DEPARTMENT of the INTERIOR

news release

FISH AND WILDLIFE SERVICE FEATURE MATERIAL

For Release On Receipt (prepared 1/2/74) McGarvey 202/343-5634

"GET THE LEAD OUT":

WILDLIFE CONTROVERSY OVER SHOTGUN AMMUNITION FOR DUCK AND GOOSE HUNTING

There is strong evidence that thousands of ducks and geese are fatally poisoned each year by lead shotgun pellets which they scoop up from marsh-bottoms as they forage for food. Countless others suffer anemia, muscular disorders, a high susceptibility to other diseases, and disoriented migratory behavior from sub-lethal doses of lead pellets.

These factors prompted the U.S. Fish and Wildlife Service to consider the phaseout of lead shot for shooting waterfowl nationwide by 1975--a move that has spurred outcries from many quarters, so many in fact that the basic issue of lead poisoning has become obscured by arguments over the most efficient way to kill waterfowl, the theoretical crippling of ducks and geese, damage to shotgun barrels, and claims that no problem exists. It's like the situation where the house is burning and the firemen are debating the relative merits of incendiary grenades over flamethrowers.

Any reasonable consideration of this issue must keep the welfare of waterfowl centerstage. The problem distills to questions of whether a significant number of waterfowl are dying of lead poisoning and what practical substitute for lead pellets is handy? But whatever the arguments and questions, all those devoted to wildfowl must balance their personal interests with the overriding central theme of what's best for the birds.

(MORE)

Nobody knows exactly how many waterfowl are poisoned annually, but all experts agree that the toll is significant. A 10-year study of the problem published in 1959 by Frank C. Bellrose of the Illinois Natural History Survey estimated that two to three percent of the North American waterfowl population was dying annually from lead poisoning. This could amount to as many as two to three million birds. The increase in hunting and the continual shrinking of wild living space may mean that the number of birds affected is increasing.

Based on the Illinois study, mallards appear to be the principal victims of lead poisoning, seconded by pintails. Geese, swans, and other ducks are affected in lesser but still significant numbers.

Feeding habits may account for high mallard losses. They puddle into bottom mud for tubers, seeds, and other foods. Ducks that feed on floating plants, leafy vegetation, and certain aquatic organisms seem to pick up fewer pellets.

All ducks and geese, however, pick up grit--gravel or other hard substances that help them digest their food. The grit remains in the gizzard, grinding up the food material until the grit itself is ground down and passed through the birds system. Then it must be replaced. It may be that lead pellets are sometimes picked up by waterfowl mistaking them either for grit or for seeds.

In any event the result is the same. In some cases, the lead paralyzes the muscles and prevents the crop from emptying. The crop fills until it will hold no more, becomes impacted, and the bird starves. Additionally, lead released by the grinding action on the pellets passes into the birds system, affecting blood, nerves, kidneys, liver, and the heart.

On heavily-hunted marsh and lake bottoms as many as 6,000 to 120,000 lead pellets per acre may be present in the upper few inches of mud. There is no practical way to remove this lead. On soft bottoms, lead settles out of reach in a few months, but on harder bottoms it settles more slowly and may remain within reach of waterfowl for years. Fortunately waterfowl tend to feed in areas having relatively soft bottoms and a valid generalization is that the most recently deposited shot is the most readily available and it becomes less available with the passing of time. Thus, the replacement of lead with a non-toxic soft steel would have an immediate and beneficial impact since the pellets most available to foraging waterfowl would not be poisonous. It is the opinion of some waterfowl technicians that banning lead shot would result, in as few as two to five years, in an increase in the numbers of waterfowl.

The results of the 1959 Illinois study are now being supplemented by more recent information gathered by the U.S. Fish and Wildlife Service. This study consists of an analysis of lead levels in the wing bones of ducks. The amount of lead in the wing bones is a good measure of exposure ducks have had to lead. A preliminary report on this study indicates ducks are carrying a heavy lead burden nationwide. There are noticeable

regional differences in the amounts of lead ducks are carrying. The highest levels of lead in mallards occurs in the Atlantic flyway, followed closely by the Pacific and Mississippi flyways. The lowest levels are found in the Central flyway.

Of particular interest is the evidence that lead burdens build as birds move south down the flyways. For example in the Atlantic flyway, five percent of the black ducks sampled in Maine carried more than 20 parts per million of lead in their wing bones. This level increased to eight percent for birds sampled in Massachusetts, 13 percent in Maryland and 18 percent in Virginia. Most significantly the Service study establishes a correlation between the occurrence of lead in the wing bones and the occurrence of lead in the gizzards as demonstrated in the 1959 Illinois study. The evidence is strong that lead shotgun pellets picked up by mouth are the major source of lead in ducks in the United States.

Efforts to develop a non-poisonous shotgun pellet were started 25 years ago by waterfowl managers in cooperation with the ammunition industry. Their studies pointed to the need for non-toxic shot.

For a number of reasons opposition to steel shot has sprung up in some quarters. One of the arguments advanced suggests that steel shot will cripple more ducks each year than are being killed by lead poisoning. The Fish and Wildlife Service tested steel shot and lead shot under laboratory and field conditions and concluded that steel shot performs about as well as lead shot at ranges of 45 yards or less. Over 45 yards, however, steel shot is likely to be less effective than lead. Thus, the crippling issue falls directly upon the hunter. It will be his shooting ability and ethical behavior--not the shot he uses--that will ultimately determine the extent of crippling losses.

