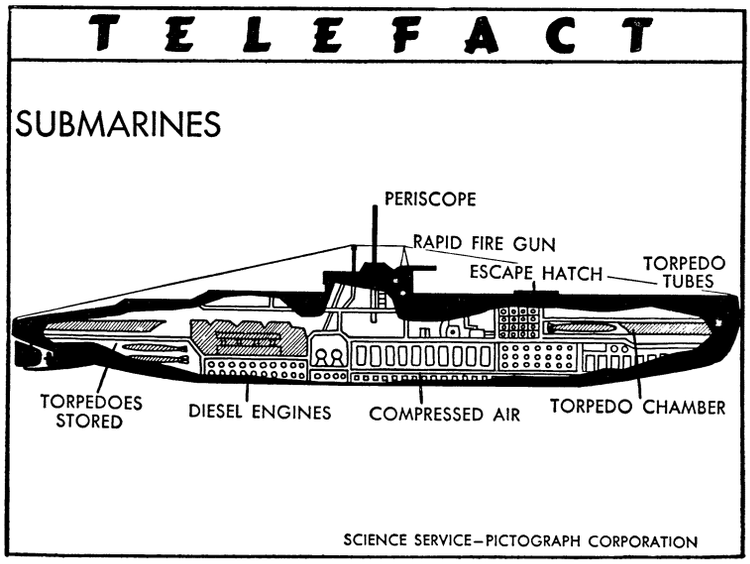

WILDLIFE

Discretion in Defense Uses Of Natural Resources Advised

Over-Fishing of Our Waters and Over-Cutting of Forests Among Mistakes Made at Time of World War

NATIONAL DEFENSE uses of irreplaceable natural resources must be guided by discretion, lest harm rather than good result, declared Dr. Ira N. Gabrielson, chief of the U. S. Fish and Wildlife Service, at the Sixth North American Wildlife Conference in Memphis.

Our very zeal for strengthening America can lead us into errors that have an exactly opposite effect, he cautioned, pointing out as past examples the ill effects of over-fishing of our waters and over-cutting of our timber lands during the emergency of 1917-18. The country is still suffering the consequences of the mistakes made by honest but over-enthusiastic patriots in those tumultuous days.

Even worse may be done to us by cold-bloodedly selfish persons who place self-interest ahead of patriotism, and advance the plea of defense promotion only as a Trojan horse for selfish schemes of their own, Dr. Gabrielson suggested. Watch out, he warned, for such things as efforts to cut priceless virgin timber out of national park areas, under the excuse that it is to be used for "defense".

"If this country is to continue to be a good place to live in, or to be one worth fighting for," he said, "we must use intelligently the resources of soil and water, and the products of soil and water, not only in good times but in bad times, and in national emergencies as well as in normal times."

In the course of his address, Dr. Gabrielson reviewed the progress of the wildlife restoration program during the past five years. Land acquisition and refuge creation have gone forward very well, he said, though much still remains to be done. The same is true in the arrangements for cooperation with state and local agencies, especially in basic ecological research. Costs of these programs are defrayed mainly by persons and groups most interested, through sale of "duck stamps" and sales taxes on sporting arms and ammunition.

Somewhat slower progress, though fairly satisfactory still, was noted by the speaker in such fields as educating the public in the recognition of wildlife values, and in the promotion of specific research programs where present knowledge is weakest, especially in the study of the ecology of water areas. Much more needs to be done, too, toward the restoration of fish and of fur-bearing animals. Both of these were once among America's greatest natural resources, and intelligent action can do much to restore them to a large degree of their former importance.

By far the least satisfactory situation, Dr. Gabrielson declared, exists with regard to river and lake pollution. Good progress in the setting up of municipal sewage disposal plants during the past few years is contrasted with virtually no progress at all in getting rid of pollution due to industrial wastes. Most industrialists, the speaker said, have proven stubbornly uncooperative, and he challenged sharply the right of any man to misuse publicly owned waters as private sewers.

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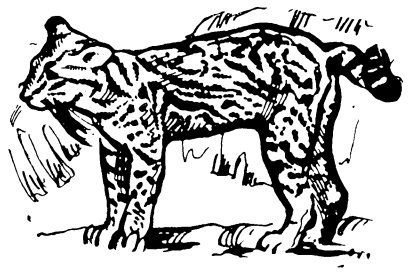
Overcrowding Stunts Fish

OVERCROWDED ponds, like overcrowded city districts, produce undersized stunted populations, Prof. H. S. Swingle and Dr. E. V. Smith of the Alabama Agricultural Experiment Station told the meeting. Lack of carnivorous species (*Turn to page* 142)

WILDLIFE

NATURE RAMBLINGS

by Frank Thone



For Better Camouflage

DEFENDERS of Britain are learning from animals how to protect possible bomb targets by making them invisible to Nazi raiders. Biologists, with their knowledge of the highly successful principles that animals use in concealing themselves from would-be devourers, are aiding physicists, engineers and others in this work. As a result, the camouflaging of buildings, storage tanks and such objects has become more and more of a scientific job.

