“April 9” General Meeting!!!

Ponds . . . Links to Learning Seminar

Are you looking for information on how to add container water gardens for accent? Want to know what plants do well in Colorado water gardens? How water gardening began? Do you want to know how many lilies exist today and what their parentage may be? Answers, to these questions and nearly any question you may have on water gardening, will be available at the April 9, 2000 Ponds . . . Links to Learning Seminar sponsored by CWGS.

Registration for the seminar will begin at 11 a.m. at the Morrison Center Building at Denver Botanic Gardens (11th and York St., Southeast corner); classes will begin at 12 noon. The classes will be free for members and $10.00 (materials fee) for non-members. Memberships may be purchased at registration. Membership is $10 for an individual or $15 for a family.

Session A - 12:00 - 12:50

Basics of pond planning and construction
Instructors: Rose and Pall Swenby
Learn how to select a site, design, choose materials and construct a pond in your yard.
Paul and Mary Swenby are members of CWGS and own and operate APR Landscaping.

Water gardening on the Internet
Instructor: Mike Thomas
Learn where and how to look to find information on specific aspects of water gardening on the World Wide Web. Learn how to do a basic search and create your own set of resources.
Mike Thomas is Technology Manager at Rangeview High School in Aurora. He teaches adult education classes on internet use, computer repair and web publishing. He is a member of CWGS.

Container gardening and Bog gardens
Instructor: Joe Tomock
Learn how to choose plants that will do well in a container water garden of any size. Add the more unusual carnivorous plants to your water garden. Man made bog gardens can offer the environment to grow plants that will not do well in the marginal area of the pond.
Joe Tomock is the Aquatic Curator at Denver Botanic Gardens

Silent Auction:
Throughout the afternoon attendees will have the opportunity to bid on a variety of water garden related items at a silent auction. Items will be displayed in the foyer of the Morrison Center, with information on the contributor, retail value and the minimum bid allowed.

Items up for bid: Lotus design tea set, Aquarama, water gardening books, pumps, air pumps, fish food, tabletop fountain, framed art, Water Gardening Magazine subscriptions, designer lily note cards, and much, much more.

Continued on last inside page:

Come to the final session of the seminar 3:15 to 4:00 p.m. where instructors/experts will be on hand to answer questions.
Officers and Committee Chairs for 2000

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DBG May Plant & Book Sale
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CWGS June Plant Sale
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July Pond Tour & Picnic
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Waterline - April 2000

As an organization, we are fairly young. It was only seventeen years ago some very forward thinking individuals "spawned" our organization. We were first in the world, at least based on the Royal Horticultural Society records. Today there are more than 200 water garden and water gardening related organizations throughout the world. It has become the fastest growing garden niche.

Seventeen years ago you couldn't find water plants at local nurseries, and variety was severely limited even by mail order. As the interest grew, so sprouted the nurseries to propagate the plants.

Over the last six months a provisional check list of all existing Nymphaea (water lilies) has been created. A very intense effort was undertaken by Kit Knotts on behalf of the International Water Lily and Water Gardening Society to create the list and verify each lily to exist supported by a picture or description in a catalog or magazine. Through numerous contributors several hundred lilies are included on this list. Although no specifics are known yet about each hybridized lily, it is fairly certain that some are duplicates, differing only in name.

What does this mean to us? Until a formal registry is established for Nymphaea there will continue to be Nymphaea hybridized which have identical parentage to existing plants already available. Even after establishment of a registry, unless a plant is registered, identical plants can still continue to be reproduced. Caveat Emptor - Buyer Beware. Coloration of a bloom can vary from one side of the Metro Area to another. There certainly could be variations in color and growth from state to state and from the United States to other parts of the world.

Remember the next time you pick up that new water gardening catalog with a vibrant red lily pictured claiming to be a new exclusive offering with an enticing name, you may already have it growing in your pond.

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Forgot to order your Lotus?
If you missed the date to send in your order for Nelumbo (lotus) you will be pleased to know we will have a limited number available April 9, at the Ponds ... Links to Learning seminar. Available on a first come, first serve basis.

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THIS IS YOUR LAST NEWSLETTER IF YOU HAVE NOT RENEWED YOUR MEMBERSHIP FOR 2000

ALL CWGS memberships expired December 31! Now is the time to renew your membership for 2000, so you can continue to receive the Newsletter, and receive information on the planned activities for 2000. Wonder if you have already paid for 2000? Check the mailing label on this Newsletter! If it has 99, you need to renew; if it has 00 you are paid for 2000.

Any questions call Nancy Jewett @ 303 671-7964.

