Volume 27 Number 2 April 2010

IN THIS ISSUE:

Watery Harvest: Sylvia Bernstein speaks on Aquaponics for Get Wet1
Board Members and Chairpersons2
Treasurer's Report2
From Vicki
Echter's and preference feedback3 by Bill Bathurst
From The Curator4 by Joe Tomocik
Building Wisely Notes from our March meeting5 By Bill Powell
CWGS Plant Sale update6 by Janet Bathurst
New and Returning Members6
Bowl Lotus and Marsh Marigold Sale7 by Janet Bathurst
- MarketPlace - Membership Application9
This Year: CWGS Calendarback page

April 8 at DBC Get Wet 2010

Online at:

6:30: Meet the vendors

7:00: Sylvia Bernstein speaks on Aquaponics

www.colowatergardensociety.org

Also...Bob Hoffman on Lotus, "Ask the Experts," and ...

TheWaterGarden

Journal of the Colorado Water Garden Society

Watery Harvest

Grow tomatoes in your pond (well, not quite but...)



This year's "Get Wet – Water Gardening Fun in 2010" explores Aquaponics, a new discipline that blends aquaculture with hydroponics. Sylvia Bernstein, a Colorado authority on aquaponics, will share her knowledge and enthusiasm for this novel and fast developing gardening technique.

Our signature season kick-off event *Get Wet* returns to Gates Hall, Denver Botanic Gardens on the evening of Thursday, April 8. Admission is free, as is the program. Park in the Gardens' spacious new parking facility (accessible from both York and Josephine Streets), then enter the Gardens through the new after-hours entrance gate to the south (left end) of the visitors' center. Follow signage to the main educational building. Gates Hall is straight back, on the left after you enter the lobby court.

The fun starts at 6:30 when representatives from the major garden centers and pond businesses are available to tell you about water gardening resources they can provide for you. Those of you who have pre-ordered lotuses or Marsh Marigolds can pickup and pay for your plants at this time or later after the program.

Sylvia Bernstein's presentation begins at 7:00. She'll answer what is, no doubt, your first question "What IS Aquaponics?" as she explains the discipline's many advantages, its varied applications, and how the technique exploits the individual problems of common gardening activities for mutual benefit.

Do you like to keep fish, but you're tired of filtration problems? Or maybe you'd like a vegetable garden, but you weary of weeding and feeding. Or perhaps you're unable to bend over for long and would like to garden at waist height? Aquaponics may appeal to you for it's clever resolution of all these aggravations!

(continued on page 6)

THISYEAR

A calendar of CWGS Activities and Events:

April 8: Get Wet – Program by Sylvia Bernstein on Aquaponics; Bob Hoffman and Joe Mascarenas on Lotuses; Concurrent Lotus Sale and Vendor Fair. Gates Hall. DBG

May 13: Potluck Dinner and Plant Swap June 6: CWGS Annual Plant Sale at DBG

June 27: Waterside Program: - Fieldtrip to Enery Water Gardens

July 18: Water Blossom Festival

July 24: CWGS Annual Pond Tour and Picnic

August 15: Waterside Program - Fieldtrip to DU Water Gardens

Sep. 9: Potluck dinner and Annual Board Elections

Dec. 9: Holiday Banquet



From...

The Water Garden

c/o Journal Editor 1210 Clayton Street Denver, CO 80206-3214

The Colorado Water Garden Society (CWGS) is a non-profit 501 (c) (3) organization founded in 1983 to encourage appreciation and interest in the use of water in the landscape.

To learn more, visit us at www.colowatergardensociety.org

FIRST CLASS MAIL

2 Club Governance

2010 Board of Directors:

President Vicki Aber	303.423.9216
Vice President Janet Bathurst	303.421.1144
Secretary Bill Bathurst	303.421.1144
Treasurer Jim Wohlenhaus	303.429.9119
Members-At-Large Brenda Parsons Hier	303.278.2106
Peter Hier	303.278.2106
Marge Oleson	303.989.4809
Jim Arneill	303.843.9619
Bill Powell	303.355.8098
Michael Weber	303.322.6769
Lynn Jewett	303.671.7964
Dorothy Martinez	303.279.3137

The Water Garden is the official journal of the Colorado Water Garden Society (CWGS) Copyright © 1983-2010

Please Note:

Opinions expressed by authors in this publication are their own. Products reviewed and/or advertised are not specifically endorsed by CWGS. Please contact Bill Powell, Newsletter Editor, to obtain permission to reproduce materials published in The Water Garden. Reproductions should credit CWGS and the author.

