

# THE VERMILION



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*To Protect and  
Improve Lake  
Vermilion*

## **IN THIS ISSUE**

**Bella the Resort Dog...page 3**

**SWCD Tree Sale...page 5**

**Reduce the Risk of Wildfire...page 6**

**Learn to Make Pickled Fish...page 8**

**AIS ID Guide Available...page 11**

**AIS Boat Inspections Expand...page 12**

# PRESIDENT'S MESSAGE



I would like to thank our volunteers, soil and water, and especially our board of directors for a great 2018. We celebrated our 50th anniversary with our largest event ever, prevented new AIS introductions, and improved our newsletter with color while continuing support of all of our existing efforts to protect and improve Lake Vermilion.

I would like to announce some changes to the board of directors that have occurred since the November newsletter. Adam Maki has decided to leave the board due to increased job responsibilities. We would like to thank Adam for supporting our efforts since 2014, especially on his work to improve the website.



Terry Grosshauser  
VLA President

Per our by-laws, we can have 15 board members and through the diligent efforts of Dwight Warkentin, Mel Hintz, and Pat Michaelson we have filled the four open positions to bring us more in line with the level of activity of the board.

Jill Korpela-Bontems has joined the board, she and her family have a 40-year history of supporting VLA and her father was on the board. She is retired, previously owned a business, worked in social services for over thirty years and worked with several volunteer organizations.

Gary Haugen retired recently in 2018 from working as an executive in medical implantable device sales. He and his wife are working on building a permanent residence on the land where their current cabin exists.

Mary McNellis is president of a commercial real estate company in the cities and she and her family have had property on the lake for many years. She has had experience in government positions and many volunteer positions including the Lions Club where she has been a president two times and a member for 25 years. Mary currently is an AIS detector and working with our AIS sentry area.

John Yocum is a retired dentist who has been coming to Lake Vermilion since 1980 with interests in fishing and golf. He and his wife, Jaynee, live on Daisy Bay for six months and in Florida for six months.

We are excited to have these people join our board and help provide leadership for our many activities going forward.

In the fishery area, we were able to add access to the DNR Lake Vermilion fishery management plan to our website. Please access these plans if you would like to learn more about what the DNR plans are for the different types of fish in Lake Vermilion. We have our annual meeting with the DNR to learn netting results from last fall in April and we will publish the results in the May newsletter. We should also learn about the Northern Pike regulations this spring and if the slot limit will change or remain the same. Watch our website for an update.

On the AIS front, our grant requests have been submitted to St. Louis County with a goal of increasing our coverage of boats entering the lake at public landings, resorts, campgrounds, and fishing tournaments. We are also using data from previous years on boats entering the lake to improve our efficiency in scheduling boat checkers at the high usage times for each landing. This program continues to represent the dedicated effort of Jeff Lovgren and our partnership with Northern St. Louis County Soil and Water.

We always need new volunteers to support our programs each year. Pat Michaelson is the coordinator of recruiting volunteers. She works with board members to determine our volunteer needs and matches them with potential new volunteers. Contact Pat at [plmichaelson@gmail.com](mailto:plmichaelson@gmail.com) or Terry at [terrygrosshauser@gmail.com](mailto:terrygrosshauser@gmail.com).

Please make a note on your calendar for this year's Annual Meeting which will be held in Tower at the Tower/Soudan Elementary School on August 10. The speaker at the meeting will be Kevin Kenow, a Federal Loon Researcher, and his program will be on loons. He is very knowledgeable and this should be a very interesting evening with friends from around the lake.

I welcome your communication and suggestions on any subject related to protecting and improving Lake Vermilion.



# Bella: the story of a resort dog



**Bella, a blind Yellow Labrador Retriever, lived at Vermilion Dam Lodge for 12 years.**

Anyone who has stayed or visited Vermilion Dam Lodge in the last 12 years might not forget a Yellow Labrador Retriever named 'Bella'. She would greet everyone she came in contact with a gentle loving approach. If you gave her a treat she would never forget you. Living most of her life completely blind as the result of contracting Blasto as a puppy, she never let her loss of vision create any boundaries or limitations to her happiness.



Carley Tausk  
VLA Member

Bella at a young age developed a way to map and navigate the entire resort property using only smell and feel. Bella could be found on any given day anywhere around the resort from the end of the dock with kids fishing to the far ends of the resort property hanging out with guests.

Within a few years of losing her eyesight she continued to amaze people with her ability to do things that you would never think possible for a blind dog. Resort guests who spent time with her started writing letters to newspapers to share their experiences. A Minneapolis news station series (On the Road with Jason Davis) contacted the resort and sched-

uled a time to come up and do a story on her. That show ended up being one of the top stories they ever did and was played over on several shows.

Throughout her life Bella lived for the busy seasons when the resort was buzzing with guests. On any given week it was apparent to the resort staff who was giving Bella all the attention, for as soon as she left the lodge in the morning she would head right for their cabin.

Bella had a knack for charming everyone. One of the things she developed on her own was when someone would walk into the lodge, she would find her bowl

**Continued on page 4**

# Protecting Water Quality and Shoreline Buffers



**Wayne Suoja, center, and Phil Norvitch, right, talked with members about water quality issues at the annual meeting last August.**

**By Phil Norvitch, North St. Louis SWCD and Wayne Suoja, VLA Board Member**

Lake water quality is often most often assessed by measuring the nutrients in the water column - typically phosphorous; monitoring algae levels through chlorophyll samples; and by use of Secchi disk (water transparency) readings. Generally, an increase in nutrients will result in an increase in algae growth and ultimately decrease the transparency of the water. Thus, anything we can do to reduce the amount of the nutrients entered a lake or stream will

help keep that body of water unimpaired.

Nutrients can enter a lake or stream through many avenues; surface water runoff containing fertilizers or other household cleaning products, bank erosion - phosphorous binds with soil particles, wastewater leaching from septic systems that are not working properly, industrial discharges, internal loading caused by natural lake processes, and more.

