

NATIONAL PARKS *Magazine*

December

1961

Alaska Basin:
Grand Teton
National Park



Both inside and outside the parks,
we need to be concerned about

Wildlife Population Control and the Hunter

By Raymond B. Cowles

AMONG THE INCREASINGLY NUMEROUS questions that beset our national park policy-makers, that of permitting outside deer hunters to thin overabundant herds within the parks and monuments—an especially lively topic during the recent past—should be one of the most easily resolved, through the presentation of a number of pertinent facts.

A thousand years or so ago, herds-men and animal breeders must have discovered that there was an important connection between the quality of parent animals and the characteristics of their offspring. Today, observation and experimentation have resulted in the science of genetics. Wherever, or however, man picked up this information on the upgrading of his animals,

he eventually learned to sacrifice only—or at least, chiefly—his scrubby or weakling animals, and then to breed only from his best. Whenever male animals not used for breeding were more useful alive than dead, they were castrated; and only then were they permitted to mingle with the females of the herd. In this way breeding was increasingly limited to selected animals. To a considerable degree, this simple and rather unsophisticated process essentially repeated what nature had always done long before man perceived the advantages of continuing natural selection to his own benefit.

With the advent of a still deeper insight into inheritance, every successful farmer learned to look both at and into his stock, and to breed only from

the genetic best. Today, in the increasingly competitive field of farming, any rancher—whether of grain, fruit or animals—or any cat or dog breeder who insisted on breeding his scrub and selling his best, would be classed as out of his mind, and would soon be out of business. As for the rest of us, the price of eggs, meat, dairy products, and even bread would now be far higher were it not for our geneticists and the science of line breeding, and were it not for their successes it is even possible that in bad years food would sometimes be famine-scarce in our country.

The laws of inheritance are universal. They apply to fish, fruit flies, dogs, cats, beef cattle, dairy cattle, man, domestic or wild fowl, trees, orna-

mental flowers, shrubs, wheat, oats, rye, corn—even weeds, fungi and protozoa.

Because of the universality of these laws it would be ridiculous to argue that deer, elk and other large game animals are not equally subject to them. Anyone championing the thesis that we could promote the welfare of deer or elk by killing only the best and healthiest animals and leaving the weak to breed would be laughed out of court; and yet that is precisely what we have been doing over the years in America, and what we would continue to do if hunters, as presently motivated, were admitted to our national parks to help in “thinning out overabundant ungulate population.”

The robustness, hardihood, survivability, and doubtless the handsomeness in antler and peltage of all of our deer are preponderantly the product of a long and ruthless natural selection by parasites and by all manner of clawed and fanged predators. Even man contributed to this selection for some 30,000 years or so by operating on a level as direct and simple as that of his fellow predators.

Until the advent of long-range rifles no predator, including man, had ever consistently killed only the best bucks and does. All known predators, including “pre-rifle” man, had taken whatever they could. This means that by chance alone those animals most frequently killed were the unalert, the sick, the parasitized, the natural weaklings or runts. Neither ordinary predators nor aboriginal man could afford to pass up the first and handiest victims simply to choose the most

vigorous, alert and fastest members of the herd.

Natural selection has always pruned away the least fit, and predators have maintained steady pressure and persistent attrition on animals of poor genetic constitution. Accidents may happen, but weakness leading to poor vision, susceptibility to disease, and nutritional defects contribute to what may appear to be instances of carelessness or accident on the part of a deer. But it is not an accident of the environment that within a herd of deer occupying the same terrain, some will be sleek and fat and others semi-starved; some heavily parasitized and others virtually unaffected. Nutritional and other disabilities are not so much due to environmental accidents as to the genetic variability and differentiating susceptibility within any group of animals. The day by day, year-in and year-out movements through the feeding areas would seem to militate against “accidental” differences in health and condition.

So far as I know, there have been no genetic studies of the deer of the United States; but we can say without much uncertainty that men equipped with rifles—and especially our modern trophy-hunting sportsmen—have unwittingly wholly reversed all previous beneficial forms of natural selection. Possibly for a time we can tolerate present conditions of big game downgrading; how long we can afford to do so is a question. The ultimate consequences are certain, and make selection “from the top” most undesirable.

That any shooting which down-

grades the stock—and any sports hunting of big game animals—should ever be contemplated in our national parks is unthinkable; it should never be permitted in these great natural refuges. The national parks have been set aside for the preservation of unspoiled nature, and those responsible for park administration are bound by this concept. They would be derelict in their duties if they permitted any form of hunting, controlled or otherwise, that threatened the quality and the beauty of the wildlife under their care. Even to reduce the herds where they have become overabundant would be harmful unless such reduction is accomplished by way of the animal-breeders’ approach rather than that of the sportsman and trophy-hunter.

If it has been difficult to induce sportsmen to shoot does, it seems reasonable to suspect that very few would be willing to fill their “bag limit” from the most sickly, the weak, the runts and starvelings, either male or female, in the manner of primitive man and competing predators; certainly none would knowingly eat the flesh of diseased animals.

If our sportsmen were sincere in their stated desire to benefit the ungulate population of our national parks, would they agree to take only the runts or the sickly? Would they voluntarily enlist in a campaign to tranquilize or live-capture, and then vasectomize as many runty or over-age but surplus males as seemed necessary to gain the dual aim of thinning the population and simultaneously improving its genetic constitution? The answers to these questions are quite obvious, I think.

In considering the genetic aspects of hunting and ungulate population control—both in and out of our parks—it might be that vasectomy or radi-



Symbolic of the ungulate mammal population problem that has confronted the National Park Service in some units of the park system is the Northern Yellowstone elk herd, part of which is shown in the National Park Service photograph at the left. Elk, on Hell Roaring Slopes, were photographed from a helicopter during the 1961 census of the entire Northern Yellowstone elk herd.

ation-induced sterilization of under-sized and under-par bucks could serve for a time as a combined improvement and thinning operation, where necessary. This would not, however, suffice in terms of the strict requirements of animal breeders. To effect a material upgrading of our deer herds, defective does should be sterilized or removed from the herds; but since sterilization would require a major operation by personnel having considerable practice and skill, the procedure should probably be to kill the unfit does. For this reason, I believe we should be at least temporarily satisfied outside the parks if we could enlist sportsmen in the program of partial improvement by treating only the males. Possibly the best we could hope for from partial treatment of the genetic problem would be a sufficient amount of upgrading to counter, to some extent, the

effects of past trophy-hunting and killing of the best stock.