Volunteers Are Needed!!! Starting Sunday April 9th at 8:30 volunteers will be needed to help at DBG. We will be repotting lilies and marginals. Our big push will be Sunday April 16th.

2000 Budget

At the March Board meeting the following budget was adopted for the year.

Estimated Income $9,100
Fixed Operational Expenses $3,494
Education/Donation Expenses $4,645
Membership Activities/Expenses $700.

Financials:

1/31/00 Balance: $14,624.85
Deposits: $306.50
Checks: $854.44
Balance as of 2/29/00 $14,076.91

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Session B - 1:05 - 1:55

History and evolution of water gardening and the water lily
Instructor: Nancy Styler
Since nearly before recorded history began, water gardens have existed in various forms. Water lilies available today number in the hundreds, learn about their evolution over time.
Nancy Styler is a member of CWGS and the International Waterlily and Water Gardening Society (IWGS). She is involved in continuing study of the Victoria lily.

Filtration – Biological, Mechanical, Vegetable
Instructor: Ron Cameron
Plants can be used as a natural filter, pulling nutrients from pond water and filtering small suspended dirt particles. Mechanical filtration and biological filtration come in a variety of designs to clear water for a more enjoyable pond.
Ron Cameron is a CWGS member, member of Colorado Koi Society and owner of Ron's Golden Ponds.

Pond care through the seasons
Instructor: Craig Russell
Spring, summer, fall and winter each season brings a need for varying degrees of maintenance in the pond. Learn ways to decrease problems and increase enjoyment.
Craig Russell is a member of CWGS and volunteer at DBG.

Session C - 2:10 - 3:00

Fish
Instructor: Larry Lunsford of the Koi Society
Explore what types of fish do well in an outside pond. Learn about special requirements that need to be considered when planning a pond if you want fish. Find out how many fish you can have in a pond, their special care requirements and possible health problems.
Larry Lunsford is a member of Colorado KOI Society

Tropical Lilies and Lotus
Instructor: Stan Skinger
Some of the most colorful blossoms are found on tropical lilies, thought to be difficult to grow. This myth will be dismissed with easy to understand information presented on how to grow and propagate. Learn about planting and growing Lotus.
Stan Skinger is the Vice President of CWGS and a member of IWGS. He built and maintained the tropical lily collection at DGG for several years. He is involved in study of the habitat and culture of the Victoria Lily in South America.

Plants and propagation
Instructor: Bob Hoffman
Learn about water lilies, floating plants, oxygenators and marginal plants for your pond. Information on plants that can tolerate some shade, ones which like to be in shallow warm waters at pond's edge, and which are hardy plants. Tips on how to care for your plants to encourage growth.
Bob is a member of CWGS, and a volunteer at DBG and Hudson Gardens.
Fish
By Bob Hoffman

The Myth. There seems to be a myth about keeping fish along with a water garden. Some of us who maintain fish in our water garden find that the fish eat or disturb our water plants while others find no such problem. I'm one who found that my KOI loved to disturb and eat my water plants. But, I know that there are others who will swear their fish are good and would never disturb their plants. At this point I have solved my problem partially by providing my KOI their own pond. I must admit that I do add plant material to their pond, but I start it out in my water garden and then introduce it into their pond after it has established some root structure. The KOI still eat some of the leaves and flowers, but the plant seems to stay ahead of them or I swap the plant out for another one. This year I'm going to try a different feeding program where I will add more vegetable matter to their menu. I do keep goldfish in my water garden and as long as they stay small they don't seem to disturb my water plants.

Fish Pond Construction. Ponds should be constructed to one's own tastes and needs with some basic understanding of fish needs. Fish need protection, space for movement, clean water and some ice free water. A fish pond should have some places where fish can hide to protect themselves from other animals and the summer sun. Fish need space to move both horizontally and vertically so they can adjust to water temperature changes. A very shallow pond can become very warm in the afternoon sun. Clean water can be achieved not only with mechanical and biological filters, but with a bog. Passing pond water through a bog filled with plants can filter the water as well as any other type of filter. Ponds that are shallow may freeze solid and this can kill your fish. Also, ponds that are not kept open to some extent during the winter may also kill your fish.

For the reasons stated above I would recommend an "ideal" pond for fish to be one that is a minimum of three feet deep for at least a third of your pond size. Where possible install a bottom drain and skimmer. A bottom drain is not always possible because of pond location, but they are great for cleaning the pond bottom. A skimmer is used to keep surface debris from falling and sinking into the pond. Waterfalls and small pools are great for collecting debris and much easier to clean than the main pond. Pumps should move at least one half of the pond's volume of water each hour.

