

# The Lily Pad

The Topeka Area Water Garden Society

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Deb Spencer talks with Mary and Duane Eberhardt after her talk about hydrology. (Photo courtesy of Jim Green)

## Choose the right pump

"I'm not here to make a sale," Deb Spencer told TAWGS members at their October meeting, "I'm here to make you better pump buyers."

Standing amidst an array of water garden equipment, Deb demonstrated how the size of the pump, the size of the hose, fittings, elbows, distance and other conditions affect the flow of water in our ponds.

In the olden days a hand pump or a windmill moved water, Deb said. Today we have electric pumps of all sizes and made for various functions. A standard sump pump is designed to move a lot of water in a short amount of time she said. It is not designed to run twenty-four hours, seven days a week. A pump for a water garden is designed to run continuously and to use less electricity. With the growing popularity of water gardens, we are seeing improvements made every year on pumps designed specifically for our ponds. Still, there are many questions to answer for yourself before you purchase your pump, such as:

1. How big is your pond? How many gallons of water does it hold?
2. Do you want a roaring waterfall or a rippling stream?
3. What kind of filtration will you use?
4. Do you want koi or will you be satisfied with

## Monthly Meeting

6:30 p.m., Wed., Nov. 20, 2002

### Pot Luck Supper

Bring covered dish and table service  
Installation of Officers

goldfish and shubunkins?

5. How much sun does your pond get and how will it be planted?

After you've decided how much water you want to see (how high the waterfall will be; how wide it will be) you can determine how far and high the water will be pushed. When in doubt, always buy a pump more powerful than you think you will need because you can reduce the outflow, but you should never restrict the intake. It is quite common to size a waterfall pump to move the volume of the pond every 1 to 2 times an hour. If filtration is your only concern, moving the pond volume every 2 to 4 hours works well.

"If you want koi, times everything by two!" Deb said.

"There really is a difference in energy efficiency in pumps," Deb said. Using a meter, she demonstrated that a sump pump takes a lot of energy, making them very costly to operate. Check the specifications to see how much it is going to cost to run the pump over its lifetime Deb advised. A cheaper pump might take more electricity over the long run so it could end up being the more expensive choice. What kind of warranty does it have? A rule of thumb is that equipment is designed to run twice as long as the warranty if it has proper care. A small pump should be back flushed about once a month to clear out the debris. Larger pumps should be back flushed at least twice a year.

Using a chart which she distributed, Deb walked the group through the decision making process on what type of pump is best for each application. Many variables affect the type of pump you need, so visit with your water garden distributor before deciding which pump will work best for you.

"No single pump fits all applications," Deb said.

A TAWGS member and co-owner of Waters Edge in Lawrence, Deb has over 15 years of professional experience in the design and construction of water gardens, fishponds and fountains.

# President's message

By Mary Ann Bechtold

Thank you for allowing me to lead this great group this past year. It has been an interesting year. My heartfelt thanks to the other officers for all of the work and the support they have shown me and the club. To you who only wanted to help and not hold an office we also say thanks. Your committee participation, fountain maintenance and overall support did not go unnoticed. We welcome our new officers next month at the annual Pot Luck supper starting at 6:30 p.m. Lets have a big turn out to show our support for them.



## Autumn checklist for pond

*(These tips were taken from a talk that Deb Spencer, gave to TAWGS in September 2001.)*

### Pond duties for October

- Feed fish higher carbs. Fish metabolism slows as the water gets colder. When the water temperature starts dropping it is best to either stop feeding your fish altogether or switch to a more digestible food with wheat germ. Don't feed them anything when the water temperature is below 50. Your fish will come to the top and beg even when the water is too cold for them to digest the food so don't let them tempt you into doing something that will kill them. Play it safe!
- Bring in vertical tropical plants before frost. Although over wintering isn't very successful, bring water lettuce and hyacinths inside before frost if you plan to try to keep them. Don't let them freeze and decompose in the pond. If you plan to treat your tropical lily as an annual it can be left outside to bloom until late fall; if you want to try to over winter it, bring it inside before it gets too chilly. Umbrella plants, taros and cannas can be brought inside and treated like house plants or taros and cannas can be dried down and stored in peat. If you bring them inside, hit them with a spray of water to rid them of bugs. A herbal aphid control, which is not harmful to fish, can be used. Don't crowd plants and keep a fan running to help keep the stems stiff. Humidity will deter spider mites.
- Check fish to make sure they are going into the winter healthy. Fall is an ideal time to take care of fish problems. It's hard to treat parasites and fungal infections when the temperature is below 50 or above 80.