As a means for controlling populations within the parks, sterilization of a sufficient number of males by vasectomy (or possibly by radiation treatments) has the merit of leaving the male endocrine secretions and therefore the animal's libido undiminished. The advantage of this system for population control is that the bucks remain sexually virile, but cannot sire young. We may thus maintain deer herds that live normally and naturally without incurring the con-

Dr. Cowles, a member of the Board of Trustees of the National Parks Association, is on the staff of the Department of Zoology at the University of California, Los Angeles.

sequences of overmultiplication. To kill or to emasculate the bucks might have the effect of driving does into the harem of still-potent breeders; if this happened, it would of course defeat the objective of the thinning process.

Even more interesting is the possibility of air-gun implantation of any one of a number of anti-ovulatory steroid pills in the does during the rutting season. Research and statistical analysis of the ensuing effects on numbers of fawns should provide the answer needed for extremely effective regulation of both numbers and quality of deer herds. The results should contribute to the welfare of other ungulates—and quite possibly to human progress. Because of the broad basic concepts involved, there should be no difficulty in obtaining the necessary financial aid and the technical skills to direct the work. ■

The photograph below, which was taken by E. A. Goldman of the United States Forest Service near Quaking Aspen Spring in the Kaibab National Forest, Arizona, shows the result of man-caused imbalance between ungulates and their natural predators. Young locust understory growth has been completely destroyed by overbrowsing of deer. Similar situations have, in some of the parks, introduced serious questions of wildlife management, including that of sportsman participation in mammal control programs.



Old-time canal boat days are recalled in

Sidelights on Sidecut Park

By Elizabeth G. Benton

MORE THAN MOST MIDWEST States, Ohio is rich in relics of her historic past: Indian mounds, forts dating from Revolutionary times, and sites of skirmishes with the English. It seems strange, then, that one of Ohio's most colorful eras—the time of the canals—has left hardly a trace.

The city of Maumee, in the northwest corner of Ohio, has, however, preserved an interesting relic of its days as a bustling canal port. At Maumee's Sidecut Park stand three stone locks, mementos of the old-time Miami-Erie Canal. Surrounding them is an extensive park, with tables and grills for picnics, a tennis court, and a clubhouse. The park acquired its name from the fact that its location was the area of the canal "sidecut" to the Maumee River. Here both past and present mingle happily, neither trespassing on the other's domain.

At the time digging commenced on the Miami-Erie Canal in 1825, only a sixth of the State had been cleared and mapped. Adding to the difficulty of working with only primitive earth-moving equipment was the necessity for opening a path through the wilderness. But the men who campaigned for the canal were wholeheartedly convinced that canals were the answer to Ohio's transportation problem; that they would solve the problem of finding access to Eastern markets. Canals

were the answer—for a while, at least.

Travel by canal was no faster than by team and wagon, but it was considerably cheaper. Grain, flour, moulders' clay, pork—all these commodities could be moved at a fraction of the cost by wagon. Packet boats for passengers were comfortable; sometimes even luxurious. An adventurous soul could glide the length of the State, from Cincinnati to Toledo, in comfort instead of having to jolt along corduroy roads in rough-hewn wagons.

A mode of transportation that the canal supporters could not have foreseen put the canals out of business. In some sections, the Miami-Erie Canal

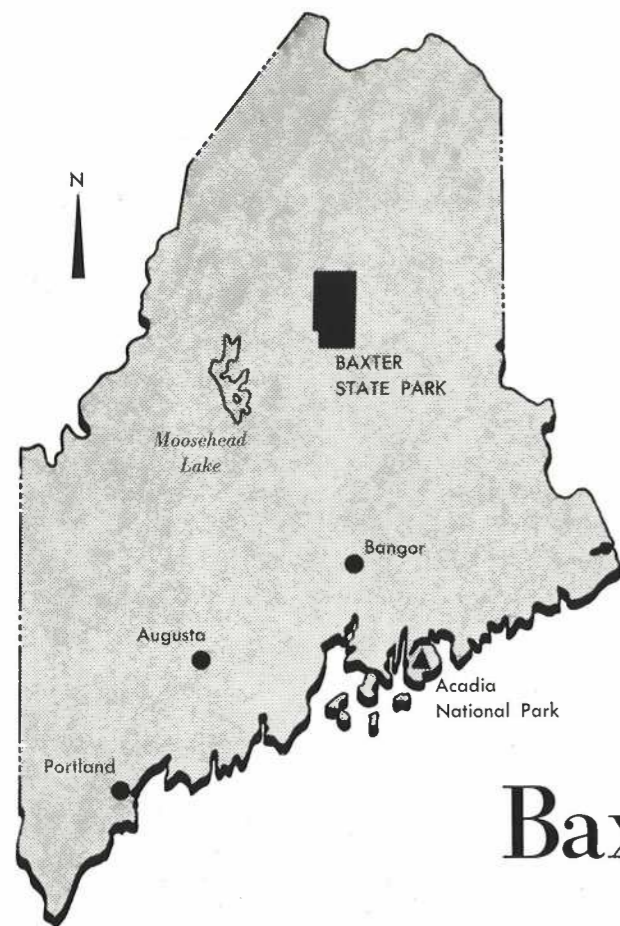
was in use for only a few more years than it took to build it. When railroads began to span the country, their steel webs spelled doom to the canals.

The three locks at Maumee are well preserved, a memorial to the optimism and courage of Ohio's early settlers. The park is indeed a pleasant spot, with sunlight filtering through the green leaves of old trees in spring and summer, sumac blazing scarlet in the fall. The old-time canal-boat crews were a boisterous, even rowdy lot. Today, on their old stamping-ground, nothing more raucous is heard than the singing of Girl Scouts hiking to Sidecut Park for a picnic! ■

Photograph by the Author



One of the three locks of the Miami-Erie Canal found in Sidecut Park, a preservation of the city of Maumee, Ohio, is shown at the right. Odd name of the park derives from its location in the Maumee River "sidecut" area of canal.



Baxter State Park— Gem of the Maine Woods

By Bill Geagan

A MILE-HIGH MOUNTAIN THAT HELD fear for the early Indian is now, and will forever remain, a rugged monument to a former Maine Governor, and a vanishing wild world that he loves.

