

Invasive Species and the Conservation Community



by Bob Devine

What Environmentalists Haven't Done

Let's begin by thinking about lather leaf (*Colubrina asiatica*) in Everglades National Park. An invasive, vine-like shrub from tropical Asia, lather leaf is spreading rapidly through the park's coastal hammocks. This climbing invader shrouds and kills native trees, eliminates understory species, and hampers subsequent canopy recruitment.

Lather leaf constitutes a significant threat to an area of exceptional biological value. Yet, due to budget constraints, little has been done to combat lather leaf, though very recently a fair amount of money was procured for that purpose. (We should note that the National Park Service, as well as assorted other federal, state, and local agencies, has committed considerable resources to battling invasives around the nation. Unfortunately, considerable isn't enough.) A lack of funding likewise prevented park managers from eradicating lather leaf when it first appeared, when a paltry \$20,000 or so would have done the job.

One would expect the conservation community to be in a lather over lather leaf. The health of the park is prominent on the agendas of numerous environmental groups, who are striving to improve its water pollution and water supply problems. Imagine the protests from conservationists if a corporation attempted to drill oil wells along the park's coast, yet lather leaf and its ilk pose a greater long-term danger than would oil wells.

The conservation community has given some attention to melaleuca (*Melaleuca quinquenervia*), Australian pine (*Casuarina* spp.), and Brazilian

pepper (*Schinus terebinthifolius*), the high-profile Everglades exotics, but even in these cases the amount of attention falls short of what the situation warrants. The modest engagement by the conservation community regarding invaders of natural areas is not confined to Everglades National Park. Only a few environmentalists have expressed concern about efforts to bring raw logs from Siberia into the western United States, which might introduce the voracious Asian gypsy moth (*Lymantria dispar*) and other in-

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vasive insects and pathogens that could devastate vast expanses of western forests.

Few conservation groups have pressed for the control of Chinese tallow (*Sapium sebiferum*), though this insidiously pretty tree is overrunning coastal prairies throughout the South, including habitat vital to endangered species icons, such as the Whooping Crane (*Grus americana*). Nor have many environmentalists called for the control of the balsam wooly adelgid (*Adelges piceae*), salt cedar (*Tamarix* spp.), the green crab (*Carcinus maenas*), and the many other invasive exotic species plague natural areas all over the United States.

What Environmentalists Have Done

Though the conservation community has not given invasive species the attention they merit, it has spent some time and resources on the issue. A number of small local and state organizations have devoted much of their modest capacities to the matter. For example, various native plant societies convey information regarding invasives to their members and to the press, encourage government and business to address the problem, and organize local removal and restoration efforts. People in several states formed exotic pest plant councils (EPPCs), which typically consist of individual scientists, land managers, and conservationists who are concerned about invasive plants. These EPPCs provide a clearinghouse for information regarding invasives and bring the issue to the attention of their organizations, policy makers, and the media.

At the national level, a number of conservation organizations at least have the invasion on their radar screens. The most involved is the Nature Conservancy (TNC), one of the nation's largest conservation groups. TNC is unusual among such organizations in that it owns and manages large amounts of land; there are about 1,300 TNC preserves in the U.S. alone. TNC's interest in exotics has focused mainly on combating invasives in its preserves; given that many TNC lands have been invaded, the group had little choice but to deal with invasives.

The National Audubon Society owns and manages some preserves and, like TNC, has been battling invasives on its properties, but the other major national conservation groups don't own land and haven't been similarly compelled to confront

invasive species. However, some of these large, land-less organizations, such as Defenders of Wildlife, blend a consideration of invasive species into their other programs. For instance, in their biodiversity strategy for Oregon, Defenders highlights problems with invasive species in each ecoregion. Many other examples exist. Conservationists have referred to invasives in lawsuits seeking endangered species status for sage grouse and in concerns about global trade. They've testified at Congressional hearings on biological control. Environmentalists have published booklets, magazine articles, and technical manuals regarding invasives. Nonetheless, given the magnitude of the alien invasion, the efforts of the conservation community have been insufficient and scattered.

Reasons Environmentalists Haven't Done More

One reason can be appreciated by anyone working in wildlife management; conservationists lack the resources to painlessly mount anti-invasive species campaigns. Most major

environmental organizations have officers and staffers who would like to devote more time to invasive exotics, but these individuals already are working on water pollution, forests, wetlands, global climate change, and myriad other vital issues. They're reluctant to neglect any of their current responsibilities and they're reluctant to

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pile more hours onto their already overloaded work weeks in order to tackle invasives.

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garding exotics puts conservation organizations in something of a Catch-22; their members know little about invasives and therefore it's hard for the organizations to make exotics a high priority, but until those organizations make exotics a high priority, their members aren't likely to know or care much about invasives. Even when conservation organizations elect to take the initiative in educating their members, which many have begun doing, the nature of the invasive species problem complicates the learning process. It is easy to communicate the harm caused by a clearcut or an oil spill. A single dramatic photograph can stir concern, even action. People don't have quite the same response to a photo of a wetland lush with the lovely blossoms of purple loosestrife (*Lythrum salicaria*).

