area of a caliber justifying historical park status. He pointed out the desirability of certain amendments to provide for incorporation of additional land into the park.

Director Wirth and Secretary Smith in Further Exchange on Parks Wildlife Management

MR. ANTHONY WAYNE SMITH
EXECUTIVE SECRETARY, NATIONAL PARKS ASSOCIATION
WASHINGTON, D.C.

April 21, 1961

Dear Mr. Smith:

I appreciate having your forthright views, and your appraisal of the attitudes of some of the leaders of the Association, about wildlife conditions in the National Parks, set forth in your letter of March 29. [*National Parks Magazine* for May, 1961.]

In studying this matter, we have sought the advice and suggestions of a great many responsible conservationists and leading scientists. I think you would be interested in the comments we have received, and I shall send you excerpts from them as soon as they can be prepared. Most of them reflect a very considered analysis of the problem, and a genuine concern. While there are a few extreme views, the general tenor is that whatever methods are required to bring the endangered life communities into balance are justified, that such methods must be based upon adequate and continuous scientific appraisal of each situation, and, if public participation in control measures is required in certain areas, that program must be directed and controlled under procedures established by the Secretary of the Interior. If such methods are found necessary, the control program should be coordinated with complementary management programs in bordering areas. However, the National Park Service cannot abdicate its right and duty to control that part of the program that takes place within the areas under its jurisdiction.

We have honestly asked for help and advice, and we are getting it. You may be sure that we will try to keep your organization informed on the subject.

Sincerely yours,
CONRAD L. WIRTH, Director,
National Park Service

MR. CONRAD L. WIRTH
DIRECTOR, NATIONAL PARK SERVICE
WASHINGTON, D.C.

April 25, 1961

Dear Mr. Wirth:

Thank you for your letter of April 21st about wildlife in the parks. We will be happy to receive excerpts from the comments on this question at your convenience; many of your correspondents sent us copies.

Perhaps our exchange of letters has made it a little more clear what both parties to the discussion mean by various terms, and it would be pointless to labor definitions again. With that thought in mind, I must nonetheless express definite dissent by this Association from any conclusion "that whatever methods are required to bring the endangered life communities into balance are justified."

This comment suggests that hunting by the public pursuant to presently customary nominal licensing, State laws and regulations, and authority delegated to State game commissions to enforce such laws and regulations would be justified if deemed to be "required."

The statement is not sufficiently qualified from our point of view by the further comment that the Service cannot abdicate its right to control its management programs, because control could conceivably be exercised in the manner just suggested, pursuant to cooperative agreements with State commissions.

The only method of habitat preservation and wildlife population control which in our judgment would be permissible in the parks and monuments which have full national park quality, would be control through the paid staff of the Service, and where absolutely necessary, with the assistance of highly qualified deputies.

This Association would vigorously oppose any other approach to the problem than the latter, by whatever proper methods it might deem feasible, and it would expect to have the support of the entire conservation movement.

I thought I should restate our position in this matter clearly and concisely, because your recent letter suggests that we may still have misunderstood one another.

I would like to reiterate that comments I have received from Trustees of the Association definitely indicate that the Service can look forward to the full support of the Association in necessary habitat protection by Service personnel, aided if needed by qualified deputies.

Cordially yours,
ANTHONY WAYNE SMITH, Executive Secretary,
National Parks Association

Conservation News Briefs

Rainbow Bridge Monument Studied for Possible Enlargement

During the latter part of April, Secretary of the Interior Stewart L. Udall, accompanied by a group of the nation's leading conservationists and a delegation of Senate and House Interior and Insular Affairs committeemen, flew into the Rainbow Bridge National Monument area of southern Utah by helicopter from Page, Arizona, as an inspection team to determine whether or not the monument should be expanded and possibly designated as a national park.

Present also on the study tour were representatives of the Navajo Indian Tribe, owner of the land that would be incorporated into such an enlarged preservation, and with which a land exchange would be necessary. Previous to the reconnaissance trip, Secretary Udall had announced that a National Park Service regional survey team, which included members of the Navajo Tribal Council, had outlined three boundary proposals for the area, containing 140,288 acres, 274,384 acres, and 496,640 acres respectively.

