



The Lily Pad

The Topeka Area Water Garden Society

Published Monthly – February to November

The objective of the society is to encourage a greater appreciation and interest in water gardening and aquatic plants, to disseminate information about those interests and to help our members stimulate the study and culture of water gardens.

Volume 9, Issue 9

November 1, 2006



Wendy Hix (l) and Deb Spencer enjoy a humorous moment during their program at the October TAWGS meeting.

Pond prep for winter

Deb Spencer from Waters Edge gave an informative talk to a very small group of TAWGS members (13) at the October meeting. Deb talked about things to do to ensure that our pond, fish and plants come through the winter with little damage. She also brought a friend, Wendy Hix from Hix & Sons Aquatics who gave pointers about caring for our fish, particularly koi. Wendy said that koi love oranges and grapefruit (no seeds), watermelon, broccoli and peas.

"Fall is the best time to clean the pond when fish are fat and happy," Deb said. They will have more resistance to disease in the fall than they will in the spring.

Suggestions given were:

Fall – September-October

- Stop fertilizing except for tropical water lilies and water hawthorne
- Divide reeds, rushes and iris in the fall to avoid disrupting the iris bloom cycle
- Trim back and refresh your pots of anacharis
- Dredge the muck from the bottom of the pond
- Boost the KH to 140-220 ppm
- Last application of sludge eating bacteria and barley products
- Skim for leaves and install pond netting
- Bring in vertical tropicals before first frost

Monthly Meeting

6:30 p.m., Nov. 15, 2006

Historic Old Prairie Town

(formerly Ward Meade Park)

Bring a covered dish and table service.

Fish care in the fall

- Switch fish food to high carb/low protein
- Check for signs of disease: open sores, parasites, etc. and bring them inside to treat because treatment does not work in cold water
- Clean pond or perform water changes – always add dechlorinator because ammonia will cause club gill which suffocates the fish
- For koi keepers – add salt which will help with slime coat and improve fish health but is not good for plants
- Koi clay will add minerals and helps add a shine to fish coats

After heavy frost – October-December

- Lower zone 6 & 7 plants to bottom of pond
- Stop feeding fish at 50 degrees
- Clean bio filter and shut down waterfall (optional)
- Lower water line below stone (optional)
- Install bubblers and deicers

Long frost – December-March

- Remove netting if no oaks are in the area
- Keep a hole open if ice forms for over a week to let toxic gasses (which will kill the fish) escape – no hammering on the ice
- Clean filter on the bubblers
- Perform water changes every two to three weeks if strictly a koi pond

Spring – March-April

- Raise water level
- Turn on waterfalls
- Start bio filter
- Raise plants
- Add barley, bacteria
- Repot plants and fertilize
- Start feeding fish high carb/low protein food

- Start tropical lilies in the house

No more frost – May-June

- Place vertical and floating tropical plants in pond
- Start feeding higher protein fish food
- Check water quality
- Watch for fish spawning
- Enjoy the frogs

Thanks to Deb and Wendy for their informative program.



TAWGS Minutes October 19, 2006

President Duane Eberhardt opened the meeting with self introductions. Guests introduced were Deb Spencer of Waters Edge and Wendy Hix of Hix and Son, Aquatics, who gave an interesting program on closing the pond and fish care.

Delicious refreshments were served by Duane and Mary Eberhardt. Betty Karnes also contributed a yummy spice cake. The meeting in November will be a pot luck at 6:30 p.m. at Ward Meade Park.

Duane presented the slate of officers to be voted on: President – Duane Eberhardt; Vice President – Floyd Gruver; Secretary – Diane Gruver; and Treasurer – Jim Green. Tom Platis moved and Betty Karnes seconded that the slate of officers be accepted. Motion carried.

Tom Platis said that Apple Fest did not go as well as last year. It was reported that there were lots of complaints that the food was too high. He thanked everyone who volunteered to help including: Helen Platis, Doug & Marikay Peterman, Betty Karnes, Bob & Cheryl Saathoff, Gerald & Donnis Hodges, Allen & Connie Ellis, Michael Bradley, Hi Stockwell, Joe Breitenstein, and Linda & Doug Reynolds, and their friend.