The Water Garden is published eight times a year and is made available to current members both in printed form and online. Past volumes of The Water Garden are archived online at:

www.colowatergardensociety.org

CWGS Treasurer's Report: As of February 28: \$11,169.73

Need to join or renew?... ... The application is on page 9

Does CWGS have your current email address? If you're not sure, contact us.

2010 Committee and Event Chairs:

N 14 - 19	
Newsletter Editor Bill Powell	303.355.8098
Newsletter Assembly Gary and Joyce Blubaugh	303.989.4464
Membership Ken Lange Bill Bathurst	303.393.8410 303.421.1144
Program Bill Bathurst	303.421.1144
Publicity & Outreach Jim Arneill Marge Oleson	303.843.9619 303.989.4809
Education Cyndie Thomas	303.755.1885
Get Wet Event Jim Arneill	303.834.9619
CWGS June Plant Sale Vicki Aber Janet Bathurst Dorothy Martinez	303.423.9216 303.421.1144 303.279.3137
Pond Tour / Picnic Michael Weber Jim Wohlenhaus Dorothy Martinez	303.322.6769 303.429.9119 303.279.3137
Water Blossom Festival Duff Kerr Marge Oleson Bill Powell	303.871.0336 303.989.4809 303.355.8098
Holiday Banquet Dorothy Martinez Michael Weber	303.279.3137 303.499.6578
WebPage / Archives Bill Bathurst Janet Bathurst	303.421.1144 303.421.1144
DBG Plant Sale & Volunteers Bill Powell Marge Oleson	303.355.8098 303.989.4809

Changes are underway...

We are switching to largely-electronic delivery of The WaterGarden. We also propose to create and distribute a Members' Directory.

If you haven't already returned your red mail-back preference card from the last newsletter, please do so or email

Bill.Bathurst@colowatergardensociety.org.

Vicki reminds us:

"...our next meeting is our traditional kick-off event Get Wet."

"...get new plants for free...at our Plant Swap May 13th. "



Photo by Brenda Parsons-Hier

Above: Board members Peter Hier and Vicki Aber, among others, staffed the CWGS booth at the Echter's Echxpo.

Traffic and interest in water gardening was heavy for the three-day event.

From Vicki...

by Vicki Aber, CWGS President

This president's letter is going to be short. I'm busy enjoying Colorado's crazy weather!

We had a great first meeting of the year. The talk was very informative; the food, great and the attendance was good. Most people found our new temporary meeting place without a problem. Our next meeting is our traditional kick-off event Get Wet. Be sure to make that one. There's more on the front page about the event. Don't forget: Get Wet will be back at Denver Botanic Gardens.

Once you can get into your ponds start figuring out what is getting too big for it's space and could be divided. Bring your extras and get new plants for free! All this happens at our Plant Swap May 13^{th.} We'll be back at the Montview location for the Swap.

That's all for this month. Read the newsletter for all the details and ENJOY SPRING!

Echter's Echxpo & Feedback on our Preference Poll

by Bill Bathurst

The Ecther's Expo was a great success! We manned a booth from the afternoon of Friday March 4th through Sunday March 7th. Those at the booth were able to meet quite a few people who were interested in water gardening.

The volunteers answered questions ranging from how to build a pond to how to get rid of the ubiquitous algae. All of the visitors were impressed with the new display panel built by Brenda Parsons-Hier and Peter Hier. One visitor even exclaimed that he couldn't believe the ponds in the photos were located in Colorado; they looked too exotic to him!

Special thanks to those who volunteered:

Vicki Aber Janet Bathurst Brenda Parson-Hier

Peter Hier Dorothy Martinez Jim Wohlenhaus

Congratulations to Audrey Wilvert for winning our free membership drawing at the Echxpo!

