



TPPA Newsletter

Volume 3 , Issue 2

July, 2009

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President's Message



What do you know? You haven't fired me yet. I'm still TPPA President! Other officers elected during our June picnic meeting are Mike McDonnell (VP), Jeff Everett (Sec.), and Steve Baker (Treas.). We're all grateful for the opportunity to participate in the protection of Three Ponds - for one more year at least.

This Spring we were very encouraged to see over 30 members volunteer to be Townhouse Pond watershed surveyors. It's with this kind of support that we will succeed in our mission

The two biggest threats to the quality of our ponds are INVASIVE AQUATIC PLANTS and SOIL EROSION caused by storm water runoff.

Invasive plants such as variable milfoil can quickly grow out of control and make ponds virtually unusable for boating swimming or fishing. Removal of a large milfoil infestation is nearly impossible and extremely costly.

Soil erosion carries pollutants and nutrients such as phosphorus into the ponds, which accelerates the growth of algae, obnoxious algal blooms, and eventually, green scum containing the dreaded cyanobacteria.

The best ways to fight the invasive aquatic plant threat are to 1. Keep the plants from entering our ponds, and 2. Find them early if they do take hold. Our Lake Host program and Weed Watcher program help to achieve these objectives.

As far as we know, invasive plants have not yet taken hold in our ponds. But they have infested many

Message - continued on p.3

Weed Watching

by: Linda Dame



This year we will be in our 5th year of weed watching. We officially started weed watching with a small group of interested people. Amy Smagula from NH DES came and gave a talk at the Milton public beach.

In 2006 we applied for and received a grant from NH DES. With the grant money we were able to purchase some tools for retrieving samples; a digital camera to use in identification of the plants; and a small kayak for anyone to use to do surveys; and T-shirts to identify us as Weed Watchers.

We have gradually added more Weed Watchers, so we now have approximately 25 people doing surveys.

There is always a need for more help in this area. There is a very large shoreline in the 3 ponds to be watched.

To become a Weed Watcher only requires a few hours out on the water each month. If you kayak or canoe, it's a fun thing to do. We have training manuals with outline

what to look for and how to conduct a survey.

By keeping a vigilant watch for any invasive plants we can keep our lakes free of these plants. If we do find any, early detection is very important in controlling them.

Anyone on the lakefront should be watching their own shoreline.

The more people we have doing Weed Watching will make it easier for all. We divide the shoreline up among the number of Weed Watchers, the more eyes the better we are.

If anyone is interested in becoming a Weed Watcher, Please contact Linda Dame at LSDAME@HOTMAIL.COM or call 652 - 4429.

Around the Waterfront - Survey of Townhouse Pond May 30th

by Amy Craig Riefenstahl
Principal/ Craig Environmental Design



More than thirty volunteers from around the entire lake set out to do the Townhouse Pond Watershed Survey. The morning had promise with sunshine and blue skies, after days and days of rain. We all met at the Emma Ramsey Center at 8:45am ready to start the survey. Over coffee and donuts, lake residents got caught up with neighbors and met new friends, discussing the day ahead. The Three Ponds Protective Association handed out T-shirts to all the volunteers. After the caffeine set in, we settled down and received a two hour training session on how to conduct a watershed survey. The TPPA got help with planning the event principally from Wendy Garland of Maine DEP (Department of Environmental Protection) and Sally Soule of NH DES (Department of Environmental Services).



Wendy Garland, Joe Anderson, also from DEP, trained us on the process of collecting visual data, the different types of erosion we should be looking for and erosion control options we could recommend for remediation purposes. All of the information was interesting and practical, and they made it entertaining too. The key to this survey was to identify areas on the lake where soil was being eroded away by runoff or other means and causing sediment or pollution to be deposited into the lake.

We then broke up into groups of 4 or 5 by choosing which area of Townhouse Pond we wished to survey. There were eight sectors in all that were part of the watershed.

“What was wonderful to see was that many residents had left natural buffer areas or had landscaped shorelines, which resulted in no erosion at all. “

Each group had a experienced group leader to guide us in the process. Off we went to our sector and began to do the survey. Our



task was to detect any erosion that we could see and document it on a data sheet as well as take pictures and make recommendations to correct it. Our group distinguished several types of erosion in our area, for example; sheet erosion, gulling, and shoreline erosion from wave action. What was wonderful to see was that many residents had left natural buffer areas or had landscaped shorelines, which resulted in no erosion at all. Many properties had minimal sized beaches, which help prevent excess erosion caused by water runoff.