Bob Saathoff reported that the committee for the 2007 Lawn and Garden Show still doesn't have a theme. They would like it to be something about water. We will have about the same basic area which is around 4,000 sq. feet. TBA and Shawnee County will work with us again this year. Don Taliaferro moved that we allow Bob up to \$1,000 to spend on our portion of the display. Marikay Peterman seconded the motion which carried.

The minutes for the September meeting have not been written yet but Don Taliaferro was kind enough to take notes. Secretary Diane thanked him for filling in for her.

Treasurer Jim Green thanked Bob and Cheryl Saathoff for getting the hamburger for him for the last meeting. He reported that we have \$5,747.17 in checking and \$1,167.37 in savings for a total of \$6,914.54. Don moved and Doug Peterman seconded that the treasurer's report be accepted.

Bob Saathoff reported that he had worked at Lake Shawnee again recently and the bridge should be in about November 15th. The goal is to finish the hard stuff by March 1 of next year. TAWGS members have volunteered close to 100 man hours to the project so far.

Don Taliaferro moved the meeting adjourn.

Plants that cannot freeze solid in the winter time

Hardy water wisteria, golden buttons, melon sword, houttynia chameleon, New Zealand jumping rush, azure carpet, cardinal flower and the lobelias, water clovers, parrot feather, water parsley, pickerel plant and lizard tail should be lowered to the bottom of the pond to assure that they live through the winter. Some winters you might be lucky enough for them to survive on the shelf, but don't count on it being a sure thing!

TAWGS members tour Ensley Gardens

Shawnee Co. Forrester Butch Romick led TAWGS members and guests on a tour through the Ensley Gardens at their September meeting. He said that Phase 1 of the Ensley Garden was a 5 year plan beginning in 2001 and cost \$97,000. Phase 2 started about 4 weeks ago and will hopefully be done by April 1, 2007. It will cost \$200,000.

A new 60 foot bridge will be installed soon that will link the gardens with a new parking lot and restrooms. It will cost between \$80,000 and \$100,000. The last part of the seven mile trail is to be finished in 2008.

A rock wall was built by Dave Bartels using rock from the spillway which was built during the WPA days. It has a slight lean back to allow for planting areas. A patio area was built using patio stones from the rose garden, again recycling material from other projects. The path to the patio is compliant with ADA requirements. There will be a Japanese pergola and a fountain is planned for the old parking lot area. The planting areas are filled with mostly perennials and the plants bloom year round. A water line with sprinkler heads has been installed.

A lined stream bed, covered with rock and with lots of drops, will run from the TAWGS pond to the lake. A 20,000 to 30,000 gallon pump will be used to re-cycle the lake water. TAWGS members have been involved with clearing the ravine where the streambed will be, moving and laying patio blocks, etc.

The park has 12 full time employees that take care of the lake and five parks, including Shawnee North, Velma Paris Comm. Center (Montara), Expo Center, Wakarusa Park on S 75 Hwy and 37th and California.

Information provided by Don Taliaferro

TAWGS Minutes September 20, 2006

President Duane Eberhardt called the meeting to order following a delicious hamburger fry/pot luck dinner at the Ted Ensley house and a tour of the gardens at Lake Shawnee. Self introductions were made and Duane thanked everyone for coming including six guests: Ron & Suzanne Challacombe, Brent & Cheryl DeShazer and Bob & Deloris Mehlinger.

Bob Saathoff explained to Butch Romick, Forrester for Shawnee Co., that TAWGS has voted to

give \$2,500 to be used on the garden project at Lake Shawnee.

Tom Platis moved and Betty Karnes seconded that the August minutes be approved as printed in the September Lily Pad. Motion carried.

Bob Saathoff reported that he and other members had worked about four hours the week before on the Lake Shawnee project. He suggested that it would be a good idea to have a crew do maintenance on the TAWGS pond. He also reported that the display at the 2007 Lawn and Garden Show will probably be bigger than last year.