Looking at the actions one can take to help improve water quality, a simple activity is re-planting native vegetation along a lakeshore in the form of a "Shoreline Buffer". Native trees, shrubs, and herbaceous plants stabilize soil with their dense and deep forming root systems. Additionally, the vegetative cover helps soften the impact of large waves crashing against the shore. The native plants help filter our

**Continued on page 5**

## *Bella...from page 3*

and flip it on end with her paw so she could get it in her mouth. Then walk out into the view of that guest holding the bowl in her mouth and sit down next to them, like trying to say 'please feed me'. She could melt your heart and win you over in a short period.

One of the most amazing things Bella was able to do was recognize people using only their scent. There would be returning guests who would be checking in with other guests, with as many as 20 people standing in line at the counter, and Bella would maneuver through the crowd wagging her tail, excited to greet someone she remembered in that group even though she had not been near that person since the last time they were at the resort which could have been over a year.

Bella passed away in November but lived a great life at the resort receiving tons of attention and love from all the resort guests and resort staff. Bella had a huge impact on many of the resort guests, inspiring them with her ability to not allow her blindness



to prevent her from being a friendly, loving resort dog. When we announced her passing on the resort Facebook page it received close to 2,000 engagements and received 111 comments from people who shared their great experiences knowing Bella.

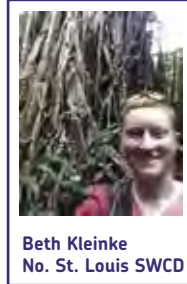


# It's Time for the Annual SWCD Tree Sale

*When buying trees, think small!*

**W**hen it comes to buying and planting trees, bigger isn't always better. Here are some reasons smaller seedling trees can be better.

Small trees cost less. This is the most obvious advantage. Lots of expense goes into growing, storing, and transporting larger trees, and the cost rises exponentially.



Small trees are easy to plant. Correct planting makes a big difference to tree survival. If you live somewhere where rocky or clay soils make it difficult to dig, planting smaller trees will save your back, and it will be much easier to protect the roots and limbs.

Small trees have better roots. Larger trees often have pot bound roots, or have had much of their root systems cut off in order to be transplanted. This leads to transplant stress, especially for moisture, and can cause stability issues later on, as trees struggle to spread their roots out and sometimes even strangle themselves with encircling roots.

Small trees grow faster. Though they start out small, seedlings can catch up to larger trees in just a few years, largely due to better roots and planting.

Small trees die right away. This might not sound like an advantage, but if a tree is not going to make it, most people would rather it come down right away so they can re-plant. Larger trees will limp on for a few years until the fertilizer they were planted with

runs out, or a hidden root defect makes itself known, wasting valuable time.

Small trees are easier to care for. Ultimately, all trees, no matter the size, will benefit from extra attention and care, including watering, pruning for good form, and protection from wind, wildlife, and harsh temperatures. Often big trees receive more care (usually because they cost more), but small trees are much easier to take care of. There is less water to haul, less fence to build, and it's much easier to catch and fix defects early on, like overlapping limbs or fungal infections.

Consider planting smaller trees the next time you plant.

## HOW TO ORDER TREES

There are 20 types of shrubs and trees available in bundles of 15 or 25 trees to choose for your planting needs. Long-standing favorites like the red maple and oak plus the red and white pines are joined by newcomers: River Birch, Black Chokeberry, Serviceberry (Juneberry) and Peachleaf Willow. The always popular conifer pack and pollinator packs are also available. Prices range from \$30 to \$45 per bundle.

**Download a form at [www.nslswcd.org](http://www.nslswcd.org) or call 218-749-2000 to order.**

## Protecting water quality...from page 4

pollution by taking up surface water runoff before reaching a lake or stream. See how you can purchase native trees and shrubs locally, in the article on the top of this page.

If you would like to explore collaborative ways to keep our water clean, contact Phil at the North St. Louis Soil & Water Conversation District at 218-471-7287 or [phil@nslswcd.org](mailto:phil@nslswcd.org).

Our last newsletter resulted in responses from five lakeshore owners requesting assistance in restoring their shorelines. Phil and I will be assessing their properties after the snow melts. If you need more information or assistance with restoring your shoreline, contact Wayne Suoja, VLA Director, at 218-753-2162 or [wsuoja@frontiernet.net](mailto:wsuoja@frontiernet.net).



# Living With the Risk of Wildfire

**W**ildland fire is “a given” in our urban intermix forested areas; these are the areas where forests and homes or cabins are intertwined. Every season may not be a noticeable fire season. Some years may be wet and rainy all spring when we have most of our wildland fires occurring, but later in the season conditions may change, as fuels dry out, and a fire could threaten your property even after leaf out when the forest appears to be green and lush. Minnesota can have catastrophic fires over a broad range of months; the Ham Lake fire (75,000 acres) was in May, the Cavity Lake fire (35,000 acres) was in July, and the Pagami Creek fire (92,000 acres) was in September. All of these fires occurred in the Superior National Forest, within the last decade or so, and in fuels just exactly like the forest type surrounding the Lake Vermilion area. A bit of awareness, and some proactive steps to mitigate fire severity around your property, can put you in a greater state of preparedness before a fire happens in

your area and may likely make the difference of your property being “defendable” or not in a more severe wildfire situation.

**Access.** You need to be sure fire responders are able to make it to your property. Clearing vegetation around your fire number will help ensure fire department personnel can readily find your property as they are responding. Once on the site of a property the fire department apparatus will need to be able to access your driveway and be able to turn around in your yard area. Block off septic areas with fencing or other objects so a large fire truck does not accidentally use that large opening as a turn-around. Making sure your driveway is around 12-14 feet wide and having overhanging vegetation cleared around 15-foot high will help fire truck drivers ensure they are not snagging large overhead antennae or hose reels on tree limbs, or catching mirrors on the side of the truck in the event they need to back in for lack of a



turn-around in your yard. Many of these vehicles are in excess of 25-30-feet long, so a tight turn in your driveway or lack of space around your property may prevent them from getting into your home at all.