Representing the National Parks Association on the Secretary's tour of inspection was Executive Secretary Anthony Wayne Smith. Among others invited by the Secretary were: Laurance S. Rockefeller, chairman of the President's Outdoor Resources and Recreation Committee; four members of the National Parks Advisory Board, Frank E. Masland, Jr., of Carlisle, Pennsylvania, John Oakes, associate editor of the *New York Times*, Dr. Edward Danson, of the Museum of Northern Arizona, Flagstaff, and Sigurd F. Olson, of Ely, Minnesota; Associate Justice of the Supreme Court William O. Douglas; David Brower, of the Sierra Club, San Francisco; Weldon F. Heald, of Tucson, Arizona; Floyd E. Dominy, commissioner of the Bureau of Reclamation; Paul Jones, chairman of the Navajo Tribe, Window Rock, Arizona; and a delegation from the Congressional Interior and Insular Affairs Committees.

[Editorial comment on the possible enlargement of Rainbow Bridge National Monument and its effects on protection for the Bridge from encroachment by waters of Lake Powell, to form behind the Glen Canyon Dam, will be found on page 2 of *National Parks Magazine* for May, 1961.]

Conservation Society Meets

The sixteenth annual meeting of the Soil Conservation Society of America, national organization for the advancement of the science and art of good land use, with headquarters in Des Moines, Iowa, will take place at Purdue University, West Lafayette, Indiana, from July 30th to August 2nd.

It is expected that more than 1500 professional conservationists will attend the 1961 meeting, which will include a number of "sections of interest" meetings, to run concurrently, at which short presentations by outstanding authorities will be made on one topic, followed by audience discussion.

The organization, which publishes the bimonthly *Journal of Soil and Water Conservation*, has announced that all persons having an interest in conservation are welcome at Society meetings. Headquarters address is: 838 - 5th Avenue, Des Moines 14, Iowa.

Protection Comes First At Rainbow

(Continued from page 2)

present monument boundary would be difficult enough. To lower it permanently to substantially below present boundary

DATES and PLACES

June 12-July 14 Walla Walla College Biological Station Summer Session, Anacortes, Washington. Write to the Biology Dept., Walla Walla College, College Place, Washington.

June 14-16 American Shore and Beach Preservation Association Annual Meeting, Sea Scape Motel, Ocean City, Maryland.

June 15-19 3rd Annual Mountain Leadership Workshop, Pinkham Notch Camp, White Mountain National Forest, Gorham, New Hampshire. Write to Appalachian Mt. Club, 5 Joy St., Boston, Massachusetts.

June 18-July 22 2nd Ohio Workshop on School Camping and Outdoor Education, Antioch Outdoor Education Center, Yellow Springs, Ohio. Write to Jean R. Sanford, Director.

July 17-August 18 Walla Walla College Second Summer Session, see first item above.

July 30-August 2 16th Annual Meeting, Soil Conservation Society of America, Purdue University, West Lafayette, Indiana.

elevation would be impossible. Thus, enlargement would also preclude protection by lowering the reservoir.

* * *

This Association is firmly committed to the protection of Rainbow Bridge National Monument as required by law. We would be satisfied with any one of the three conceivable methods: lowering the reservoir; construction of protective works on Bridge Creek, or construction on Aztec Creek. But protection by one or another of these three methods will be essential unless a repudiation of the Upper Colorado Settlement is contemplated.

We caution the Secretary of the Interior against proposals for the enlargement of the monument unless indissolubly coupled with protection on Aztec Creek, because they might have the unintended effect of saddling him with responsibility in the minds of some people for triggering repudiation.

The only way to couple enlargement indissolubly with protection on Aztec Creek is to defer any definite proposals or commitments for enlargement until appropriations have been obtained for construction on Aztec Creek; if such appropriations are not provided, the plan for enlargement should be dropped.