It's harder still to convince people that the health of the land dictates the control of mountain goats (*Oreamnos americanus*) in Olympic National Park or wild horses (*Equus caballus*) in the Great Basin. Even when the animals can be removed without killing them,

many members of conservation groups and the public voice concern. When the elimination of invasive animals does involve killing them, that concern sometimes erupts into fierce protest. Some conservation organizations have experienced nasty confrontations with animal rights groups, and the fear of stirring up vocal animal advocates sometimes inhibits the anti-invasives efforts of the conservation community. And it's more than a public relations problem. Many conservationists have legitimate concerns that invasive animals may endure unnecessary pain and death in the course of control programs. Taking such concerns into account can complicate matters, even when people acknowledge the greater good of keeping the ecosystem healthy.

As with the control of alien animals, the use of chemical pesticides to fight invasives creates dissention within the ranks of environmentalists. Reducing pesticide pollution has long been one of the defining tenets of the environmental movement and it's a tough sell to make an exception in the case of invasive species. And most environmentalists feel that it should be a tough sell, that the use of pesticides on invasive organisms should receive close scrutiny. Many conservationists may resign themselves to occasional pesticide use as a lesser evil than an unchecked invasion, but they worry that pesticides may be applied too freely and not only as a last resort. They also worry that some land managers might use chemicals as a crutch, postponing the need to make basic changes in the way some lands are used.

Animal control and pesticide use are two examples of a fundamental dilemma that the conservation community must work through as it comes to grips with the alien invasion. Many environmentalists distrust active management. They've seen excessive logging done in the name of forest health and the control of native predators in order to protect livestock. Specifically in the realm of invasive species, environmentalists often have seen active management go awry. They remem-

ber such fiascos as the importation of opossum shrimp (*Mysis relicta*) into the Flathead River-Lake system in Glacier National Park to boost game fish populations, which started an ecological ripple effect that decimated the whole community.

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Yet many invasive species can't be controlled without some active management. The conservation

community's default position of "leave it alone" works well when trying to protect wild lands from logging, mining, grazing, urban sprawl, oil exploration, ski development, and the like. But a hands-off approach often is not sufficient to repel invasive species. For one thing, non-native species already have invaded a great many natural areas and invasives seldom go away on their own. But even many pristine wildernesses eventually will be invaded to some degree unless managers actively prevent invasion and carry out early detection and eradication programs. The conservation community sooner or later (and I hope sooner) will need to determine the appropriate role for active management of invasive species.

What Environmentalists Will Do in the Future

I don't know. But I do have some ideas and some hopes. I am the executive director of the Environmental Working Group on Invasive Species (EWGIS), a new entity formed in No-

ember, 1999. So far we have members from American Lands Alliance, the Center for Marine Conservation, Defenders of Wildlife, Environmental Defense, National Audubon, the Nature Conservancy, Sierra Club, the Wilderness Society, and the World Wildlife Fund. In addition, we're forming a wide network of scientists, land managers, industry representatives, private land owners, government officials, and conservationists whose groups aren't represented on EWGIS.

Our mission is to energize and focus the anti-invasion efforts of the conservation community in order to protect our nation's wild lands. We hope to perform some functions that have been largely neglected within the conservation community. For example, EWGIS will be a forum for multi-organization discussions on invasives and a clearinghouse for conservation-oriented information regarding non-native invaders.

Perhaps most important, EWGIS can be the unifying force that brings environmental groups together to pursue anti-invasives initiatives. An informed and determined environmental community can help fundamentally

shape invasive species policy.

We also hope to help conservation organizations address invasive exotics in the context of their other programs. Many of our efforts to solve environmental problems falter because we look at things in isolation, not as dynamic ecosystems. We need to make sure that when people gather around a table to discuss a forest plan or a river corridor restoration or an endangered species study, they also consider invasives.

So much for sweeping, even grandiose, intentions. Though EWGIS is so new that we don't yet have all our detailed goals nailed down, we can get specific about a few of the things we may urge an energized conservation community to accomplish. For example, we'd like to convey the conservation community's views to the framers of the National Invasive Species Management Plan, a document mandated by President Clinton's 1999 executive order on invasive species. We'd like to strengthen existing legislation regarding invasive species, such as the Federal Noxious Weed Act, and make it more attuned to the needs of natural areas. We'll urge government,

business, and non-profits to substantially increase their spending on invasives. We'll press for improved screening for invasives at U.S. borders, particularly invaders of natural areas, which currently get little attention from the agriculture-oriented screeners.

We have other specific goals, and no doubt many more will crop up as the invasion rises to take its rightful place alongside habitat loss, pollution, global warming, and the other urgent environmental issues of the day. Our overarching goal is to make sure that the conservation community does indeed recognize invasive species as a major problem, and that they do so soon, rather than after we have a world of weeds.

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