If you live on a property that is not road accessible but a boat-only access, you may have a water response from a fire department. Having a dock that is readily accessible with an open access to your home from the water will be important, as a portable water pump and hose will be the likely response. In these situations, vegetation clearing around your property to make it defensible ahead of time will be even more critical.

**Defensibility.** You probably have dead and dying balsam fir trees on or near your property, and this tree species is often the greatest wildland fire carrier in our area. While balsam fir are native to our region's forests, they are indicative of a forest that is more decadent in nature and more susceptible to fire starts. Spruce trees are far less combustible than fir trees, so knowing the difference can be good, to help you keep the trees that pose less of a threat. Remove most or all of the balsam fir on your property (when possible) or at least within a hundred feet or so of every structure, for defensible space. Other work you can do to make your surrounding forest more resilient to fire is to limb existing conifer trees (fir, spruce, pines and cedar) up to a height you can comfortably reach with a handsaw in most situations. For small trees a good rule of thumb is to not limb a tree more than a third of its height, for the sake of the tree's health.

Also, cut up and remove heavy dead and down fuel loads such as wind throw/blowdown pockets, which pose great difficulty and resource commitment when fires start in these heavy fuel load pockets. This vegetation can be cut and piled to be burned at safe times (see DNR burning regulations and restrictions at <https://www.dnr.state.mn.us/forestry/fire/index.html>). The route you choose to dispose of your fuels is up to you, but the main point is to do this work proactively. Once a fire is in your neighborhood, it's far too late to accomplish this work.

**Physical property readiness.** There are many steps you can take to be sure you have done the best for your property ahead of a fire start. Stacking firewood well away from your home is important, as a fire wood pile is easy to start and hard to put out once

on fire, and if it is next to your home or garage it will likely start them on fire as well. Removing thick ground vegetation (grasses, down limbs, flammable ornamental vegetation, etc.) as well as stacks of lumber, or general debris that can catch sparks in many nooks and crannies, are all helpful in reducing the number of places around your structures that can catch and sustain new spot fires. Having this work done around all outbuildings is important, as a shed catching on fire may be the kind of heat and spark-throwing vector that starts a nearby garage or home on fire. You will want to avoid structural building materials such as cedar shake shingles and go with a tin roof, or less flammable or retardant-treated building material. Keep your roofs and gutters free of pine needles and leaves, keep soffits closed to sparks with tight mesh screen coverings, and clean out debris from under decks and buildings that are open underneath. As

mentioned above, defensible space around a home or outbuildings is probably the most important component of a positive outcome from wildland fire. How big to make your defensive space circle depends on the nature of the property you own and is somewhat a judgment call and personal decision. You may reference defensible space guidelines and much more related information at the DNR web page link above, and click on the "Firewise" tab.

Lastly, one very effective tool which is more of a longer term investment, is the installation of a wildland fire sprinkler system around your property. I was on the Ham Lake fire and saw firsthand the many homes that survived that fire which had previously installed property sprinkler systems. Vendors and installers



**U.S. Forest Service Firefighter Tom Roach contributed this story to the newsletter.**

**Continued on page 8**

## Wildfire...from page 7

for these systems can be found with an on-line search, and exist in our region of the state. Given a half day of sprinkling an area, a properly installed and maintained system can protect a property from some of the most severe wildland fires. These systems are generally plumbed from a permanent water source such as a lake or river, so they need a body of water nearby the home to be protected.

No one tool is the panacea in the event of a wildland fire. To be truly prepared you need to employ most of these preventative measures. The more you do ahead of time and continue to maintain, the greater the chance of success in protecting your home from a wild land fire. Lastly, remember that it does not need to be a fire like Ham Lake to burn down your

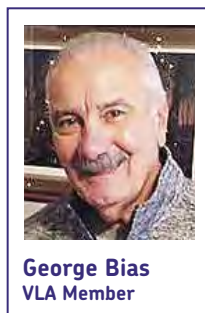


home; that can happen from a fire that is less than a quarter acre in size. It may be wet the whole week you are up putting your dock in in the spring, but three warm and windy days later conditions can

turn around 180 degrees, and proactive preparation will do much more for you in the long run than a good insurance policy.

# How to make pickled fish

**M**y name is George Bias and I have been a barber for 53 years in the cities. I have met many interesting people and many sportsmen. This recipe came from an old dentist who was a very good customer of mind. Please enjoy this recipe; we have for many years. Pickling fish will work for almost all freshwater fish, however Northern Pike and bluegills work very well. Fish with firmer meat work best.



1. Filet your fish as you would normally.
2. Cut the filets into pieces about the size of a match book.
3. Prepare the salt mixture.
  - A little less than 1/2 cup of pickling salt
  - 3 cups of white vinegar
  - Mix together and add filet pieces and let sit in the refrigerator for 3 to 5 days

➤ Check often to see if any bones are gone and remove the filets out of the brine before they get too soft.

➤ Once bones disappear, rinse fish in cold water thoroughly.

4. Next prepare the pickling mixture:

- 2 cups of white wine vinegar
- 1 1/2 cups of sugar
- 1 finely chopped onion
- 1/4 cup pickling spices ( found in the spice section of a grocery store)

5. Put rinsed fish in pickling mixture

6. Put in refrigerator for 24 hours

After 24 hours the fish are ready to eat. The fish are usually stored in jars and must be REFRIGERATED. We hope you enjoy this recipe as much as we do.



