

NPS Integrated Pest Management

Editor's Note: On Nov. 18-20, 1980, regional pest control coordinators met in WASO with Division of Natural Resources staff to review the pest management program and proposed future directions. Mike Ruggiero provided this summary.

by Michael Ruggiero

Integrated pest management (IPM) can be described as a systems approach to pest control that attempts to maintain the density of pest populations below specified injury levels. These levels may vary in magnitude and purpose with regard to specific management goals. For instance, a farmer may wish to keep a bollworm population below a level that will affect the yield of his cotton crop, a campground manager may want to minimize the nuisance level of mosquitoes, while a groundskeeper may wish to maximize the aesthetics of a lawn by controlling the dandelion population. Although the actual density at which a population becomes objectionable might vary with a particular situation, the general principles of integrated pest management remain constant.

Probably the most important component of sound pest management is a monitoring program. Target pest populations as well as their natural enemies should be under constant surveillance. Only thus can one establish levels at which treatment is necessary. Treatment should be based on a thorough review of existing remedies and should be a combination of effective and the least threatening to humans or the environment. Preventive, mechanical, biological, cultural, chemical, or sociological tools can be used singly or in combination. Monitoring should continue

after treatment to evaluate effectiveness. As successful IPM strategies are developed, educational materials should be developed to benefit others with similar problems. In many cases if thought is given to pest management before construction or development begins, problems can be prevented.

Commitment to sound pest management with minimal use of chemical pesticides has long existed in NPS, in management policies if not always in actual practice. Recently the Service has undertaken new initiatives to implement this commitment.

Credit for a major jump in this direction goes to Dr. James Sherald of the National Capital Region (NCR). In cooperation with the Environmental Protection Agency and the John Muir Institute, Sherald has initiated a three-year pilot urban IPM program. Significant steps were made the first year in managing some of the Service's commonest pests — mosquitoes, Japanese beetles, rats, yellowjackets, dandelions — through improved sanitation as well as mechanical, cultural, and biological controls.

The principles and strategies developed from the NCR microcosm could well form a basis for a servicewide IPM implementation. The division of natural resources at WASO currently is developing the necessary administrative and informational base to effect such a transition.