Others worry that steel shot will damage shotgun barrels. Tests have shown this to be only partially true. Information available to date shows that this fear has been exaggerated. Many good quality American-made pumps and auto-loaders show no significant damage from the use of steel shot. However, steel shot can damage thin-barrelled, lightweight double-barrelled or cheaply made shotguns. Hunters have been advised to avoid extensive use of steel shot in these types of guns until improved loads have been developed.

Another objection raised is the higher cost of steel shot. The ultimate cost of steel shot, when produced in quantity, has not been determined.

Even if the current price of two to three dollars more per box than lead shot were maintained, this would add very little to the total cost of waterfowl hunting. Statistics show that the average waterfowler uses about two boxes of shells per season, thus his added cost would not exceed about six dollars a year. This is a very small amount in relation to the other costs of waterfowl hunting, and is likely to be less as production techniques improve.

Last year the Service conducted a pilot program with steel shot on seven national wildlife refuges and learned that a majority of hunters using it found it satisfactory. It was also learned that the field performance of steel shot was little different from lead shot. During this hunting season, the Service is again conducting a pilot program at 15 national wildlife refuges. Tests are also being carried out by 12 State fish and game departments. The purposes of these tests are to get better information on hunter reactions and attitudes, relative killing effectiveness and associated crippling losses.

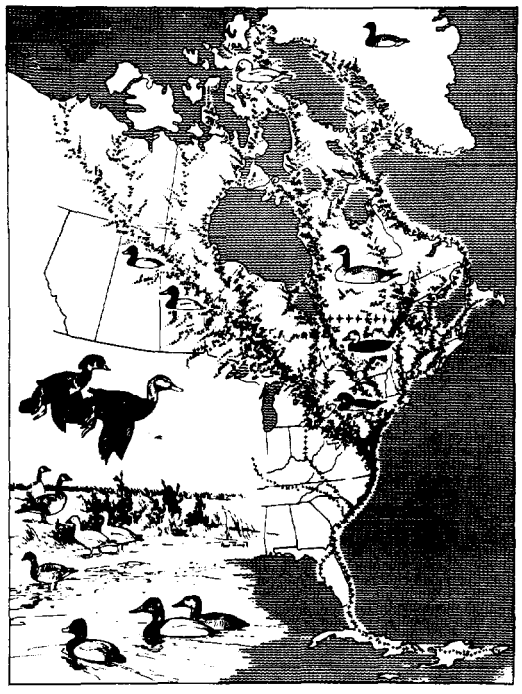
The Fish and Wildlife Service is committed to making a decision about a lead shot substitute as rapidly as possible. An environmental impact statement is being prepared on the question of converting to steel shot. Once this is completed and publicly reviewed, a decision will be made.

The steel shot issue has become highly controversial. Nevertheless lead shot is needlessly killing waterfowl and all parties to the dispute must set aside personal interests for the sake of this national wildlife resource. Hunters will have to pay more for ammunition for waterfowl hunting and will be required to raise their own level of skill and competence in the field. In so doing they will be contributing to the welfare of the waterfowl resource and helping to assure the perpetuation of their sport. Waterfowling is a great American tradition. Waterfowl hunters have consistently taken the lead in preserving this tradition and must now again demonstrate their concern by rising to the challenge of this demanding situation.

x x x

The most numerous waterfowl losses to lead poisoning show up in early winter after hunting season. The mallards above were recovered from a pond in Ohio. Analysis revealed they had all died of lead poisoning.

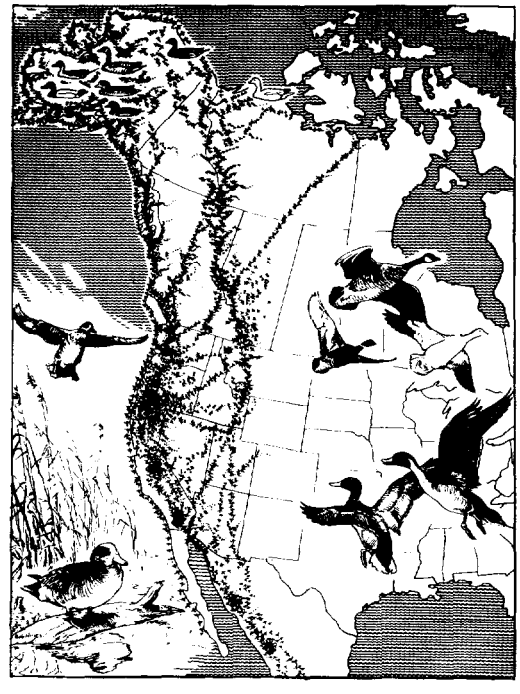
WATERFOWL FLYWAYS OF NORTH AMERICA



Atlantic Flyway

Mississippi Flyway

Central Flyway



Pacific Flyway

By returning bands found on banded ducks and geese, thousands of people all over America help wildlife biologists determine the routes, or flyways, used by our waterfowl between their northern nesting grounds and southern wintering areas. Banding records are maintained, and results analyzed, by

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

BUREAU OF SPORT FISHERIES AND WILDLIFE

INT: 2965-74