# An early season walleye fishing technique to defeat the rusty crayfish

I'll preface this piece by saying that there are many good walleye anglers who have forgotten more about walleye fishing than I will probably ever learn. But I still enjoy the process of figuring out fish and like to share my experi-



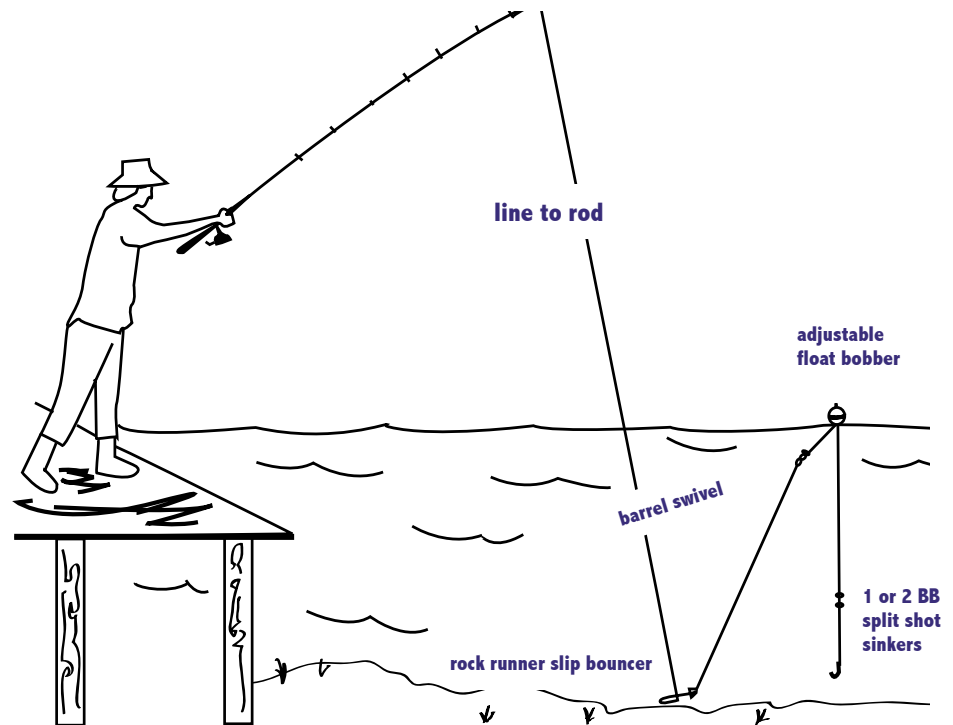
John Yocum  
VLA Board Member

ences and insights with other anglers who too like to figure it out for themselves. In this article, I will share a technique that I developed by trial-and-error over time for

catching walleye in shallow water early in the season that defeats interference from rusty crayfish.

My late father-in-law, Fred Barboni, used to love fishing off his dock on the Big Bay side of Birch Point. He built his cabin there in 1958. Every year from opening day through late June, he would fish off his dock right on the bottom with a simple egg-sinker rig. Minnows early, then he would switch to leeches and crawlers around Memorial Day. He had great success, that is until the introduction of the AIS rusty crayfish in the mid-1980s. He tried using a float with split shot to keep the bait up off the bottom, but the bait would quickly drift back to shore. He was never quite able to figure out exactly how to keep the bait in place and slightly off the bottom to defeat Mr. Rusty Crayfish. Eventually, he just gave up and stopped fishing.

Mr. Rusty Crayfish is a bottom dweller. They crawl along the



bottom feeding on both plants and animals. Walleye are basically bottom feeders. The key to success is keeping your bait just high enough off the bottom to prevent rusty crayfish from stealing it, but close enough to entice bottom-feeding walleye.

They say a picture is worth a thousand words, so I'll first show the rig I use in the diagram above..

Before fishing it's important to go out in a boat and measure the exact water depth at the distance you intend to cast. For me, that's about 25 feet off the dock. I take an 8-foot long 1/2 inch PVC pipe in the boat with me and use it to measure the depth, which 25 feet off my dock is about 84 inches. So I set the distance between the hook and the bobber to about 70 inches. Also, it's important to

keep in mind that water levels in the lake can change depending on rainfall and runoff from snow-melt; so you may need to move the bobber up or down slightly over time to keep your bait at the optimum depth.

I've found that it's important to use a bottom bouncing sinker with a plastic sliding weight snap, so the sinker can slide freely and quickly down to the bottom. I use a 1/4 or 3/8 ounce Rock Runner Slip Bouncer (like the one pictured to the right). The highly streamlined Rock Runner has a 1 5/8 inch wire feeler that glides over cover without hanging up better than its competitor, the Lindy No-Snagg Slip Sinker, which has a bulkier body and a wire feeler that is only about an inch long. If you try to use an egg

**Continued on page 11**

# Winter Reflections

The cold, back on the land  
and across Vermilion.

Below zero days, in the  
company of North winds  
coming cold.

Grey and black and white  
dominate the eye.

No flowers, no buds, no green  
leaves to be seen.

A quiet black & white winter envelopes all.

But we persevere, we survive, we flourish.

Winter beauty can be found on our lake.....it  
keeps us close.

Snow fields glisten on a sunny winter day,

Millions of tiny diamonds reflecting off the  
crusty surface.

Dancing like characters from a Disney movie,

Nature's sparkler filling the air,

Brilliance everywhere!

And what of those clear, cold winter nights?

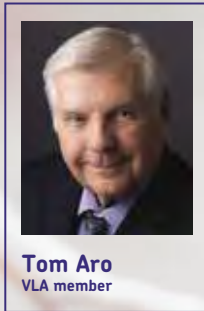
The moon, when not eaten by the clouds,

Hanging there as if painted on your window.

A sky-borne beacon of white light.

Her soft winter glow, lighting-up lake and  
shore.

Long night shadows, reflecting mysteriously  
across that land.



Changing shapes and moods and reflections as  
night wears on.

And winter stars.....oh the stars, I lose myself.....

Gazing heavenward, into the black night  
canvas, so deep.

Close stars glisten, those that follow, give way as  
they recede.

Reflecting on all I see across the heavens I  
wonder.....

Who lives among those stars? Are they looking  
back at us?

What would we say?..."Welcome to Vermilion"?

"Come see what beauty we have to share"?

"Come meet our hardy people"?

"Come now while there is peace across our  
land"

"Welcome to Vermilion extraterrestrial friend"

So we reflect on all who cross our path and  
touch our life,

Whether from heavens above or down the bay,

We seek beauty and understanding and reflect  
kindness on all.

