

RESEARCH NEEDS IN WILDLIFE DAMAGE CONTROL
--Research Needs as Perceived by
State Directors in the Eastern ADC Region--
by Dennis Slate 1/

This presentation provides a brief overview of wildlife damage-related research needs as they are perceived by Animal and Plant Health Inspection Service (APHIS), Animal Damage Control (ADC) State Directors in the Eastern ADC Region. There are 23 State Directors in the Eastern ADC Region who are responsible for managing operational and technical assistance animal damage programs in 31 states. Because of their collective experience with a variety of species and control techniques under various environmental circumstances, their input and insight should be valuable in helping those in the research community more clearly define wildlife damage-related research needs.

State Directors responded to a mail questionnaire developed with the assistance of Eastern Regional personnel. The questionnaire, which was developed with a "taxonomic" flavor, identified species (e.g. coyote), groups of species (e.g. blackbirds) or species interactions with human activities (e.g. aquatic birds/aquaculture) as research need headings. A few potential specific research needs were listed under each heading. For example, under the research need heading, coyote, were: 1) damage assessment and 2) need for control techniques that can be applied in the east. State Directors were requested to respond - yes - if they concurred or - no - if they did not feel there was a need. If the response was yes, they were requested to proceed by answering yes or no to the specific areas of need identified under a heading. Additions of headings and/or specific needs by each State Director were allowed. State Directors were also encouraged to be parochial in

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their response, thus limiting their perceptions of research needs to their geographic area of responsibility.

Frequency of yes responses to the 6 research need headings for birds were: blackbirds (22), waterfowl (22), bird/general (21), gulls (19), aquatic birds/aquaculture (18), and raptors (18). The need for new tools or expanded uses of existing tools to reduce depredations to corn and development and registration of more effective roost toxicants were the most frequently indicated specific needs for the control of blackbird damage. New approaches to effectively manage nuisance waterfowl and the need to augment and/or replace currently employed "propane exploder" strategies used to reduce crop depredations by waterfowl were cited as needs. Chronic problems of competition for airspace and bird usage of aircraft hangars where enclosure practices can not be effectively implemented were cited as specific areas requiring research attention. Periodic determination of gull population sizes was indicated as a need. Development of techniques that will effectively reduce depredations by aquatic birds at aquaculture facilities was indicated a need. The need to assess the cost effectiveness of currently employed scaring techniques at catfish farming operations was added to the questionnaire and cited as an issue requiring timely attention. There is a need to develop additional socially acceptable techniques for the control of depredating raptors.

Frequency of yes responses to the 3 research need headings for carnivores were: coyote (19), raccoon (19), and bear (13). Scientific assessment of the types and magnitude of coyote damage and development of control techniques that could be applied in the eastern US were viewed as important needs. Depredations and nuisance activity by bears and raccoon were indicated as problem areas in need of research. There is a need to

more clearly document the impacts of relocating nuisance bears and raccoons.

Frequency of yes responses to the 5 research need headings for rodents were: beaver (17), orchard rodents (voles) (15), squirrel (11), porcupine (8), and commensal rodents (7). Those responding yes to the heading for beaver damage research indicated the need to assess magnitude of damage caused by beavers. The need to develop an effective toxic bait and delivery system for beaver control was an addition to the questionnaire by several respondents. All of those responding yes to the orchard rodent heading indicated that a more effective bait should be developed for the control of pine voles. State Directors responding yes to the squirrel heading were located mostly in the northern part of the region where research on squirrel damage to maple sap tubing delivery systems was cited as a need. That there were only eight yes responses to the porcupine heading relates to the limited geographic distribution of the species. An effective toxicant that could be applied in the east was cited as a need. Many of the State Directors indicated

that there is sufficient research activity in the private sector to satisfy research needs associated with controlling commensal rodents. The need for better control of rodents in confinement livestock operations was a notable addition to the questionnaire by one State Director.

Methods to control white-tailed deer damage was cited by 19 State Directors as an area of research need. In the face of exceptionally high deer densities in many agricultural areas in the east, there is a need to improve and/or develop control techniques and assess agricultural damage caused by deer.

The research needs identified by the Eastern Region's ADC State Directors are numerous and diverse. Satisfying those needs represents a considerable challenge to the research community at large. The degree to which the ADC staff at Denver Wildlife Research Center can assist in meeting the needs as identified by the operational staff will depend in large part on how those needs rate through an existing internal and external research prioritization process and their relevance to agriculture.