COUNSELOR GUIDE

FISHING MERIT BADGE

The Fishing Merit Badge

Fish are a remarkable group of living creatures. They have the ability to live underwater often undetected while they go about their daily activities of resting, feeding and replenishment. If fish populations are managed according to sound scientific principles, they will sustain themselves forever.

Early on, hungry primitive men across all cultures learned to catch fish to feed their family group. Over time as their fishing skills improved, they began to catch many more fish than their immediate friends and family could use.

Mankind has always enjoyed having fun so as time passed and the need to feed oneself and family became easier and more diverse, recreational fishing was born. Hooking devices and angling techniques were perfected to trick a fish—both angler and fish were hooked! Angling became a game of sorts.

Angling goes all the way back to Scouting's founder, Lord Baden-Powell, who said that "every Scout ought to be able to fish in order to get food for himself. A tenderfoot (beginner) who starved on the bank of a river full of fish would look very silly, yet it might happen to one who had never learned to catch fish." True to Baden-Powell's words, the Fishing merit badge seeks to teach those very skills.

To work with Scouts to counsel a merit badge, you first need to register with the BSA. A potential merit badge counselor must complete the Adult Application, No. 524-501, and submit it along with the Merit Badge Counselor Information form, No. 34405. See the Scouting Forms From the National Council page at Scouting.org. Your local Scoutmaster can also help you obtain and fill out these registration forms.

Any qualified individual of good character can be a merit badge counselor. If you are over the age of 18 and have the skills to teach fly-fishing, you can become a merit badge counselor. You should also have the patience and skills to work with Scout–age boys. Merit badge counselors are critical to success of the BSA's merit badge program. They offer their time, experience, and knowledge to help guide Scouts in one or more of the merit badge subjects.

The BSA also requires that you complete the online Youth Protection training prior to working with the Scouts. To take the training, go to www.MyScouting.org and establish an account using the member number you receive when you register for BSA membership. Note that this program addresses strategies for personal safety for youth as well as adults. Youth Protection includes training for two-deep leadership where an adult is not allowed to interact singly with a Scout. In addition to no one-on-one Scout adult interaction, adult leaders are taught to respect a Scout's privacy and to report potential problems or infractions.

Only an authorized counselor may sign off the Scout's work on the merit badge requirements. A Fishing merit badge pamphlet is available for purchase at the local council's Scout shop or online at www.scoutstuff.org. On Scouting.org, you can find the current requirements for the Fishing merit badge.

It is important to realize that the merit badge program is based on the Scout learning the skills needed to become competent in the subject merit badge. For the Fishing merit badge, the Scout does not need to become an expert angler to earn a merit badge. **It is also important to note that a merit badge counselor is not to change, or deviate in any way, from the established requirements in the *Fishing* merit badge pamphlet**.

The merit badge counselor will:

- Assist the Scout as he plans the assigned projects and activities to meet the merit badge requirements.
- Coach the Scout through interviews and demonstrations on how to do the required skills of the craft, business, or hobby.
- Follow the requirements of the merit badge, making no deletions or additions, ensuring that the advancement standards are fair and uniform for all Scouts.
- Certify the Scout after determining whether he is qualified for the merit badge.

Once contact has been established with the Scoutmaster or the Scouts, the counselor will develop a program schedule convenient to all. Be aware that the Scouts may arrive at the first session knowing little or nothing about fishing or the equipment used in the sport. The Scout may or may not have read the *Fishing* merit badge pamphlet or may have a booklet that is not current. Because the requirements have changed slightly over the years, it is the responsibility of the *Fishing* merit badge pamphlet counselor to obtain and follow the most current requirements.

Remember, Scouts may arrive with little or no preparation. Some Scouts may show up to simply earn another merit badge, learn something about fishing, or accompany a pal who wants to earn the badge. Many youngsters have never held a squiggly worm or a live fish before, so be ready to guide the process so someone doesn't get a wildly flying hook in their hand.

Above all, your job as counselor is to bring enthusiasm, knowledge, and skill to each session and

transfer those abilities to the Scouts. By the time you are finished, each of your Scouts should be equally enthusiastic about the sport of fishing and be grateful to you for taking the time and effort to teach them how to participate in the sport. Make the time with the Scouts safe, fun, and exciting.