We enjoyed meeting residents from most of the properties we surveyed, talking with them and explained to them the purpose of



the survey. My husband Glenn and I got to know some of the TPPA board members better by working with them. All in all it was a fun and productive day and I was amazed that we got everything done before 3pm.

The entire survey was completed on that day and now the data will be put into a report with recommendations. The report will help us get grant funding to help solve some of our erosion problems so that our lake will be healthier. The TPPA's mission is to act as stewards of the lake and preserve and protect its wonderful resources for all of us to enjoy.

Three cheers for all the wonderful volunteers who helped the TPPA conduct this survey and to the members of Maine DEP for training everyone. Thank you all for making a difference. I would also like to thank the TPPA committee members who made this possible, Mike Dubois, Jeff Everett, Bob Myrick, and Wayne Sylvester.

We will be doing more surveying on the other parts of Milton Three Ponds and will need more volunteers. Come on out and enjoy the fun.



From Dishwater Pond to Mirror Lake: What Is The Difference Between A Lake And A Pond?

by Andrea LaMoreaux NH Lakes Education Director

One of the most common questions I get as a limnologist is, "What is the difference between a lake and a pond?" If you are like most folks, you probably think that lakes are bigger and deeper than ponds – this isn't always the case! (Incidentally, the second-most common question I get is, "What is a 'limnologist?'" – a limnologist is a scientist who studies freshwater including lakes and ponds.) In New Hampshire, there are many examples of a waterbody being called a "pond" when it is larger and deeper than another waterbody called a "lake." For example, Loon Pond in Gilmanton is 49 acres in surface area and 45 feet at its deepest point, while Loon Lake in Plymouth is 45 acres in surface area and its maximum depth is only 29 feet!



Sand Pond in Marlow, at 64 acres in surface area and 71 feet at its deepest, is larger and deeper than Kolelemook Lake in Springfield which is 40 acres in surface area and 22 feet deep!

How did my favorite lake or pond get its name?

In New Hampshire, the naming of a waterbody as a "lake" or a "pond" is arbitrary—most were named by the early settlers who lived nearby. The New Hampshire Department of Environmental Services reports that many lakes and ponds have had official name changes over the years. Most name changes have involved changing from a "pond" to a "lake" in an attempt to make the waterbody sound more attractive to home buyers and visitors. Examples of ponds that are now called lakes include "Mud Pond" to "Mirror Lake" in Canaan, "Mosquito Pond" to "Crystal Lake" in Manchester and "Dishwater Pond" to "Mirror Lake" in Tuftonboro. (By the way, I have heard of groups who want to change the name of their waterbody from a "lake" to a "pond" so that it will sound less attractive to visitors!)

Is there a legal difference between a lake and a pond?

In New Hampshire, for legal purposes, there is no difference between a "lake" and a "pond." However, to make matters more confusing, if a lake or pond in New Hampshire is 10 acres or greater in size, then it is considered a "Great Pond"—a waterbody that is regulated by the state and subject to state water quality laws.

Is there a scientific difference between a lake and a pond?

Yes, from a limnologist's point of view, there is a difference between a "lake" and a "pond." But, to add to the confusion, the

distinction between a "lake" and a "pond" is not always the same for every limnologist. Some limnologists say that a waterbody which has rooted plants growing throughout should be classified as a "pond" since it is shallow enough for sunlight to reach the bottom in all areas. These same scientists would say that a "lake" is a waterbody that only has rooted plants growing around its edges, since it is too deep for sunlight to shine on the entire bottom. However, I have found that these definitions do not always hold true—I have visited "ponds" that are 10 to 15 feet deep with brown, murky water where it is too dark for rooted plants to grow on the bottom and I have visited deeper "lakes" with crystal clear water where rooted plants grow throughout.

Other limnologists define the difference using temperature. During the summer, if a waterbody is deep enough to stratify into three distinct layers, with one warm layer on top, one cold layer at the bottom and a layer of rapidly changing temperature in between (called a "thermocline"), then it is a "lake," while a waterbody with one or two weakly defined layers is a "pond."

Enjoy your lake or pond!

