

# **CONTRIBUTE TO CITIZEN SCIENCE!**

By submitting your observations and photos to Citizen Science platforms like iNaturalist.ca, you can help park staff document biodiversity in the Park and even protect habitat. For more information join iNaturalist.ca, and check out Algonquin Provincial Park under projects.

- 0. Upload a picture of any wild plant, animal, or fungus
- iNaturalist's community and image recognition software will help you identify it
- Q Help out other naturalists by identifying their observations
- Every observation becomes part of a growing record of Earth's biodiversity

iNaturalist Canada is run by the Canadian Wildlife Federation, the Royal Ontario Museum, and iNaturalist.org at the California Academy of Sciences



Over 7000 observations of over 2600 species in Algonguin Provincial Park in 2018

# **Reminders while fishing in Algonquin**

- No live baitfish are permitted.
- No fishing is permitted within 100 m of a water control dam.
- No fishing within 300 metres downstream of Lake Opeongo's Annie Bay dam.
- Daily catch and possession limit for Lake Trout is
- 2 per person (1 per person with a Conservation Licence).
- Daily catch and possession limit for trout is 5 per person, no more than two of which can be Lake Trout (2 per person with not more than one Lake Trout, with a Conservation Licence).
- · Be aware some lakes have slot limits. Check the Algonquin Information Guide for a list.
- · Worms are not native to Algonquin and remaining worms should be taken home or thrown in the trash-not on the ground!

Refer to the Ontario Recreational Fishing Regulations Summary for complete details.

# Fish Research on Lake of Two Rivers

### If you catch a fish with a red tag, please release it.

Harkness Laboratory of Fisheries Research is conducting an in-depth population assessment and monitoring of fish movement in Lake of Two Rivers.

In May 2017, fisheries researchers caught 20 Lake Trout and 10 Smallmouth Bass and surgically implanted them with acoustic transmitters. The transmitter (about the size of one AAA battery) emits a unique sound frequency every 5 to 10 minutes. The sound from the transmitter is picked up by acoustic receivers in the lake, which are installed one metre below the surface of the water. With 49 receivers in the lake, the exact location and depth of each fish with a transmitter will be accurately determined. This study is anticipated to yield detailed information about habitat use.

If you happen to be fishing on Lake of Two Rivers, keep an eye out for fish with a small,

red tag near the fin on the back. If you do catch one, please release it, so it may continue to contribute to

our understanding of its species. If it cannot be released, please return the transmitter to a Park Office. Keep in mind the fishing regulations prohibit the harvest of Lake Trout from Lake of Two Rivers with a total length between 40-55cm.

This valuable research helps improve our understanding of Lake Trout and Smallmouth Bass by producing accurate population estimates and determining where and when fish use specific habitat. The results of this study will help inform future fisheries management planning and resource management decisions, not only for Lake of Two Rivers, but all of Algonquin.

For more information see the bulletin boards or park office.



algonguinpark.on.ca





The hours of poring over maps and daydreaming during the winter have come to an end. You are now at the access point, loading up your canoe, looking out over the calm and newly ice-free water. It's that magical time between ice-out and the hatch of blackflies. You are heading into the backcountry for a spring fishing trip, and before you lays some of the world's finest Brook and Lake Trout fishing. Every year, thousands of people make their annual pilgrimage, or maybe their first trip, into these special lakes in hopes of encountering one of these highly sought-after fish. These trout hold a special place in the hearts of anglers; they are often difficult to catch, live in remote places, are sensitive to human disturbance, invasive species



# Algonquin

The



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# Hook, Line and Survey

and climate change. They are also beautiful fish, and nothing beats a shore lunch of fresh trout on a backcountry trip.

Our fisheries biologists know a lot about fish in Algonquin, and park staff know a lot about how many people go camping here, but something we don't know too much about is how many people come to Algonquin specifically for fishing, what species do they fish for, how many fish they catch and where, and what happens to them. Some

years ago, we decided we needed to know the answers, and this is no fish story!

> Trout fishing – a spring tradition. PETER SIMONS

## Help with Fisheries Management

As you set off on your fishing trip, you'll notice that along with your park permit, gate staff will have handed you a small package, which contains the Algonquin Park Angling Survey (APAS) - a vital piece to a science program that monitors the health of the park's fish populations. It only takes a couple of minutes each day to support fisheries research in Algonquin! Using the pencil and measuring tape provided, anglers are asked to record fishing time, catch, and harvest information throughout their trip. This data helps improve our understanding of the status and trends of fish populations in the park and supports the sustainable management of Algonquin's recreational fisheries.

While Lake Opeongo angler information has been collected through the access point creel survey since 1936, the Algonquin Park Angler Survey is the only source of information on park-wide fishing experiences. First conducted in the late 1990's, the survey initially targeted only backcountry trout anglers departing from the Lake Opeongo Access Point. In recent years the survey has been distributed park-wide from 19 park office locations to both backcountry and campground users and also collects information from those targeting bass.

Over the last two decades the survey has shed valuable light on a vital piece to the

The Algonquin fishing survey is simple, but verv informative.

resource management puzzle. Without the information provided by anglers, fishing activity within the park would largely remain a mystery. So, what have we learned so far?

Access Point	No. of Camping Parties Intending to Fish
Lake Opeongo	1609
Canoe Lake	1144
Magnetawan Lake	766
Rock Lake	609
Smoke Lake	580

Overall, many of those who camp in Algonquin Park also plan to do some fishing. From 2014-2017, 30% of backcountry camping parties and 11% of campground parties intended to do some fishing on their trip. The relative proportion of anglers versus campers has also changes throughout the season. The largest proportion of trout angling parties coincides with when trout are generally in more shallow, inshore waters and easier to catch – soon after ice-out. The table above shows the 5 busiest access points in 2017 in terms of backcountry camping parties intending to fish.

