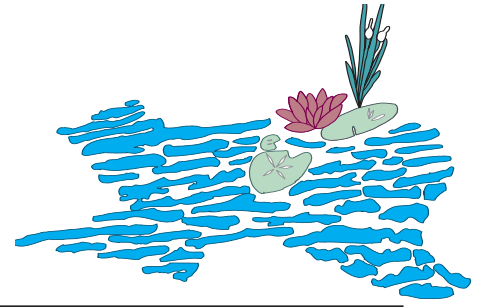


Water Works



Newsletter of the North Texas Water Garden Society

October,

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November Meeting
Tuesday, November 12,
2002
7:00 PM

Steve Moeller
Pond Building Basics
Dallas Water Utilities
Building
8917 Adlora, Dallas
Mapsco 27T



Small but Perfectly Formed

Eric Sawford

The 'willow' is a traditional waterside tree, commonly seen alongside rivers and in damp places. It is of course far too large for most gardens. However, among the 500 species of these hardy deciduous trees and shrubs, there are a great many much smaller examples. These range from those with near prostrate foliage to others with variegated leaves. Some can also add welcome winter color to the garden.

Probably the most unusual is *Salix* 'Boydii,' a natural dwarf hybrid that grows to just 12 inches. William Brack Boyd, a farmer and botanist discovered this interesting willow towards the end of the 19th century growing at Glen Fiagh, Scotland—it has never been found since. For years it has been the subject of much discussion and is generally thought to be a hybrid of *Salix lanata* and *Salix reticulata*. *Salix* 'Boydii' is very slow growing with an erect habit and silver-grey rounded leaves. Such is the rate of growth that even after a great many years, it is unlikely to have reached 3 feet in height.

Woolly willow

Woolly willow is the common name for *Salix lanata*. Close examination of the foliage of this low growing shrub quickly reveals how it received its name, both sides of the broad leaves are covered with silvery hairs. The catkins it produces are large, of upright growth and are yellow, contrasting well against the foliage. This salix grows up to 3 feet in both height and spread.

Also to be found in Europe, Asia, Britain and the United States is the 'Creeping Willow,' *S. repens*. This grows to 3 feet or more in height, depending on soil conditions. It is best in a moist spot, but is also happy in dry stony soils. This salix has a vigorous yet rather lax spreading habit, and it can form a sizable shrub 8 feet across with small leaves and silvery-grey catkins that appear in spring. The most popular form is subspecies *S. r. var agentea*, this has narrow silvery leaves, silky on the upper surface and grey underneath.

Willows are to be found in many parts of the world. *Salix apoda* originates from the Caucasus and was first introduced in the 1930s. This is one with a prostrate habit and does not exceed 9 inches in height, with a spread of 24 inches. In cultivation it is represented by the male form that has mid green ovate-lanceolate leaves and, in March, long erect silvery-grey catkins that, as they mature, are covered with pink and orange stamens. *Salix apoda* is another that is ideal for the rock garden.

Another discovery, this time in the Engadine in Switzerland, and again in the 1930s, is *Salix hastata* 'Wehrhahnii.' A slow growing shrub forming a large bush with purplish stems—in spring these are covered with male silvery-grey catkins, and as they age, they turn yellow. The species itself, *S. hastata*, was introduced in the 1780s and is hardly ever seen now. There is an attractive hybrid between *Salix* 'Wehrhahnii' and *S. lanata*, 'Mark Postill,' a splendid low silvery-grey, ideal for the smaller garden.

Dwarf willow

Also to be found in the mountainous districts of Europe, including Britain and North America is *Salix herbacea*, often referred to as the 'Dwarf Willow.' This is one of the smallest willows producing mats of creeping stems. In Spring the tiny reticulated leaves appear along with the grey catkins. *Salix myrsinites* is another prostrate species found here, and also in northern Europe and Asia. It produces carpets of short, glossy green leaves, the catkins appear on the leafless stems in early spring. *Salix pyrenacica* a native of the Pyrenees also has a low growing habit, it is recognizable by its reddish-brown stems and shiny leaves. The catkins in this case appear at the same time as the new foliage.

