



# Best Practices Workbook



For Boating, Fishing, and Aquatic  
Resources Stewardship Education



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BOATING & FISHING  
FOUNDATION



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# Acknowledgments

The Recreational Boating & Fishing Foundation (RBFF) would like to thank several groups of people for contributing time and expertise to the development of this *Workbook*.

## Original Authors

The following researchers conducted extensive compilations of pertinent research and contributed chapters to the technical document *Defining Best Practices in Boating, Fishing, and Stewardship Education*, which provides the core information on which this *Workbook* is based.

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## Education Task Force

RBFF recruited volunteer stakeholders with expertise in education from the boating and fishing community to serve on a task force to help guide education efforts. Specifically, the goal of the Education Task Force is to “Enable stakeholders to use research and Best Practices to educate people about boating, fishing and aquatic resource stewardship.” The Education Task Force created a comprehensive plan to accomplish its charge, which included the development of this *Workbook* and other best educational practices documents.

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## Review Panel

RBFF recruited 30 professionals from state and federal agencies, private boating and fishing organizations, and academia to provide guidance throughout the development of this *Workbook* and other tools developed as part of the Best Practices Project.

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Mike O'Malley, Washington Department of Fish and Wildlife

Barb Gigar, Iowa Department of Natural Resources

### About the Best Practices Project

RBFF developed this *Workbook* to provide guidelines for Best Practices in boating, fishing and aquatic stewardship education programs. In 2000, RBFF commissioned 11 aquatic, environmental, and outdoor education professionals to develop summaries of existing research and recommendations for the development of best professional practices for boating, fishing, and aquatic stewardship education. These professionals presented their findings to a group of 25 researchers and educators at a workshop in Alexandria, Virginia on March 11-12, 2001. The resulting document, *Defining Best Practices in Boating, Fishing, and Stewardship Education*, is the foundation of this *Workbook* (available at [www.rbff.org](http://www.rbff.org)).

The *Workbook* also contains additional research from various sources, and has been reviewed by 30 professionals with a variety of backgrounds including educators, researchers, administrators, and practitioners.

A series of additional materials have been completed as part of the Best Practices Project and have been designed to complement this *Workbook*:

- Information sheets
- PowerPoint presentation
- Trainer's guide
- Newsletter
- Education program database

### Tools Are Available

*The Workbook and all of the Best Practices tools are available (download directly at [www.RBFF.org](http://www.RBFF.org))*

### About RBFF

The mission of the RBFF is to increase participation in recreational angling and boating in a way that increases public awareness of and appreciation for the need to protect, conserve, and restore this nation's aquatic natural resources. RBFF is committed to accomplishing this mission in a way that ensures that fishing and boating are done in a safe, responsible,

inclusive, and sustainable way, and driven by an environmental ethic that places the resource and the best traditions of boating and fishing above mere personal gain, self-gratification, and individual need. This requires strong educational support and grounding in research-based practices.

In 2002, RBFF sponsored a National Aquatic Education Leadership Summit that included leaders in aquatic education from all over the country representing state and federal agencies, industry, and non-governmental organizations. Although the individual vision of each group may vary to meet their particular mission, all agreed on the following vision for the broad aquatic education community:

### Aquatic Education Community Vision Statement

Aquatic education programs inspire individuals and families to embrace fishing and boating as a means to improve the quality of their lives, by providing:

- Physical, mental, and spiritual well-being.
- Quality time with family and friends, and oneself as an individual.
- Opportunities to help children develop essential life skills.
- Positive alternatives to inappropriate behaviors.
- Social, economic, and community health.

Because these individuals understand the vital roles that clean water, healthy watersheds, and quality fisheries have in their lives, they commit to protecting these resources.

For more information about RBFF, go to [www.rbff.org](http://www.rbff.org). For a more detailed description of the steps that led to the Best Practices Project, go to [www.rbff.org](http://www.rbff.org).