* * *

We agree with the Secretary that the canyons in Rainbow Bridge country are incredibly beautiful this May. We are happy that he sees and appreciates this beauty, and we want to do everything we can to help him protect country like this.

Such beauty should not be destroyed by roads or reservoirs. If construction at the Bridge Creek location becomes necessary, however, and if a road must be built up the canyons for that purpose, then built it must be; in due course it will be submerged beneath the reservoir. If no protection is afforded, the reservoir will destroy the canyons in anything like their present semblance; at best, a tangled mat of water-tolerant tamarisk may take over in the zone of fluctuation; the principle of non-encroachment on the parks and monuments will have been violated.

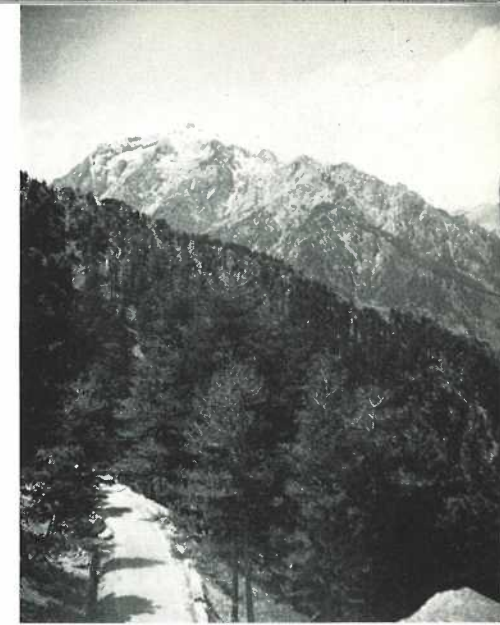
If protection is not provided at Aztec Creek or by lowering the reservoir, the last chance for protection is at the Bridge Creek location.

The only way to save the canyons outside the present monument is to build at the Aztec Creek location.

The only way to protect the monument and also to enlarge it is to build at Aztec Creek.—A.W.S.



Among the half-dozen areas under consideration as sites for French national parks is that of the Vanoise, in the Savoie Alps, above.



Proposed Corsican National Park, in which view above was taken, would preserve much of interior of Corsica, in the Mediterranean.

Six Areas Studied As Future French National Parks

Photographs by G.-H. Lestel

LESS THAN A year ago—on July 22, 1960, to be exact—the French Parliament voted into law an act authorizing the establishment of national parks in that country. Under the new law, certain areas may be set aside as national parks when their flora, fauna, waters, or other features seem of such interest or beauty as to warrant their protection in a natural condition.

The law provides that human activities likely to "hinder the development of the fauna or flora or . . . alter the character of the national park" may be forbidden upon special ruling. Such activities would include hunting, fishing, industrial or commercial exploitation, advertising, mining, and water-use for power purposes.

Decrees establishing individual parks will be issued as agreements and adjustments are made with the inhabitants of the concerned areas. The process of park-creation in a nation which has supported a civilized population since time immemorial, and in which there is no truly "virgin" territory, will require long study, much as have several of the proposed national seashore areas in the United States. According to Mr. G.-H. Lestel, Inspector General of Sites and Landscapes in France (to whom *National Parks Magazine* is indebted for the information appearing on this page), public reaction to the possible national parks is generally favorable. Indeed, the town of Cauterets, in the French Pyrenees, requested the creation of a park within its territory even before the law was passed.

Under study at the time the national park law was passed were six areas of

great scientific, scenic, cultural, or social interest, widely scattered about France, and each possessing its own natural characteristics.

The first of the areas under consideration, and the one in which study is now farthest advanced, is the National Park of the Vanoise, in the Alps of Savoy where the Isère and Arc Rivers rise, and touching on the Italian National Park of Gran Paradiso, beyond the French-Italian border.

The second possible preservation under study is the National Park of Mercantour, in the Alps of Provence, which is already partly a natural scientific and wildlife preserve. It is located approximately thirty-eight miles north of Nice, in the upper valley of the Vésubie and Boreon Rivers.