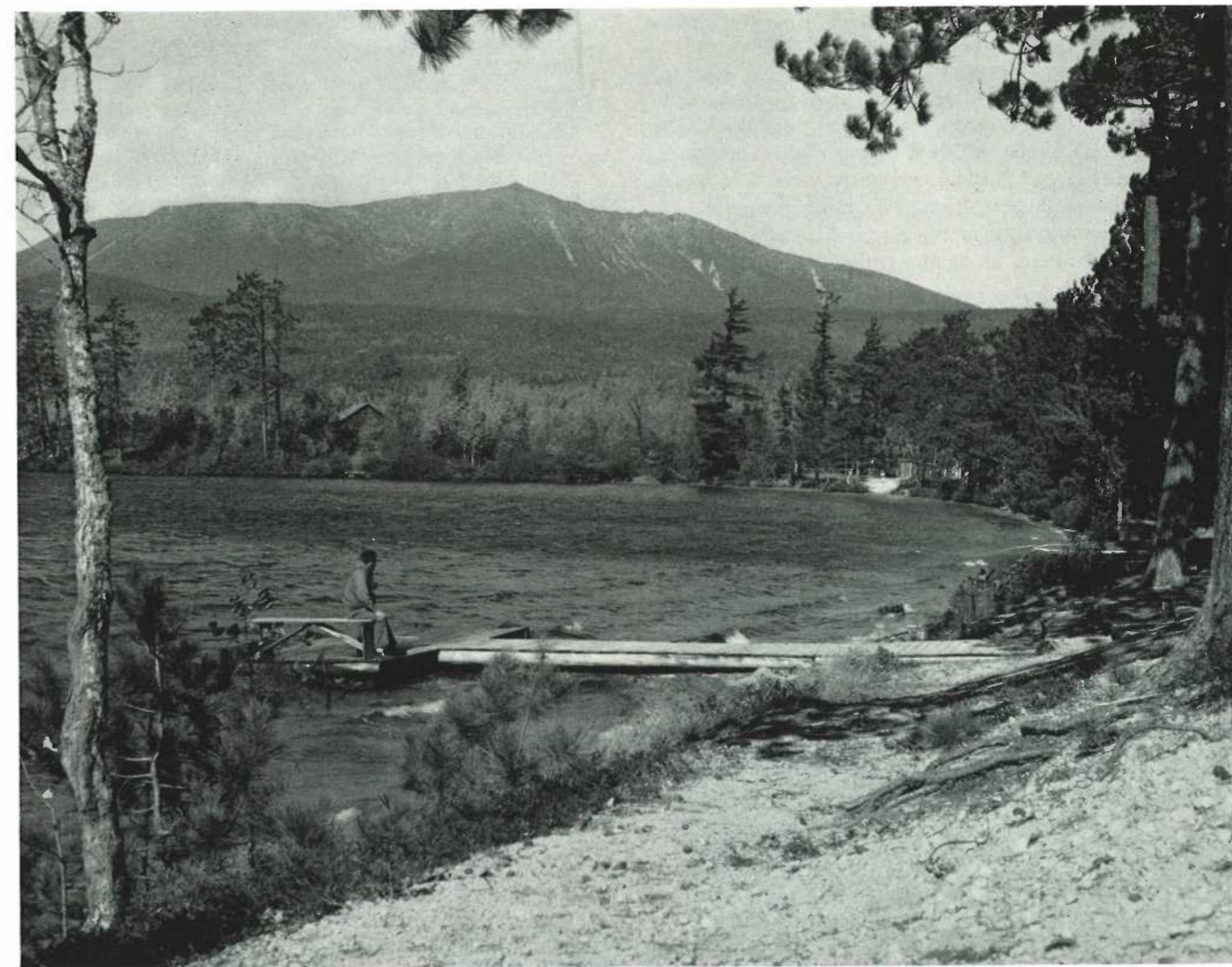
Rising majestically above the vast wilderness of northern Maine, brooding Mt. Katahdin looms as a sentinel over 193,254 forested acres, great wildlife and fish populations, pure lakes, ponds, and racing streams. This vast area is known as Baxter State Park. It is a gift to the State of Maine by an outstanding conservationist and former governor, Percival Proctor Baxter of Portland.

Mr. Baxter began the purchase of this land in 1930 and presented it to the State in its present acreage in 1933, with certain conditions and specifications which must be strictly adhered to as written. The land was deeded to Maine to "be forever held by the people of Maine." Another restriction placed on this tremendously valuable gift is that it: "Forever be left in its natural wild state, forever be kept as a sanctuary for wild beasts and birds

and forever be used for public forest, public park and public recreational purposes."

Although called a State park, it really is not—at least not as such places generally are arranged and operated. It is not even under the jurisdiction of the State Park Commission. It is entirely different—unique not only to Maine but to the nation. Its acreage, up to now, comprises more than eight full townships, all wilderness. It is the third largest "State park" in the country, and it may one day be even larger. Its affairs are governed by the Baxter State Park Authority, a group composed of the Governor of Maine, the Forest Commissioner, the Commissioner of Inland Fisheries and Game, and two residents of the State, one of whom must come from the towns of Greenville or Millinocket.

Such a wilderness wonderland was for many years Mr. Baxter's dream. More than forty years ago, while a young member of the Maine legislature, he became keenly aware of the wild, rugged beauty of the Katahdin region.



"Rising majestically above the vast wilderness of northern Maine, brooding Mount Katahdin looms as a sentinel over 193,254 forested acres . . . known as Baxter State Park." The view above shows Mount Katahdin as seen from Togue Pond, in a photograph by the Maine Department of Economic Development.

He envisioned this region preserved forever as a retreat for Maine's citizens and its visitors; as a place that would remain unchanged in its primitive glory through the ages; a spot that would stand forever as a barrier to encroaching civilization; a preserve where the wild creatures of the forest could find refuge for all time, to be admired in their natural habitat by all who appreciate and love nature.

The dedicated and determined Mr. Baxter worked unceasingly for this goal through five legislative sessions and through his two terms as Governor—from 1921 to 1925. Failing in his efforts to interest the State in purchasing and setting aside at least a part of this beautiful region, he shouldered the job alone after leaving office. And finally the project was accomplished.

The few roads leading into the park itself are far from being slick-faced highways, and they quickly discourage any tendency to drive at high speed. That is the way they will always remain. The trails, all sixteen of them—many first etched by the moccasined feet of the early Indian,

the caribou, deer, and the moose—total about seventy-five miles. They squirm serpentine and narrow in ever-changing moods through the perpetual twilight of dense coniferous forest and leaf-crowned hard growth to the lakes, streams, ponds, campgrounds, and up the gray granite flanks of the challenging mountain. They are a sparse web for the wanderer through wilderness at its silent, mysterious best.

It was here in the vast Katahdin region that the lordly caribou made its final stand in Maine. The last of the great mammals was seen in 1908. These handsome woodland animals, which once roamed over much of the State in great herds—especially in the Katahdin area—were slaughtered by sportsmen who prowled in guided groups,

Some Christmas Plant Legends

By C. Parker Meacham

ON CHRISTMAS EVE MORE THAN forty million Yule trees will glow upon the faces of young and old across our broad land. Their twinkling, multicolored lights will be reflected in the sparkling eyes of children who can scarcely wait to see what the bewhiskered Saint has left them. Their incandescent flames will stimulate the hopes of youth, whose faith in life and love has not been dimmed by time and circumstance. Their crowning stars, symbolic of the star which rose above the Judean hills to mark the birthplace of the Child, will cheer us all.