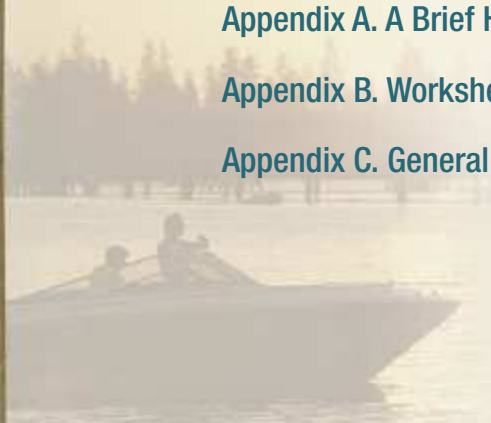


The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. government.

# Table of Contents



<b>Introduction</b> .....	Intro 1
What Are Best Practices? .....	Intro 1
How Can Best Practices Help You? .....	Intro 1
Need for Best Practices .....	Intro 1
How to Use This Workbook .....	Intro 2
Education Versus Communication .....	Intro 3
Behavior Changes .....	Intro 4
Where are the Footnotes and Citations? .....	Intro 4
<b>Elements of Effective Education Programs</b>	
Chapter 1. Plan Ahead for Success .....	1-1
Chapter 2. Building Your Program .....	2-1
Chapter 3. Well-Trained Instructors .....	3-1
Chapter 4. How Do You Know if It's Working? Evaluation! .....	4-1
<b>Specific Opportunities to Enhance the Program</b>	
Chapter 5. Expanding Your Reach: Diverse Audiences .....	5-1
Chapter 6. Expanding Your Reach: Persons with Disabilities .....	6-1
Chapter 7. Enhancing Boating Education Programs .....	7-1
Chapter 8. Enhancing Fishing Education Programs .....	8-1
Chapter 9. Enhancing Aquatic Stewardship Education .....	9-1
Chapter 10. Let Research Help .....	10-1
<b>Glossary</b> .....	G
<b>Appendix A. A Brief History of Environmental Education</b> .....	A
<b>Appendix B. Worksheets</b> .....	B
<b>Appendix C. General Logic Model</b> .....	C



# Introduction



## What Are Best Practices?

A Best Practice is a program or practice with specific outcomes that has been clearly defined, refined, and evaluated through repeated delivery and supported by a substantial body of research. These practices represent the best knowledge available for use under specified circumstances. It's important to note that Best Practices may change over time. They are recommendations based on what has been observed or documented to be effective to date, but which may change given additional experience, evaluation, and research.

For state fish and wildlife agencies and organizations trying to educate people about boating, fishing, and stewardship of aquatic resources, the use of best educational practices is simply a matter of applying tested, science-based practices to educational efforts, the same way biologists apply science to the management of fish, wildlife, and other natural resources.

## How Can Best Practices Help You?

*Best Practices are meant to enhance, not replace, existing efforts.*

This *Best Practices in Boating, Fishing, and Aquatic Resources Stewardship Education Workbook (Workbook)* and other Best Practices materials do not constitute a “program” unto themselves. Rather, they are tools you can use to make your existing (or developing) programs more effective.

Incorporation of Best Practices will maximize your effectiveness in:

- Planning, developing, and implementing programs.
- Conducting program evaluations at all levels of development and implementation.
- Providing ongoing professional development.
- Identifying relevant research to further understand and improve the educational process.

This *Workbook* contains a LOT of research-based and tested, effective ideas for improving education efforts. The primary audience for this *Workbook* is boating, fishing, and aquatic stewardship educators. References and examples from those areas have been

included wherever possible. References were taken from other related fields as well. The majority comes from environmental education, because it has been researched far more over the years than recreational fishing and boating education. Because the Best Practices discussed are process oriented, not content oriented, results should be highly interchangeable.

A brief understanding of how the environmental education field came to be what it is today can help you develop, prioritize, and position various elements of your program. Whether you are new to the field or a seasoned veteran, the brief history in Appendix A can solidify your understanding of and support for the use of Best Practices in all your educational efforts.