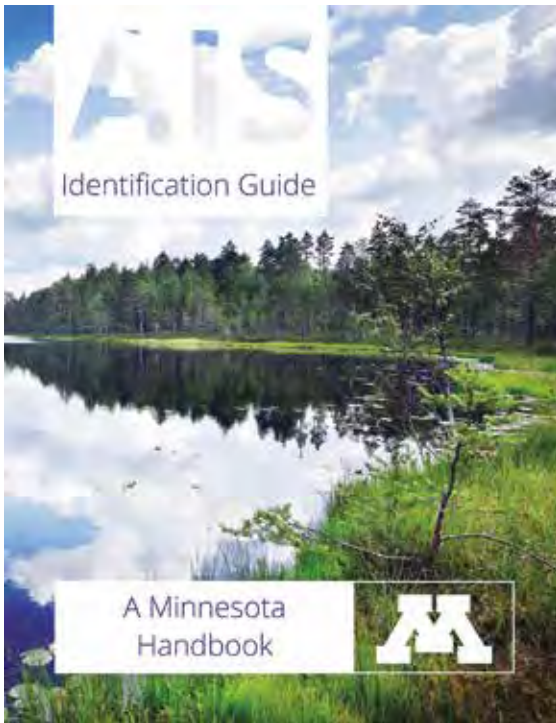
In doing so treasures are given, simple  
treasures, but beyond measure.

*Tom Aro*

*Winter 2018-19*



# An AIS indentification Guide to Help Out Our Lake



Lake Vermilion welcomes all the help she can get to protect against invasive species. If you're a cabin owner or frequent lake visitor and you'd like to become better at identifying aquatic species at Lake Vermilion, we suggest you obtain a copy of the same identification guide used by our trained AIS Detectors and volunteer access sentries.

The spiral-bound reference is water-resistant and called ... what else ... AIS Identification Guide. It's produced by the Minnesota AIS Research Center and is available in-person or online at UM Bookstores for about \$40. ISBN 978-0-692-90536-4. An outstanding reference which belongs on every cabin coffee table.



Questions? Please contact AIS Detector and VLA Board Member Mary McNellis, [mmcnellis@stcroixre.com](mailto:mmcnellis@stcroixre.com), 612-804-8604.

## *Fishing technique...from page 9*

sinker or standard Lindy sinker, you'll find that it gets hung up in the swivel knot and usually won't slide freely to the bottom. I use a barrel swivel between the leader and the bottom bouncer sinker. For the leader, I use 8 lb. test fluorocarbon with an adjustable float bobber, and one or two BB split shots about a foot or so above the hook. You'll notice after casting that the float bobber will disappear below the surface as the slip bouncer sinker travels to the bottom. Then the float bobber will ascend to the top a few seconds after cast and stay in position.

What makes this technique successful is that the bait stays in place 12 to 18 inches above the bottom. It's close enough to the bottom for the walleye to see it when they are feeding, but far enough up off the bottom so the rusty crayfish can't get it.



This technique works well early in the season from the opener until about mid to late June when walleye are in the warm shallows. Once the females have recuperated from spawning, they begin feeding heavily to regain body weight that they lost during the winter and spawn; usually after a brief rest of two weeks or so. Males begin feeding heavily right after spawning. They migrate to deeper water mid-lake structures as the water warms.

Lastly, I know there are a good many alternatives to this technique like using slip/sliding bobbers that will also work; however, this method has worked well in my hands. I especially like the way the bottom bouncer sinker keeps the bait in place; and I like to be able to play the fish without feeling the sinker.

**Above right: Northland Fishing Tackle Rock Runner Slip Bouncer with sliding weight snap. Above: John Yocum with 32-inch walleye he caught on Lake Vermilion.**



# Boat Inspections on Lake Vermilion Continue to Expand

**T**oday, to prevent AIS infestations, boat inspections and boat decontaminations remain our best bets. Population control is very expensive once established. Our researchers are working on tools for eradication, but we're not there yet.

That's why our AIS prevention plan at Lake Vermilion puts so much emphasis on inspections, backed up by early detection of anything that made it past the inspection firewall.

North St. Louis Soil and Water Conservation District (SWCD) – a key AIS prevention partner – handles boat inspections at Vermilion and five other area lakes. Their program is one of the largest in

Lake	Boat Inspections	
	2018 Actual	2017 Actual (rounded)
Vermilion	18,746	17,500
Nearby Lakes	5,565	3,200
Total Inspections	24,311	20,700

Minnesota. Results for 2017 and 2018 are shown in the table above. Big numbers! About 60-percent of boats entering Vermilion have been inspected. We thank North St. Louis SWCD for their outstanding work.

More complete data from our 2018 Lake Vermilion AIS Prevention Program and our plans for our 2019 program are available on our website ([www.VermilionLakeAssociation.org](http://www.VermilionLakeAssociation.org)). They'll also be included in an upcoming newsletter.



# What's Your Name, Little Muskies?

By Matt Hennen, DNR Tower Area Fisheries

For the past two years, each muskie stocked into Lake Vermilion has been given a unique “name” that the fish will literally carry with it for the rest of its life. This name comes from a Passive Integrated Transponder (PIT) tag implanted in the muscle tissue below the fin on their back prior to stocking. The PIT tag, about the size of a large grain of rice, contains a microchip that when scanned with a specialized reader, produces a unique identification code or the “name” of each fish. Rather than being a John, Jeffrey, Heather, or Helen, the names are something like 3D6.1D595D9B38.

Prior to getting assigned names and put into a lake, stocked fingerling muskie make an impressive journey during their first half year of life. First, mature adult muskie are captured and spawned in the early spring at several lakes throughout Minnesota that are part of the DNR muskie propagation program. These lakes contain muskie with genetics originating from Leech Lake. The fertilized eggs from the spawn take are transported to various hatcheries around the state where they hatch in about three weeks. In the hatcheries, fish are reared to transplant size (roughly 1-3 inches) prior to being stocked into outdoor rearing ponds throughout the state in July. They live and grow in the ponds until fall when they are harvested as fingerlings that average about 10 inches in length. The fingerlings are then transported and stocked, based upon statewide priority and individual management plans, into one of the roughly 100 lakes or rivers with muskie populations maintained through stocking.