Many and varied are the legends that seek to tell how the Christmas tree became a part of Christmas celebration. Attempts have been made to identify our Christmas tree with Yggdrasil, the ash-tree of life, or "world-tree," of Norse mythology. Others refer the beginnings of the Christmas tree to the custom of the ancient Egyptians, who, in midwinter, decorated their homes with the leaves of the date palm, their symbol of immortality. Even Jewish festivals have had their share of attention in determining the origin of the Christmas tree. On the 25th of Kislev, which approximates our December, the Jews celebrate the Hanukkah, or Feast of Lights. This, it has been claimed, could be the forerunner of our custom of the lighted Christmas tree. Others call attention to the Roman festivities in honor of Saturn at about the winter solstice, and ask whether these could not have originated our Christmas festival with the attendant usage of a burning tree.

Some legends of the origin of the Christmas tree go as far back as the manger in Bethlehem's stall. On the first Christmas night, the story goes, trees from all over the world came to the manger-side to do homage to the

divine Child. With the native palms there were mingled such foreign visitors as beeches, maples, oaks and hemlocks. There were shiny magnolias, graceful eucalyptuses, and gigantic redwoods, together with tall cedars. A small fir had come from the frozen north, and in all that array of stately trees it could not be seen at all; besides, its brother trees did all they could to hide the little intruder from the eyes of the Infant in His impoverished cradle. But suddenly, star after star fell from heaven, and each shiny star fell upon the outstretched, pointed branches of the evergreen until it shone with the brilliancy of a thousand lights. And that, we are told, was the beginning of the Christmas tree.

St. Winfrid Version

Another legend connected with the Christmas tree can be traced back to St. Winfrid, who was its inventor.

In the midst of a crowd of converts, it is said, Winfrid hewed down a giant oak which had formerly been the object of the converts' Druidic worship. As it fell backward like a tower, groaning as it split asunder in four pieces, there stood just behind it—unharmful by the ruin—a young fir tree, pointing a green spire toward the stars. Winfrid let the axe drop, and turned to speak to the people.

"This little tree, a young child of the forest, shall be your holy tree tonight. It is the wood of peace, for your houses are built of fir. It is the sign of an endless life, for its leaves are ever green. See how it points upward to heaven! Let this be called the tree of the Christ-child; gather about it, not in the wild-wood, but in your own homes; there it will shelter no deeds of blood, but loving gifts, and rites of kindness."

And yet another legend deals with a

poor woodman and his family. On a stormy Christmas Eve, the family sat around a cheerful fire in a forest cottage. Suddenly there was a knock at the door. The father opened the door and in stepped a small child, hungry, ragged and shivering pitifully. The young son of the woodman gave up his bed to the little stranger.

In the morning all were awakened by the singing of a choir of angels, and a dazzling light. Upon investigating they found their visitor transfigured, possessing a halo and cross. They recognized him as the Christ-child, and worshipped Him. As He expressed His gratitude, He broke off a branch of the fir tree and put it in the ground. Presently it grew into a verdant tree. Then He said: "I have gladly received your gifts, and this is my gift to you. Henceforward, this tree shall always bear its fruit at Christmas, and you shall always have abundance."

* * *

The ancient Druids of the British Isles were accustomed to laying the mistletoe, or sacred "all-heal," upon their altars. In York Cathedral, a similar thing was done on Christmas Eve, at which time pardon and freedom, public and universal liberty were proclaimed at the gates of the city.

Mistletoe, in the days of Druidism—and perhaps even later—was hung up as an aid to conviviality. This practice was widespread among pagan cults of England, as well as those of northern and southern Europe. Mistletoe was said to possess magical properties which could render its possessor fortunate. The custom of kissing under the mistletoe is the only suggestion that remains of the happy benefit it was formerly supposed to confer upon its votaries, and it is not certain that this particular custom dates very far back,



or was practiced elsewhere than among areas peopled by Anglo-Saxon stock.

In the language of flowers, mistletoe means "give me a kiss." This has its basis in a Scandinavian myth. Balder, the Scandinavian Apollo, received a charm from his mother, Frigga (Venus), against all injury from everything which sprang from the four elements—fire, water, air and earth. Loki, an evil spirit, having enmity against Balder, formed an arrow from mistletoe, which did not grow from any of these elements. The mistletoe dart struck Balder to the ground, and the tears of Frigga became the white berries of the mistletoe. However, through the concerted efforts of the gods, Balder was restored to life, and Frigga decreed that the plant must

never again serve as an instrument of mischief. Frigga, being the goddess of love and beauty, and grateful for the return of her son, is said to bestow a kiss upon anyone who shall pass under the mistletoe.

Later, the mistletoe was divested of its superstitious associations and became the symbol of friendship and love; and so it was brought into the Christmas season, a season of joy and love.

* * *

Clinging to a colorful and most popular Christmas plant, the poinsettia, is a sacred legend. The early inhabitants of Mexico tell most earnestly that in Cuernavaca, Mexico, it was the custom of every church and chapel to have a manger, in which lay an image of the

Infant Savior. On Christmas Eve the village folk flocked into these places to decorate it in His honor with flowers.

One Christmas Eve, in the outer district of Cuernavaca, a small, dark-eyed child grieved and mourned because she had no flowers to take to the manger of the Christ. But as she cried, a beautiful angel appeared before her and said: "Lovely child, weep no more. Go pluck a weed from the roadside, bring it to the altar, and wait." The little girl arose and did as the angel had commanded, and when she had placed her weed on the altar it immediately became a vivid scarlet whorl. Today the Mexicans will tell you that this is the reason why the poinsettia is the most prized of all Mexican flowers for the beloved Christmas-tide.

Your National Parks Association at Work

Further Correspondence On The Motorboating Issue

In additional correspondence between the National Parks Association and the National Park Service concerning further relaxation of regulations controlling motorboating in national parks and monuments [*Your NPA at Work*, October, page 16] Executive Secretary Anthony Wayne Smith had this to say:

MR. HILLORY A. TOLSON
National Park Service
Washington, D.C.

Re: Motorboating in Parks

The National Park Service Administrative Handbook page which you sent me September 19th, bearing the notation April, 1961, contains the following language:

The launching of motorboats into waters not now directly accessible from existing park roads will not be permitted.