It is recommended that you bring all bait, supplies, and rods. Relying on Scouts to bring their equipment is a mistake. If they have any equipment at all, Scouts may bring such a diversity of gear that by the time you straighten it out, you will lose the attention of the other Scouts.

Remember, to earn the Fishing merit badge, Scouts do not have to become experts in the sport. Your job is to bring them along to a level of competence that allows them to successfully catch a fish and have fun doing so. Keep your instruction in simple modules, and keep your program moving to prevent boredom and distractions.

Requirements

Each requirement will be addressed individually with pointers offered to help you become oriented to the tasks required of each Scout. The *Fishing* merit badge pamphlet, available at all Scout shops, will discuss each of the points in the requirements so the counselor is encouraged to read it thoroughly before interacting with Scouts. The latest requirements are also listed in the annual *Boy Scout Requirements* publication, No. 35899. Preparation, flexibility, and a great attitude are the keys to success.

1. Do the following:

a. Explain to your counselor the most likely hazards you may encounter while participating in fishing activities, and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

b. Discuss the prevention of and treatment for the following health concerns that could occur while fishing, including cuts and scratches, puncture wounds, insect bites, hypothermia, dehydration, heat exhaustion, heatstroke, and sunburn.

c. Explain how to remove a hook that has lodged in your arm.

d. Name and explain five safety practices you should always follow while fishing.

First, remember that this is not a first-aid course. The Scout is not learning to become a doctor but is being cautioned to be prepared for some of the accidents that might occur while fishing. The counselor should lead a discussion on injuries that could happen on any typical fishing expedition. The Scouts will already know something about first aid for wounds, broken bones, hypothermia, and heat exhaustion. The counselor’s role is to draw out information from the Scout. If multiple Scouts are earning the badge, the discussion becomes easier as each Scout will contribute different perspectives. Watch for Scouts who might be exceptionally quiet and draw them into the conversation with specific questions.

Above all, caution that hooks are sharp and that they can cause puncture wounds. Also, an errant weighted hook blown into the back of the head on the forward part of a cast can really sting. When

casting, the angler must always be cautious of individuals behind them and also to be aware of the wind direction to reduce being struck by a windblown hook. When possible, have the wind come from the direction of your non-casting arm.

Still, sooner or later a hook will impale an angler and it need not disrupt an otherwise great fishing experience. There are two first-aid techniques for removing hooks. Most anglers are familiar with the "push the hook through" procedure where the barbed section is cut off and the remaining shank portion is withdrawn from the entrance hole. Like just about everything, it has its advantages and disadvantages. While this technique is simple and relatively straightforward, you will need a wire-cutting tool capable of cutting the imbedded hook. Moreover, you create a second puncture wound when you push the hook point up through the skin to expose the barb prior to cutting the hook.

The second hook removal technique, "snap-pull," also has its limitations. Be aware that earlier editions of the *Fishing* merit badge pamphlet may show an incorrect graphic depicting the string pull point occurring near the center of the hook shaft. The correct string pull point is at the hook bend. This technique shouldn't be used where there is underlying soft tissue like an earlobe.

Bring an orange to the session and use it to demonstrate both hook removal techniques. Note that ice applied to the area might serve as a field expedient anesthetic.

Nevertheless, the Scout should be cautioned to use these techniques only if they feel comfortable doing so. As in any wound, there may be exposure to blood which also makes it a concern. When in doubt, another Scout could immobilize the hook using tape or a bandage and get the patient to an appropriate medical facility.

Some of the safety practices to follow when fishing include the following:

- Bring a first-aid kit.
- Take precautions to prevent heat reactions, dehydration, or hypothermia.
- Wear sunscreen.
- Limit physical activity.
- Wear eye protection (e.g., sunglasses) and a hat.
- Slipping, falling into underwater holes, being swept down river by flowing water, lightning and storms, and vulnerability to large wild animals are additional concerns. The farther out you go, the risks increase—so be prepared!
- Write a trip plan and leave it with someone.

Again, the counselor might lead a discussion to draw out these points and encourage Scouts to add to or embellish each point on the above list.

