



## FISH AND THE LAKE

Flathead Lake is the largest natural freshwater lake in the western United States and one of the 300 largest natural lakes in the world. It is also one of the cleanest. The south half of the lake lies within the Flathead Indian Reservation, one of the largest reservations within the state of Montana.

Flathead Lake is unproductive in comparison with many other lakes in the United States. Its waters are termed oligomesotrophic (oligotrophic means being deficient in plant nutrients, mesotrophic means having moderate amounts of nutrients).



ADULT & JUVENILE BULL TROUT  
WESTSLOPE CUTTHROAT TROUT

The lake is home to both resident and migratory native fish, including two species of sucker (the longnose and largescale), three minnow species (northern pikeminnow, peamouth, and reidside shiner), and four salmonids (mountain whitefish, pygmy whitefish, westslope cutthroat trout, and bull trout). All these species are important culturally and spiritually to the native people of the Flathead Indian Reservation, as is the lake itself, and fisheries management decisions integrate traditional beliefs and knowledge. Some of the native fishes have declined greatly in abundance due to a variety of human activities, such as dam building, alteration of tributary habitats, and the introduction of non-native fish species that prey upon and compete with native fishes. Those introduced species include lake trout, lake whitefish, kokanee, yellow perch, northern pike, rainbow trout, brook trout, largemouth bass, smallmouth bass, pumpkinseed, and black bullhead.

Bull trout and westslope cutthroat trout are Native Species of Special Concern (a Tribal and State designation). Bull trout are also listed as threatened under the Endangered Species Act. Both species use Flathead Lake, River, forks, and tributaries for various portions of their life history. For example, most bull trout grow to adulthood in Flathead Lake, migrate upstream through the main stem and two of the forks, enter a tributary to spawn, then return to the lake. Offspring rear in tributary habitats for several years then migrate downstream to the lake. There, they grow to adulthood before returning upstream to complete the cycle. Thus, all parts of the aquatic system are crucial to life stages of these native fish.

The Confederated Salish and Kootenai Tribes and Montana Fish, Wildlife & Parks are the lead entities for fisheries co-management of the Flathead Lake and River System. We manage the Flathead Lake and River System as one entity because of the migratory nature of fish in the system. The Tribes' guiding document, the Flathead Reservation Fisheries Management Plan, seeks to increase and protect native bull trout and westslope cutthroat trout, while providing a recreational fishery with harvest based on nonnative fish.

### Know Your Fish

Good anglers can identify the fish they catch. Inexperienced anglers sometimes have difficulty distinguishing the fish shown below. Be sure you can identify the fish you catch. A mistake could be costly for you and for a species.



Lake Trout: Deeply forked tail, numerous light spots, none red or orange.

Northern Pikeminnow: Deeply forked tail, large toothless mouth.

Bull Trout: Slightly forked tail, red or orange spots on sides, no black spots on dorsal fin.

### Clean Boating For Fish and People

An individual's contribution to pollution may seem insignificant, but taken collectively, the pollution from the thousands of boats on the lake add up. Follow these simple guidelines to help restore and maintain the lake's outstanding water quality:

- ☞ Tune your engine regularly.
- ☞ Keep fuel and oil from getting into the water: at all times and carry oil/gas marine absorbent pads on your boat. Use them to clean up spills.
- ☞ Pump gas slowly and prevent spillage by not topping off the tank.
- ☞ Use an oil-absorbent bilge pillow and avoid using bilge cleaners that are detergents or emulsifiers.
- ☞ DO NOT use detergents or emulsifiers on oil slicks. It's ILLEGAL and bad for the environment. Dispose of absorbents at a marina oil-recycling collector or wrap and dispose of in home trash.
- ☞ DO NOT dump untreated sewage into the lake. It's ILLEGAL. Secure your toilet closed so it cannot empty overboard, and use only environmentally compatible holding-tank deodorants.