Remember – this is the last issue that goes out to everyone in hard copy. If you want to continue a paper newsletter or we need your current email address to reach you, be sure to return the preference card we included in last month's newsletter. Or you can email $\frac{\text{mailto:Bill.Bathurst@colowatergardensociety.org}}{\text{mailto:Bill.Bathurst@colowatergardensociety.org}}$

21 members have requested continued hard copies. One person who wants a paper copy and who also doesn't care to participate in the club directory returned his/her card without including a name. We don't know who you are. Please contact us so we can honor your requests.

For those of you who've elected to receive your copies electronically ...THANKS! Your choice will help to save some money and some trees. Each month when the newsletter is posted, you will receive an email with an active link to the newsletter or you can go to the website and click on the link in the top left corner of the homepage. Ignore the member password feature. It's not active and will be removed shortly.

Visitors to Denver Botanic Gardens enjoy the 2009 end-of-season display at the "Romantic Garden" pool.

"The magnificent changeable lotus Nelumbo nucifera 'Mrs. Perry D. Slocum'...performs well, producing large and bountiful lovely flowers."

Photos by Joe Tomocik

From The Curator

by Joseph V. Tomocik Associate Director and Curator, Water Gardens Denver Botanic Gardens

Here we are again with a chance to create yet another fantastic water gardens display. The ice is gone, the Moore sculptures are in place, and soon we will be scurrying about dividing and potting waterlilies, creating something of value and having a bit of fun.

Lotuses and Perry D. Slocum

The late Perry D. Slocum was a very sweet man and remains one of the storied water gardeners/nurserymen/hybridizers of our time. He created a large number of popular waterlilies. Perry also created a number of excellent lotuses. To me, he is unchallenged as the king of lotuses. Lotus connoisseurs keep Perry's authoritative book *Water Gardening: Water Lilies and Lotuses* (2005) close at hand.

The magnificent changeable lotus *Nelumbo nucifera* 'Mrs. Perry D. Slocum' is well known throughout the Denver area and across the globe. It has successfully naturalized in the Gardens' Japanese pond and also at Hudson Gardens. It is hardy for us and performs well producing large and bountiful lovely flowers.

The Colorado Water Gardening Society and Lotuses

In my first water gardening class at the Gardens (some twenty-eight years ago) sitting in the front row were two special people - John and Mary Mirgon. Their energy was contagious and I remember John inquiring about lotuses. The curiosity, hospitality and volunteer spirit of John and Mary remain a trademark of CWGS to this day.

CWGS volunteers have helped me immensely in cultivating lotuses. Canada geese are a perennial problem for us; at times they destroy the lotuses as soon as we plant them. It was the versatile CWGS volunteers who created wire mesh protectors to thwart the adventurous and hungry geese. Mildly harassing the geese is another tactic to protect the lotuses. Noise can encourage the birds to leave early, but be careful and respectful. Canada geese are protected by law.

Cultivation of Lotuses

Quality nurseries are knowledgeable and happy to share cultivation guidelines.

A round container measuring 24 inches wide x 7 inches deep is excellent for most lotuses. A preferred planting time is the first week in May. By then the water is usually warm enough for the lotuses to commence growth. They are ready for planting once tiny pink roots appear at the tubers' nodes.

Healthy tubers are firm and have the growing point intact. They can be floated in water for extended periods of time. Change the water several times a week and remove by hand the slime that forms on the tubers.

Fertilize using solid aquatic tablets, applying according to instructions. The adventurous can achieve improved results by experimenting with various soil mixes. Adding blood meal or well-rotted manure are two

(continued on page 8)

Members enjoy dinner prior to the March program in the Green Room at Montview Presbyterian

Mark Russo's presentation on "Building and Creating Sustainable Water Gardens" offered technological insights as well as aesthetic ones.



Photos by Bill Powell

Building Wisely

Our March Program examined construction practices and recent innovations in pond technology.

by Bill Powell

Despite our changed temporary location, an error in the published street address (sorry about that...a digit fell off during editing), and a recalcitrant projector, almost 30 members shared good food and enjoyed Mark Russo's presentation on Building and Creating Sustainable Water Gardens.