New Hampshire is home to approximately 1,000 lakes and ponds. So, no matter whether your favorite waterbody is a lake or a pond, or which limnologist defines it, be sure to go out and enjoy it!

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lakes and ponds in New Hampshire and Maine, and a sizable infestation was recently found in Spaulding Pond just south of us. So we must remain resolute in our efforts to keep invasive plants out of our ponds.

To fight the soil erosion threat, TPPA plans to conduct watershed surveys of all three ponds to identify soil erosion sites. The first of these surveys (at Townhouse Pond Watershed) was conducted this

spring. We hope to find funding sources to survey the other ponds starting next year and also to help with repairing soil erosion sites.

"...we must remain resolute in our efforts to keep invasive plants out of our ponds."

We will continue to provide articles in our Newsletters and in our soon-to-be-revamped website, about how we as individual property owners can help fight these threats. There is an article on page 5

about invasive aquatic plants which gives excellent advice along these lines.

This article's author is Andrea LaMoreaux, Education Director with NH LAKES (New Hampshire Lakes Association). Andrea will be a guest speaker at our 24 September TPPA meeting. Her talk will include identifying resources that NH LAKES makes available to help municipalities and land owners with lake protection.

Enjoy the rest of the summer (is it here yet?).

Norm Turgeon

Addressing concerns raised by new cyanobacteria studies.

from Newsletter of the NH Department of Environmental Services – July/August 2009

The recent news about cyanobacteria and the ongoing study being conducted by Dartmouth Hitchcock Medical Center regarding the potential link of degenerative neurological diseases and cyanobacteria has understandably raised concerns about quality of our lakes and ponds. DES has taken a proactive approach to water quality and public safety in New Hampshire.

Cyanobacteria are among the oldest known oxygen evolving photosynthetic organisms, having existed over 3 billion years—they are NOT new or exotic. They have likely survived in our lakes since their formation, some 10,000 years ago, and may be observed in nearly all of our lakes and ponds. Some cyanobacteria contain Cyanotoxins, but when present in lower numbers are not harmful to public health. An increase in phosphorus to the lake may result in an increase of cell production and the formation of a scum that can be potentially toxic to animals, livestock, waterfowl and humans.

However, there is no need to panic. It is safe to recreate in New Hampshire waters. Generally, the water quality in our lakes and ponds is very good.; and we all

can enjoy swimming, boating, fishing and other water related activities.

The cyanobacteria blooms that are making the news in New Hampshire are not unique to us. The increase in cyanobacterial blooms is a global issue; they occur all over the world. Other states and countries have experienced cyanobacteria scums and blooms in their lakes and rivers.

DES posts advisories and warnings, because we are proactive. Most other states do not test for cyanobacteria. However, DES, routinely monitors the state's public beaches and public waters for cyanobacteria. Then, in an effort to advise the public of potential health risks, DES issues advisories as a precautionary measure, which began five years ago as the incidence of blooms or scums became more apparent.

Scientists at Dartmouth Hitchcock Medical School are actively researching a possible link between BMMA., which is a specific amino acid with cyanobacteria, and human health effects, including amyotrophic lateral sclerosis (ALS), commonly known as Lou Gehrig's disease. They are trying to determine if exposure to cyanobacterial blooms that are known to produce the

neurotoxin BMMA, and are present in New England lakes, relates to a high incidence of surrounding ALS.

Cyanobacteria advisories are issued by DES when a large number of cyanobacteria cells are seen in a lake sample; advisories do not necessarily indicate the presence of the neurotoxin BMMA. The warning is not based on a toxin evaluation and is intended as a precautionary measure for short-term exposure. Lake users should avoid contact with the water in areas experiencing elevated cyanobacteria cell conditions, typically where lake water has a surface scum or blue-green flecks. If a cyanobacteria warning has been issued, DES will continue to monitor public beaches and public waters on a weekly basis until the cyanobacteria standards are again met.

If you suspect a cyanobacteria bloom in a waterbody, and you have access to the web, check for the "Beach Inspection" webpage at www.des.nh.gov, or contact DES immediately at (603) 271-2457 or beaches@des.nh.gov and we will conduct a site visit.