The results of the 2017 APAS showed a total of 1270 records of fishing within 251 different waterbodies. This corresponded to a total of 7669 reported rod hours with an average angling party size of 2 people.

	What does that mean?
rod hour	one hour of fishing with hook and line
CUE and HUE	catch and harvest per unit effort (one rod hour)
angling party	a group of people fishing
creel survey	a type of fisheries survey that gathers fishing effort information through interviews with anglers and sampling fish catches

these large spawning adults helps increase

the quality and quantity of future catches.

Results from the survey show that Algonquin

Park anglers are helping preserve fisheries

by minimizing their harvest levels. The table

below shows that in 2017, across all four target

species, Algonquin Park anglers released over

50% of their hooked fish! By practicing proper

release techniques, you can help ensure your

Algonquin fish lives to be caught another day.

### Catch and Release – a Practice of Conservation

Many anglers are catching on to a change in attitude that helps ensure healthy fish populations for future generations. Catch-andrelease angling is important to maintaining genetically diverse populations that contain many large, older fish. These fish play a particularly important role in successful recruitment - large females spawn more eggs, increasing the chances for more young to survive the difficult first year of life. Releasing

Smallmouth Bass Largemouth Bass **Brook Trout** Lake Trout **Total Catch** 970 927 642 70 Average CUE 0.29 0.14 0.43 0.28 **Total Harvest** 425 378 86 19 Average HUE 0.12 0.07 0.02 0.03 **Release Rate** 56% 59% 87% 73% Avg. length 352.4 450.60 322.7 370.7 reported (mm)

Algonquin is a stronghold for Brook Trout in Ontario. LEV FRID



ALGONQUIN PARK ANGLING SURVEY - 2019 Example: On May 9th, Doug and Bob fished on Example Lake for 4 hours. They caught 5 brook trout and kept 3. As well they caught 1 lake trout and released it. At the end of the day they enter 2 for the number of people fishing and 4 for the average hours fished per person as a single row on the survey form for the group. They also record their catch, how many fish they kept, and the total lengths of all fish kept on the reverse side of this page. Please refer to the instruction sheet for how to properly fill Other Species out the survey Smallmouth Brook Trout Lake Trout # of Average Caught Kept Caught Kept Caught Kept Caught Kept Caught Kept Waterbody people Date Name 1 5 9-May Example Lake 0 0 0 0 1.0 16AUG La Muir 0 0 1 0 0.5 ITANG LAMUIT

- ng a pair of pliers.
- fish is still in the water.
- If this isn't possible, use a large rubber net to carefully lift the fish into the boat. Leave the fish in the net and remove the hook using long-nose pliers.
- If you must handle the fish, hold it horizontally with wet hands while you remove the hook. Holding a fish vertically can damage its spinal column. Avoid holding a fish by the gill-plate as you can accidentally damage fragile gill tissue with your fingers.
  - photo. If you hope to take a photo with your

The help of all the anglers who participate in this important work is very much appreciated. The survey is conducted in collaboration with Ontario Parks, Algonquin Park staff, Harkness Laboratory of Fisheries Research, Ministry of Natural Resources and Forestry staff as well all the anglers who choose to participate in this important work. Thank you to everyone involved!

We know you want to ensure healthy fish populations well into the future, so why not fill in the survey? Of the 17 000 surveys handed out, about 10% have been returned. In the time it takes to make a social media post about your awesome camping trip, you could have completed the survey.

Anglers cover way more of the Park than researchers could ever dream of. You are our eyes and ears out there, or rods and nets, if you prefer. Whether you caught your limit or the fish just weren't biting, every bit of data counts. Fishing without success is just as important to ensure accurate estimates of angler activity throughout the park. The more surveys that are returned, the more data scientists can work with! Once completed, surveys can be dropped off at the Lake Opeongo creel hut,

### **Tips for a Successful Release**

barbless hooks or bend the barbs in

ep handling of fish to a minimum. If sible, lean over the side and use longed pliers to twist the hook free while the

· Everyone wants the Algonquin Park fish

catch, BE PREPARED! Have your waterproof camera ready to snap your shot to minimize handling time out of the water. Hold the fish over the water while taking the photo, so if you lose control it will fall into the water and not onto shore or into the boat. Underwater shots are equally as eye-catching!

• If necessary, gently support the fish upright in the water until it recovers.



An angler releasing a fine Brook Trout. D. SMITH

## It takes a Team!

any park office within Algonquin Provincial Park or mailed to Harkness Laboratory of Fisheries Research using the postage-paid envelope included in the survey package.

To show our appreciation for your participation, all those who return a survey will be entered in a draw to win a prize! The draw will be held in early 2020 and winners will receive their gift card in the mail. It is important to note that the MNRF and MECP follow a strict privacy policy and that no personal information will be published. Your secret fishing holes will be kept confidential.

Algonquin is among the best studied places on the planet. We have a long history of working with scientists to better understand Algonquin. By participating in the fishing survey, this is your chance to help us better understand how you use the Park, and how we can help fish populations. We create amazing memories fishing in the backcountry just after ice-out or on a hot summer day with friends and family. We want to maintain these opportunities well into the future. If we are not good stewards of Algonquin, these experiences will remain only as memories, or perhaps just the story of the ones that got away.