Mark, whose company Rocky Mountain WaterScape has been building water features professionally for more than a decade, is known for the natural appearance of his installations as well as their functionality. Over the years Mark's discovered a number of common mistakes, both practical and aesthetic, that people make when building ponds. Of these, perhaps the most serious misstep is the lack of adequate water filtration. "You can never have too much filtration," Mark observed. He also cautioned that claims for store-bought filtration systems are too optimistic. "Cut the estimates in half."

Other common practical errors include poor sizing of the pipe size to pump capacity and sending too much water through a filter. While this last observation may seem counter-intuitive (what's wrong, after all, with filtering as much water as you can?), Mark says that forcing excess water through filters in order to power a dramatic waterfall can overwhelm the filter. It's better to split the flow, directing only as much water to the filter as its volume can support and by-passing the remainder of the water to the falls.

For those who seek a natural looking pond – one that persuades the viewer that it's been there all along as part of the indigenous terrain – there are a lot of aesthetic pitfalls. Chief among them, Mark says, is the misuse of stone borders. To mimic nature, use three different types of perimeter ground covers - perhaps a mix of constructed edge, mulch areas and stones. Be sure to vary the treatment at the water's edge.

Don't surround your pond with a continuous frame of same-size stones. Equally important: don't overwhelm with too much stone. The effect can be both unnatural in appearance and dangerous if the rocks present a hazard to negotiate or are insecure where they overhang the water.

Mark also shared two recent technologic innovations – lonGen electronic clarification and wetland filtration systems. The results are still out, Mark thinks, on whether ion generators are sufficiently effective to warrant their purchase cost. Reports are promising, and Mark's testing one on his home pond. However, Mark is convinced of the utility of the wetland filtration system he installed several years back.

A hybrid composite of a bog garden and an upwelling aggregate filter, the wetland filtration system mimics the appearance of a natural bog and, indeed, uses plantings in the same way as bogs function to polish

(continued on page 8)

April's Labors Bring May Rewards

And more still in June, July, etc.

The Club's morning volunteer sessions at Denver Botanic Gardens resume Sunday April 11. For six weeks or so this spring, CWGS will help to realize the beautiful aquatic displays that make the Gardens such a special treat later in the summer. We'll also be helping to staff the Aquatics Division sales booth at the DBG May plant sale that's held just before Mother's day.

Both these efforts offer a chance to learn as you volunteer. You'll be working along side seasoned water gardeners and novices alike so you'll have the opportunity to pickup practiced techniques, but also new perspectives. Activities for the Sunday sessions vary with weather and the needs but they always include planting, division, fertilization, and labeling of a range of species including hardy waterlilies, lotus, and marginal plants.

If you work the sales booth at the DBG Sale, you'll have a chance to share your interest in water gardening with the public while you polish your people skills.

These activities benefit you, the Club, and Denver Botanic Gardens. For more information, contact Bill Powell at wbpow@comcast.net or (303) 355-8098

2010 CWGS Plant Sale

June 6 at Denver Botanic Gardens

The club's sale will be here before you know it! The plant sale committee has already begun to meet.

Each year we try to order a large variety of tropical and hardy water plants. The committee would like to hear your suggestions on plants to order. If there are any hard to find or unique plants that you would like to see at the sale, please let me know at mailto:Janet@colowatergardensociety.org

Janet Bathurst for the Plant Sale committee

Watery Harvest

(continued from front page)

Sylvia's presentation will explore the symbiotic relationship between fish-raising and plant production as it illustrates "how the practice of aguaponics is being used from commercial. university, third world, educational, and back-yard perspectives." Inherently organic, aquaponics is both sustainable and capable of being scaled to large, commercially viable greenhouse production and the casual interest of the suburban gardener (and water gardener) alike. Special emphasis will be placed on landscaping applications.

In addition to Sylvia's keynote on aquaponics, Joe Mascarenas will show a colorful pictorial on lotuses. He'll be followed by Bob Hoffman who will share his successes growing lotus of all sizes. Also, Joe Tomocik, Associate Director and Curator of the Water Gardens at DBG, will give some insight to this season's plans for the Garden's extensive aquatic displays, we'll have some quick announcements about upcoming Club events, AND we'll have some door prizes!

