



RECREATIONAL
BOATING & FISHING
FOUNDATION

**An Examination of the Relationship Between Recreational Boating
and Fishing Participation and Aquatic Resource Stewardship**

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Executive Summary

Widespread recognition of the absence of formal program evaluations and related research to guide aquatic resource and stewardship educators manifested itself as a priority concern at the initial February 2000 meeting of the Recreational Boating and Fishing Foundation's (RBFF) Education Task Force. The task force was formed to address the educational component of the strategic plan of the Sport Fishing and Boating Partnership Council's outreach and communication program.

The overall strategy of the Education Task is to educate people about how and where to fish and boat, and included a review of the relationship between boating and fishing participation and environmental stewardship. Results of the review would help the task force identify strategies for improving aquatic stewardship programs and construct a research agenda to improve our understanding of ways to make stewardship education programs more effective.

Anglers and boaters have long considered themselves stewards of the nation's aquatic resources. This feeling has been manifest through paying license and registration fees; contributing to the federal Sport Fish Restoration Fund through excise taxes on fishing equipment, boat sales, and marine fuel taxes; as well as active involvement in the fisheries management and boating regulation processes. This notion of stewardship has been challenged by some who claim that angler and boater stewardship is shortsighted and self-serving since most license and tax funding is directed at "sport" species only and ignores the needs of non-game species and are not paid voluntarily.

Research literature sheds little light on the stewardship orientation of anglers and boaters or the general public. Initial hypotheses developed in the mid-1970s stated that: 1) there is a positive association between involvement in outdoor recreation activities and environmental concern; 2) The association is stronger between appreciative recreationists (e.g., hikers, campers, birdwatchers) and environmental concern than consumptive recreationists (e.g., anglers, hunters, and boaters) and environmental concern; and 3) there is a stronger association between outdoor recreation and concern for protecting aspects of the environment necessary for pursuing such activities than between outdoor recreation and other general environmental issues such as air and water pollution. Only a handful of studies have tested these hypotheses since Dunlap and Heffernan (1975) presented them and conducted their initial testing. The results of these studies have been inconclusive, in part because of the methods employed and the way environmental concern or attitudes were measured. Most of these studies showed only weak relationships between outdoor recreation participation and general environmental concern. In studies where anglers and non-anglers were compared, there were no differences in general environmental attitudes or concern. However, when the environmental issues or concerns were related to

aquatic resources, anglers consistently showed higher levels of concern than non-anglers. Moreover, the more active anglers became in their participation, the greater their concern for and management of aquatic environments.

The results of the few studies examining the relationship between environmental concern and fishing and boating participation are tentative at best. Further, they have not directly examined environmental or aquatic stewardship behavior. The argument over whether one group of people is more environmentally concerned or stewardship-oriented than another detracts from the larger problem of expanding an environmental stewardship ethic in the nation's population. Clearly, if involvement in fishing or boating leads to greater environmental concern and towards a personal stewardship ethic, then participation in these activities should be encouraged. However, if we agree with Dixon et al. (1995) that, "*Stewardship is the moral obligation to care for the environment and the actions undertaken to provide that care,*" then the focus should be changed to facilitating the development of a stewardship ethic among the population.

Achieving this ethic is not as simple as it may appear. As Dixon and her associates point out, "*stewardship implies the existence of an ethic of personal responsibility, an ethic of behavior based on reverence for the Earth and a sense of obligation to future generations. To effectively care for the environment, individuals must use resources wisely and efficiently, in part by placing self-imposed limits on personal consumption and altering personal expectations, habits and values. Appropriate use of natural resources within the stewardship ethic involves taking [and advocating] actions that respect the integrity of natural systems.*" Thus, we can define ethics-based stewardship education as a process designed to develop an internalized stewardship ethic and the skills (i.e., critical thinking; decision-making; ethical competence; ethical fitness; and action skills) necessary to make considered choices and take environmentally responsible actions. Research literature has shown that for ethics-based stewardship education to achieve its goals, the educational process must develop internal guidelines for responsible behavior toward the natural world in a variety of situations that one might encounter in everyday life. Ethics-based aquatic education needs to develop internal motivations and guidelines for responsible behavior toward the resource, and other people and their activities while one is engaged in some aspect of fishing or boating. As an ultimate goal, aquatic stewardship programs should strive to develop internal guidelines that will later serve as a foundation for responsible behavior toward the natural world in a variety of situations that one experiences beyond the specific contexts of fishing or boating.

Research literature also indicates that for stewardship education programs to be most effective, they should use small groups, emphasize peer activities, focus on relevant issues, and involve action learning. Mentoring, community clubs, and family programs implemented over the long term will build the kinds of moral communities that facilitate ethics education. Aquatic stewardship programs will be most effective in reaching behavioral goals if designed to incorporate parents, family, and neighborhood as part of the learning community. Many of these personal and community objectives can be achieved using fishing and boating as vehicles to deliver the messages, provide learning opportunities, and instill the behaviors that lead to a moral obligation to protect the environment.