The regulations published in the Federal Register on July 7, 1961, contain the following language:

Written permission is required from the superintendent to launch or operate motor-propelled boats . . . on all park or monument waters which are not directly accessible by a commonly used public road.

Obviously, therefore, a relaxation of policy has occurred.

This is what I complained about in my

Divine Right

(Continued from page 2)

This Association, although with considerable reluctance in view of the problem of atomic waste disposal, has supported efforts to develop and apply atomic energy in the production of electric power as against destructive hydroelectric power development.

We would be the last to decry the effective application of, let us say, potential fusion techniques, to the solution of energy supply problems if radioactive waste problems can be avoided or solved.

And we have made it clear in negotiations on this subject, if it needed to be made clear, that as an Association we offer no demurrer to any tests or applications of atomic energy which the duly constituted authorities may consider essential to national security.

But to add one microcurie of radiation in a world sick with radioactivity, and to do so without military necessity, or without economic need related to the cold war, by such projects as Operation Chariot, an aspect of Operation Plowshare, is in our judgment inexcusable.

Operation Chariot is a proposal to detonate a series of atomic devices on the

letter to the Director of the Service on August 22.

Your letters of September 6 and 19 appear to constitute a denial that a relaxation has occurred; any such denial is refuted by the documents you have supplied.

The plain fact of the matter is that the superintendents are now subject to pressure for the issuance of permits to launch motorboats into waters inaccessible from roads, whereas they were protected by Service policy against such pressures prior to July.

We renew our protest against the July regulations and the language of the release which announced them, which suggested that greater protection was being accorded.

We note that the July regulations were signed by Assistant Secretary John A. Carver, Jr. and that the regulations published in June relaxing control over motorboating on Yellowstone Lake were signed by Mr. Carver as Acting Secretary at that time.

We do not think we are mistaken in assuming that there is a close connection between these two events, and that the waters of the National Park System are faced with organized aggression by this particular variety of mechanized amusement.

ANTHONY WAYNE SMITH
Executive Secretary

The Fourth Conservation Education Center Lecture

The fourth talk in the National

shores of the Arctic in Alaska with a view to the excavation of a harbor. The harbor will serve no economic purpose. The operation may conceivably be used as a model for similar excavations in other countries which might serve economic purposes, but which are of no great importance.

While the underground explosions will not release much, if any, radioactivity into the atmosphere, the waters and soils above the point of explosion will carry upward considerable radioactive pollution which will filter into the newly formed harbor and out to sea, adding to the contamination from underwater explosions, atomic submarines, and the impalpable fallout descending upon us everywhere from the atmosphere.

The reindeer in the Arctic are already radioactive. Human beings are dependent upon them for meat. Yet some of us have been beguiled by the technocratic view, and suppose that if our atomic techniques can only be diverted from war they must necessarily be beneficial to man. The atomic reactor has become another of our idols in the worship of technology.

The defense against these enormous dangers will not be easy. It is not technology itself which is at fault nor the machine, nor the factory, nor the city,

Parks Association's Conservation Education Center for the Greater Washington Region lecture series is scheduled for December 11th, when Dr. Maurice K. Goddard, formerly director of the School of Forestry at Pennsylvania State University and now the Secretary of Forests and Waters of the Commonwealth of Pennsylvania, will speak on the timber resources of the Potomac River Basin. Dr. Goddard's lecture will be presented at the auditorium of the Smithsonian Institution's Natural History Museum in Washington, and will be open to the public without charge.

This lecture will be preceded, on December 2 and 3, by Field Trip No. 2 of the Conservation Education Center's symposium on conservation, a trip that will survey the Potomac River Basin's high mountain wilderness, related water storage methods, wildlife management, and the surrounding timber and recreational resources.

For NPA members who are in a position to attend the lecture and field trip series, detailed information may be secured from Mr. Orville W. Crowder, Conservation Education Center Manager, 1300 New Hampshire Avenue N. W., Washington 6, D. C.

as such. It is the deification of these idols in the worship of technology as good in itself, unrelated to human judgments of value, indiscriminating as to human need, which is wrong.

A great work of rethinking, of repentance is required, a re-examination of many of our basic evaluations as a nation; only when this work has been at least commenced can we defend ourselves against the rising forces of destruction which are of our own creation.—A.W.S.

CLASSIFIED ADVERTISING

20¢ per word—minimum \$3. Payment must be enclosed with all orders.

CAMP DENALI, MCKINLEY PARK, ALASKA—a wilderness retreat in the shadow of Mt. McKinley. Guided trips for hiking, tundra nature lore, wildlife photography, or just relaxing. Box 526, College, Alaska, for brochure.

COLOR SLIDES. Western areas, including nature subjects. Individual selection advantages. Free slides with Colorado scenes purchased. Request listings. Nesbit's Approvals, 711 Columbia Road, Colorado Springs, Colorado.

WAMPLER WILDERNESS TRIPS—hiking and riding. California, Arizona, Mexico. Year around activities at moderate prices. Details: Box 45, Berkeley 1, California.



SPEAK TO THE EARTH. By William A. Breyfogle. Macmillan Company, New York, New York. 1961. 174 pp. Illustrated. \$3.75.

"The living world is much more than a laboratory. And perhaps, in summary, the truest kind of understanding is the sense of informed wonder." No more appropriate words than his own could describe the quality of understanding bequeathed by the author to this volume of essays. An unusually fine book has been produced, despite the fact that William Breyfogle, noted writer and naturalist, died before completing and reworking his penetrating observations of animals, birds, the handiwork of men, and nature's inanimate phenomena. What he left behind is a vibrating commentary on the dispositions of nature, their variety and richness.

There is more to animate nature than the struggle to survive, Breyfogle contends; a sort of happiness is derived from an awareness limited only to the present. "Along the water's edge, the disposition is to live in the day's sunlight and leave for tomorrow the hopes and fears that the idea of tomorrow involves." Is this an expression of envy? I think not; for later the author points to the worthwhile pursuits to which men, if they choose, may devote their time, suggesting that, although "not well equipped to deal with the fleeting present," man is "the richest of all living things." —N. L. M.

THE DOUBLEDAY PICTORIAL LIBRARY OF NATURE: Earth, Plants, Animals. James Fisher and Sir Julian Huxley, Editors. Doubleday & Company, Inc., Garden City, New York. 1960. 359 pp. Illustrated in color and black and white. \$9.95.

This volume provides an authoritative introduction to the history of life on earth both for the inquiring pre-teenager and the adult seeking clear answers to youthful questions. Some of the explanations seem over-simplified. For the most part, however, the concise and informative treatment of the geological, biological and ecological development of our planet is provocative, leaving the reader both interested and humble concerning his relationship to his environment.

