The Limrik

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For, by and about the people of Antrim.

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THE SECRET LIFE OF GREGG LAKE

Joan Gorga

Ice-in overtook Gregg Lake on December 10th this year, and the first bobhouses appeared only a week or two later to begin the winter season on the lake. I wandered down the ice one sunny, windy Saturday and stopped outside a bobhouse with six or eight lines set up outside. Who would have thought that I would find six friendly Antrimites—John Geoffrey, Kevin Cutter, and Jacob and Erika Cutter with their children Addison, 4, and Jameson, 4 months—cozy and warm inside, with a tantalizing smell of venison sausages cooking on the wood stove? They don't fish through the floor of the bobhouse because the ice might get too thin with all that heat put out by the wood stove, but they enjoy being out on the lake in the winter. John explained that they mostly catch yellow perch and bass, depending on where they drop their lines. And they held up a bass to attest to the fact that the fish are alive and still biting under the February ice.

Addie Cutter and her Uncle Kevin admire a bass caught under the ice on Gregg Lake. *Photo: Joan Gorga*

What happens as the lake freezes over and closes in under the ice? How do the fish and other animals and plants survive?

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WHAT'S HAPPENING?

Janet McEwen, Planning Board

Surprised when something happens in town and you never knew it about it? Frustrated when you miss a public meeting or important topic being discussed? Well take the opportunity to use the resources available to be notified of Town Happenings. Get on the email list.

Go to *www.antrimnh.org*, our Town's website. On the homepage, on the left, scroll down to "Subscribe to News" and click on the link. Follow the few short steps and you will be signed up to receive regular emails on town happenings and events. You can also find the town calendar on the right side of the home page. The Antrim Town website is a wonderful resource. If you have items to submit contact Colleen Giffin at *antrimplan2@tds.net*.

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TOWN ELECTIONS
March 14 • 8 am–7 pm
Town Hall

TOWN MEETING
March 16 • 7 pm
Town Gym

JUMP START YOUR SMALL BUSINESS

Rick Wood and Victor Rosansky

A few months ago, Antrim launched what we called the "Antrim 2020 Initiative" (*www.antrim2020.com*) where over 100 citizens looked at a wide variety of town issues and came up with six projects to revitalize the Town. One project focused on economic development. We designed a program for those looking to begin or who have started a small business but need some guidance and mentorship in making their endeavor more successful. We call the program "Jump Start."

In the program, instructors will provide important concepts and a toolkit to help you build a business plan. But the real learning will be the give-and-take you have with the other participants. Everyone will be encouraged to share his or her concerns, ideas and challenges. Where possible, we will invite business people from the community to share their experiences with you. One great benefit of the program is that you will develop a network of other entrepreneurs in the area to consult with as needed—in a sense, a support group.

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Gregg Lake is classified as a warmwater fishery; our primary fish species are smallmouth and largemouth bass, redbreast sunfish, bluegill, chain pickerel, pumpkinseed (or punkinseed, if you've lived in Antrim long enough), yellow perch and horned pout. Many of our fish seek out the warmer shallows to nest and feed, although smallmouth bass do prefer slightly deeper, cooler water. Gregg Lake doesn't have the fish that prefer cold water, such as rainbow and brown trout.

As anyone who enjoys summertime swimming can tell you, a pleasantly warm layer (called the epilimnion) forms on the lake surface in the summer, but you usually don't have to dive down too far to know that it isn't so warm all the way to the bottom. The top layer is well mixed by wind and waves and absorbs a good bit of oxygen from the air. Below this layer is a transition zone (or thermocline), where the temperature rapidly drops, and at the bottom in the deepest areas is a dense cold layer (called the hypolimnion) that doesn't mix with the warmer layers above.

As the air cools in the fall, the surface water also cools. As it cools, it becomes more dense and sinks, until the whole lake has "turned over," effectively mixing the layers. Since water is most dense at about 39°F, when it is just above freezing, it sinks as it cools to that point, and the whole lake reaches the same temperature. But water has an unusual property—when it cools below 39°F it becomes less dense. (We all know ice floats; this unique feature of water has far-reaching effects.) Therefore, as the surface cools even farther after turning over, it forms a less dense very cold layer on top until it freezes and seals off the lake.

The cold temperatures and limited sunlight under the ice slow down plant growth that hasn't gone dormant for the winter. Not much photosynthesis goes on and therefore not much oxygen is produced in the water, and not much is absorbed through the air, since the lake is sealed off with ice. The fish, being cold blooded, slow down, use as little energy as possible and sometimes enter a state of torpor. The warm water species seek out the warmest water, which at this time of year is toward the lake bottom, but they are still ready to go for bait dangled in front of them by a hopeful angler up above.

Yellow perch and pickerel are often caught in winter, as they tend to be more active than some of the other fish species. Beavers spend most of the winter in their lodges, occasionally venturing out through an underwater entrance hole to retrieve sticks from the stashes they have stored under the ice outside the lodge. Most of the reptiles and amphibians—turtles, frogs and salamanders, for example—have burrowed deeply into the sediment at the lake bottom to hibernate in a protected place. Tiny zooplankton and phytoplankton overwinter in the lake sediments in a resting form. Most of the aquatic plants wait out the winter with energy stored in their root systems. By late winter, oxygen levels in the water can be dangerously low for the aquatic animals, especially if the lake has been frozen over for many months.

In spring, the turnover process repeats. When surface ice melts and warms to 39°F, the upper layer becomes denser than the underlying nearly-frozen water, and continuously sinks to the bottom until the lake is again an even 39°F (swim, anyone?). After that point the warming surface layers are less dense than the lower layers and stay on top, inviting us warm-blooded creatures back, and sunlight again penetrates the water to wake up plants and animals alike. ❀

Kevin Cutter, John Geoffrey, Jacob and Erica Cutter and children.
Photo: Joan Gorga

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