Lakes Legislative Weekly

from www.nhlakes.org/legislative-weekly.htm – June 4, 2009

On May 27th, the NH Senate passed HB 350 as amended (a NH LAKES initiated bill). The focus of this bill is to update the law to include limitations of phosphorus in automatic dishwashing detergents (automatic dishwashing detergents containing low and no phosphorus are readily available today through most manufacturers). Phosphorus can encourage overabundant plant and algal growth which can lead to increased problems with toxic algal blooms and the increased growth of exotic invasive aquatic weeds. By eliminating a significant contributor of phosphorous pollution at its manufacturing sources, we are able to greatly reduce its impact on lakes. We are looking forward to the Governor's signature - stay tuned!

Also, on Wednesday, June 3rd, the NH Senate passed HB 45 as amended. This bill expands the eligibility for wa-

ter supply land conservation grants to future sources of public drinking water and broadens the definition of grantees to include non-profit land trust organizations. The amendment also establishes a committee to study the Fish and Game Department plan to develop the Wild Goose site on Lake Sunapee into a motorized boat access ramp and places a moratorium on the permitting process while under review by the committee. NH LAKES agrees with the position of the Lake Sunapee Protective Association, as there are major concerns for water quality impairment under the current site plan. It would be much better to revise the site plan to include low impact lake access, such as a cartop launch site, with facilities for swimming, picnicking and shoreland fishing. By revising the site plan to accommodate low impact lake access, the Fish and Game

Department will comply with the requirements under the Comprehensive Shoreland Protection Act, as well as the permitting requirements (least impacting alternative) under the Wetlands Act. In addition, the current proposal will require at least \$1.2 million dollars to develop into a motorized launch site. Given the current economic situation affecting the state budget, it would be fiscally responsible to reallocate some of those funds to existing state access sites. There are many existing motorized launch sites throughout NH that require funding for upkeep and maintenance. Significant funds can be reallocated to existing motorized access sites in need of repair by simply revising the current Wild Goose proposal for low impact lake access.

Are Lake Hosts Protecting Your Favorite Lake This Summer?

by Andrea LaMoreaux NH Lakes Education Director

The summer boating season is here! Lake Hosts are out in their bright blue shirts at boat ramps throughout the state educating boaters about how to prevent the spread of exotic aquatic plants, like variable milfoil, by conducting courtesy boat inspections to remove aquatic plants hitchhiking on boats, trailers, and recreational gear.

This year, 72 groups are protecting more than 80 lakes throughout the state from exotic aquatic plants through the New Hampshire Lakes Association's (NH LAKES) Lake Host Program. So far Lake Hosts have already made 18 "saves" this year. A "save" is made when a Lake Host removes a piece of exotic aquatic plant, like variable milfoil, from a boat or trailer before it enters or just after it has left a lake.

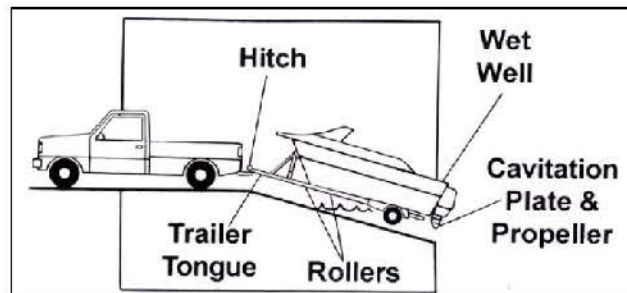
Exotic aquatic plant infestations in our lakes and ponds are undesirable because they make recreation dangerous and unpleasant, they disrupt the ecological balance of the waterbody, they reduce shoreline property values, and they are difficult and expensive to control. Once a waterbody is infested with an exotic aquatic plant, it is almost impossible to get rid of it!

Currently, 72 waterbodies in New Hampshire are

infested with at least one exotic aquatic plant. Even if you use a boat ramp this summer that is not staffed by a Lake Host (or if you don't use a ramp at all), you can help prevent the spread of exotic plants by following these simple steps: Clean your boat, trailer, and recreational of all aquatic vegetation each time before entering or leaving a water body, even if a Lake Host isn't pres-

ent to help you. Avoid weed patches areas designated as "Restricted Use Areas" while boating. This will lessen spreading weeds to other parts of the lake. Remove all fragments of plants that show up on the shoreline and dispose or compost them in an area where they will not float back into the lake. Educate your neighbors, renters, and any new property owners in

the neighborhood about exotic species and what they can do to prevent their spread. Report any suspected exotic species infestations you find in surface waters to NHDES at (603) 271-2248 or Amy.Smagula@des.nh.gov.