The adventure for the fingerling muskie stocked into Lake Vermilion in 2017 and 2018 began in Lake Rebecca near Rockford, Minn. Lake Rebecca is one of the DNR's muskie spawn take sites and has been one of Minnesota's primary source for Leech Lake strain muskie eggs since the late 1980s. The fertilized eggs from Lake Rebecca were then transferred to the DNR's Waterville Area Fish Hatchery where they were hatched and reared to transplant size



prior to being transported to drainable rearing ponds maintained by DNR's Hinckley Area Fisheries office. Fisheries staff stocked the drainable ponds with fathead minnows to provide a source of food in advance of the arriving muskie transplants. The fish were monitored throughout the summer and the ponds were drained in October to capture fingerling muskie for stocking. DNR Tower Area Fisheries staff traveled to Hinckley to assist with the pond harvest and to transfer the fingerling muskie to tanks at the Tower Area office. The fish were held overnight prior to being PIT tagged and stocked at various locations throughout Lake Vermilion.

During the tagging process, information including length and stocking location is recorded for each tagged fish and entered into a database. In the future, if we capture fish 3D6.1D595D9B38 again during our various fisheries surveys we will already know

**Continued on page 14**

## Muskies...from page 13

some very useful information about it including age, stocking location, and size at stocking. Additionally, we will be able to gather new data such as growth, sex, and movement that will assist in managing the muskie population. We will also be able to distinguish stocked fish from naturally reproduced fish since the naturally reproduced fish will not have tags.

The PIT tags used for fingerling muskie are the same as the microchip implants that you may have in your dog or cat, although I doubt anyone has named their pet 3D6.1D595D9B38. The tags are not visible and require a specialized reader to scan the “name” of each fish. Thanks to the generous donation from the



Vermilion Lake Association and the Lake Vermilion Resort and Tourism Association, we will have a top-notch PIT tag reader readily available to scan fish and ask “What’s your name, little muskie? What’s your name?”

## MAKES A GREAT PRESENT

### *Vermilion Lake Association Caps Now Available*



They’re here! Wear your new caps proudly to show your support for your lake association. The price is right: \$15, plus \$3 shipping for any number of caps to one address. Free local pickup. Check out the three style choices at our website [VermilionLakeAssociation.org/caps](http://VermilionLakeAssociation.org/caps).

For more info, contact Sheri Sawatzky, 218-666-5512, or email [sherisawatzky@gmail.com](mailto:sherisawatzky@gmail.com).

## Board of Directors and Officers 2018-2019

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Howard Ankrum, 1878 Everett Rd. S, Tower, MN 55790, 218-753-2936, [howiela@yahoo.com](mailto:howiela@yahoo.com)



# *In Memoriam...*

**T**he Vermilion Lake Association regularly receives donations in memory of loved ones or friends. We are grateful for these gifts and also wish to honor those who have passed away:

**Fred Herman Wenzel**

**Jim Kvale**

**Chris Nicklow**

**Jesse L. Swanson**

**Jerry & Carol Kolstad**

**Forest W. Bovee**

**Elizabeth Abrahamson**

**Mike & Lucy Begich**

**Jerry & Rebecca Ketola**

**Oli & Minnie Swanson**

**Art Noteboom**

**William Corwin Allen**

**Sue Martin**

**Tim Flanagan**

**Robert E. Smith**

**Rod McPeak**

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**Daisy Walkama and Durrant Nelson**

**Arlene Branwall**

**Ole Swanson**

**Jim Postudensek**

**Dan Cownie**

**Trevor Reichel**

**Earl Nielson**

**Barbara Shook**

**Pete Peterzen**

**Bill & Martha Billett**

**John & Sharon Okerstrom**

## **Donations**

**T**he Vermilion Lake Association has qualified as a tax-exempt, non-profit organization under IRC Section 501(c)(3). Your charitable gifts and membership dues are generally tax deductible for federal income tax purposes. Please consult your tax professional.

To accommodate a wide range of donor interests, the Vermilion Lake Association has three funds to which gifts may be directed. Any size gift is appreciated and acknowledged.

**General Fund:** Gifts to this fund are used for a broad range of lake association activities.

**Aquatic Invasive Species (AIS) Prevention Fund:** Gifts to this fund are used to prevent new

AIS infestations and to manage infestations already present.

**Shore Lunch Site Improvement Fund:** Gifts to this fund are used to improve and maintain Lake Vermilion's eight shore lunch sites.

### **How to Make a Donation**

If you'd like to send a check, please make it payable to the "Vermilion Lake Association, Inc." and mail to the address below. If you wish, you may direct your donation to a specific fund.

All gifts are appreciated and acknowledged. Please include your name, email, and mailing address.



If this is a memorial gift, please let us know who the gift is in memory/in honor of.

**Vermilion Lake Association, Inc.**

**Jerry Lepper, Treasurer**  
P.O. Box 696  
Tower, MN 55790

Donate online at <http://www.vermilionlakeassociation.org/get-involved/donate/>

# Where does Vermilion's water come from?

**H**ave you ever wondered where the water in Lake Vermilion comes from? Numerous creeks and rivers flow into Lake Vermilion including Armstrong River, East Two River, West Two River, and Pike River. The quality of these tributaries all affect the water quality of Lake Vermilion. The Pike River runs almost 30 miles from between Gilbert and Virginia to Pike Bay of Lake Vermilion. That river was the start of a canoe trip led by Lake Vermilion-Soudan Underground Mine State Park that I had the opportunity to join this summer as the new Community Conservationist for the North St. Louis Soil & Water Conservation District (SWCD).



Prior to getting into a canoe one warm August morning, Interpretive Supervisor James Pointer explained how participants would first be monitoring the Pike River's water quality before taking off. We were able to test water transparency by using a turbidity or secchi tube, just like citizen stream monitors use across Minnesota. We noted that the water was fairly clear and moved on to measure other properties. Participants measured temperature, pH (how acidic or basic the water is), and dissolved oxygen which aquatic organisms need to breathe. We found the water to be close to neutral on the pH scale, with a good amount of dissolved oxygen, and not too warm in temperature. Putting it all together, we searched for what was living in the water. We found many aquatic invertebrates that were indicators of good water quality including dragonfly larvae and even some frogs. We were happy with the water quality we found and it was clearly able to support a variety of aquatic life. These measures of water quality are very similar to monitoring the Minnesota Pollution Control Agency and the North St. Louis SWCD does to check the water quality across our region.