Duties after a heavy frost (October thru December) include:

- Keep trimming off dead leaves and eventually cut lilies back and lower to the bottom of the

pond. Crowns do not want to freeze. Be sure the bottom of a lotus pot is between 18 – 24 " below the water level.

- Trim cattails to stand above the water as they need to breathe.
- Most hardy marginals can be left on the ledge but be sure to clip off the dead foliage and clean up the pots. Pickerel rush is an exception and should be lowered to the bottom of the pond. Some iris also are not hardy on the ledge. Be sure a Water Hawthorn crown is 12 inches below water level as the crown does not want to freeze.
- Lower Zone 6 plants to the bottom of the pond - Thalia dealbata, all 4 leaf clovers, Pennywort, Parrot Feather, Golden Club, Floating Heart, Dwarf Aquatic Bamboo. Clip the foliage and place on the floor of the pond.
- Shut down bio filters, turn off waterfalls and rinse media and filters and put in the bottom of the pond. Clean filters if you have a skimmer and plan to run the pump all winter.
- Install bubbler to keep pond from freezing over or place heater in center of pond for future use. Ice on the pond for over 7 days is the major cause for fish loss so be sure to keep an open area in the pond. To make a bubbler, put a 220 – 300 gallon pump in a basket and set the bubbler in the middle of the pond keeping it just about 12 inches below water level so the water on the bottom of the pond won't be disturbed. Adjust the top of the pipe 2 to 3 inches below the surface so all it does is keep the water moving so it won't freeze. If you're using a pond heater tether it in the center of the pond or place it near the skimmer if you have a skimmer. Be sure it does not touch the liner. Remove lime buildup on the heater by soaking it in vinegar for more efficiency. Heaters don't need to be plugged in continuously as they will add considerably to the electric bill so use only when needed. In addition to fish health, an open area also reduces stress to the sides of the pond from freezing and thawing which helps avoid structural damage. If you don't have a bubbler or heater you can thaw an open space by placing a pan of hot water on the ice to melt it. Don't hammer ice!!
- Reduce the fish population if you've had lots of babies. The easiest way to catch them is to stand in the water and catch them in your hand while you feed them. Fish overpopulation contributes to the buildup of ammonia and gas under the ice.
- Get the muck out! Use a fine net to scoop the muck out of the bottom of the pond. A shop vac or siphon can also be used. If you do it continuously through the season you won't have much muck. Dirty ponds cause winter fish death.

## Do you want a bus tour?



Do we have the interest in chartering a bus to the Wichita Lawn and Garden Show? Cost for the trip and show ticket is \$40 per person. Meals are not included.

We need 55 people to fill a bus. Please let Earlene Jirk (266-5492) or Mary Ann Bechtold (267-1611) know before the November meeting. We must have your money before we can reserve your seating. The Saturday schedule will allow for more time at the show while the Sunday schedule is shorter, it is the last day of the show and may offer some bargains. Please respond so we can either reserve a bus or drop the idea.



## Winter fish food storage

*Reprinted from 11-2000 Lily Pad*

Fish food needs to be stored properly in the wintertime. An article from the November 1998 *Reflections* newsletter from the Wabash Water Garden Society should help us store our fish food safely.

"Foods must be properly stored away from heat and moisture to preserve their quality. Leaving bags of flakes or pellets open to the air causes deterioration. Toxic substances can be produced by the growth of microbial contaminants, fat oxidation and growth of molds and other organisms. Infestation by insects, including ants and weevils, can easily occur.

Vitamins are particularly susceptible to deterioration. For example, vitamin C is very sensitive to heat. Within three months, food stored under high humidity and temperatures of approximately 70° F. or more will lose a minimum of 50% of its initial vitamin C content.

Dry prepared foods must be stored in cool, dry conditions. It is recommended that 90 days be the maximum storage time for foods stored at room temperature. If you are going to need to store larger amounts of food for longer periods, it is recommended that they be packed in double plastic bags or in re-closeable plastic containers and store in a freezer."