The presentations will conclude around 8:30, but stay on for refreshments or to buy a bowl lotus with which to satisfy the gardening itch that Bob Hoffman's presentation is sure to provoke. Don't worry...if you didn't get around to pre-ordering from the lotus sale that we conducted earlier online, we'll have a limited number of small lotus available for purchase at Get Wet. These are species that were especially selected for their suitability to modest ponds and container gardening. We'll also have a few of the Marsh Marigolds that were offered in presale. Read the accompanying article on page 7.

Have particular questions about your water gardening? Stop by the "Ask The Experts" table or visit with the vendor representatives before you leave. This year Get Wet is an evening of novelty, education, and fun. Join us! For more information call Jim Arneill (303) 843-9619.

NEW & RETURNING MEMBERS

John Bayard Susan Haley Centennial, CO

John and Teresa Burkert

Northglenn, CO

Jude Capozelo Denver, CO

Longmont, CO

Michael & Susan Hawes

Englewood, CO

Trina Jacobson & Les Petrash

Denver, CO

Thanks...and welcome!

Georgia Keller Lakewood, CO

Mike & Vickie Pervich Aurora, CO

Scott R. Ziegler (New)

Denver, CO



N. 'White Crane'



N. 'Hope'



N. Red Dragonfly'

Above:

Just three of the varieties of bowl lotus that may be available for purchase at Get Wet on April 8. Supplies are limited.

See page 8 for full lotus list & descriptions.

Right:

Two varieties of Marsh Marigolds that may be available as well on the evening of April 8.

Bowl Lotus and Marsh Marigold Sale

Ends with Get Wet, Thursday April 8

We may be barely out of winter, but the beginning of the water gardening season is not far off. Indeed, certain plants are only available to be shipped while they still remain in dormancy. To enjoy their blooms in spring and summer, you have to start early. I am excited to say the bowl lotus and marsh marigolds are arriving early in the season.

All pre-ordered bowl lotus and marsh marigolds will be available for pick-up and payment at the Get Wet event in Gates Hall of Denver Botanic Gardens on the evening of April 8. Orders can be picked up between 6:30 – 7:00 and then after the conclusion of the presentation – usually around 8:30 pm. If you are not available to pick up your pre-order on April 8, please let me know at mailto:Janet@colowatergardensociety.org prior to the event.

If you did not pre-order and would like a bowl lotus or marsh marigold, there will be a limited selection for sale at Get Wet on a first come, first serve basis after the program. This page and the following show descriptions and photos of some of the available plants. The bowl lotuses are \$20.00/tuber and the marsh marigolds are \$10.00/plant.

Since this is the first time CWGS has sold bowl lotus, I'd like to encourage everyone who purchases a lotus to sign-up for the lotus mailing list that will be on the lotus table at Get Wet. At the end of the season I would love to hear comments about how your lotus grew, true bloom color, number of blooms, and any stories about growing the lotus.

Want to learn more about planting and growing lotus? "Get Wet" will include a presentation by Lotus enthusiast Bob Hoffman, photos by Joe Mascarenas, and printed information on lotus cultivation. Let the adventure begin.....

Janet Bathurst. . for the Plant Sale Committee

Marsh Marigolds

Marsh Marigolds have been labeled the tulips of the pond. Blooming in April, these plants signal the beginning of spring. CWGS is excited to offer the Giant and Double Marsh Marigolds. You will not be disappointed with the beautiful yellow blooms first thing in the spring. These plants are very hardy (zone 2) and spread very slowly.

Caltha palustris (Marsh Marigold)





Caltha plustris var. 'Flore Pleno' (Double Marsh Marigold)

. . .

Exquisite Bowl Lotus

Bowl Lotus: A bowl lotus is just that -a miniature lotus that grows in a small round pot or bowl. The bowls can be as small as 8 inches wide but prefer 10 to 14 inches. These unique lotuses have floating leaves 4-6 inches in diameter in early spring and aerial leaves 4-6 inches above the water in early summer.

Bowl lotuses begin to bloom in June and have been noted to bloom the first year they are planted. Like their larger cousin, they do require at least 6 hours of direct sunlight per day and are hardy. These are perfect for adding interest and beauty around your pond, on a patio, or any sunny place.