After a brief lesson on river canoeing, which can offer different challenges like currents and rapids compared to canoeing on a lake, we loaded into the canoes. We didn't see much for people along the trip even though we passed under Highway 169. It was a peaceful trip with a number of wildlife sightings including turtles, songbirds, ducks, and white-tail deer. My favorite moment was when we happened

upon some trumpeter swans. They weren't too interested in seeing us and decided to take off into the air. Being such heavy birds, the distance they needed to take flight was considerable, and the echoing sound generated by their wings repeatedly slapping the water quickly silenced our conversations. We exited the river shortly before Pike River enters into Lake Vermilion.

With a clear sky and a high of 84 degrees, it was a beautiful day to canoe down the river and learn about water quality. It was evident that those who participated left with a greater appreciation for water quality and will consider how our actions upstream have effects on downstream conditions. From Lake Vermilion, water continues to flow north down the Vermilion River and eventually to Hudson Bay. We hope to partner on this trip with Lake-Vermilion Soudan Underground Mine State Park next year, so keep an eye out for the next time it is offered! If you are interested in monitoring water quality, there are sites on Lake Vermilion and its tributaries that need citizen monitors to measure water transparency. Check out <https://www.pca.state.mn.us/water/citizen-water-monitoring> or contact Becca at [becca@nslswcd.org](mailto:becca@nslswcd.org) or 218-471-7288 to learn more!





# What Causes Ice Ridges and What Can I Do About Them?

Article courtesy of Minnesota DNR

Property owners occasionally return to their cabins in the spring only to discover they are dealing with property damage caused by a phenomenon called “ice heaving” or “ice jacking”. This powerful natural force forms a feature along the shoreline known as an “ice ridge”. The result may include significant damage to retaining walls, docks and boat lifts, and sometimes even to the cabin itself.

**How do ice ridges form?** Ice ridges are caused by the pushing action of a lake’s ice sheet against the shore. Cracks form in the ice because of different contraction rates at the top and bottom of the ice sheet. This is especially true in years that the ice sheet lacks an insulating snow cover. Ice cracks also develop because the edges of the ice sheet are sometimes firmly attached to the shore. When water rises in the cracks and freezes, the ice sheet expands slightly. Rising air temperatures warm the ice, leading to additional expansion, which exerts a tremendous thrust against the shore. Alternate warming and cooling of the ice sheet leads to additional pushing action, causing the ice to creep shoreward and scrape, gouge, and push soil and rock into mounds (called “ice ridges”, “ice pushes”, or “ramparts”).

## What can be done about ice ridges after they form?

Because ice ridges do provide ecological benefits (described below), the ideal reaction to the formation of an ice ridge would be to do nothing other than remove personal property from its zone of influence. However, this is often impractical. Ice ridges can impede use of the lake by a property owner or the users of public lakeshore facilities. Therefore, action may be taken to remedy the results of ice activity.

Lake access can be obtained by ramping over or cutting through the ice ridge. There are circumstances, however, when it may be necessary to remove or grade an ice ridge. An individual Public Waters Work Permit is not required from the DNR to remove or grade an ice ridge if the work meets the following conditions:

- The ice ridge resulted from ice action within the last year.
- The project is either exempt from local permits or is authorized by issuance of a local government

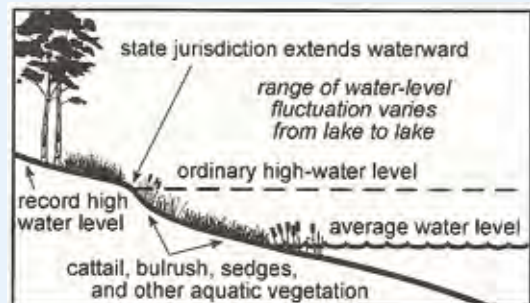
**Continued on page 18**

## Is an individual permit required?

For most projects constructed below the ordinary high-water level\* (OHWL) of public waters, an individual Public Waters Work Permit is required from the Minnesota Department of Natural Resources (DNR).

**Ice ridges exception:** An individual permit from the DNR is not required for the grading or removal of an ice ridge if the conditions outlined on this information sheet are followed.

If you have questions concerning the contents of this information sheet, contact your local DNR Area Hydrologist.



*Shoreline cross section*

## Are Other Permits Required?

Other governmental units (federal, state, city, county, township, and watershed authority) may require a permit for that portion of the project within their jurisdiction, which usually involves work above the OHWL. It is advisable to contact them. Please note that local units of government and other agencies may require a permit for this project.

**\*For lakes and wetlands, the OHWL is the highest elevation that has been maintained as to leave evidence on the landscape. It is commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. For watercourses, the OHWL is the top of the bank of the channel. For reservoirs and flowages, the OHWL is the operating elevation of the normal summer pool.**

## Ice ridges...continued from page 17

permit.

- Not more than 200 feet of shoreline is affected.
- All ice ridge material that is composed of muck, clay, or organic sediment is deposited and stabilized at an upland site above the ordinary high-water level (OHWL: see sidebar on page 17).
- All ice ridge material that is composed of sand or gravel is removed as provided above or graded to conform to the original cross section and alignment of the lakebed, with a finished surface at or below the OHWL.
- No additional excavation or replacement fill material occurs on the site.
- All exposed areas are immediately stabilized as needed to prevent erosion and sedimentation.
- Local zoning officials, the watershed district (if applicable) and the soil and water conservation district are given at least seven days' notice before beginning the project.

Removal or grading of an ice ridge must not disturb emergent aquatic vegetation, unless authorized by an aquatic plant management permit from the DNR's Division of Fisheries.