### Minimum requirements for fish in winter

*Reprinted from 10-1-01 Splash*

To ensure survival of the fish during the winter in northern ponds, some minimum requirements must be met, now is the time to prepare:

- The fish must have sufficient oxygen. Use a floating de-icer or leave a pump bubbling on a plant shelf to keep an open area if the pond starts icing over. Remove as much organic waste as possible (leaves, etc.) from the pond

bottom. Organic waste uses up valuable oxygen during decomposition. This is a good time to thin out the fish population. Ponds are low in oxygen during the winter if ice forms and the problem is compounded if there are too many fish.

- The Pond must be deep enough. It is, of course, important that the pond is deep enough so it does not freeze all the way to the bottom, so the fish have some area where they can survive.
- A place to hide from predators. As the plants in the pond go dormant, fish find less cover to hide from predators such as birds. Use sections of terra cotta pipe or flower pots turned on their side in the bottom of the pond to provide the needed cover.



*A water hawthorne blooming in our pond last winter*

### Water Hawthorne

(*Aponogeton distachyos*)

It can be disheartening to see a plantless pond during the cool weather months. Thankfully it does not have to be so desolate. Water hawthorne grows fall through spring and is dormant during the summer. It is hardy zones 6-9 and can actually bloom in the winter. The white flowers give off a vanilla scent and highlight the surface-floating elliptical leaves.

I have had good luck leaving the plant on the shelf near the skimmer during the winter but since we are in zone 5, I guess I'm taking a chance of losing the plant. It's worth the risk though to have something blooming in an otherwise bare pond.



### Over-wintering tropical lilies

Many use tropical lilies the same way they use annuals such as impatiens and petunias: to provide lots of blooms and color for one season.



Occasionally though, they find they have one tropical that they just cannot part with. It is so beautiful that they want to make sure it can be enjoyed again next year.

Here are a couple methods that work when over-wintering these beauties:

1. Lift the lily out of the pond. Prune off all large leaves, leaving only small new leaves. Submerge the lily in a container of de-chlorinated water and store the container in a basement or garage (the temperature should not go below 55 degrees) near a window. Add a few drops of fungicide to help keep the lily healthy. Be sure to rinse the lily very well before putting it back into the pond in the spring to remove all residue of the fungicide.
2. Lift the lily out of the pond and rinse it off. Find several young shoots with small new leaves attached. Break these shoots off carefully and rinse them well. Dip the shoots in diluted, liquid fungicide. Put the shoots into a plastic storage bag that contains moist (but not wet) sand. Surround the shoot completely, except for the small, new leaves. Close the bag securely and store in the vegetable bin of the refrigerator. In the spring, rinse well to remove all fungicide and replant the lily in a good aquatic planting mix before putting in back into the pond after the water reaches a temperature of 70 degrees.

I'm going to try method 1 with Floyd's Red Flare. Since I'll have fish in the tank I'll have to forego the fungicide. Wish me luck!



## Got Snakes????

We have had several members mention problems with snakes, so an article in the Clear Water Times Newsletter of the Koi and Water Garden Club of North Texas caught my eye. It mentioned a site ([www.bugspray.com/catalog/traps/page35.html](http://www.bugspray.com/catalog/traps/page35.html)) where you can buy a Snake Trap. It says that the trap uses a funnel design entrance through which snakes can enter but not exit. You can bait it with a frog, mouse or minnows, but generally you will be able to catch snakes by having it placed right. Good places to set the trap depend on the snake you are trying to catch. This may be along a fence row, a rock wall, the shore of a pond or stream, or against a structure like a house or shed. It has a sliding door for easy snake removal. Check the web site for more information.

## Where to keep tropicals

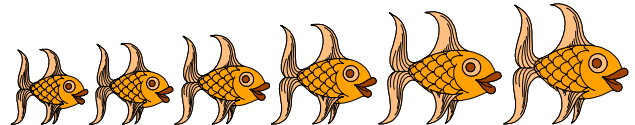
*Reprinted from 10-8-01 Splash*

Tropical Plants like Umbrella Palm, Water Canna's, Taro, etc. are the joy and beauty of ponds, but in northern ponds they do present the problem of what to do with them in the winter. Many pond owners just use them

like annuals and discard them in the fall, but there are ways to over-winter them even without a heated greenhouse:

Take them out of the pond and hose down the pot and insert it pot and all into a clean, larger pot. The plant then goes into the house to be used as a houseplant for the winter. They have to be kept very, very moist and may lose some leaves but will perk up again when they are returned to the pond in the spring.