Filtration. When you maintain fish it is wise to filter the water of fish waste. There are many ways to filter the water and some are better than others. I will discuss how I filter my ponds and you may do it differently and be just as successful or more so than me. I filter my water garden pond with an up flow filter. My up flow filter passes the water from the top of a 55 gallon container through a three inch pipe to about 8' from the bottom. The pipe sits on a grate which is supported 8' off the bottom of the container by pieces of 3' pipe. On top of the grate I place large rocks, lava, pea gravel, and sand or Balance (a ceramic like rock). This mixture should come just under the outlet to the pond. A flush valve should be placed at the bottom of the container. Both the exit to the pond and the flush valve should be at least 1'. I constructed a blow pipe out of 1' PVC pipe which allows me to force air through the rocks. The piece sitting on the grate should look like a square or rectangle with holes drilled into the PVC. The blow pipe extends from the square or rectangle up passed the 3' inlet. Water enters the 3' inlet pipe at the top, travels down to the bottom, up through the rock and out the outlet pipe to the pond.

My KOI pond has an up flow filter, but the water enters at the bottom of the container and flows up through the rock mixture and is pumped out to the pond. Although this system removes much of the large material the small material stays suspended in the pond water. I will be adding another upflow filter like the one described above this year. Also, this year I will add an Aqua Mat™ by Meridian to my KOI pond. Later in the year I will let you know how these two new additions are working. Also, I have a 40 watt UV light connected to the outlet line on the KOI pond filtered water. This light is used to kill green algae.

Animals. There are four legged and feathered animals that seem to be attracted to fish of any kind. I have not found a full proof answer to discouraging these kinds of animals, but there are some general hints I can pass along. A shallow pond 18' to 24' or less is an invitation to all animals. Container gardens with fish are also invitations to animals. Other kinds of pond creatures (i.e. frogs) tends to draw feeding animals. There are many types of contraptions that are made or tried that may limit your animal encounters, but I have not found any too successful. The best advice is to build a deep pond 3' or better with no ledges. This is great to looking at fish, but
no good for water plants. My watergarden pond is about 3" in the middle with two rows of shelves the first shelf is 1" and the second about 18". In the summer I place two cement blocks and split the deep part of the pond into thirds. On top of the cement blocks I place a large stepping stone. As I sink the cement blocks I place a board under them so they will not harm the liner. These stands provide protection for the fish and a stand for waterlilies. Last year I lost many goldfish to the Blue Heron, but after many weeks I found the some of them avoided the beak and stayed hidden. I lost no KOI to the heron because their pond is deep 4' with only the pond sides to stand on. The best product to keep the animals out of your pond is bird netting, but it has its drawbacks for water gardens where tall plants make the netting almost impossible to use. I used it successfully on my KOI pond because the pond is raised a few inches above the water so it didn’t impede the water plants.

Winterizing. Keeping fish over the winter is not a problem. The trick is to keep some portion of the water open all year round. This can be done by running a pump or stock tank heater. This past year I ran a pump in my KOI pond that was just below the surface and bubbled up to the surface. Don’t place the pump at the bottom of the pond because you will be circulating cold water from the surface with warm water from the bottom and the overall pond water will be colder. Try to stabilize the temperature at the bottom of the pond because that is where the fish will stay through the winter months. In my water garden pond I ran my waterfall and disconnected my filter so it wouldn’t freeze.

Salt. In my KOI pond I remove all my plants and added about 40 lbs. of salt in late fall. The salt must be non-ionized and I use solar salt. The salt helps protect your fish during the winter months. Just a note, while working at Ocean Journey I saw them adding salt to the freshwater fish tanks and I asked them about the salt and they also said that it protects the fish from disease.

Water Quality. Water quality is more essential for raising KOI than goldfish. Goldfish seem to be more tolerant of their water environment than KOI. In the summer I intermix the KOI and water garden pond water and in the winter the two bodies of water are separate. When adding new fish to your pond float the bag of fish in the pond for 30 minutes so the water in the bag is the same temperature as the pond. For new KOI it is recommended that they are placed in a holding tank for at least two weeks before they are released into your pond. This quarantine period is to ensure your fish are healthy before they are released into the main pond. Keep the holding pond clean with a pump and filter and all items used in the holding pond should not be used in the main pond to prevent contamination. If you have only one net dip the net into a solution of Chlороx and water when you exchange it between ponds. When you add water to your pond add some dechlorinator. For KOI I like a product called Stress Coat® from Pond Care® that removes the chlorine and replaces the natural slime coating of the fish.

Suggestion: You may want to add this article to your Keepsake Booklet.