In the Pyrenees region, a National Park of Cauterets is under study. Several of the high valleys of this area are already practically in a national park, since they have been protected as scenic sites since 1930. This park will be contiguous on its mountain side with the Ordesa National Park of Spain.

In the region of Cervennes, at the conjunction of the Mediterranean and Atlantic climatic influences, the National Park of the Carroux, a mountainous area at the extreme south of the Central Massif, is being studied.

Two areas in the Mediterranean region are under consideration for possible park status: that of Port-Cros, which is intended to cover almost the whole of an island of typical Mediterranean character near Toulon, and the Corsican National Park, which would be established

to include a substantial section of the heartland of the Island of Corsica.

It is pointed out that the recent law is one called a *loi-cadre*, in French legal terminology. That is, it is not intended to pass on the merits of any particular park, but rather defines general principles and the conditions under which parks are to be established.

In theory, a French national park will consist of three parts. First of these will be the "nucleus," in the form of a scientific reserve in which nature will be allowed to take its course undisturbed by human influence. Traffic of any sort will be entirely forbidden.

Around the nucleus will be a concentric territory constituting the park proper, governed by regulations as strict as seem necessary under the circumstances. Within certain limitations, traffic would be authorized in this zone.

Lastly, around the whole there would be a protective "peripheral zone," in which various institutional buildings would be located. This latter zone would be something new among most of the world's national parks, and represents one of the distinctive features of the new French law. Also in the enabling act are references to "atmospheric conservation," of importance in the control of air pollution in the parks, and language that regulates—and may prohibit—the flight of aircraft over the preserved areas. It has been pointed out that this latter regulation has already been applied in the future Cauterets Park, where tourist helicopter flights were forbidden because they were frightening and disbanding the herds of Pyrenean izards, or chamois. ♦



The Editor's Bookshelf

THE SQUEEZE: Cities Without Space. By Edward Highbee. Wm. Morrow & Co., New York, 1960. 348 pp. \$5.95.

The Squeeze is a fighting book which should appeal to all moderns with gumption enough to try fighting their way out of the tight spot the machine and the factory have dumped them into during the century just past.

This is a graphic, if sardonic, bit of portraiture of the Supercity as she is. Here are the streets so traffic-cluttered that it is easier to walk to the other side of town. Here are the houses built so close together that the children must play under the wheels of the traffic. Here are the bricks and the mortar, crowding out all living things, while the roofs, which could be gardens, are deserts of pebble and tar. Here are the backyards, divided and boarded, festooned by garbage pails, which could be green commons if we trusted one another enough to pool our properties.

Land values downtown skyrocket, and real estate taxes with them, yet the cost of police, welfare, utilities, and skyways weight the finances of the city into bankruptcy. Despairing of communal solutions, those who think they can escape flee to the suburbs. They spend half their days commuting under evil conditions from home to office and return. The suburb grows at the expense of the central city, spreading without plan across the countryside, not even pretending to provide the cultural and communal amenities which are the city's only excuse for being.

Beyond the suburbs, in the increasingly narrow spaces between the cities, the rural world fights for survival. Reluctant to surrender their vocations and their homesteads, farmers bow to mounting taxes, accept the inflated prices developers pay for the land, and try to strike down new roots in distant regions.

Conservationists concerned with the remote wilderness country, important as the pristine wilderness is, might pause for a moment to consider seriously what is happening to the rural way of life in America. This farm country, which used to surround our big cities, is the natural open space for large numbers of urbanites. If it were more readily available,

and if there were more of it, many city dwellers would use it, instead of driving frantically across half a continent to camp in some national park or national forest cheek-by-jowl with their neighbor from across the street.

This farm country, until recently, was the natural heritage of all human beings. Here we had our intimate experience of field and stream, of forests and sky, of birds and animals. Here we got our direct sense of spaciousness in a world of beauty, leisure, and despite all, abundance. This world is vanishing.