2. Discuss the differences between two types of fishing outfits. Point out and identify the parts of several types of rods and reels. Explain how and when each would be used. Review with your counselor how to care for this equipment.

The counselor might bring several different kinds of fishing rods to demonstrate the differences in gear. For example, an open-faced spinning reel and a closed-faced reel might be compared with a typical bait-casting rod and reel combination. Perhaps even bringing in a fly rod and reel might contribute to the diversity of the discussion. Similarly, saltwater anglers generally use heavier and more corrosion-resistant equipment. If you are trying to appeal to coastal Scouts, having this kind of gear will enhance your presentation. All of these items may be left conveniently on display for Scouts to inspect more closely during breaks in the session.

Caring for equipment includes washing or rinsing with clean freshwater after use and allowing it to dry thoroughly. Oiling or lubricating the reel and cleaning the fly line with a dressing every once in a while can increase its useful life. Never store you equipment in a hot car as the heat helps destroy the plastics in the fly line. Similarly, insect repellants and some sun screens have components that may ruin fishing lines.

With the different angling outfits present, lead the Scouts on a discussion of when and why a given type of gear is more suitable for one fishing situation or another. Many rods and especially reels have been well engineered to provide many years of continual use. Ensure that Scouts have an understanding of how to care for their equipment so that it doesn't end up in the rust bucket.

3. Demonstrate the proper use of two different types of fishing equipment.

Use your judgment on what kinds of fishing equipment you will ask the Scouts to demonstrate. For beginning anglers, it is best to start with the closed-face spinning outfit. You won't have to worry as much with tangles, and coordination in casting is a bit easier to demonstrate and for the Scouts to learn. They can generally pick up the procedure of casting and retrieval fairly quickly. After they have demonstrated use of the closed-face rig, let them try a rod mounted with an open-faced spinning reel.

While you might want to have advanced anglers demonstrate their ability with bait casting or fly-fishing gear, beginning anglers should be limited to the simpler closed- and open-faced spinning rigs. One last thought: Spend a bit of time to teach how to set the hook should a fish strike the bait or lure. Often this step is not taught and a Scout may well miss a hooking opportunity because the instructor has failed to teach actual fishing and hook setting skills.

4. Demonstrate how to tie the following knots: clinch, Palomar, turle, blood loop (barrel knot), and double surgeon's loop. Explain how and when each knot is used.

Let the Scouts know that the knots selected for the Fishing merit badge were chosen because they are simple and effective. Mention that every knot tends to weaken the line somewhat and that the best knots should retain most of the effective breaking strength of the fishing line that they are using. Poor knots like an overhand knot may reduce the effective line strength by as much as half! All knots should be moistened prior to bringing them up snug as the friction of pulling a knot together generates heat and heat can also reduce line strength.

Each recommended knot is described fully in the *Fishing* merit badge pamphlet. It may be helpful to bring in 36- to 48-inch lengths of heavier fishing line (or even very light rope) for the Scouts to practice their knots. For demonstration purposes, get (or make from a wire coat hanger) some large hooks and let the Scouts practice with these larger items.

If possible, try to get enough line hooks so that the Scout can bring them home. Such souvenirs serve a reminder of the appropriate knot as well as an item to certify their accomplishment. Further, see if you can get your hands on some knot-tying pamphlets to hand to Scouts for later review. Many tackle shops, websites, and angling manufacturers provide them free of charge.

One reminder to the counselor is that while the counselor might have considerable experience in “better” knots, only the knots outlined in the requirements should be used. If a Scout asks to learn a better knot, note that you will demonstrate it afterward. Introduction of additional information during this difficult session will only serve to confuse the Scouts.

It will also be helpful if you rehearse exactly what you plan to do beforehand. If you seem confused and have to refer to a booklet for a given knot, the Scouts may quickly lose interest and will be difficult to bring them back to task.

Having the Scouts pair off and encourage them to work together to tie the appropriate knots has worked well. Just ensure that you are there to help them through it. Knots are tough, and your help is critical. Perhaps a skilled assistant or two will make the process flow better.

5. Name and identify five basic artificial lures and five natural baits, and explain how to fish with them. Explain why bait fish are not to be released.

