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OPENING COMMENTS—EIGHTH VERTEBRATE PEST CONFERENCE—AND THE STABILITY OF VERTEBRATE POPULATIONS IN MAN-MODIFIED HABITATS

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Good morning. I am Professor Howard, your Conference Chairperson. Welcome to the Eighth Vertebrate Pest Conference. Vertebrate pest control has come a long way since our first two-day Conference, in 1962. An excellent meeting has been arranged by the hard-working Conference Committees and the 17 members of the Vertebrate Pest Council, who direct the Vertebrate Pest Conference. It is already a great success--because all of you are here.

As I said in opening our first Conference 16 years ago, this is a Conference, not a convention. No motions or resolutions will be entertained. We are here to get acquainted with each other and to advance knowledge on coping with vertebrate-animal dislocates in man's modified environments in a manner which will least disturb other species in the ecosystems.

We are highly honored to have with us scientists from at least 13 other countries. At noon or this afternoon, I will take a few minutes to recognize our international colleagues, so that you can later introduce yourselves.

It is appropriate to start this Conference with a few remarks about your role as conservationists, and to point out how significantly your efforts contribute to the balance of nature by helping make man's impact on the environment more ecologically harmonious. Natural predators, along with intrinsic self-limiting population regulatory factors, have evolved as key biological forces that help maintain the various vertebrate prey species at optimum densities, i.e., the environmental carrying capacity. This natural process of population regulation, however, is usually not successful in agricultural and other modified environments. Therefore, in the array of habitat conditions man has created, man must himself assist natural predators and the inherent self-limiting forces.

You represent the type of conservationists (applied ecologists) that this country and the entire world needs more of. Your operational or research jobs probably do more to benefit nontarget wildlife species than any other organized group, in spite of the millions of dollars that some preservationist groups raise each year. The reason is very simple. Such groups never spend their money to provide more habitats for wild species and they do not seek better ways of coping with unwanted population densities of troublesome vertebrates. Instead, they spend vast sums on anticontrol legislation and keeping the "pot boiling" so they can raise even more money. Anticontrol legislation does not solve vertebrate pest problems in ecosystems that man has modified. You, in contrast, are making real contributions to the balance of nature in disturbed environments. In addition, you directly benefit many other species of vertebrates when you develop a more selective and safer way of controlling a pest population of vertebrates, especially an integrated method which keeps poisons and lethal methods at a minimum. Better alternative means of controlling pests are what is needed, not anticontrol legislation, which may often cause more environmental harm than no action at all.

Not many people recognize that since all modern agricultural crops have been developed in the absence of selective pressure by native wildlife, such plants would not likely have survived (at an economic level) if all native wildlife had always been protected. The situation is the same for most cultivated plants we use in landscaping our homes.

Actually, homeowners have a very low pest threshold and will not tolerate any of the species of vertebrate animals which formerly occupied the space where their home is now located. It is a rare homeowner indeed who landscapes to benefit wildlife or who can enjoy moles and pocket gophers in the lawn, rats in the garage, bats in the attic, snakes in the yard, or frogs and toads in the swimming pool. These and many other species would like to live in suburbia, but, for selfish reasons, not economic ones, urban people will not tolerate such wildlife around their homes. Yet these same folks often mistakenly think that all wildlife should be protected in all agricultural, range, and forest lands that man has modified. They do not realize that overprotection in altered environments can cause much additional disharmony among wild populations of animals. In disturbed ecosystems, wild animals can easily be "loved" to death by overprotection.

How can we continue to meet our needs for food, fiber, and other resources without coming into conflict with wildlife? We cannot stop logging, plowing, etc., for the benefit of the wild fauna any more than we can give up the land we need for houses, businesses, and other purposes to let the original wildlife return to the places for which they have prior claim. Blaming the farmer, rancher, logger, miner, etc., is no solution. The best answer is to have maximum possible cohabitation between wild things and man and his civilization. That will require better alternative solutions to vertebrate pest problems and finding the most desirable trade-offs.

To campaign for anticontrol legislation is nothing more than a hypocritical ego trip for the participants. The environment and its fauna are not benefited--and indeed often become worse off from ill-conceived anticontrol legislation. The principal benefit of anticontrol campaigns and legislation is that it enables the sponsoring organization to drum up more public contributions. Almost all people feel an abiding satisfaction from giving kindness and pleasure to an animal or reducing its suffering--and not just for a loved pet. But it takes field biologists like you people to recognize that it is far more humane to eliminate some individuals than it is to live-trap them for release into a habitat already occupied, where they will create social conflict and disharmony with other occupants and probably will not survive.

Suitability of habitat is the key to how well a species will do in any community. Some vertebrate species, being highly adaptable, take advantage of man's artificial habitats to attain population densities that could not normally be allowed by their inherent, self-limiting, homeostatic, density-dependent, population regulatory mechanisms. Examples are rats, mice, starlings, coyotes, and carp; in fact, most pest species fall into this category.

Too few understand that a highly stable animal-plant-soil equilibrium exists where man has not markedly altered the environment. In temperate regions, the balance of nature in natural habitats is little affected even when a large number of individuals of any one or several species of vertebrates are removed by man. The naturally evolved species that are present have acquired great resilience to offset various climatic and other catastrophes.

If, however, man markedly modifies habitats, then all vertebrate species will be affected. That is why it is usually not desirable to control a vertebrate pest by modifying the environment, for that will affect most other vertebrates present. Habitat destruction goes beyond the evolved evolutionary stability and limits of tolerance that species have acquired; that is what upsets the balance of nature.

You can all take satisfaction from your efforts at improving the sophistication of vertebrate control, for those efforts have done much towards helping provide new stability to the balance of nature of wild vertebrate populations in the drastically man-altered ecosystems which occupy most of the country today.

Many have raised an interesting question: Why don't we say vertebrate pest management instead of control? Well, the answer is that management, such as habitat improvement, is done for the welfare of the species being managed. When the objective is to protect other species or resources from a species, however, that species is being controlled. Because browse increases after logging operations, a timber man may want to control any increasing deer herds that interfere with reforestation, and a Game Department may also want to reduce that same deer herd--but as a management operation to keep them from becoming so abundant that they destroy their own food supply.

What I have been trying to point out is that the type of habitat modification done by homeowners, farmers, and the like nearly always causes some vertebrates to become pests. Some conservationists, through protectionist zeal founded on ignorance of the population dynamics of vertebrates in altered environments, indirectly force many farmers to practice an undesirable form of biological control of vertebrate pests--clean farming. The farmers cannot afford to keep hedge rows and riparian vegetation because they will foster serious pest problems unless some other control is practiced. At this Conference the speakers will illustrate how they are seeking the most ecologically desirable protection of mankind's food, fiber, and other resources, including wildlife in general. All of the papers will shed light on the role that vertebrate pest control is playing in managing modified environments in perpetuity in a healthy manner.