Duane Eberhardt gave the treasurer's report in the absence of the vacationing Jim Green. We have \$5,757.17 in checking; \$1,167.37 in savings for a total of \$6,914.54.

Tom Platis said that he needs volunteers for Sunday, October 1, for the Apple Fest. They will cook beans and dish them out. Several people volunteered.

President Duane said that it is time to start thinking about new officers for next year. We also need a chairman for the 2007 Pond Tour. Diane Gruver has agreed to continue writing the newsletter.

Gerald and Donnis Hodges invited everyone to a Hot Dog Roast at their house at 6:30 p.m. on October 7.

There was no new or old business. Hi Stockwell moved and Cheryl Saathoff seconded that the meeting adjourn. Motion carried.

Gerald and Donnis Hodges cooked hamburgers with help from Cheryl Saathoff and Betty Karnes. There was a good turnout. Mary and Duane Eberhardt will bring refreshments in October.

Acting Secretary Don Taliaferro

Preparing your pond for fall & winter

by ERIK TATE Operations Manager, The Water Garden

Yet another summer is now in the books, and now we are ready for autumn and winter is soon to follow. It is important to understand our ponds and their needs as cooler weather is coming in. A few preparations now will make this transition easier and have the pond better prepared for next spring.

Climate will determine how soon these preparations need to be made. Some of us may need to start now, while others have a few weeks to make plans. Those who live in climates where your pond does not go dormant can ignore the bulk of this article and carry on as usual.

Keeping up with the Leaves

Obviously one of the more significant events of autumn is that the leaves begin to fall. Leaves decaying in the pond will throw off the ecological balance of the water. One option is to use a net and skim leaves off the surface of the pond as they fall, but this can be a daily chore. A pond skimmer can clog too rapidly in the peak of fall unless emptied multiple times per day. Installing leaf netting over the pond will be easier to maintain. The Water Garden carries leaf netting in different mesh sizes and varying dimensions including custom cut netting.

The leaf netting will not only keep the leaves out of your pond but will help protect your fish from predators such as birds and raccoons which are more of a problem in the winter when there are no plants for the fish to hide under. The fish's metabolism is slower in cold water and the fish would have a difficult time escaping predators. If you don't use leaf netting you may want to consider a Koi Kastle. This will provide a place for your fish to hide making them more comfortable and safer.

Feeding the Fish

As the air temperature begins to drop so will the water temperature in the pond. As it does, we should be slowly preparing the fish for winter. Do this by gradually reducing the amount of food they are receiving. When the water temperature falls below 60 degrees you should begin feeding a food with a lower protein content. Pond Care Spring & Autumn Food or Microbe Lift's Legacy Cold Weather Food are ideal choices for fish feeding at these temperatures

As the water temperatures continue to drop to below 60 degrees you should feed your fish only two or three times a week. It can take your fish two or three days to digest food at this temperature.

Once the temperature drops below 50 degrees you should stop feeding altogether until spring when the water temperature remains above 50. Reminder: The water temperature is what is relevant, not the air temperatures. A good pond thermometer makes things easier. We are often asked about feeding during warm spells in the winter. If it will be warm enough for the water temperature to remain above 50 for several days, you can feed a little. But, it is better to err on the side of less food. If the fish feel like they need to eat they should be able to get what they need from algae and other material already in the pond. The biological filter may also not be able to keep up with food being added at this time.

Sludge and Bacteria

Sludge on the bottom of the pond should be removed as best we can. If it is about 1/4" thick or so, it is normal and should not be a concern. This sludge is a combination of decaying plant debris, leaves, fish waste, and more. Some of this can be removed with a net. The finer debris can be removed by siphoning or by using a vacuum such as the Mini-Vac or PondoVac 3.

Remember to continue use of beneficial bacteria. Microbe Lift Autumn Winter Prep is made for cooler weather and can continue to be used throughout the winter. These bacteria will reduce maintenance by breaking down sludge and debris as well as sustaining biological activity throughout the cold winter months.