The counselor might bring in several different types of lures and baits to demonstrate and facilitate a discussion on this requirement. Each should be well marked and on display. For artificial lures, bring jigs, plastic worms, spoons, spinners, plugs, and flies. While it may be difficult to bring to your session live minnows, crawfish, leaches, mealy worms, crabs, and shrimp, no one can dispute the adventure that occurs when live worms slither around a Scout's hand for the first time.

Make sure that the Scout understands how to properly impale the bait onto the hook. Assure the Scout that these live animals are not being hurt because they do not have the advanced nervous systems and brains needed to “feel” pain.

Artificial lures with multiple hooks can be an added safety issue. Ensure that the Scouts understand that any time the rod is bent, there is potential energy to impale a hook into a fish as well as a Scout.

Again, spend some time teaching when each type of lure might be used and especially how to rig and fish it once the cast is made. Show how to set the hook when a fish bites. Remember our goal is to offer these Scouts an enjoyable angling experience and catching fish at their age is an important part of that enjoyment.

5. Do the following:

a. Explain the importance of practicing Leave No Trace techniques. Discuss the positive effects of Leave No Trace on fishing resources.

b. Discuss the meaning and importance of catch and release. Describe how to properly release a fish safely to the water.

Leave No Trace should be integrated in every element of angling. From the start of your program emphasize LNT principles. Even during class, for example, counselors can teach Leave No Trace principles as part of knot tying by ensuring that the Scouts picks up the mess from all clipped materials and by collecting all tag clippings and putting them in a place where they can be disposed of properly. In the field, Scouts may need to be reminded to minimize their presence when they move to, through, and from the water.

Should a fish be kept for dinner, all entrails should be buried or disposed of according to procedures outlined by fishery managers. Some managers want the carcass to be cut up and thrown back into the water as a way of replenishing nutrients for future generations of fish.

Introduce the concept of "biological Leave No Trace." Scouts should be reminded that invasive species not native to the water body being fished can be a much bigger problem. Inadvertent transfer of invasive species can be a real and long-term problem. For example, New Zealand mud snails and Didymosphenia geminata (a diatomic form of aquatic algae) can be transferred by hitching a ride on common felt boot bottoms. While paper and plastics may last one to five years before degrading, invasive biological organisms may last forever! Scouts should be aware of invasive organisms and be cautioned to wash or sterilize their equipment before going from one water body to another.

Catch and release is a valuable fishery management tool that allows a fish to be caught and enjoyed by more than one angler. Scouting's founder, Lord Baden-Powell, was an early advocate of catch and release.

Various factors will determine if a released fish lives or dies, but the most important factor is the location where the fish is hooked. A fish hooked in the gills or throat has a much lower survival rate than a jaw-hooked fish. Fish caught with artificial lures and flies generally survive better because the hooks are not often deeply swallowed. A fish profusely bleeding will have a great chance of dying within 24 hours of release and may be better served if taken and used for food if it is legal to do so.

While using barbless hooks does not significantly increase fish survival, their use can often ease the trauma of release by reducing handling time. Using wet hands and minimally handling a fish are always good practices. Get the fish back into the water as quickly as possible. A good rule of thumb might be to hold your breath while the fish is out of the water. When you have to breathe, so does the fish!

If a fish ingests a hook too deeply, it might be necessary to cut your line and release the fish with the imbedded hook. With a bit of luck, the fish may soon expel the hook allowing the wound to heal naturally.

Minimize the fighting duration on a fish. If you expect to catch larger fish, use a rod that is appropriately weighted. A lightweight rod used to catch a large fish will almost certainly extend the time required to subdue the fish. Longer playing times contribute to fatigue and stress and make that fish more vulnerable to larger predators upon release.

Higher water temperatures hold less oxygen and can contribute to increased fishing mortality. Cold water species like trout are especially vulnerable. Sometimes when the water is too warm, it may be better to fish for warm water species that can recover more quickly. In the same vein, in mid-summer it may be better to fish early in the morning when the water temperature is cooler rather than fishing in the afternoon when water temperature is the highest.

Keeping the fish pointed into the water flow will help oxygenated water flow across its gills with minimal additional effort by the fish. Holding the fish gently underwater until it swims away on its own improves its chances of survival. Larger fish generally need a longer recovery period.

