CWGS Elections in September

Candidates Needed for Vice President, Secretary, Member-At-Large

Elections for several CWGS board positions will be held at our September General Membership meeting. Positions open for nominations are Vice President, Secretary, and Member-At-Large. Terms are each two years, with a maximum of three successive terms that can be served. No experience is necessary. Anyone interested in running for a board position can contact Cyndie Thomas at (303) 755-1885.

Listed below are the general duties attached to each position:

**Vice President:** The Vice President shall perform any and all duties of the President in his absence. Assist the President in administering the Society and Board affairs. Perform such duties as directed by the Board of Trustees.

**Secretary:** The Secretary shall keep accurate and complete minutes of all meetings of the Board. Conduct the official correspondence of the Society and the Board. Perform such other duties as directed by the Board.

**Member-At-Large:** The Member-At-Large shall assist with activities and on-going affairs of the Society.

CWGS has a number of committees (see listing on page 2) that members are encouraged to participate in. Assistance is needed with the numerous activities held by the organization. If you would be interested in assisting with a committee, please contact the Chairperson listed.

If you have any ideas or suggestions to improve the organization please relay them to any board member. We welcome your input.

What Lurks in Your Murky Waters?

Ever wondered what, besides possibly a fish, is moving about your feet and legs while you are working in your pond? Have you ever put your hand in the pond to feel something slimy? Join us at the August meeting to be enlightened or frightened by all the possibilities. Bob Zuellig, Colorado State University Entomology Department, will present...

Introduction to Aquatic Insects

Sunday, August 13, 2 p.m.

Morrison Center Bldg.
at Denver Botanic Gardens
11th & York St. (SE Corner)
(More Information on Page 6)

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Lily Keensake Page*
Center of Newsletter

*Save yourKeensake pages each issue to
accompany color photos to be printed in our
September Newsletter
A very special THANK YOU to each of our pond owners who allowed CWGS members and guests to visit their beautiful ponds. Each one provided an opportunity to learn new ways to add water in the garden. If you missed the pond tour, but would like to take a peek at what you missed, you can see photos on our website at http://www.colowatergardensociety.org.

Craig Russell, our Program Chairperson, his wife Millie and Carla and Neil Littlefield have our debt of gratitude for all their efforts in planning and organizing the tour and picnic. IT WAS GREAT!

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In our last newsletter Bob Hoffman, Newsletter Editor, expressed his concerns over a recent mishap at the Denver Botanic Gardens. A further explanation of events that led to Bob's concerns are clarified in a rebuttal letter from Joe Tomocik, DBG Aquatic Curator, on page 4.

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City Park Lily Pond July 2000

Volunteers are being sought to participate on a committee that will research and plan for the planting of the City Park Lily Pond. This project is a cooperative effort of Denver Parks and Recreation and CWGS. Last month volunteer, Bob Hoffman, assisted parks' employees with planting lilies in the upper pond area to enhance the beauty for this season. The plan currently, is to research to determine specific plants that originally graced the pond in the early 1900's to use for planting. Next spring additional volunteers will be needed to assist with the planting of the pond.

Anyone interested in participating in the planning should contact Helen Kuykendall, at (303) 964-2478. Kuykendall is a Landscape Architect of the Planning and Design Department with Denver Parks and Recreation.
IWGS Moves Water Lily Registration to DBG
By Carla Littlefield

A year ago, Joe Tomocik conceived the notion of starting a collection of dried, pressed water lilies and accompanying descriptions to add to the DBG Herbarium. With encouragement and direction from Carol Dawson, Director of Research, and Jan Wingate, Herbarium Director, Joe and I began collecting specimens, taking photos, and pressing leaves, stems and flowers from several hardy lilies in the DBG collection.

CWGS then donated $1,500 to promote the project which had the potential of leading to the registration of hardy and tropical lilies of special significance to DBG and CWGS. In a short time, much has happened.