There are a number of willows that spread by creeping stems, and in their native habitat could all too easily be missed. One of these is *S. retusa*, a native of the European

See Willows, continued on Page 3

Water Works

Water Works is published monthly by the North Texas Water Garden Society.

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The North Texas Water Garden Society is a non-profit organization with the following objectives: To encourage a greater appreciation of and interest in water gardens; to disseminate information of interest and help to the members; and to stimulate the study and culture of aquatic plants, fish and ponds.

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Contributions to Water Works are always welcome and may be submitted to the editor by mail, fax or email. Letters to the Editor will be printed as space permits. NTWGS accepts no responsibility for the accuracy of the contents of this newsletter. Reproduction is permitted provided that this newsletter and the original source are credited.

**Remember November 18 is the deadline
for the December, 2002 issue of Water
Works**

President's Pad

Kevin Fuess

What a great bunch of people! Of course I had to bribe everyone to travel cross country to come over. But we had a great picnic. The cloud cover did delay the opening of my lilies, but the cool weather made for a very pleasant day. I would just like to thank everyone once again for coming over and making this social event such a success. I even managed to get some of my garden plants identified for me.

Let's plan on doing this some more.

Bio-diversity: That's the buzz word I came home with from the TAPS meeting in Austin. The main speakers used this term frequently when discussing the plants and animals associated with their ponds. As it turned out, there were a lot of people, from pond owners to lily hybridizers, that were discussing how to help create a healthier pond environment by increasing the bio-diversity. So I started thinking about that. (Don't you hate it when I do that?) To increase the bio-diversity would simply be having a larger variety of plants and animals. Well, I have 17 varieties of water lilies. When "non-pond" friends come over to see my ponds, they ask if my fish have names. I tell them no because I have too many. But I will point to a lily and say, there's Charlene Strawn, Albert Greenberg and Barbara Dobbins is over there. Not knowing any better, they go home thinking "that crazy guy, he not only names his plants, but gives them first and last names". But, getting back on topic. Of course all water lilies are in the genus Nymphaea, so I guess that actually only counts as one, as far as diversity is concerned. This could be tougher than it sounds. I do have a few bog, marginal and submersed plants. One bog plant in particular, primrose creeper, turned out to be highly invasive. Last year it choked out my stream and caused water loss. As I was removing all of the rocks in the stream, and pulling out massive amounts of roots, I swore that I would never have that again. Then it came up in another area this year. So, I gave it one more chance. Such a push-over! Once again I am cursing that plant. I turned the water off from that area, and was waiting for it to dry up and die. Now my thinking is, maybe I just need to find the right spot where I can control it. After all, it is adding to the bio-diversity of my pond. I turned the water back on; the plant came back to life; and I know if it could laugh

Bio-diversity. I like that word, unfortunately, it has limited use in general speech. When I start saying stuff like: osmoregulation, hypoxia, bio-diversity, and what about that nitrite toxicity thing; it will put Penny to sleep faster than any commercially produced sleeping aid. But you are more into this, right? Hello? Are you still there? Oh well, I hope you set your alarm for our meeting on November 12th. It's sure to be more exiting. See you there.

NTWGS Membership Information

Join the North Texas Water Garden Society. Membership fees are:

Single Membership (per year)	\$15.00
Family Membership (per year)	\$24.00

Make your check payable to the North Texas Water Garden Society and send your name, address, phone number and information to:

NTWGS
Post Office Box 9127
Dallas, Texas 75209-9127

Cleanup, continued from Page 1

Alps. It forms a carpet of creeping stems with tiny notched leaves, the catkins are small and erect. Even smaller in stature is *Salix serpyllifolia*, this form also has a prostrate habit.

Winter interest

Several willows are very useful for winter color. These are vigorous medium sized trees that require careful positioning, and are only suitable for larger gardens.

One of the best is *Salix alba* 'Britzensis,' sometimes referred as 'Scarlet Willow.' This has been in our gardens since the late 1870s. It has brilliant orange-scarlet branches during the winter months, which are very attractive, especially in any bright conditions. This willow requires pruning hard during the spring in alternate years. Similar treatment is required to produce colorful stems on the 'Golden Willow.' *Salix alba* subsp *vitellina*, is noted for its young growth which is mustard yellow. Both are splendid subjects for the winter garden, along with cornus species, they associate well with winter aconites and heathers as they both flower at the same time.