7. Obtain and review a copy of the regulations affecting game fishing where you live. Explain why they were adopted and what is accomplished by following them.

Fishing regulations are scientifically based and were developed over time to ensure that a fishery is managed consistent with long-term conservation goals. Fishery managers are constantly monitoring

fish populations and make recommendations to fishery administrators based on their findings.

By following the law, anglers ensure that there will be fish to catch in future years. Elements in the regulations that follow management principles include season dates to protect spawning, size limits to protect smaller fish, and slot limits to protect the larger spawning fish and trophy limits to restrict the number of larger fish taken. In some cases, certain species may be caught but need to be released immediately. Again, these rules were not made to hassle the angler; rather, they were made to ensure that the fish are protected until they have had time to become reestablished.

Remember that each state publishes its own recreational fishing regulations. The intent here is to follow the regulations in the area you intend to fish. So if the angling is to be done at summer camp, for example, be sure to use the regulations that apply to the location of that camp.

8. Explain what good outdoor sportsmanlike behavior is and how it relates to anglers. Tell how the Outdoor Code of the Boy Scouts of America relates to a fishing sports enthusiast, including the aspects of littering, trespassing, courteous behavior, and obeying fishing regulations.

The Outdoor Code of the BSA teaches cleanliness in the outdoors to ensure that future generations have the same habitats to enjoy. Care with campfires, consideration of others, respect of private property, the use of low-impact camping and hiking methods, and the use and promotion of good conservation practices in the field all contribute to this goal.

Following the Outdoor Code, an angling Scout abides by conservation laws, asks for permission to use or cross someone's property, collects and carries out all trash and litter, and exhibits courteous behavior to others who may be using the same area.

Generally anglers fishing upstream have the right-of-way and an angler fishing downstream should get out of the river and pass quietly downstream of the angler heading up river. Angling etiquette is important, and a fly angler needs to learn to be a respectful member of this age-old fraternity.

9. Catch at least one fish. If regulations and health concerns permit, clean and cook a fish you have caught. Otherwise, acquire a fish and cook it.

This requirement is what it is all about. The Scout tests his ability to match wits with a fish and to fool that fish into believing that the bait or lure being offered is something worthy of being eaten. It is the moment of truth—that time when the focus is between the angler and the fish. Can the angler deliver the selected terminal tackle to an area likely to hold a fish? Can the angler provoke a strike? Can the angler use good line-control techniques to set the hook?

To bring a Scout to this point, the counselor should teach a Scout how to get line control by retrieving any slack line and be ready to set the hook using action at the rod tip. Sometimes a strike will occur just as the lure hits the water so a Scout has to be ready. While particularly true in fly-fishing, getting line control has to be automatic and the Scout will need to practice the skill.

The counselor needs to differentiate how to fish live bait under a bobber, for example, instead of using an artificial lure. The bobber technique allows the bait (with its characteristic smell or movement) to attract a strike while a lure requires specialized retrieving techniques involving speed and rod tip action to provoke a strike.

Although the requirement no longer requires a Scout to kill a fish, a Scout should not be made to feel guilty in killing a fish if it is legal to do so and the Scout plans to use it for food. This is consistent with Lord Baden-Powells' observation that a "tenderfoot who starved on the bank of a river full of fish

would look very silly yet it might happen to one who had never learned to catch a fish."

Still, there is a concern that some areas conveniently available to Scouts might have catch-and-release restrictions making it unlawful to retain a fish for food. Similarly, some states have imposed restrictions on eating certain fish and it would be wrongful to encourage anyone to eat a fish that might make them ill. To address both concerns, a Scout is given credit for releasing his fish and then must acquire one (from another angler or perhaps from a fish market). That fish is then cleaned and cooked.

So what constitutes a "catch"? The requirement states that the fish must be caught. It doesn't make any distinction between a fish 3 inches long and one 3 feet long. A fish can be 3 grams or 300 pounds! Any fish counts. Does the fish have to be landed? As long as the Scout can identify the type of fish (i.e., common name) after it has been impaled onto his hook, that is a catch—even if it flips off before he is able to bring it to the net. Some call this an "early" release. The Scout did deliver his lure to an area where a fish is likely to be, he made it behave in a way that the fish believed it to be natural food, and he set the hook when the fish struck and he identified it. All of the elements of the requirement have been fulfilled. Now all he has to do is acquire a fish and clean and cook it.