You should have stopped feeding your plants by this point. As the foliage on your hardy plants begins to die back you should remove any dead and dying leaves and place the plant deep enough in the pond to keep the roots from freezing. While it is true that some marginal plants will survive even if their roots freeze solid it is best to lower all of your plants below the ice zone. Removing dead plant material now is much easier than

removing it after it becomes sludge. As organic material decomposes in the pond toxic gasses are produced. These gasses escape harmlessly into the atmosphere unless there is a coating of ice over the pond in which case they can be harmful to the fish. To prevent this from happening keep an area of the pond surface free of ice. You can do this with a pond deicer. The deicer has a built in thermostat that will turn the unit on when the water gets cold enough and back off as the water temperature rises. The ThermoCube is a device that can be used along with a deicer to limit the deicer kicking on unnecessarily thus saving on your energy bill. The Deicer responds to water temperature, but the ThermoCube responds to air temperature.

Protect the Plants

If in the extreme north and your pond is too small or shallow to offer protection from freezing temperatures, you still have other options. If your pond is not too large and does not contain any fish, you can place a cover such as plywood over the pond and cover this with bags of leaves or bales of straw to provide insulation. A tarp should also be placed over the straw to keep it dry and provide better insulation.

A basement can provide protection if you remove the plants and store them either in their original containers or in peat moss. You could build a temporary shelter over the pond. Lumber or PVC pipe can be used to construct a framework over the pond. Place clear plastic over this and weight the plastic down with soil or stone. This frame should hold the plastic a few feet above the water. Greenhouse type plastic is best, but construction grade plastic should last through one winter. If you leave enough room for a chair, this can be a great place to sit on a cold winter day.

This method works very well and is basically like moving the pond one USDA hardiness zone higher. On clear days the sun warms the water and, even if covered with snow, there is good insulation over the pond. Some tropical plants can be wintered over this way in mild winters, even if you live in zone 6 or 7.

Some plants do not like being submerged in the pond through the winter. *Iris ensata*, a Japanese Iris, should be removed from the pond and planted in the yard. When new growth starts in spring it can be placed back in the pond for the summer. *Lobelia cardinalis* (Cardinal Flower) should be removed from the pond and planted in the yard for the winter. This plant should have a few inches of mulch over it as well. You will have more success wintering over Cannas if you remove the rhizomes from the pot and store in slightly damp peat in a basement or other cool area.

Some tropical water lilies will bloom all winter if kept in a tub container inside and given at least six hours of bright light. You can also winter them over by removing the tuber from the pot after the foliage has died back from a freeze. Then place the tuber in a container of slightly damp sand or peat moss and store at 50 degrees. In the spring you will need to heat the tuber in an aquarium (or other container with aquarium heater) to about 75 degrees to trigger its growth before

moving outside.

One choice with tropical plants is simply disposing of them after freezing weather and replacing them in the spring. This way you get to try new plants and colors next season. Many tropical plants can be brought inside and treated as houseplants for the winter. Umbrella Palm, Taros, and Calla Lilies will do very well with medium light levels. If these are in no-hole containers no special care is needed. Otherwise keeping the pots in a tray full of water is needed to keep the plants wet. Water hyacinth and water lettuce require more care than they are worth. It is much easier (and less expensive) to replace them each spring. If you still want to make the effort, they require 10 hours of intense light and water temperatures above 70 degrees.