The last two chapters of the work probe tentatively into this relationship. In one,

man's development is correlated with the standard geological periods. In the second, man is viewed as the sole interpreter of nature. The unique ability to record and classify thoughts about animate and inanimate objects about him need not necessarily be wisely used, the authors remark. "There is no law of nature ordaining that a master . . . must inevitably act in the interests of his own kind, and the web of life in which it is entangled."

Not content to study and find meaning in the operation of nature, man has chosen to change it. Too few people, it is pointed out, promote the conservation of resources and the preservation of wildlife "not only because they are valuable and beautiful but because the whole harmony—indeed the very survival—of our human community depends on them."

We are determining today what sort of earth future generations shall inherit. Man's mastery over nature has never been greater; neither has his need to wield his powers with responsibility. The book provides a substantial plea for such responsibility. —N. L. M.

WESTERN BUTTERFLIES. By Arthur C. Smith. The Lane Book Company, Menlo Park, California. 1961. 65 pp. 7 1/2 x 9, with table and index. Illustrated in color and black and white by Gene M. Christman. Clothbound, \$2.95.

Here is a colorful and scientifically accurate large-format book on the Western butterflies, aimed primarily at the youngster with more than a passing interest in these winged miracles of Nature's paintbrush. The volume also possesses enough scientific nomenclature and range, flight season and food plant information to be of real use to grown-up ramblers of the woods and fields. *Western Butterflies* continues Lane's excellent "Sunset Junior Book" series dealing primarily with natural history subjects; the artist has done a notable job on both color and black and white butterfly illustrations, and the printer has cooperated splendidly. —P. M. T.

SMOKY MOUNTAIN FOLKS AND THEIR LORE. By Joseph S. Hall. Great Smoky Mountains Natural History Association, Gatlinburg, Tennessee. A delightful 68-page illustrated booklet on the life, speech, and customs of the Great Smokies folk.

yes . . .

*it's that time
of year again . . .*

let your Association help you with your Christmas gift problems for friends and relatives who love the parks and the great out-of-doors.

suggestions:

Exploring Our National Parks and Monuments
By Devereux Butcher
Bound in Cloth, \$6.50; in Paper, \$3.85

Exploring the National Parks of Canada
By Devereux Butcher
Bound in Paper, \$1.50

Exploring Our Prehistoric Indian Ruins
By Devereux Butcher
Bound in Paper, \$1.25

For your convenience in binding the yearly issues of *National Parks Magazine*, a handsome binder in maroon buckram. Looks and handles like a book; any issue easily removed and reinserted. For new-size Magazines (since January, 1959), \$3.50. Personalized with name in gold, 75¢ extra; with year, 50¢ extra; with both name and year, \$1.20 extra. An attractive card will be sent announcing all Christmas gifts.

All above items postpaid

Send your order to

THE NATIONAL PARKS ASSOCIATION
1300 New Hampshire Avenue, N.W.
Washington 6, D.C.

NATIONAL PARKS Magazine

Index to the Issues for 1961; Volume 35, Numbers 160-171

Entries appearing in *italics* are titles of general articles. The abbreviation (gen.) indicates a general article on the subject listed. The abbreviation (edit.) signifies an editorial, while that of (illus.) denotes a major illustration of subject named. The month of issue is followed by the page number.

African wildlife problems (edit.); Sept., 2
Air pollution, new centers for testing; Nov., 17
Albright, Horace M. medal, awarded to Justice Douglas; April, 10
Allagash, Park Service proposal for a National Recreation Area; Aug., 19
Allagash, a plan for the (gen.); Sept., 4
Appropriations, Interior, legislative action on; April, 19; May, 19; June, 19
Are We Doing Enough? (edit.); Feb., 2
Arctic National Wildlife Range created; Jan., 17; March, 2 (edit.)

Bandelier National Monument, AEC lands transferred to; April, 17
Battle of Walden Pond, The (Part 2); Jan., 4
Baxter Park—Gem of the Maine Woods; Dec., 8
Beach "improvement" at Lewes, Delaware (edit.); Sept., 2
Big Trees and Fire, The; April, 11
Boundary Waters Canoe Area, legislation on; Nov., 19
Bridge Canyon Dam, legislation on; May, 19
Burns Ditch harbor, opposed by Inland Steel; Nov., 16

C & O Canal National Monument, created by proclamation; March, 16
C & O Canal National Historical Park, legislation on; March, 15; April, 19; Nov., 19
California Schools Teach Conservation Out of Doors; Feb., 4
Canadian memorial to whooping crane; Oct., 14
Canyon Lands National Park proposed; Sept., 15
Cape Cod National Seashore, hearings on; Jan., 16
backed by NPA; March, 14
last call for a (gen.); May, 4
legislation on; Nov., 19
success at (edit.); Nov., 2
Children, Classrooms, and Conservation; Sept., 4
Christmas Tree, The (poem); Dec., 14
College credit for national parks tour; Oct., 14
Conservation Education Association meeting; Sept., 17
Conservation Education Center, a NPA, announced; Oct., 17
Cottam, Dr. Clarence, receives Texas award; March, 17

Crossroads For Western Waterfowl; March, 4
Cucamonga Wild Area enlarged; Jan., 16
DDT spraying effects studied; Nov., 16
Death Valley National Monument, violations in and damage to; April, 15
Divine Right of Technology, *The* (edit.); Dec., 2
Doing the Parks With the Hairs; Nov., 8
Douglas, Justice William O., receives Horace M. Albright medal; April, 10
Dust Bowl lands become part of National Forest System; July, 17

Elephant Seal, The; June, 12
Employment in the National Parks, information concerning; Feb., 17
End of the Rainbow Trail, The; March, 8
Exploring the Past at Van Meter State Park; Aug., 8

Federal Power Commission hearings on High Mountain Sheep dam; April, 19; July, 19; on Marble Canyon developments; June, 19
Florida's Giant Cypress; March, 17
Flower Photography in the Parks; June, 9; (illus.); June, 10
Forest Service, hearing on Wallowa National Forest; May, 19
adopts uniform timber practices; Aug., 15
releases wilderness film and booklet, Aug., 15
Free and inexpensive materials for teachers; Oct., 19
French national parks, proposed; June, 17
Friends of wilderness, the (edit.); Oct., 2

Government agencies and their functions relative to parks and recreation areas; Feb., 17
Grand Canyon National Park, legislation on; Nov., 19
Grange, *The*, a possible new historic monument; Nov., 16
Grazing advisory boards, proposed expansion of; Nov., 17
Great Basin National Park, the proposed, legislation on; June, 19; Nov., 19
Great Salt Lake National Park, the proposed, legislation on; March, 15
Great Smoky Mountains National Park, Fontana road renegotiation urged for (edit.); April, 2