One willow that has become very popular since its introduction in the late 1970s, and is widely available, is *Salix integra* 'Hakuro-nishiki.' Elegant, with slightly drooping branches and long narrow catkins that tend to appear before the leaves. These are very attractive in their own right being blotched with white and having a pink tinge when young. Best planted in a lightly shaded spot, it can suffer damage to its foliage in strong sunlight. This shrub looks particu-

larly effective in a waterside location, but must be given plenty of space.

How to grow

Willows are deciduous, and most enjoy moist conditions, with the exception of shallow soils overlaying chalk. Some of the dwarf varieties are best grown on the rock garden. Those with a creeping habit are attractive when planted in good, well-drained humus-rich soil so that they can overhang a rock or wall. The larger species should be kept well away from houses or drains due to their invasive roots. Salix are best planted between October and March, whenever soil conditions are suitable, but avoiding frosty or wet conditions.

Propagation

Increasing stock is easy. Take hardwood cuttings anytime between October to March and place them in a nursery bed in moist soil. Rooting is pretty quick and the young plants will usually be ready for their permanent positions the following year.

Water Gardener, October, 2002

Editor's note: For information on the wide number and variety of willows, check the following website:

http://www.csdl.tamu.edu/FLORA/cgi/ruled_html_query?colldir=kartesz%2Fmgdata&collname=bonap98&query=Salix



Salix myrsinifolia

The NTWGS Website

The NTWGS website www.ntwgs.org is sporting a new feature for NTWGS members. You can now post personal ads. This is available to members only, and can be accessed through the members only area of the website.

Program Notes**Tarrall Arnold**

Our speaker for Nov. 12 meeting will be Steve Moeller of Water Gardens Galore. Steve is going to talk about pond building basics for the benefit of those planning to build a pond or modify the one they have. Steve was one of the original founding members of our club and speaks with 9 years of experience with his business. Bring you questions and be prepared to learn another way to do things. Please come and welcome Steve back to our club since he has been so busy with his business and growing family.

Start planning for our December 10 Christmas party. We will supply the meat, everyone bring a vegetable, salad or dessert to share. We'll have prizes and fellowship.

**NTWGS Website**

The new web site is <http://www.ntwgs.org>
E-mail addresses for officers and other involved with NTWGS.

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- * webmaster@ntwgs.org—> Liz Gensheimer
- * askchuck@ntwgs.org—> Chuck Rush