For many Scouts, this might be their first fish ever. Try to remember to have a camera available to record that fish and that smile. For you as counselor, you have been rewarded for all your work. Well done!

Resources

Scouting Resources

Boy Scout Requirements, No. 33216; *Boy Scout Handbook*, No. 34554; *Fieldbook;* and the following merit badge pamphlets: *Fishing*, No. 35820; *Fly-Fishing*, No. 35824; *Camping*, No. 35866; *Cooking*, No. 35879; *Environmental Science*, No. 35892; *First Aid*, No. 35897; *Fish and Wildlife Management*, No. 35898; and *Soil and Water Conservation*, No. 35952.

Books

Bashline, Sylvia. *The New Cleaning and Cooking Fish: The Complete Guide to Preparing Delicious Freshwater Fish (The Freshwater Angler).* Creative Publishing international. 1999.

Boschung, Herbert T., et al. *The National Audubon Society Field Guide to North American Fishes, Whales and Dolphins*. Alfred A. Knopf, 1983.

Capossela, Jim. *Ice Fishing: A Complete Guide, Basic to Advanced*. Countryman, 1992.

Circle, Homer. *Bass Wisdom*. The Lyons Press, 2000.

Earnhardt, Tom W. *Boats for Fishermen*. The Lyons Press, 2001.

Francis, Phil; Fitcher, George S.; and Dolan, Tom. *Fishing:A Guide to Fresh and Salt-Water Fishing*. St. Martin's Press. 2001

Kaminsky, Peter and Schwipps, Greg. *Fishing for Dummies*. IDG Books Worldwide. 1997.

Manooch III, Charles S., and Raver Jr., Duane. *Fisherman's Guide: Fishes of the Southeastern United States*. Manooch-Raver, 1984.

Pfeiffer, C. Boyd. *The Complete Book of Tackle Making*. Lyons Press, 1999.

Schultz, Ken. *Ken Schultz's Fishing Encyclopedia*.Wiley, 1999.

Sousa, Robert J. *Learn to Fly Fish in 24 Hours*. McGraw-Hill, 2006.

Sousa, Robert J., and Culora, Tom and Culora, Jill. *24 Greatest Flies You Don't Leave Home Without*. Husking Bee Books, 2010.

Wilson, Geoff. *Geoff Wilson's Complete Book of Fishing Knots and Rigs*. Australian Fishing Network; Revised Edition, 2008.

DVDs

LaFontaine, Gary, and Dick Sharon. *Successful Fly Fishing Strategies*, 100 minutes. Miracle Productions, 2002.

Wulff, Joan. *Joan Wulff's Dynamics of Fly Casting. From Solid Basics to Advanced Techniques*, 90 minutes. Miracle Productions, 2001.

Young, David, and Cheryl Young. *Fly Fishing: The Lifetime Sport*, 240 minutes. Honeybear Press, 2005.

Periodicals

Fly Fish America magazine

Field and Stream magazine

Outdoor Life magazine

Fur Fish and Game magazine

Organizations and Websites

American Museum of Fly Fishing
4104 Main St.
Manchester, VT 05254
Telephone: 802-362-3300
Website: http://www.amff.com

Federation of Fly Fishers (FFF)
5237 US Highway 89 S. Ste. 11
Livingston, MT 59047
Telephone: 406-222-9369
Website: http://www.fedflyfishers.org

International Game Fish Association
300 Gulf Stream Way

Dania Beach, FL 33004
Telephone: 954-927-2628
Website: http://www.igfa.org

Leave No Trace
P.O. Box 997
1830 17th St., Suite 100
Boulder, CO 80302
Toll-free telephone: 800-332-4100
Website: http://www.lnt.org

Trout Unlimited
1300 N. 17th St., Suite 500
Arlington, VA 22209
Toll-free telephone: 800-834-2419
Website: http://www.tu.org

U.S. Fish and Wildlife Service
Main Interior
1849 C St., NW
Washington, DC 20240
Website: http://www.fws.gov