Waterfalls and Pond Equipment

You may or may not want to run your pump and filter system through the winter. This will depend on several factors, including climate. If you live in a climate with temperatures mostly well above freezing, then it will be to your advantage to keep your pump and filter running through the winter. The bacteria in your biological filter will not be active at low temperatures, but it will remain alive as long as you keep it supplied with oxygen-laden water. When spring arrives and the water temperature is rising, the bacteria can start to work much quicker keeping the water quality good for your fish and helping to control the algae. Should you choose to run your filter through the winter it is a good idea to minimize the water circulation in order to take advantage of the layering effect of the water. (Water temperature is densest at 39 degrees and the water on the bottom of the pond will remain at this temperature even with freezing temperatures at the surface.) Some ways to minimize circulation are to turn off bottom drains, place intakes to pumps/filters at mid water (you do not want to circulate bottom water in the winter), place your intakes closer to the outlets in the pond (waterfall or fountain), and/or turn the pump down. These actions will allow the biological filters to stay alive without interfering with the layering of the water. Massive circulation of water in the winter can super chill the water by exposing warmer pond water to below freezing temperatures leading to death of the fish. One problem with running a pump and filter in the winter, is the potential of major damage to your filter and plumbing system if the power goes off for extended periods and you are not at home to make sure no water is present in the filter and plumbing. If water is allowed to freeze in plumbing, UV's or filters this can lead to breakage of these units. If your system is designed to allow water to flow back into the pond in the event of a power outage, these problems can be averted. If you have a check valve in your system, you can use a long piece of small tubing or wire to hold the valve open allowing water to drain out.

The other option is to turn off pumps and filters for the winter. Cold water holds much more

oxygen than warm water and the fish's respiration is slow. Therefore you should not need the circulation and aeration in most areas. The bacteria in your biological filter does not work in cold temperatures, so the reason to run the filter is to keep the bacteria alive. If you turn off the pump and filter for the winter be sure to drain all plumbing. External filters, UV's, and external pumps will need to be drained. Submersible pumps should be left in the pond or in a bucket of water in a warm place to keep the seals from drying out. If you choose this method be sure to clean the filter before starting up in the spring. With the absence of biological filtration, the use of Microbe Lift Autumn Winter Prep becomes even more important.

If you choose to run the pump all winter and you have an Aqua Ultraviolet UV sterilizer, it would be advised to remove the lamp, ballast, and quartz sleeve. You can use a Winterizing cap on the UV sterilizer and avoid removing the whole unit from the plumbing.

Taking the right precautions before winter can save your fish from undo stress and make for a better environment next season.

Indoor watergardening is fun

by Randall Tate, Operations Mgr., The Water Garden

The cold weather has now set in for most of us. That means we're stuck inside away from our beautiful water gardens. But wait, what about that extra space in the living room or that little nook off the hall. It sure would be nice to have a pond inside.

Setting up an indoor pond not only allows enjoyment of a water garden year round but also provides a place to winter some plants that may be a little too tender to leave outside.

The first step when considering an indoor pond is obviously where to put it. The main thing here is maximizing your enjoyment. Make sure that the water garden is where you will be able to get the most out of it. Near windows is a big positive as nothing beats natural sunlight. This is not mandatory however as we can use artificial lighting. You will also want to make sure that the floor of the area you select is strong enough to support the weight of the water. Most new homes should have no problem with this but you will want to make sure that additional support is not needed.

Tropical Water Lilies and other tropical aquatic plants can be wintered over and provide flowers all winter long indoors. Low light tolerant tropical aquatic plants can easily be wintered indoors. Taros and Umbrella Palms will grow with very little direct light and most homes can find natural light enough for these plants. Most other tropical aquatics require lots of bright light to grow and bloom indoors. Unless you have large south facing windows or a sunroom you will need bright artificial light to encourage these plants to bloom throughout the winter. Even if the foliage of your tropical plants have already died back they should still be alive if the water temperature is not much below 50 degrees Fahrenheit.

A tub or other container can be used to hold a water lily or other aquatic plants for you to enjoy through the winter. You can also use a piece of PondGard Rubber Pond Liner and create an indoor pond any size that you

want. A framework of lumber can be constructed to support the rubber liner. Two by fours and plywood will make a simple support for a liner. The frame can be constructed with screws to allow you to dismantle the pond during warmer weather. The outside of this frame could be covered with siding or plywood and then stained or painted. Plywood could also be faced with tile or stone if you want your pond to be permanent. Four by fours can be used in Lincoln log fashion to construct a support that may not need additional cover to be attractive. You may want to consider lumber that is not treated if you plan to build in your living space.