Tips for the Fall Water Gardener

- * Clean all the crud out of your pond. No algae. No fish waste. No leaves from trees or plants. All of this will decompose in the bottom of the pond during the winter. As it breaks down it will draw precious oxygen out of the pond water, robbing it from the fish and other aquatic wildlife. Decaying organic matter is also prime ground for harmful bacteria, parasites and protozoa. During a warm spell, they can quickly attach your fish's immune system before it is prepared to fight them off. You'll have a pond full of stinky, slimy sludge as well as sick and poorly fish. Is this the way you want to start your spring?
 - * To vacuum or drain and clean, hmmm. Generally, it's advisable to drain and clean the pond if there's more than 2 inches of debris in the bottom. Set up a kiddie pool with water from your pond to hold your fish and make sure you put a net over it to keep the fish from jumping out. You can also use pond water if you decide to remove your plants. Whether you just vacuum with a partial water change, or do a pond drain, clean-up and refill, make sure to add dechlorinator so your fish won't be harmed by the chlorine and heavy metals in the new tap water.
 - * Clean up around the pond, too. Leaves and other plant debris that are left on the edge can make their way into the pond. Insects and other harmful organisms can over winter in the dead vegetation and wreak havoc on your pond plants once warm weather returns.
 - * If you're in an area with lots of trees, put a netting over your pond to catch the leaves before they fall into your pond. Try to use the largest weave possible, so the frogs aren't suddenly left out of the pond or caught in it. You can use a floating ball to hold the net out of the water. Clean off fallen leaves often. It's no use to have a netting if the leaves are going to lay in the water, steeping like tea leaves.
 - * Check your pumps, filters and hoses. Make sure everything is tight and in good working condition. Who wants to be out fixing a leaky hose in the middle of January? Many prefer to turn off the pump to any fountains or waterfalls during very cold spells. The filtering system can be left intact and then restarted when the warm weather returns. Some pond owners leave their pumps running so that the water still flows over their waterfalls, even when ice is forming. In fact, they look forward to the unusual ice formations, which can be among the most beautiful winter scenes that the pond has to offer. Be careful, though. Ice buildup can easily divert running water away from the stream or waterfall. This can quickly drain the pond. Remember to set your pump closer to the surface so you are not recirculating the freezing water into the warmer water where your fish are living.
 - * If you have a submersible pump and decide to shut it down for the winter, store the pump in water and keep it where it won't freeze. A submersible pump is usually water lubricated. When water dries in the pump, it can cause the internal mechanisms to freeze up, reducing the chance that the pump will start up again in the spring.
 - * Not all winter hardy plants need to be moved to below the frost line in the pond. Some marginals can freeze as solid as an ice cube provided they stay in the water, so that the crown of the plant stays moist. This includes water iris, sweet flag, water parsley, cattails, flowering rush and many sedges. Simply cut back to within a few inches above the crown and leave the pots in water in the pond.
 - * Winter hardy plants that cannot survive being frozen in the ice should be moved below the frost line in the pond. These include waterlilies, lotus, parrot feather, and pickerel. If your pond is shallow, you may want to remove them from the pond after they've reached winter dormancy. Store them, pot and all, in a styrofoam cooler or plastic bag. Keep them damp and cool, around 45F, and they'll stay dormant until spring returns.
 - * Certain plants, such as cannas and taros, can be left in a cool, dark place for a few weeks without any water. As they dry down, they will die back, losing their leaves and form a corm or tuber in the soil. These can be cleaned of soil and stored in peat moss or sand for the winter. Replant the following spring.
 - * Some tropical waterlilies can also be dried down for the winter. Store the tuber in a plastic container with lid.
- Not all tropical waterlilies readily set tubers when they are dried down. This is one cause for our failures in overwintering the tropical water lily. These selections must be kept growing in a warm, sunny, indoor pond or in a fish tank with a fluorescent or grow light. Most ponders simply treat them as an annual.
- * Place tropical marginals in a warm, sunny room with their pots in a saucer of water. Most tropicals like to be kept at around 65F and prefer 14 to 16 hours of light a day. Remove tropical oxygenators such as anacharis, since they will simply die and decompose in the depths of the pond during the winter.
 - * The best way to take care of your fish is to make sure they're well fed and healthy during the summer. Switch to a low protein, high carbohydrate food when the water temperature dips below 65F. It is easier to digest and helps store body fat to use in the winter. Stop feeding before the water temp reaches 50F.
 - * Use a bubbler, aerator or pond de-icer to keep a hole open in the ice. This hole will allow oxygen to reach the water and will permit toxic gases to escape from the pond water. Don't try to break a hole in the ice, it will cause shock waves in the water that can harm your fish. Use a pot of hot water to thaw a hole in the ice.
 - * A few words about water. Water always separates itself into certain "layers" in the pond, according to temperature. In the summer, warmer water is at the top of the pond and cooler water sinks toward the bottom. From fall into winter, the positions reverse. Warm water sinks toward the pond's depths, while cooler water rises to the surface. Fish will acclimate themselves and find the temperature layer that best suits them, whether the season is summer or winter. It's vital for their health and well-being that these layers remain undisturbed so that the fish can remain acclimated to the water. When you use a pump in the winter to circulate water, you must be careful not to upset the layers of water temperature. If disturbed or intermixed, the fish will not be able to find the proper temperature and will become stressed.

See Tips, continued on Page 5

Tips, continued from Page 4

If you use a bubbler or aerator, or leave the pump running on a fountain or waterfall, move it to within a few inches of the water surface, so that it doesn't move the warmest water from the furthest depths of the pond. Don't mix very cold water with the warmer water layers or you will turn our pond into one giant slushy, an almost certain death knell for your fish. The worst thing is a pond that is all one water temperature...cold.