Space, argues the author, is the critical resource; green space is an indispensable part of the human heritage, which we must somehow preserve against all the destructive forces of an inhuman economy and social organization. Grimly, he suggests that unless man remakes his environment into the human image, that environment will remake man into an inhuman image.

There is much in the findings of modern social science to confirm that thought. Man is precisely as pliable and plastic, as malleable to his environment, as this grisly prophecy implies. Let us hope that there is nonetheless in the human constitution some enduring element which can withstand these destructive pressures, and in time reverse the trend and make us masters of our fate.

The author suggests some steps toward redemption. The vast chaos of our urban centers must give way to rational metropolitan planning. To implement such planning, we must create governmental agencies of metropolitan, and not precinctwide scope. We must revise our metropolitan tax structures fundamentally, and make bold to utilize the federal graduated income tax by way of federal grants. The cities must embark on land use planning, and to that end upon a program either of the actual acquisition of land in fee simple around the periphery, or the acquisition of easements which will give effective control over future congestion. If fee simple title is acquired, the land can be sold back to individual owners subject to protective covenants. Zoning as we have known it will not do the job.

There is also the thought that in the replanning of the metropolis we might do well to think about creating communities.

Some of the supposedly backward countries, the author suggests, may have done better in recent years in building cities by paying attention to the creation of subcommunities within which personal acquaintance may flower.

The author gratefully acknowledges the help of the Old Dominion Foundation and the Conservation Foundation; it is a good omen that foundations are helping in work like this. Fairfield Osborn's penetrating foreword adds an authoritative imprimatur.—A.W.S.

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Organizations like the National Parks 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 can take part in their government is by keeping in touch with their representatives in the legislature; by writing, telegraphing, or telephoning their views; by visiting their representatives in the national capital, or in their home town between sessions.

Appropriations. The Senate Appropriations Committee conducted hearings on the Department of the Interior Appropriations bill for the 1962 fiscal year in late April, following passage of the bill in the House of Representatives. As passed by the House, the bill appropriates some \$104 million to the National Park Service, \$7.5 million less than the estimate presented by the Interior Department.

The House bill recommends an increase in Management and Protection items to provide for management of new areas, operation of newly-constructed facilities, and operating costs brought on by increased visitor use. An increase in Construction items provides for continued development of the Jefferson National Expansion Memorial Historic Site in St. Louis, development of the Independence National Historical Park in Philadelphia, and building of camping and picnicking facilities. Funds for land acquisition at Minute Man Historical Park and Harpers Ferry monument have also been recommended.

If the Senate Appropriations Committee should seek to restore the estimates as presented by the Department, or if their recommendations differ from those of the House, a committee conference would be necessary before final passage of the Interior Appropriations bill.

Great Basin National Park. S. 1760 (Bible and Cannon). To establish a Great Basin National Park in White Pine County in eastern Nevada. The National Parks Advisory Board has recommended that this area, known as the Wheeler Peak-Lehman Caves region, be included in the park system. Previous legislation introduced by Bible did not go beyond the hearing stage, where mining and grazing interests were strongly opposed to it. Present bill permits limited activity in exploration of beryllium deposits on the proposed park border, as well as continuation of grazing use for holders of permits. Both measures have precedent in other park areas.

Indiana Dunes. The Indiana State legislature, in its recently completed session, passed a bill authorizing a port in the Burns Ditch area of the Indiana Dunes on the south shore of Lake Michigan. The bill, called the Indiana Port Commission Bill, would free two million dollars of state funds appropriated in 1957 for a port on lands owned by the Midwest Steel Co. and Bethlehem Steel Corp. adjacent to Burns Ditch. Although the 1957 appropriation depended upon approval of the port by the Army Corps of Engineers, the new bill empowers a port commission to build a port "in cooperation with the federal government or otherwise," according to the *South Bend Tribune*. The Army Engineers have been studying the feasibility of port construction at Burns Ditch as part of their Great Lakes Harbor survey, but have not yet come to a decision on the project.