Lotus Name	Color	Flower Form	Bloom	Spread
Red Dragonfly	Red	Double	5 inches	18 inches
Crab Claws Red	Deep Red	Double	5 inches, prolific bloomer	6 inches
White Crane	White	Single	5 inches	18 inches
Hope	Light Yellow	Semi double	4 inches	18 inches
Xiao feng wu	Orange	Single	3 inches	12 inches
Fen Die	Orange	Semi-double	5 inches	18 inches
Charming Lips	Pink	Double	4 inches	18 inches
Star of Green	White with green center	Single	6 inches	18 inches

From The Curator (continued from page 4)

options. The risk is the possibility of creating excessive algae growth in the water.

Lotuses in Denver are not quite as hardy as hardy waterlilies. The root systems cannot freeze during the winter months. They can be kept in the water or covered with adequate mulch. A good guide is to divide lotuses in the spring every other year.

Miniature (Bowl) Lotuses

For the International Waterlily and Water Gardening Society (IWGS) conference in 1997, the Gardens received many "tea cup" lotuses. Some were tiny, capable of maturing and flowering in nine-inch pots. None could actually fit in a tea cup. Results were mixed. Eventually we ended up regularly growing one selection, *N. nucifera* 'Jade Bowl'. Volunteer specialist, and CWGS member, John Bayard deserves much credit for this accomplishment.

This spring Janet Bathurst and other CWGS members have arranged for a lotus sale featuring "bowl" lotuses. (Editor's note: see article on page 7 for details.) This is a great opportunity for progressive water gardeners to have some fun and learn more about these tiny gems. Denver Botanic Gardens is purchasing and will cultivate five selections.

Explosion

Interest in lotuses has exploded. Most notable has been the monumental research lead by Dr. Ken Tilt

and Daike Tian at Auburn University (Auburn Lotus Project).

Keen water gardeners will expand even beyond CWGS and the Gardens as they widen their horizons and continue their exciting water gardening journeys. Water Gardeners International (WGI) and IWGS are super sources for lotus information. Many of the social networking sites like Facebook have water gardening discussion groups, and we all know about Google!

See you at poolside,

Joe T.

Building Wisely

(continued from page 5)

water. Below grade, a EPDM-line basin receives water from Mark's adjacent pond. The water is pumped into a collection vault and then through a manifold to a perforated "Centipede" pipe. From there the water percolates up though strata of increasingly small stone into which hardy marginals are planted. Clean water is returned to the pond by gravity through a spillway.

The natural processes that inform the design of wetland filtration systems are worth understanding. Future newsletter articles will investigate options through which both pond water and surface run-off can be improved through the use of bogs and settling/retention ponds. Thanks, Mark, for whetting our appetite for the season and contributing to our perennial discussion of water quality.

MarketPlace 9



Design, Construction, Maintenance
Award Winning Water Features
Inspired by Nature

(303) 666-5430 Mark Russo's cell (303) 870-5607 www.rmwaterscape.com





Water Gardening
Supplies
POND KITS
PUMPS
FILTERS
LINERS
AQUATIC PLANTS
FISH

303-744-3505 800-999-9021

www.truepump.com 1429 S. Broadway Denver, CO 80210



ADVERTISE HERE

Single issue 1/8th Ad for \$15 Single issue 1/4 Ad for \$30

Special savings available for advertisements that appear in multiple issues.

For Information, contact Bill Powell

(303) 355-8098 or by email wbpow@comcast.net

MembershipApplication

Make checks payable to: Colorado Water Garden Society Return this form with your payment to: CWGS Membership 100 Glencoe St. Denver, CO 80220
Name:
Address:
City:
State:ZIP
Home Phone: ()
Email*
* Required for electronic receipt of newsletter, beginning in 2010. (note: CWGS does not share or sell email addresses)

Check here if you are also a member of Denver Botanic Gardens

Membership Fees: \$15.00 Individual; \$20.00 Family

Check one:

____I would like my contact information included in a membership list that will be distributed only to the members.

___I do not want my contact information published in the membership list.

Contact me concerning volunteer opportunities I've checked below:

DBG Volunteer Sundays___
Water Plants booth DBG May Sale__
Hudson Gardens___
CWGS Plant Sale (June)__
Pond Tour (July)___
Water Blossom Festival (late July)___

Note: Your newsletter will be made available to you electronically unless you check otherwise below.

I request to receive a paper copy of the newsletter