ARROWLEAF  
BALSAMROOT

## THE TRIBES AND THE LAKE

The Flathead Indian Reservation is home to two major Salish-speaking tribes—the Salish and the Pend d'Oreille—and one band of the Kootenai Tribe.

The origins of the Tribes reach back to the beginnings of human time. In relating traditional stories that have been told for millennia, elders of the Salish, Pend d'Oreille, and Kootenai peoples tell of Coyote and other animal-people who prepared the world for the human beings who were yet to come. The animal-people left behind countless landmarks as signs of his deeds, making this a sacred landscape for tribal people. The stories emphasize the interdependence of all living organisms and remind us that animals came first to this earth. Coyote stories continue to inform the Tribes' relations with the land, water, plants, and animals.

Although each of the tribes on the Reservation is culturally unique and has its own belief system, they are similar in at least two respects: each possesses a thorough knowledge of the natural environment and each has a profound respect for all of creation. This has enabled the Tribes to live sustainably for thousands of years. The millennia of habitation, experience, and observation resulted in an intimate connection between people and place and a depth of understanding that is often difficult to understand.

The Salish, Pend d'Oreille, and Kootenai practiced a cyclical way of life based on the harvest and seasonal abundance of a tremendous variety of fish, game, and plants (for both food and medicinal uses, as well as material culture). This way of life was suffused with a spiritual tradition.

Tribal ancestors sought to conserve resources for future generations. They succeeded. Clean water, clean air, and animals like wolves, grizzly bears, wolverine, lynx, cougars, and eagles still reside here, though they are absent from much of the rest of North America.

The tribal ways of life continue. Indeed, Tribal people are today a physical manifestation of the hopes, prayers, and dreams of our ancestors and elders. This is true because of the place of honor Tribal elders hold and because of the knowledge that passes between the generations on an individual level. This continuity between the beliefs and actions of the past and those of today is reflected in the values and goals underpinning natural resource management.

For Salish, Pend d'Oreille, and Kootenai people, the beauty and sacredness of pure water and an uncluttered view of mountain peaks are cultural values that cannot be measured by monetary or legal standards. It is these traditional values—in essence, viewing the land in a spiritual way—that distinguish the Tribes' management of natural resources.

Today we are working diligently to protect our land and water and restore native species. We believe that only by staying true to our values, only by remembering in our hearts who we are as Indian people and reflecting that in the way we protect and treat this place, will we be successful in passing on to our children something of value that is unique to our culture. Our vision is a future in which we integrate the wisdom inherited from our elders and ancestors—our traditional ways of knowing and understanding—with the best available science in a way that ensures our children and grandchildren will always enjoy abundant native fish and wildlife.

We ask that visitors to the Reservation join with us in these efforts. You can do your part by treating the land and water and the community of life it supports with respect.



DRUMMING AT THE ANNUAL LAKE HONORING

## YOU AND THE LAKE

Clean, drain, inspect, and dry your boat before arriving at the lake, and check the weather before you leave. Check your fuel supply, and carry extra fuel. Upon arrival, make sure everyone uses the shore-side bathroom facilities. Before accessing the ramp remove the boat's cover, load your supplies and equipment, and do a safety check. Don't allow children or others to get into the boat until after it is safely in the water. After you launch, move your vehicle so that others can use the ramp.

Many shoreline and rock-structure areas along the lake hold sacred significance to tribal members. Do not remove or disturb prayer cloth, offerings, or other items that have been placed in these areas. They are spiritual offerings, not souvenirs. Irreplaceable information about the past is lost if artifacts are removed or cultural resource sites damaged. Please report any theft or vandalism you may observe immediately to the Tribes.

Motorboats produce wakes and the energy from wakes is dissipated along the shoreline, causing shoreline erosion. In some bays, boat wakes are the primary source of wave energy along the shore.

### Boating Safety

Personal Flotation Devices (PFDs) (life jackets) should be worn by all persons on board the boat. The law requires, at a minimum, a wearable PFD for each person onboard. It also requires that all children under 12 wear a PFD when on a boat less than 26 feet in length. Remember it is unlawful to operate or be in actual physical control of a boat while under the influence of alcohol or drugs.