## Need For Best Practices

Each year, millions of people attend boating, fishing, and aquatic stewardship education programs, but are these programs effective at achieving sponsor goals? How do they benefit fish, wildlife, and boating-related agencies and organizations? Outputs such as the number of participants often serve as the only measures of performance. Does this participation contribute to agency revenues, image, or mission; or to increased license sales; or to a greater stewardship ethic among participants? There is little direct evidence that these and other goals of boating, fishing, and stewardship education programs are being achieved. The aquatic education community has identified this as a major need and concern.



Measuring attainment of these goals often is difficult; however, to be accountable for their programs, educators need to use appropriate evaluation tools and methods to measure intended outcomes. Furthermore, programs need to be designed and evaluated based on the best information research and practical experience have to offer.

The Recreational Boating & Fishing Foundation (RBFF) and its partners have engaged in the Best Practices project for that reason. Tools developed in this project are designed to help educators build, enhance, and evaluate their programs based on research and practices shown to be effective.

A series of materials have been completed as part of the Best Practices project and have been designed to complement this *Workbook* (available from RBFF):

- **Information sheets** – 10 different information sheets that give a brief overview of various Best Practices and how they benefit educational efforts
- **PowerPoint presentation** – comprehensive presentation that includes segments on various aspects of the Best Practices; designed to be customized for use with numerous target audiences, to communicate the importance of Best Practices
- **Trainer’s Guide** – “cookbook” for conducting a one- or two-day workshop that walks end users through the *Workbook* and motivates them to adopt Best Practices into their programs
- **Newsletter** – prototype newsletter that features case studies and articles about effective aquatic education programs, information on new resources and grant opportunities, etc.
- **Best Practices monograph** – A 190-page collection of research papers on Best Practices published by RBFF in 2001 (*Defining Best Practices in Boating, Fishing, and Stewardship Education*, Anthony J. Fedler, editor); available online at [www.rbff.org](http://www.rbff.org)

### How to Use This *Workbook*

Best Practices are process-oriented. They do not suggest what content you teach, but rather how you plan it, approach it, teach it, and evaluate it. Thus, every chapter in this *Workbook* may contain information that could benefit your education efforts.

This *Workbook* was not designed for you to read from cover to cover (although it would certainly be beneficial to do so!). Rather, it was designed to make it easy for you to skip around and quickly find the sections that are most applicable to your situation.

Worksheets throughout the text give you the opportunity to apply the Best Practice information to your own situation. By completing these as you go, you’ll have the basis for an outstanding educational program. You can also download the worksheets from [www.rbff.org](http://www.rbff.org).

This *Workbook* has something for everyone. If you are starting a program from scratch, all chapters will be invaluable. They will help you make informed decisions on how to plan and implement your program and help you avoid pitfalls others have learned about the hard way.

Administrators of existing programs can go through each chapter to see how closely their programs meet the Best Practice guidelines. You may find valuable ideas that you want to add, holes in your program that you can fill, or scientific research to back up or justify what you’ve been doing all along.

The primary target audience for this *Workbook* is anyone who is developing or revising an educational program in boating, fishing, or aquatic stewardship.

.....  
**Environmental Stewardship**

*For purposes of this Workbook, environmental stewardship is defined as informed, responsible action/behavior on behalf of the environment and future generations.*  
.....

Materials and information in this *Workbook* pertain to all of these major subject areas, and they were developed with the recognition that different programs focus on different aspects of these subject areas, such as:

- **Stewardship only** – Some programs focus on stewardship of aquatic resources only, and do not involve fishing or boating.
- **Stewardship emphasis** – Some programs emphasize aquatic stewardship, but recognize the value of the experiential aspects of fishing/boating as a way to teach stewardship.
- **Fishing only** – Some programs teach only fishing, without incorporating boating or stewardship messages.
- **Fishing emphasis** – Some programs emphasize fishing, but recognize the need and value of instilling ethics and stewardship. Some also incorporate boating education as a way to help enhance an individual’s ability to fish.

- **Boating only** – Some programs teach only boating (and some only boating safety) and do not involve stewardship or fishing education.
- **Boating emphasis** – Some programs emphasize boating, but incorporate stewardship education and/or educate individuals about how they can use the boat to fish.
- **Stewardship, fishing and boating** – Some programs incorporate all three.