**What can be done about ice ridges before they form?** The simplest means of avoiding ice-related damage to shoreline property is to ensure that personal property is out of wrath's path. State and local shoreland regulations requiring setback limits not only lead to improved aesthetics but also help to minimize personal property damage from ice action and wave-induced erosion. Engineering solutions are sometimes pursued to remedy ice ridge problems, but they can be expensive and ineffective. If an engineering solution is pursued, property owners should seek the advice of a professional.

**What are the benefits of ice ridges?** Ice ridges are natural berms that have formed around Minnesota's lakes over thousands of years. These mounds of material provide the lake with ecological benefits by creating a barrier to nutrient loading. Nutrients collect on the landward side of the mound, producing fertile soil where plants and trees thrive. The root systems of this near-shore plant community help to

protect the shore from erosion and soak up additional nutrients. Shade and habitat offered by near-shore plants benefit organisms along the shore and in the lake, thus supporting nesting and spawning.

Ice ridges also work to protect the shore from the



**Ice ridge formed along the shore of Shamineau Lake in Morrison County.**

lake itself. For example, a small ice ridge formed one year is followed by additional pushes in ensuing years. The ridge is fortified by jamming rocks into it. The roots of the near-shore plant community bind together the soil and rock to form natural shoreline protection.

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### DNR Contact Information

DNR Ecological and Water Resources website and a listing of Area Hydrologists: <http://mndnr.gov/waters>

DNR Ecological and Water Resources 500 Lafayette Road, Box 32, St. Paul, MN 55155. (651) 259-5100.



# Loon Nesting Platforms...WANTED: New Site for 2019

Mel Hintz, Board Member

After two years of deploying two platforms without attracting a nesting pair of loons, we plan to increase our odds by adding a third platform this year. Federal loon researcher, Kevin Kenow, has offered our lake association another platform to be deployed right after ice-out in the spring. Our task now is to select a promising site somewhere on the east end of the lake so we are ready when the snow and ice leaves in April.

Following are the criteria for selecting a new east end site:

➤ Past loon activity - loons were present last year, but

no chicks were produced.

➤ Sheltered location – site is protected from strong winds and wave action from boat traffic.

➤ Road accessible - to deploy right after ice-out, we will need a site that is easily accessed.

➤ WiFi available – when the site is occupied by a loon pair, we plan to mount a mini-cam nearby, linked to our website.

If you have a site you would like us to consider, please contact me at 218-753-2401 or melhintz031@gmail.com. Hopefully, our efforts to attract a nesting pair of loons will be rewarded in 2019.

## Chronic Wasting Disease in Minnesota



In Minnesota, chronic wasting disease (CWD) was first discovered on an elk farm in 2002 and the first wild deer was discovered in 2010. CWD is a challenge to manage because:

➤ This always fatal neurologic disease

develops slowly. By the time a deer looks sick – over many months to several years – it may have infected others.

➤ Prions, the abnormal proteins that cause the disease, are highly resistant to disinfectants, heat, or freezing - cooking will not kill this disease.

➤ There is currently no vaccine or treatment for this disease.

➤ Healthy deer can get CWD through direct contact with an infected deer's saliva, urine, blood, feces, antler velvet or carcass. Even soil can become contaminated and be a source of infection.

deer in an area – in wild or farmed deer. We need your help to succeed. So, please:

➤ Participate in surveillance efforts during hunting seasons when they occur in your area.

➤ Comply with bans on recreational deer feeding and use of attractants (this includes salt and mineral licks) where they exist.

➤ Report sick deer to your local conservation officer or area wildlife office.

➤ Be aware of carcass-import restrictions. Whole carcasses of deer, elk, moose, or caribou cannot be brought into Minnesota.

➤ Learn more about CWD in the Minnesota hunting regulations handbook or online at [mndnr.gov/cwd](http://mndnr.gov/cwd).

### *Long-term impacts for Minnesota*

Once established on the landscape, CWD has the potential to significantly reduce deer numbers. This could negatively impact hunting, wildlife watching and those who benefit economically from a healthy deer population.

Minnesota deer hunting generates nearly \$500 million of economic activity each year. It is in Minnesota's best interest to keep deer healthy for future generations.

### *What can I do to help?*

The DNR routinely conducts surveillance when there is a risk of the disease spreading by known positive



Vermilion Lake Association  
PO Box 696  
Tower MN 55790

## Volunteers Make the Difference

The Vermilion Lake Association has been fortunate over the years to have a dedicated group of leaders and volunteers to staff our important activities. We are grateful for their help.

Please consider joining this team. We have needs for both workers and leaders, for those with only a few hours to spare, and for those who can make a larger time commitment.

If you think you may be interested, please contact Pat Michaelson, VLA Volunteer Program Leader, at 612-306-7702 (cell) or [plmichaelson@gmail.com](mailto:plmichaelson@gmail.com).

### Vermilion Lake Association

Sheri Sawatzky, Member Records • P.O. Box 696 • Tower MN 55790  
[sherisawatzky@gmail.com](mailto:sherisawatzky@gmail.com) • (218) 666-5512

Membership year runs from Jan 1st through Dec 31st

☐ 2019 New Member ☐ 2019 Renewal

Membership level

☐ \$15.00 Individual ☐ \$20.00 Couple  
☐ \$25.00 Family ☐ \$50.00 Business or Organization

Member Name \_\_\_\_\_

Spouse Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email (requested) \_\_\_\_\_

Phone (requested) \_\_\_\_\_

Please clip or copy this form and send to the address above.

### Become a Member

Join those who love Lake Vermilion as much as you do. Help us continue the many activities you've just read about.

Not sure? Check us out at our website [VermilionLakeAssociation.org](http://VermilionLakeAssociation.org). We're pretty sure you'll like our vision for the future and the work we have underway now to make Lake Vermilion even better.

Please mail a check with the form on this page or join at our website using PayPal or a credit card.

The Vermilion Lake Association is a 501 (c) (3) non-profit organization.

### Do You Qualify?

Trick question. Anyone can join the lake association whose mission it is to protect and improve Lake Vermilion. No need to be a property owner. No need to be a fisherman or a kayaker. Just someone who cares about our great lake and wants to protect her for the next generation.