Residents of the dunes area, organized as the Save-the-Dunes Council, oppose a public harbor at Burns Ditch. They contend that the harbor would be for the exclusive use of the steel companies located there. The Council has suggested an alternate site in East Chicago in order to preserve the Burns Ditch area.

The site of the proposed port is on the portion of the Lake Michigan shoreline recommended for preservation by National Park Service studies. In late April, Congressman John Saylor introduced H.R. 6544, to authorize the establishment of the Indiana Dunes National Monument on the lakeshore between Ogden Dunes and Dunes Acres, where the Northern Indiana Public Service Company as well as Midwest and Bethlehem Steel are located. Senator Paul Douglas has just introduced S. 1797 for the same purpose.

Needles National Recreation Area. S. 1239 (Bennett). To establish a 75,200-acre national recreation area in San Juan County, Utah. The area would be bounded north and west by the Glen Canyon National Recreation Area and Lake Powell. Sandstone formations and sheer-walled canyons resulting from erosion have led the National Parks Advisory Board to recommend the Needles area for

inclusion in the national park system as a national monument. State officials have stated their preference for a recreation area, however, in light of oil and gas exploration and grazing activities there.

Ozark Rivers National Monument. A little over a year ago the National Park Service sent to the Secretary of the Interior its proposal to establish the Ozark Rivers National Monument in Missouri. The proposal recommended preservation of 113,000 acres along the Current and Eleven Point Rivers, and Jacks Fork, which include giant springs, caves, sinkholes, oak and hickory forests, archeological sites and rolling hills. Although no recommendation has been made by the Secretary, two bills have been introduced in this Congress proposing the same preservation (S. 1381 Symington and H.R. 5712 Ichord). No action has been taken by the Interior and Insular Affairs Committees.

Prairie National Park. S. 73 (Schoepel and Carlson), H.R. 4885 (Avery). Authorizes establishment of the Prairie National Park in Pottawatomie County, Kansas, in order to preserve representative portions of grasslands. The proposed park would not exceed sixty thousand acres. There are 34,000 acres of tall grass prairie located in this area which the National Parks Advisory Board recommended for inclusion in the National Park System in a 1959 meeting. Last year the Board repeated this recommendation, asking that corridor lands lying above contour elevation 1075 be included in the proposed park. The Interior Department has not yet submitted reports to the Interior and Insular Affairs Committees.

Resources and Conservation. S. 239 (Engle and others). To declare a national policy on conservation, development, and utilization of natural resources. The bill would have the President transmit an annual report to Congress setting forth the condition of natural resources (soil, water, forests, recreational, etc.); current and foreseeable trends in management and utilization of the resources; adequacy of the resources for meeting national requirements; review of conservation activities; and recommended programs. A Resources and Conservation Council would be formed to assist the President in the preparation of the report by appraising federal programs and making recommendations for national policy.

At hearings held in April by the Senate Interior and Insular Affairs Committee, Under Secretary of the Interior James K. Carr testified in favor of postponing consideration of the bill in order to allow the new administration an opportunity to examine present policies on natural resources. (President Kennedy had stated in his February message on natural resources that he would issue Executive Orders "establishing, under the Council of Economic Advisers, a Presidential Advisory Committee on Natural Resources, representing the Federal agencies concerned in this area and seeking the advice of experts outside the government.") Most witnesses were in favor of the bill, some testifying that a committee apart from the Economic Council would have a wider scope to effectively coordinate activities in sociological, scientific, conservation and recreation fields.

Federal Power Commission. Early May hearings were held by the FPC on the Marble Canyon phase of the Arizona Power Authority application for a license to build dams on the Colorado River in Arizona. The application proposes developments at Bridge Canyon, Marble Canyon, and Little Colorado River, conflicting with the City of Los Angeles application that proposes developments at Bridge Canyon and Little Colorado. Both proposed Bridge Canyon dams would store water to an elevation of 1876 feet, backing water through Grand Canyon National Monument and along eighteen miles of the common boundary between the monument and Grand Canyon National Park. The phase of these projects dealing with Bridge Canyon construction has been indefinitely postponed.