Although each of these subjects can be taught independently, effective programs utilize a combination of subjects.

Your approach may vary within your overall educational efforts depending on your target audience. For example, if you are working with a teacher, your emphasis may be stewardship, but you may include fishing as a way to get students interested. If you are working with a physical education or drug prevention program, your emphasis may be fishing, incorporating stewardship and boating. Regardless of your approach, you'll find this *Workbook* helpful in developing or enhancing your program.

Chapters within the *Introduction* and *Elements of Effective Education Programs* sections of this *Workbook* cover topics that apply to all educational programs. If you are interested in developing/revising programs so they are as effective as they can be for your agency/organization, we recommend that you review each of these sections.

Chapters in the *Specific Opportunities* section provide guidance for a variety of specific applications. These are not stand-alone chapters. They provide specific considerations, examples and ideas for each topic area, but also make reference to the general topics of the *Workbook* where appropriate.

### Education Versus Communication

There is a lot of confusion among agencies, organizations, and individuals as to what education is and what it is supposed to accomplish. That is, many people think of education and communication as the same thing, when in fact they are very different.

Many people mistakenly believe that simply delivering good information to their audience will result in behavior change. Sometimes information is designed to inform and influence consumer behaviors, and becomes part of a marketing or promotion strategy.

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### A Big Difference

*The Random House Dictionary of the English Language, (1987) defines these words as follows:*

**Communication** - the imparting or interchange of thoughts, opinions, or information by speech, writing, or signs

**Education** - the act or process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life

.....

In general, *marketing* is determining what consumers want and need and then providing it. Promotion is simply communicating to your audience that you have a product or service. Some people confuse marketing and promotion with education, and believe that marketing approaches will attract boaters and anglers and make them environmental stewards.

Certainly marketing, promotion, and communication in general are critical parts of the education process because they create awareness, keep participation and stewardship at the top of consumer minds, and influence participation through social awareness and support. However, communication without education ultimately will fail if the goal is behavior change. When marketing and promotion stop, if consumer attention is diverted, there is nothing left to sustain and support interest. It is like seed sown on thin soil. It will sprout with excitement of a new idea, but soon wither for lack of nourishment. Education is required to enable boating, fishing, and aquatic stewardship to grow and flourish over the long term.

Boating, fishing, and stewardship education programs can focus on short-term outcomes like changing awareness, knowledge, skills, or attitudes of participants. They also can address longer-term impacts such as changing individual conservation-related practices; decisions and behavior; or improving societal, economic, or environmental conditions. These will be discussed in later chapters of this *Workbook*. Whatever the goals of your program, base them on the understanding that transfer of information *contributes* to education, but usually does not result in education.



## Behavior Changes

The goals of some programs are to increase boating and fishing participation and/or to increase stewardship of the aquatic resource. All require a change in people's behavior to accomplish. Teaching angling, boating, and/or stewardship skills alone will not necessarily result in someone making fishing, boating, or stewardship part of his or her life.

Education should not attempt to mold people. Learners should be involved in setting the learning agenda, and should be taught how to make informed, responsible decisions rather than how to think or act.

Individuals will not, in general, change many behaviors based on a single workshop or program. Changes in behavior will be achieved best through sequential, complementary education efforts, and may work best when learning occurs in a combination of formal and non-formal settings. More specific details are included in Chapter 2, and in the chapters on boating, fishing, and stewardship education.

## Where are the Footnotes and Citations?

This *Workbook* and associated materials are based on hundreds of books, reports, research papers, journal articles, and other sources. Nearly every paragraph could contain one or more citations from the work of others. However, to make this document easier to read and use by practitioners, footnotes and citations have been omitted from the body of the text.

Original sources of information compiled in this *Workbook* can be accessed in the technical publication: *Defining Best Practices in Boating, Fishing, and Aquatic Resources Stewardship Education* (Fedler et al., 2001). This document is available at [www.rbff.org](http://www.rbff.org). RBFF and its partners are deeply indebted to all who made this compilation possible.