They can also be stored in a tub of water in the basement or a garage that does not freeze (or go below 40 degrees Fahrenheit).



## How many fish are safe for winter

*Reprinted from 10-10-01 Splash*

The most basic requirement for your fish during the winter months is oxygen! If there are too many fish in the pond and the water starts to freeze over or there are many cloudy days in succession the oxygen level in the pond can get dangerously low! The easiest way to prevent this is to make sure that there are not too many fish in the pond (this problem can be seen in reverse in the summer, when the hot, still weather can cause drops in oxygen in the water).

The general rule of thumb is 1 inch of fish per 1 square foot of surface area. More fish can be kept in the pond, but adequate measures have to be taken to make sure the pond can sustain them.

The easiest way to get oxygen into the pond is by letting a pump bubble. Be sure to set the pump on a plant shelf or on a couple of bricks so the warm water at the bottom does not get sucked to the top.

## Correction

I stated in last month's newsletter that John Mirgon, Denver, Colorado started the Colorado Water Garden Society in 1984. John informed me that it was formed in April, 1983. Sorry for the error.

## TAWGS Minutes October 16, 2002

President Mary Ann Bechtold called the meeting to order at 7:00 p.m. with self-introductions. She then introduced Deb Spencer who gave an interesting program on hydraulics. The meeting resumed following delicious refreshments provided by the Fischers, Hodges and Platis's. The minutes were approved as printed in the Lily Pad. Tom Platis gave the treasurer's report saying we had \$3,000.81 in the checking account, \$2,098.50 in a money market and \$43.34 in petty cash for a total of \$5,142.65. Everyone is encouraged to get any outstanding bills in to Tom by November so they can be paid before the new treasurer takes over and the books are audited.

Joe Breitenstein reported that Bob and Becky Coffman, Jon and Mary Pat Fischer, Ron and Vickie Woodbury and Betty Karnes helped sell bulbs at Apple Fest. He said they still have some top quality bulbs left at reasonable prices. He said that Ward Meade is looking for volunteers to cook on the hearth for parties and catering. He has been doing it for several years and it is a lot of fun.

David Puff reported that the Bylaws committee consisting of Tom Platis, Diane Gruver and David met the week before. Eric Wood was unable to attend. The only recommended revision was eliminating Section 3, Paragraph 4 under Article V that concerned our mailing address, which is Puddles & Pads old address and is incorrect. David moved and Jim Green seconded that the revision be approved. Motion carried.

Floyd Gruver presented the slate of officers that were nominated in September: Tom Platis, President; Becky Coffman, Vice President, Diane Gruver, Secretary and Jim Green, Treasurer. He moved and David Puff seconded that the slate be approved. Motion carried. The new officers will be installed in November.

Becky Coffman reported that Ronald McDonalds has selected a fountain to be set inside their front door. The cost was around \$365.

Donnis Hodges reported that she had checked with Every Woman's Resource to see about a water feature at the ERC Designers Showcase house. They have not indicated any interest. The group decided that if we did something in the future, the water feature would need to be removable since it would be on private property and would not be considered a community project.

Dean Demoss thanked the people who have helped him with the fountain maintenance this summer. He said that Gerald Hodges, Duane and Mary Eberhardt, David Puff and he helped Ray Schroder close the fountain the previous week.

Becky Coffman said that she would like to find a top hat and rabbits (not live) to be used at the Lawn and Garden Show, February 14-16. If anyone has any please let her know. Also, if anyone will have tropicals that could be used in the pond please contact her.

President Mary Ann asked that people contact her (267-1611) or Earlene Jirik (266-5492) and let them know if they would like to have the bus tour to the Lawn and Garden Show in Wichita on Saturday, March 8 or Sunday, March 9.

The meeting in November will start at 6:30 instead of 7 because of the potluck dinner. Please bring your table service and a covered dish. Meeting adjourned.



