

Wisconsin Natural Areas Preservation Council GUIDELINES

Use of Biological Controls for Pest Species in State Natural Areas

Introduction

Definitions:

Biological control: "the action of parasites, predators, or pathogens in maintaining another organism's population density at a lower average than would occur in their absence" (DeBach 1964)

Target species: the species to be controlled.

Controlling species: the species effecting control of the target species.

Statement of concern:

The Natural Areas Preservation Council believes that there is considerable risk in the introduction of species into State Natural Areas and that extreme caution must be exercised. Decisions will be made on a case-by-case basis.

Risks:

The controlling species may attack other species, especially those closely related to the target species.

The controlling species is almost always a nonnative species; introduced nonnative species can become pests because they lack proper controlling organisms in the new habitat.

The habits of the controlling species may change in such a way that it becomes a pest species.

Controlling species have effects in addition to the desired effect; niches are never restricted to a single dimension. Effects on unmonitorable components of the biotic community may impact the system more than the imbalance the biocontrol is intended to correct.

The decision to allow use of a biological control in a State Natural Area depends on evidence obtained in prior testing, yet it is difficult to determine what constitutes an adequate test.

Guidelines

1. Requests to use biological controls in State Natural Areas will be considered on a case-by-case basis by the Bureau of Endangered Resources and the Natural Areas Preservation Council.
2. State Natural Areas will not be used as sites for determination of the efficacy of a controlling species, and such tests should be carried out on sites far enough from a State Natural Area to preclude spread of the organism to the State Natural Area.



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3. Proposals for the use of biological control methods shall include:
 - a. Identification of the State Natural Area, the type of biotic community involved, and the quality of the community.
 - b. The target species, the size of its population or the extent of the infestation, and the expected effect on the community if the population is not controlled.
 - c. Documentation of the results of efforts (here or on other sites) to control the target species by other methods, e.g. pulling, mowing, burning, hunting, or male sterile techniques.
 - d. The controlling species proposed, its origin, the technique to be used for introduction and/or enhancement, and the expected general effect on the community of a successful introduction or enhancement of existing population.
 - e. Evidence of the probable population dynamics of the controlling species following its release; e.g. die out, oscillate in tandem with fluctuations of the target species, or stabilize at a low population size.
 - f. Evidence of a very low probability that the controlling species will affect non-target species, including native species closely related to the target species.
 - g. Evidence of very low probability that the controlling species will become a pest species.
 - h. Options available should the controlling species become a problem.
4. Procedures for monitoring the controlling species and its affect on target and other species must be presented, including evidence of the ability to carry out the procedures. Identification of the agency responsible for monitoring will be required, together with a schedule for monitoring and reporting results.

Adopted: June 1996



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