October 1987

RESEARCH NEEDS IN EDUCATION AND RESEARCH INSTITUTIONS

Jay B. McAninch
Institute of Ecosystem Studies, The New York Botanical Garden, Mary Flagler Cary Arboretum, Millbrook, New York

RESEARCH NEEDS IN EDUCATION AND RESEARCH INSTITUTIONS

by Jay B. McAninch 1/

Research to support wildlife management programs has traditionally been conducted by scientists in education and research institutions. Much of this work has resulted from state and federal agency program needs or has been funded by state or federal agencies upon solicitation from scientists at these institutions. Regardless of the origin of the research, these institutions have primarily provided the investigators and staff for conducting research on animal damage problems. The priorities, duration and depth of the efforts have been dependent upon the committment to damage control research by the investigator and the quality of funding support.

Wildlife scientists, in general, need to consider animal damage control as an important research and education topic. The general perception of damage control as a nuisance problem has left the topic in a "second-class" position in relation to traditional wildlife issues or new areas such as endangered species. A tainted perception of animal damage control has led to poor recruitment of new scientists into this research area which has slowed the improvement of methods and limited the depth of the problems addressed. When a critical mass of active scientists has evolved, competition for resources, the exchange of information and the accumulated experience will result in a degree of maturity in the science of animal damage control. The rate at which the critical mass of researchers is accumulated will be a direct function of agency and institutional priorities and funding levels.

Researchers also lack the time or sufficient staff to interact with groups suffering damage. This problem has often led to research concerned with questions tangential to current issues.

This, in turn, has led to a small number of quality publications on animal damage control and few that have been considered "major" contributions to the field. The final result of this scenario is a lack of confidence on the part of consumers and, further, a general suspicion of the sincerity of wildlife scientists and managers in improving animal population control programs.

Funding for animal damage control research has been available only periodically and has generally not been allocated on an open, competitive basis. This approach has resulted in short-term, low funding levels that, in turn, has led to too much superficial research. Shortages of money have commonly been met with the use of graduate students as inexpensive research staff. The rapid turnover of graduate students, the need to focus their research on a good "thesis problem" and the inexperience of the students has severely limited the utility of these studies.

Low funding levels of short-duration have also limited evaluation of seasonal and annual variation in crops and animal populations. In addition, achieving adequate replication of field sites to provide a rigorous basis for comparative tests has been hampered by funding levels. When funding is low, studies that involve single sites, pens or enclosures, small plots, short duration experiments or, worse, are not directed to address the target problem, often proliferate. A progressive sequence of investigations from controlled experiments, to comparative field trials to *in situ* management research should lead to better results but will require better funding levels. Increased support in the near future could happen if industry and foundation funding were substantially improved.

1/Wildlife Ecologist, Institute of Ecosystem Studies, The New York Botanical Garden, Mary Flagler Cary Arboretum, Millbrook, New York.