Check these areas on your boat and trailer and remove hitchhiking plants before you enter the water and after you leave the water.

NH Public Beach Inspection Program

from NH Department of Environmental Services Web Site



The Public Beach Inspection Program tests the waters at swimming beaches across New Hampshire during the swimming season. From late May until early September, personnel sample the water and inspect 16 coastal beaches once or twice a week. About 170 freshwater beaches are sampled monthly from June to August. The water samples are tested for the presence of water-borne pathogens. If high levels are present, advisories are issued to notify the public. In addition to monitoring the waters, the program supports studies to determine the sources for contamination

of the beaches and education campaigns to inform people of beach sanitation.

Public Beach Inspection Program personnel monitor and sample beaches throughout the state from mid-June through Labor Day. About 170 public bathing beaches on lakes, rivers, and impoundments are inspected on a monthly basis, while about 16 coastal and estuarine beaches are inspected on a weekly or bi-weekly basis during the swim season. DES Beach Inspectors collect two to three bacteria samples from each beach depending upon the length of the bathing area. Also, DES inspects on-site toilet facilities, the bathing area, and surrounding areas for the presence of potential health threats, and confers with lifeguards and the public to address their concerns.

In addition to monitoring/sampling over 180 public beaches, the program is responsible for issuing advisories when state water quality standards are exceeded. Advisories are currently issued for high

bacteria levels and/or the presence of a toxic cyanobacterial scum at public bathing areas.

DES's Public Beach Inspection Program has monitored public beaches for over 20 years in response to the potential health threats associated with water-borne pathogens. These pathogens are responsible for water-borne diseases such as cholera, giardiasis, gastroenteritis, and cryptosporidiosis. DES also recognizes the threat of toxic cyanobacteria (blue-green algae) at public beaches. Cyanobacteria are capable of producing toxins known to target the liver and central nervous system and can cause irritations to the skin and mucous membranes. As the use of New Hampshire's inland and coastal waters grows, the continued goal of the program is to protect public health and inform the public of potential health risks at public beaches.

The Annual Picnic – Terrific Once Again

by Norm Turgeon

I always look forward to the annual TPPA picnic at Everett's Cove Marina. It's a chance to meet old friends and new members. The free hamburgers and hotdogs cooked on outside grills are always delicious, and the salads and desserts contributed by members always let us know they come from favorite recipes. This year was no different in this regard. The only difference was that the picnic was combined with the June membership meeting where there is an election of officers as required by TPPA by-laws.

Okay, so we had the election, got briefed on what's going on at TPPA, and witnessed a presenta-

tion of gifts to Dolly Shevenell and Rachel Grenier in appreciation of their work in support of the water sampling program. We also recognized and applauded Bob Garnet for his fine volunteer work as a conservationist at the Milton town beach. Then came the food and good conversation, at which time Linda Dame took the photos you see here – using a borrowed camera.

About 45 people attended, which is normally the case. It's too bad there weren't more. Those of you who missed it would have enjoyed it. TPPA plans to hold the event on a Saturday next year so that more of you can

make it. Hope to see you there!



ROADS TO RUIN?

by Maggie Shannon
Executive Director, Maine COLA



Driving through fields and woods to the lake, don't we all keep an eye cocked for glimpses of light between the trees, searching the flash of blue that signals journey's end? We may be so focused on our destination we notice the road beneath our wheels just enough to stay on it and avoid wildlife and the occasional puddle.

Hold it! It's time for all of us to stop and examine these familiar routes. Mild mannered as they may seem, camp roads are Maine's Lake Enemy #1. Experts estimate camp roads contribute between 60% and 85% of all nutrient loading in our watersheds! Nutrient loading is technical talk for too much soil getting into our waters, enriching them and fast-forwarding lakes into decline.

As the lowest portion of the landscape, lakes are catch basins for water funneled from their watersheds. Roads cut across and into the landscape, disturbing gentle, natural drainage patterns. Poorly built and maintained roads channel rainwater, increasing its speed and ability to lift and hold onto soil particles as it flushes lake-ward.

The end results are loss of desirable shoreline, obnoxious algal blooms, lowered levels of dissolved oxygen, and diminished lake and property values. The insidious and relentless process delivers Death by 1,000 Cuts to our lakes -- day by day, year by year, and storm by storm.