If you plan to build an indoor pond in a garage or basement where appearance is not as important then you can simply dry stack 8" x 8" x 16" concrete block two layers high to create a pond approximately 16" deep. As long as you only build two layers high then the weight of the block will be enough support. Place pond under layment in the container over lapping the top of the block and then place the pond liner in place. If there is overhang on the outside of the pond then the weight of the liner will hold it in place. The rubber liner can also be used to provide a finished edge.

As previously stated, artificial lighting may be required. Your first thought may be to install fluorescent lighting over the pond. Fluorescent lighting, even grow lights, would need to be within six inches of the water. Several fixtures would be required each side by side to provide enough light for tropical water lilies. Because of the distance required, Fluorescent lighting is not practical for most marginal plants.

The question of water quality may be on your mind. Anacharis (underwater plant) can be brought in along with your ornamental plants and used to keep the water fresh. You can also add a small pump and filter system if you want but this should not be necessary unless you also want to keep some fish in the pond. If you do add moving water to your indoor pond please keep the movement of the water away from your water lilies because as you know water lilies do not tolerate excessive water movement or having their leaves sprayed on continuously from a fountain. If you do decide to add a pump and filter to the pond you can get good circulation of the water and a nice sound without excessively moving the surface of the water. Just place the water return in a corner and place your plants away from this.

I can't think of a more pleasant winter time activity than sitting near your indoor pond smelling the hypnotic fragrance of a tropical water lily, listening to the sound of moving water, watching a few fish swim around and sipping on a cup of hot chocolate.



Don't throw your stale bread in the garbage—save it for the birds. Just smear peanut butter on both sides of the bread and drop it into a suet basket. Birds love it, especially chickadees and downy woodpeckers.

Topeka Area Water Garden Society
9900 SW K-4 Highway
Topeka, KS 66614

Calendar of Events

November 15 – TAWGS Pot Luck Supper

2007

June 23-24 -Topeka Pond Tour

Pond Tips

As your aquatic plants go dormant for the winter, your fish are more vulnerable to predators. Use of pond netting or a Koi Kastle can help save the fish.

Proper placement of a pond deicer is essential. The deicer should generally be placed at the edge of the pond in a shallow area and well-shielded from wind. In extremely cold weather, it may be necessary to use plywood to create a wind barrier.

Your Dues are Due if your label reads 10-06, or 11-06

Please renew as soon as possible to continue receiving the newsletter.

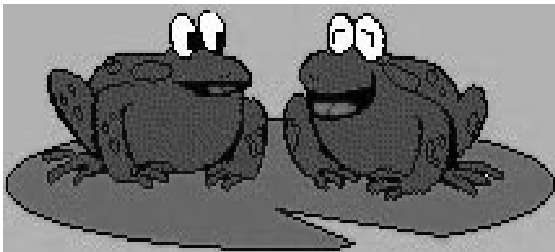
Send dues to Jim Green, 5701 SW Arrowhead CT, Topeka, KS 66614

THE TOPEKA AREA WATER GARDEN SOCIETY

2007 OFFICERS:

Duane Eberhardt Topeka	President 785-246-0240
Floyd Gruver Holton	Vice President 785-364-3046
Diane Gruver Holton	Secretary 785-364-3046
Jim Green Topeka	Treasurer 785-272-7139

Meetings are held the third Wednesday of each month at Old Prairie Town (Ward Meade Park) unless otherwise publicized. Dues are \$15 per single or \$20 per family and can be sent to Jim Green, 5701 SW Arrowhead CT, Topeka, KS 66614.



Check it out - www.tawgs.org

The Lily Pad

Published Monthly, February to November by the Topeka Area Water Garden Society (TAWGS), a non-profit organization. TAWGS does not warrant the information in this newsletter. The opinions expressed are solely those of the authors and do not necessarily represent those of the Topeka Area Water Garden Society.

The Lily Pad encourages submission of articles pertaining to water gardening from the membership and other interested parties. Deadline is the third weekend of each month. Address input and/or questions to:

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We reserve the right to edit input to meet publishing requirements. Copy cannot be returned.