Don't crowd other boats while on the water. Be observant of other anglers' lines, anchor ropes, etc. Operate at safe speeds and keep an adequate distance from others; you are responsible for any damage your boat, or the wake from your boat, causes. Leave markers where you find them. Pay attention to clouds, wind direction, or other changing conditions. Weather in Montana is unpredictable. If you see a storm approaching give yourself plenty of time to reach your launch area or a safe place. And remember, lightning can strike miles in front of a storm. Make sure everyone has a PFD on and head for shore. Put down antennas and stay low; you could be the tallest object on the water.

During high wind-wave activity you may want to wait out the storm on the back side of an island, in a bay, or on shore. If you are not close to a safe area, keep your bow to the wind, go slow, and work your way to safety or anchor facing the wind.

### Eating Fish From the Lake

Fish can make important contributions to a healthy diet because they are high in protein, omega-3s, and other nutrients. Regular consumption of fish has been shown to reduce the incidence of heart disease and cholesterol, and to improve brain and eye development in children. Unfortunately, fish also accumulate contaminants from the environment, such as mercury and PCBs, which can be harmful to human health. Consumers must be aware of how to obtain the benefits of fish without risk from contaminants. The following suggestions can help with these decisions:

- ☞ **Keep smaller fish for eating & pay attention to the number of servings/month.** Fish accumulate contaminants over time. Smaller fish usually have fewer contaminants than larger fish.
- ☞ **Clean & cook to minimize contaminants.** Because some contaminants like PCBs are deposited in fat, they can be reduced by trimming fat & cooking fish on a grill or broiler pan so juices drain away from the meat.
- ☞ **Be aware of high risk individuals.** Children under 14 years of age, nursing mothers & women of childbearing age are at the greatest risk of having or passing on developmental problems caused by contaminants, so these individuals should give extra attention to choosing the safest fish to eat.
- ☞ **Pay attention to serving size.** The recommended adult serving size is about the size & thickness of your hand (large oval which is about 8 oz uncooked or 6 oz. cooked). Children get smaller servings (small oval or 4 oz uncooked, 3 oz cooked).



| Lake Trout Size (inches)           | Under 14 | 14 to 18 | 18 to 22 | 22 to 26 | 26 to 30 | 30+   |
|------------------------------------|----------|----------|----------|----------|----------|-------|
| Women* & Children (Servings/Month) | 5        | 3        | 2        | 1        | AVOID    | AVOID |
| Adults** (Servings/Month)          | 12       | 7        | 6        | 4        | 2        | AVOID |

\*Women in this context refers to women of childbearing age. \*\*Adults refers to women past childbearing age and men.



SUNSET ON THE LAKE



Welcome to Flathead Lake, the southern half of which lies within the Flathead Indian Reservation. For us—members of the Salish, Pend d'Oreille, and Kootenai Tribes—the lake is a sacred cultural landscape. For countless generations, our people have camped beside it, gathered medicinal and food plants from its shores, fished its waters, used it as a travel corridor and as a place of solace. We have raised our children here and laid our ancestors to rest here. The lake is prominent in our lives and in our creation stories.

At the center of our cultures is a deeply ingrained ethic of reciprocity between people and the land. Reciprocity means recognizing that people and natural systems are mutually dependent and that we should respond to gifts and kindnesses, whether they be from others or natural systems, with similar benevolence of our own. We can do this by treating the land and plants and animals with respect, by living in a way that does not compromise the integrity of the environment, by paying attention to how we live so we can ensure that the natural systems we depend on for our physical, emotional, and spiritual well-being endure. Our elders teach us that it is our responsibility to ensure that future generations are able to meet their needs—be they physical, emotional, or spiritual—so they can enjoy this remarkable lake as we do.