Haleakala National Park, threat to from radar installation; Oct., 14
Hearings, public, on:
C & O National Historical Park; June, 15
Cape Cod; March, 14
Great Basin National Park; Oct., 17
Great Salt Lake National Park; March, 14
Indiana Dunes preservation; Nov., 15
Padre Island; June 15
Point Reyes; June, 15; Nov., 15
powerboating on Yellowstone Lake; Feb., 14
Wilderness Bill, April, 15
Hetch Hetchy tunnel aqueduct, application of City of San Francisco for, approved; July, 19
maneuvering on (edit.); Aug., 2
NPA objects to findings on; March, 14
Historic landmarks registered; Feb., 4
Historic Natural Scenes in the Southwest; Aug., 11
House That Jack Built, The; Nov., 4
How a Bill Becomes a Law; Feb., 15
Hurricane Donna Visits the Everglades; March, 11

Ice Age National Park, proposed, legislation on; Aug., 19
Illinois nature preserve system proposed; June, 17
Indiana Dunes, legislation on; Nov., 19
Burns Ditch harbor at, opposed by NPA; Nov., 15
Burns Ditch Harbor at, opposed by Inland Steel Company; Nov., 16
International Conference on National Parks; Jan., 16; Aug., 15
Izembek National Wildlife Range, created; Jan., 17

Jefferson: Outpost of History; July, 11
John D. Rockefeller, Jr.; April, 8
Joshua Tree National Monument Association formed; April, 17

Key deer, preservation for; Sept., 15
Key Largo Coral Reef Preserve renamed; May, 16
Key to Harpers Ferry; May, 11
Kilauea Crater, eruption of; April, 17
Kuskokwim National Wildlife Range, created; Jan., 17; renamed; July, 16

Last Call For a Cape Cod Seashore; May, 5; (illus.); May, 4
Legislative progress report, Jan. to May, 1961 (in chart form); May, 19

Matter of Life or Death in Africa, A; Sept., 8
May (a poem); May, 10
Merger of conservation organizations contemplated; April, 16
Mission 66 Reappraised (edit.) April, 2 [See also *The Reappraisal Proceeds* (edit.); Aug., 19]
Myers, Mrs. George H., passes away; Feb., 14

National Parks Association, *The*
approves camping limits; Oct., 16
approves Robinson Basin decision; Sept., 16
charges motorboating capitulation at Yellowstone; Aug., 2
expresses conservation views on pothole drainage; April, 15
holds forty-second annual meeting; July, 19
holds semi-annual meeting for 1960; Jan., 15
objects to proposed findings in Hetch Hetchy water development hearings; March, 14
opposes bizarre hotel at Grand Canyon National Park; Sept., 16
opposes harbor at Burns Ditch; Nov., 16
opposes opening of road into Minam River Valley; July, 15; Aug., 16
petitions to intervene in Marble Canyon case; Aug., 16; Oct., 16
presents views on Rainbow Bridge protection funds; Sept., 16
promulgates statement of policy concerning use of motorboats in parks; Aug., 17
promulgates statement of policy concerning hunting in national parks; Sept., 17
protests execution of Kanab Creek feasibility study contract; Oct., 16
protests further relaxation of motorboating regulations; Aug., 16; Oct., 16; Dec., 16
represented at meeting of Conservation Education Association; Oct., 17
represented at Watershed Congress; July, 15
states position on animal population control in the parks; May, 14; June, 15
testifies at Salt Lake City motorboat hearing; Aug., 16

National Forests, national grasslands added to; July, 16
personnel changes in; May, 16
planning in Winema National Forest; July, 16
National Parks: see entries under specific titles
National parks and national forests, differences between; Feb., 16
National parks of the U.S. (maps); Feb., 19; Oct., 20
National Park Service, and Mission 66 (edit.); April, 2; Aug., 19
and the Parks for America program; March, 17; May, 16
and the proposed Grand Canyon hotel; Sept., 16
announces park visitation figures; May, 16
assures NPA of firm habitat protection policy; July 15
and Yosemite Park highway building (edit.); May, 2
issues Prairie Park report; Oct., 15
issues proposal for Sleeping Bear Area; Nov., 17
personnel changes; Dec., 15
takes over Student Conservation Program (edit.); April, 2
registration of historic landmarks; Feb., 14
National Watershed Congress, meeting of; May, 16

National Zoological Park, crisis at; April, 16
Nature's Untilled Gardens; May, 8
Needles National Recreation Area, legislation on; June, 19
New Hope For the Nene; Aug., 4
Northern Cascades and the need for unity (edit.); Jan., 2

Oil Pollution Treaty, Congress ratifies; Aug., 19
Oregon Dunes National Seashore, legislation on; April, 19
Ozark Rivers National Monument, legislation on; June, 19; Aug., 19; Nov., 19

Padre Island National Seashore, legislation on; March, 15; April, 19
backed by National Park Service; July, 17
Painted Rocks; April, 4
Parks Advisory Board, meets; Aug., 15
recommendations of; Jan., 17; Dec., 15
Parks For America; March, 16
Petrified wood removal, Department of Interior study of, announced; Nov., 15
Plan For the Allagash, A; Sept., 4
Point Reyes National Seashore, legislation on; March, 15; Nov., 19
bill passed by Senate; Oct., 15
exploration of development acquisition rights recommended by NPA (edit.); Nov., 2
Pough, Richard, receives Garden Club award; Aug., 15
Prairie National Park, legislation on; June 19
NPS report on; Oct., 15
Private funds sought by Udall to save worthy areas; Oct., 15
Proposed park, monument, and other areas: see individual listings for C & O Canal, Great Basin, Great Salt Lake, Ice Age, Indiana Dunes, Needles National Recreation Area, Northern Cascades, Oregon Dunes, Ozark Rivers, Padre Island, Point Reyes, Prairie, Rainbow Bridge
Public Land, price cut in; Sept., 15
Purdue aid to teachers contributes to conservation; Oct., 15

Rainbow Bridge National Monument, amendment removing requirement for protection of; March, 15
protection funds denied; Nov., 19
possible enlargement of (edit.); May, 2
saving (edit.); Jan., 2
protection of (edit.); June, 2; Nov., 2
Rainbows Over Utah; July, 7
Renegotiate Fontana (edit.); March, 2
Resources and Conservation legislation; June, 19
Rhode Island sea museum announced; April, 16
Riaski, William, named secretary of Izaak Walton League; July, 17
Right Whale appears at Cape Cod; Nov., 16
Rock Creek Park Nature Center, The; Feb., 7
Rocky Mountain Pack Trip, A; Aug., 13
Russell Cave, recommended for preservation; March, 16
proclaimed national monument; July, 16