The principles known to biologists as general resemblance, special resemblance, disruptive pattern, deflection and mimicry are all now at the disposal of camouflage artists, to be used as the situation dictates.

General resemblance is more commonly employed in military camouflage in the field, where mobile objects are colored so as to be as inconspicuous as possible against any background on which they stop. Special resemblance to particular natural objects is often extremely ingenious. Admirable methods of counterfeiting grass are now available, and artificial woods with "sapless foliage," but permanent greenery spring up where required.

The biological principle of mimicry is reversed in the new camouflage. In nature, harmless creatures are often disguised as dangerous or poisonous species, presumably to frighten off their enemies. In military mimicry, dangerous objects like gun positions are made to look like harmless cottages or haystacks.

In biological deflection, attention of a possible devourer is drawn away from the vitally important individual or part and to something that can be lost without particular harm. Replaceable tails of certain lizards, which can be left in the attacker's possession while the animal itself escapes, offer a good example. The same principle is used in deflecting the attention of air raiders from important parts of a known target to non-vital elements, like empty sheds.

Disrupted pattern, the use of zigzag lines and splotches of color, is perhaps the most widely used of all camouflage methods. Biological examples are the stripes of zebras and tigers, the spots of leopards, the splotchy pattern of the giraffe's skin. Closer study of nature has enabled camouflage specialists to correct the errors of much of their earlier work.

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that remove the surplus population, and heavy weed growth in the ponds, are important contributing factors to this ill state of affairs. As remedies they recommended clearing out the weeds, stocking with large-mouth bass, fertilizing the water to increase the food supply, and thinning out the crowded population by a heavier take of fish.

Science News Letter, March 1, 1941

TVA Fish Studies

NEW LAKES behind the lower dams in the TVA region have shown some interesting ups and downs in their fish population as the waters rose in them, Clarence M. Tarzwell of the TVA Biological Readjustment Division reported. During the first year, the catch of game fish is generally lower. It goes up during the second season, but during the third there is a tendency for panfish, and especially for coarse fish like carp, to overtake the game species in numbers. Apparently there needs to be some additional protection for bass and other game fish, and possibly legalization of netting for carp, to maintain a desirable balance.

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Won't Stop Conservation

AMERICA'S defense needs will not run counter to the interests of conservation, whatever the present emergency may bring, Rep. Ross A. Collins of Mississippi assured the sixth North American Wildlife Conference.

Mr. Collins, chairman of a special House Subcommittee on Defense Appropriations, declared that conditions now are entirely different from what they were in 1917-18, when timber was recklessly cut to provide parts for airplanes, rangeland plowed up to increase wheat acreage, and fisheries exploited far more intensively than they could bear without long-lasting damage.

"Fighter and bomber planes are of all metal construction now," Mr. Collins said. "If anybody puts up a plea that spruce has to be cut wholesale for warplane construction, look carefully to see if he hasn't some interest in raiding our forests to get cheap lumber for non-defense purposes.

"The same thing goes in the case of farm and fisheries product. Our surpluses in basic foods and fibers are still so heavy that we are still seeking ways to reduce cotton acreage, and to dispose of stocks of corn and wheat now on hand. So there is no need to plow fields that have been reclaimed from dust bowls or destructive gullying."

Defense programs have given the U. S. Department of Agriculture some new problems in transplanting farmers, H. W. Hochbaum, of the U. S. Department of Agriculture's Extension Service, told the conference.

Great tracts have been purchased for cantonments, maneuvering grounds and artillery and bombing ranges. Naturally, these have been acquired as far as possible in thinly populated, low value areas, so as to dislocate as few farmers as possible. However, thousands of farm families must find new homes and it is one of the cares of the Department of Agriculture to make the re-location with a minimum of dislocation.

Another problem has been the settling of rich lands along the Mississippi made available for secure farming as the result of the great flood control programs of recent years. Hitherto these lands have been swamps and shallow lakes, or at best have been subject to so frequent flooding that farming was impossible. Now they are valuable additions to the nation's good land capital.

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