For these reasons, we are working hard to restore the native fish assemblage in Flathead Lake. Specifically, our management goals for the lake are to: (1) increase and protect native trout populations (bull trout and westslope cutthroat trout, which have declined greatly in abundance); (2) balance trade-offs between native species conservation and nonnative species reduction to maintain a viable recreational/subsistence fishery; and (3) protect the high quality water and habitat characteristics of Flathead Lake and its watershed. You can help us meet these goals by following clean-boating practices; by ensuring that your boat, trailer, and equipment are free of aquatic invasives; and by doing all you can to protect the lake's water quality and natural beauty. Thank you, and we hope you enjoy your visit.

— Vernon Finley, Chairman Confederated Salish and Kootenai Tribes, 2015

### Contact Information

To report violations of any law: (406) 675-4700 or 1-800-TIP-MONT or (406) 847-6668 or (406) 752-5501

Confederated Salish and Kootenai Tribes  
Division Fish, Wildlife, Recreation, and Conservation  
406 6th Avenue East, Polson, MT 59860  
(406) 675-2700 or (406) 883-2888

Montana Fish, Wildlife & Parks,  
Region 1  
490 North Meridian, Kalispell, MT 59901  
(406) 752-5501



TRIBAL BIOLOGIST CHECKING EAGLE FLEDGLING

## INVASIVES AND THE LAKE

Aquatic invasive species are a major threat to Flathead Lake. Zebra and quagga mussels, Eurasian watermilfoil, New Zealand mud snails, and whirling disease are just a few of the destructive and aggressive invasive species that threaten the lake. They have few natural predators or control agents and reproduce and grow rapidly. They threaten not only the ecological stability, diversity, and abundance of native species but commercial, agricultural, and recreational activities.

Boats, trailers, and equipment that come in contact with aquatic systems easily transport these invasives, introducing them into new areas. Many of these species have the ability to withstand extended periods of time out of water or in small amounts of water, making their transport to new locations possible. To protect the lake, be sure you **CLEAN, DRAIN, DRY, AND INSPECT**:

#### CLEAN YOUR BOAT

Remove all plants, animals, mud and thoroughly wash everything before going to a different waterbody. Make sure if you use a car wash that the water goes into a contained-water holding area.

#### DRAIN WATER FROM EVERYTHING

Eliminate all water before leaving an area where you have had your boat and trailer. Include wells, ballast, and engine-cooling water.

#### DRY EVERYTHING

Allow sufficient time for your boat, trailer, and equipment to completely dry before launching in other waters.

#### INSPECT TOP TO BOTTOM BEFORE LAUNCHING AND LEAVING

INSPECT EVERYTHING before launching and before leaving. Inspect your boat and equipment from top to bottom (including those hard to reach nooks and crannies) to make sure you have not missed anything.

1-877-786-7267 is the National Hotline for aquatic nuisance species. If you suspect a new infestation of an invasive plant or animal, call to report it.



ZEBRA MUSSEL



QUAGGA MUSSEL



NEW ZEALAND  
MUD SNAIL



EURASIAN MILFOIL



### Water You Can Swim In

- ☞ Keep litter bags on your boat and in your camp and use them.
- ☞ Bring back all cans, bottles and litter after an outing.
- ☞ Bag and recycle fish parts for compost or fertilizer.
- ☞ Do not release dead or live bait into the water.
- ☞ Know where toilet facilities are and always use them.
- ☞ Read labels and buy products that are environmentally safe, and buy only 'non-toxic' and 'phosphate-free' cleaners.
- ☞ Avoid cleaners with bleach, ammonia, lye, or petroleum distillates. Instead use alternatives like baking soda, lemon juice, vinegar, and elbow grease.
- ☞ Clean boat bottoms ashore, over hard surfaces or a tarp, and contain debris for disposal. Do all hull scraping, sanding, and chemical stripping on shore, and catch all debris. Only use legal bottom paint.
- ☞ Use orange-pink colored propylene antifreeze/coolant instead of very toxic blue-green colored ethylene glycol.



BULL TROUT