Salmon River fish conservation, legislation for; April, 19
San Bernardino National Forest, enlargement of; Jan., 16
adopts uniform timber practices; Aug., 15
Seaton, Secretary Fred A., creates three national wildlife ranges; Jan., 17

Selway-Bitterroot Primitive Area, Forest Service hearing on boundary revision and reclassification; March, 17; April, 19
Shorelines Bill, introduced; March, 15
hearings on; April, 19
passed by Senate with amendments; Nov., 19
Sidelights on Sidecut Park; Dec., 7
Simons, David R., passes away; March 16
Sleeping Bear, National Park Service report and proposal for seashore status; Nov., 17
Soil Conservation Society of America, meeting of; June, 16
Some Christmas Plant Legends; Dec., 12
Some Reflections on Yosemite Valley; Nov., 14
State park visitation, figures for 1960; Nov., 16
Stoddard, C. H., named review staff head; May, 16
Strange World of Haleakala; July, 4
Student Conservation Program, adopted by National Park Service (edit.); April, 2
Summer Job directory for students, teachers, etc.; April, 16

Teton elk herd, reduction of; July, 16
These Are the Dunes; July, 10
Through the Years With the Ranger; Jan., 10
Timber sale practices, uniform, adopted by Agriculture and Interior Departments; Aug., 15
Tribute to Dr. Paul Bartsch (edit.); March, 2
Trumpeter swans, loaned to zoos; Nov., 15
Tule Lake and Lower Klamath Wildlife Refuges (gen.); March, 4

Udall, Stewart L., named Secretary of the Interior; Jan., 16
discusses African wildlife problems; Sept., 8
urges Vermont park area; Dec., 15
Up-to-Date Glance at Our National Monuments, An, (in chart form); Sept., 10
Up-to-Date Glance at Our National Parks, An, (in chart form); Feb., 10
Urbanization of the National Parks; Jan., 7

Virgin Islands, historic sites established; March, 16

Water and the Land; Nov., 12
Water pollution control, legislation on; July, 19
West Virginia, parks and highways suggested for; Nov., 17
Westwood, Richard W., passes away (edit.); April, 2
When I Walk in the Woods (edit.); July, 2
Wilderness Bill, legislation introduced; March, 15
hearings on; April, 19
reported favorably from Senate committee; Aug., 19
Wilderness of Naskalak, The; Sept., 11
Wilderness Society, trail trips sponsored by; July, 17
Wildlife Population Control and the Hunter; Dec., 4
Winema National Forest, formation of; July, 16
Wirth, Conrad L., retained as director of National Park Service; March, 16

Yellowstone, powerboating on; Feb., 14; July, 16; (edit.) Aug., 2; Aug., 16
NPA statement of policy on; Aug., 17
Yosemite National Park, highway construction planned in (edit.); May, 2

Authors of Articles Appearing in the Magazines for 1961

Albright, Horace M.; April, 8
Ashbrook, Frank G.; June, 12
Benton, Elizabeth G.; Dec., 7
Biswell, H. H.; April, 11
Bray, Robert T.; Aug., 8
Buie, T. S.; Nov., 12
Carter, Lewis A.; May, 4
Cowles, Raymond B.; Dec., 4
Dieckmann, Ed.; Nov., 4
Dodge, Natt N.; March 8; June, 8
Dunmire, William W.; Aug., 4

Fersh, George L.; Oct., 4
Gagan, Bill; Sept., 4; Dec., 8
Grater, Russell K.; Feb., 4
Hair, Michael L.; Nov., 8
Hammond, Robert M.; Aug., 13
Heald, Weldon F.; Jan., 7
Henneberger, John W.; Jan., 10
Lane, Marilyn; March, 11
Meacham, C.; May, 8; Nov., 20; Dec., 12
Merriam, L. C.; Nov., 14
Murrie, Olaus J.; Aug., 11
Nelson, Truman; Jan., 4

Netboy, Anthony; June, 4
Olson, Sigurd F.; April, 4
Ouellette, Cecil M.; July 7
Poole, Daniel A.; March 4
Rosenthal, Louis A.; July 10
Schoeberlein, Marion; May, 10; Dec., 14
Smith, Philip R.; May, 11
Stophlet, John J.; Sept., 11
Tilden, Freeman; July, 11
Udall, Stewart L.; Sept., 8
Winslow, Irving L.; July, 4

Titles of Books Reviewed in the Magazines for 1961

America's National Monuments and Historic Sites; July, 18
Birds of the National Parks in Hawaii; Aug., 18
Born Free: A Lioness of Two Worlds; Sept., 18
Camping Maps, U.S.A.; July, 18
Concepts of Conservation: A Guide to Discussion; Feb., 18
Doubleday Pictorial Library of Nature; Dec., 17
Ducks, Geese and Swans; Feb., 18
Exploring Glaciers—With A Camera; May, 18
First Aid and Care of Small Animals; Feb., 18
Gifford Pinchot; Aug., 18
Guide to Tuolumne Meadow Trails; May, 18
Haleakala Guide; July, 18
Humane Biology Projects; Feb., 18

Journey into Summer; March, 17
Monument Valley Map: Utah & Arizona; Nov., 18
My Wilderness: The Pacific West; April, 18
National Park and Monument Maps; April, 18
Operation New York; Feb., 18
Our National Park Policy: A Critical History; July, 18
People! Challenge to Survival; Jan., 18
Planning for America's Wildlands; Aug., 18
Pocket Field Guide to Animal Tracks; Nov., 18
Pocket Field Guide to Nature; Nov., 18
Pocket Field Guide to Trees; Nov., 18
Some Dam Facts About Protecting Rainbow Bridge; Sept., 18
Speak to the Earth; Dec., 17
Squeeze, *The*: Cities Without Space; June, 18
Take Care of the National Parks; Sept., 18

Teaching Science Through Conservation; Feb., 18
There Stand the Giants; Feb., 18
Things to Do in Science and Conservation; April, 18
Trailside Plants of Hawaii National Park; July, 18
Ultraviolet Guide to Minerals; March, 17
Western Butterflies; Dec., 17
Wilderness: The Discovery of a Continent of Wonder; Nov., 18
Words of the Earth; April, 18
World Around You; Feb., 18
Yellowstone's Living Geology: Earthquakes and Mountains; Jan., 18
Young Naturalist's Handbook; Feb., 18



*Varying hare or snowshoe rabbit
in winter pelage: interior Alaska*

Photo by Charles J. Ott