## Fish feeding when water temperatures fluctuate

*Reprinted from 10-8-01 Splash*

Water temperatures can fluctuate dramatically even during the course of one day. Since the rule of thumb is not to feed the fish when the water temperature falls below 48 - 50 degrees Fahrenheit it can be confusing when during the course of a day or a week the water temperature is above and below it repeatedly.

This is how we handle the problem:

- By now we have reduced feeding to once a day and we feed in late afternoon if the water temperature is above 50 degrees. This is the time of day when the water is the warmest and it will take a few hours before it cools even if the air temperature is falling.
- We do feed a reduced amount and make sure there are no left-overs in the pond after about 5 minutes (if there are we fish it out).

### Fun (Pond) Fact

Baby Goldfish will survive most winters in the pond as long as they are about 1 1/2 long. Pond and water conditions have to be optimal, of course and include: Places to hide, adequate oxygen supply, and healthy water quality.

### Pond lighting

*Reprinted from 11-99 The Water Gardening News*

Lights in and around the pond offer another dimension to our pond experience. There are several ways that lighting can be used in the pond. If you have a fountain or waterfall then placing the lighting in the water shining up into the spray or waterfall will create a beautiful glistening effect.

Several lights can be placed around the perimeter of the pond shining horizontally into the pond. This angle will create a soft glow to the pond. Also your fish will shimmer and water lilies will show up as very interesting silhouettes.

Pond lighting is especially appreciated in the winter when the days are short. Even if it is cold and you don't want to be outside, you can still enjoy the effects of the lighting when viewed from inside your home.

### Notice

Please be sure to check the date on your mailing label. It will tell you when your dues are due and how much they are. If you are over two months past due, you will be dropped from the newsletter mailing list.

Also, if you would prefer receiving the Lily Pad by e-mail please e-mail the editor at [fdgruver@holtonks.net](mailto:fdgruver@holtonks.net) or [diane@kansasco-op.coop](mailto:diane@kansasco-op.coop). Thanks!

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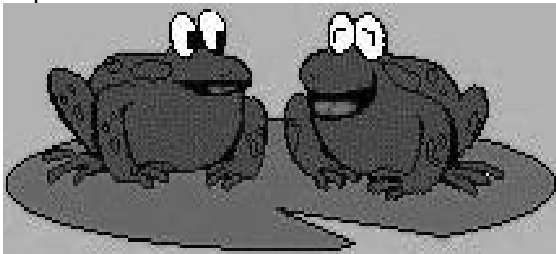
## 2002 Calendar of Events

Nov. 20	TAWGS Monthly Meeting
<b>2003</b>	
Feb. 14-16	Topeka Lawn and Garden Show
Feb. 14-16	Kansas City Metropolitan L&G Show, American Royal
Feb. 19	TAWGS Monthly Meeting
Mar. 1 – 2	Johnson Co. Show, Kansas City
Mar. 5 – 9	Wichita Lawn and Garden Show
Mar. 19	TAWGS Monthly Meeting
Mar. 20-23	Kansas City Home Show, Bartle Hall
April 16	TAWGS Monthly Meeting
May 21	TAWGS Monthly Meeting
June 18	TAWGS Monthly Meeting
June 21-22	Topeka 12 <sup>th</sup> Annual Pond Tour
July 12-13	Kansas City Pond Tour
July 16	TAWGS Monthly Meeting
August 20	TAWGS Monthly Meeting
Sept. 17	TAWGS Monthly Meeting
Oct. 15	TAWGS Monthly Meeting
Nov. 19	TAWGS Monthly Meeting

**Your Dues are Due if your label reads  
 9-02, 10-02 or 11-02**  
 Please renew as soon as possible to  
 continue receiving the newsletter.

### THE TOPEKA AREA WATER GARDEN SOCIETY OFFICERS:

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Joe Weir	Vice President
Topeka	785-233-6711
Diane Gruver	Secretary
Holton	785-364-3046
Tom Platis	Treasurer
Topeka	785-478-9514



Check it out - [www.tawgs.org](http://www.tawgs.org)

### *The Lily Pad*

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The Lily Pad encourages submission of articles pertaining to water gardening from the membership and other interested parties. Deadline is the first 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.