Most camp roads are primitive. Many in use today were laid out in the 30's, 40's

and 50's with aid of little more than cross-cut saw, pick axe and dump truck. Few have been rebuilt since then. Meanwhile, our use of them has changed and escalated. We drive more miles in bigger vehicles today, and there are many more of us, owning more cars per family unit, and using camp roads for extended periods, if not year round.

There are a lot of these roads, too. A surprising 65%, or about 44,500 miles of all Maine roads are private. (Numbers based on a Maine Roads GIS Dataset last updated in April, 2002.) Not all private roads run down to lakes, but many do. They are such a huge threat to surface waters that Norm Marcotte of Maine's Department of Environmental Protection (MEDEP) wonders how we'll beat "the tremendous con-



tinuing challenge Maine faces trying to prevent our "car habitat" from degrading our "aquatic habitat".

Now that we've met the enemy and discovered it is us, what are we to do about it?

COLA Recommends:

Form a Road Association. The brand new "Guide to Forming Road Associations" from the York, Kennebec, Cumberland and Androscoggin Valley Soil and Water Conservation Districts (SWCD's) will tell you everything you need to know. It is available from your local SWCD. This concise handbook comes with a companion CD containing templates for incorporating and obtaining tax-exempt status as well as samples of agreements, easements and meeting notices.

Maine Association of Conservation Districts listing of Maine SWCDs.

National Association of Conservation Districts - find your local SWCD.

Use DEP Certified Contractors for rebuilding and maintaining your camp road. Certification involves training in erosion control and application of Best Management Practices (BMP's) and must be renewed every 2 years. DEP's list of certified contractors is at <http://www.maine.gov/dep/blwq/training/cc/ec.htm>

Get a copy of the Camp Road Maintenance Manual, Kennebec County SWCD, available online at <http://www.maine.gov/dep/blwq/training/cc/ec.htm> or from DEP's regional centers: Augusta 207-287-2111; Bangor 207-941-4570; Portland 207-822-6300; Presque Isle 207-764-0477.

Research the services available from your local SWCD. Ask if they will be providing a 'Gravel Road Workshop' in your area. As experts in water protection, these folks can often provide free consultations.

Be aware that in Maine as of July, 2005, chronic erosion sites in At-risk Watersheds will be illegal. This means camp roads which regularly channel runoff into At-Risk Lakes could be subject to penalty as of this summer. The law, known as the Erosion and Sedimentation Control Law, will apply to all Maine watersheds in July, 2010. (See "What is the Erosion and Sedimentation Control Law?")

Conduct a watershed survey. For help getting started, contact the Division of Watershed Management at DEP, 207-237-3901, or your local SWCD.

Whatever changes have taken place in our world since the halcyon days when essayist EB White wrote "Once More to the Lake," we continue to share the famous writer's bias, "...from then on none of us ever thought there was any place in the world like that lake in Maine."

Let's keep it that way.

Board of Directors

Norman Turgeon, President
Mike McDonnell, Vice Pres
Jeff Everett, Secretary
Steve Baker, Treasurer
Mike Dubois, Education
Linda Dame, Weed Monitoring
Dolly Shevenell, Water Sampling
Emery Booska, Conservation
Heidi Ford, Wildlife

Visit our Website

www.threeponds.org

Contact us

normturgeon@metrocast.net
Or mail to
TPPA
P.O. Box 1242
Milton, NH 03851

TPPA Meetings are on 4th
Thursday of each month, 7:00 PM
at Emma Ramsey Center.
All Members are encouraged to
attend.

**Three Ponds Protective Association
New and Renewal Membership Form for 2009**

Name:

Permanent

Address
City
State
Zip
Phone
E-Mail

Summer

Address
City
State
Zip
Phone
E-Mail

Own Waterfront Property? Yes No

Family Membership*

- Supporter \$15
- Sponsor \$25
- Patron \$50
- Benefactor \$75
- Conservator \$100

* Individuals who cannot contribute one of these amounts may still become members. Whatever one can afford is sufficient. Members are encouraged to contribute by volunteering to work as an officer or action team member.

Business Membership

- Silver \$50
- Gold \$100
- Platinum \$200

**Make checks payable to: TPPA
Mail Application and Payment to:
TPPA
P.O. Box 1242
Milton, NH 03851**