These tips have been gathered by Linda Bohr from articles featured in *Water Gardening Magazine*, September/October 2000, and written by Sue Speichert, reprinted from

**Which Plants are in and Which Plants are out?**

This time of year we receive many, many e-mails asking which plants will survive in the pond during the winter and which plants will have to be brought into the house (or other warm shelter). There are many variables, of course, including the climate zone in which the pond is located. Here are some common Marginal Aquatic Plants, though and where they should spend the winter in areas where the water temperature will go below 40 degrees:

Tropical Plants:

Water Canna
Water Poppy
Taro
Umbrella Palm
Papyrus

These plants must be brought inside and overwintered in a warm spot. They will probably lose some leaves, but generally pop right back up in the spring pond.

Hardy Plants:

Arrowhead
Cattail
Lizard Tail
Pickerel Rush
Floating Heart

Move these plants deep enough into the pond that the crown of the plant will not freeze and they will winter just fine.

SPLASH, The Pond and Water Garden Newsletter

The Top Ten Signs Your Pond Needs Cleaning

Chuck Rush (from 1997)

13. That green tarp covering your pond? Look again, Sparky.
12. That guy from Sunset Boulevard is REALLY beginning to smell gamey.
11. pH is so high, in vitro fertilization is possible.
10. Skipping rocks across it causes sparks.
9. New algae species attract a Discovery Channel film crew to your backyard.
8. Jello-like water slowing the pace of the fish coming to eat.
7. Luke Skywalker and Yoda appear in search of the sunken X-Wing.
6. The Grim Reaper shows up in his waders.
5. "DREDGE ME" spelled out in algae on the bottom.
4. You can walk on the water, even though you're only the son of Gus.
3. Dr. Kervorkian seen filling IV bottles at poolside.
2. Your recently installed pond filter resembles the Marlboro Man's chest x-ray.
1. You haven't seen that much scum since Mickey Rourke's last movie.

Fun Pond Fact

Recent research indicates that many amphibians (salamanders among them) can release chemical alarm signals to other animals of their species that lets them know when a predator is close by. This is very useful in situations where sight is limited (such as in murky water).

Salamanders do many things through their skin (including breathing) which is why clean and unpolluted water is such a vitally important habitat!

We can contribute to providing this habitat in small measure with our Garden Ponds!

Isn't it great?!

SPLASH, The Pond and Water Garden


**Have a
Happy
Thanksgiving**

Koi Feeding in Winter

Many of our ponds in colder climates are now showing water temperatures below 50 degrees Fahrenheit. It is IMPORTANT to stop feeding the pond fish, in particular Koi, at this time!

Koi do not have a stomach and digest their food in their intestines. When the water temperatures drop the fish's metabolism slows down and the food can "get stuck" in the intestine and cause great harm.

Koi should be fed cool weather food at water temperatures from 50-62 degrees Fahrenheit and not at all in colder weather!

Should there be prolonged periods of warmer weather and the pond water warms above 55 degrees for several days the fish should only be fed very little (cool weather food or easily digestible things such as Watercress).

Goldfish are not much of a problem during the winter. Since they are much smaller and their food intake is much less even in the summer, they can easily survive by munching on string algae on the sides of the pond. -The only time that is a problem is in very new ponds which may not have developed an algae patina on the liner yet.

SPLASH, The Pond and Water Garden Newsletter

Goldie's Top Ten Best Things about November

10. Halloween is over and the spiderwebs and pumpkins have been removed from the pond.
9. We won't need the bubblers for a while!
8. The heat is over!
7. No more ice deliveries.
6. The humans will be about through with

See Goldie's, continued on Page 7

Texas Ponds and Water Gardens Net Ring

There is a new feature on the web, the Texas Ponds and Water Gardens Net Ring. This is a net ring for pond and water garden enthusiasts in Texas. NTWGS members with web sites are encouraged to join. Club and Commercial sites are welcome as well. To join the Ring, go to <http://www.ntwgs.org/texasponds.html> and follow the instructions.