Plant Taxonomist, Andrew Doran, joined the DBG Research Department in November 1999 and took immediate interest in the herbarium project. Andrew’s background includes a master’s degree in pure and applied plant and fungal taxonomy from the University of Reading (England) and employment at the Royal Botanic Gardens Kew and the Royal Horticultural Society’s Department of Botany at Wisley. Andrew was recently appointed the Registration Officer for the International Waterlily and Water Gardening Society’s (IWGS) Registry, succeeding Kit Knotts. In this role, Andrew will be the international point person for the registration of previously unregistered waterlily cultivars and species. The voucher specimens, along with identification and propagation data will be sent to Andrew for historical collection and preservation. The dried and pressed specimens, catalogued in DBG’s herbarium under the auspices of IWGS, will be recognized as the Standard, a term defined as an herbarium cultivar specimen which forms the permanent record of the distinguishing characteristics of the cultivar.

A description and its designation should accompany the Standard, and its location must be published. Additionally, Andrew will check the names of all new registrations to make sure they comply with the International Code of Nomenclature for Cultivated Plants, the rules which govern the nomenclature of cultivars.

Continued on page 6

T-SHIRTS FOR SALE!

T-shirts with an embroidered CWGS logo are still available in limited sizes. The shirts are heather gray polos, both with and without a pocket. Shirts without a pocket are $18 and with a pocket $20. 2XL shirts are also available for $20 without a pocket and $22 with a pocket. If we are out of the size you desire to order, you may place an order to be delivered at a later date.

September Meeting
Mark your calendar
September 10
Our speaker for the September meeting will be Virginia Hayes of Lotusland. Her presentation will include lotus propagation and care.

Financial Report

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CWGS Board Meetings

Board meetings for CWGS are held prior to the General Meetings. All members are welcome to attend these meetings and provide input. Our next board meeting is at 12 noon on August 13, at the Morrison Center.
Editorial Rebuttal

The Great Conspiracy

Yes, there is a conspiracy, and here are the details! The storied success of DBG-CWGS-water gardening is something others can seldom imagine or rarely achieve. Frankly, I thought that last year’s exciting and glamorous garden, featuring the Monet Water Garden, was something that would never be matched. It was touching and unreal, like something out of the heavens.

The 2000 Display. The water garden display is equally exciting this year.

Have you seen:
A. the newly created Fly Trap Feast with carnivorous plants?
B. the brilliant ’Cleopatra’ water canna in one of our 51 container gardens?
C. 14 (sorry, we lost three) Victorias thriving in our pools?
D. the glowing new tropical water lily ’Renegade,’ from Florida Aquatics Nursery, displayed with other recent introductions, e.g., ’Moon Dance,’ ’Pink Grapefruit,’ ’Sunny Pink,’ and ’Pink Sparkle,’ in the Fisherman-Trials Garden?

And don’t forget to stop at the pool just west of the Barracuda to see a South American natural hybrid tropical water lily, displayed for the first time in a botanic garden. It is one of DBG’s Wiersema Acquisition water lilies donated by prominent aquatic botanist, Dr. John Wiersema.

Did you know that there are now aquatics in City Park, thanks to a collaboration among DBG, CWGS, and Denver Parks and Recreation? Are you aware that DBG is now home of the International Registrar for Nymphaeaceae, DBG taxonomist Andrew Doran? This provides DBG with a new challenge and opportunity to excel in the taxonomy and registration of water lilies.

DBG Maintenance Shines. Easily overlooked, I choose to highlight, and ask that you please acknowledge whenever possible, the DBG Maintenance staff. It’s a very small staff charged with maintenance throughout the gardens. With regard to the waterways, their cooperation has been excellent; their pride in the gardens is very evident. For the past two decades the water level has fluctuated about 3-5 inches daily, not always the best for our aquatics. Maintenance rectified this last summer and maintained the water at a constant level. Also, for the first time, water remained in the horseshoe pool for the winter, requiring Maintenance and volunteers to attach polystyrene to the pool sides. This year, Maintenance played a large role in our attempts to manage a problem described in the following section. Thank you, DBG Maintenance!

Recent Challenge. In June, an herbicide was applied to eradicate the overgrown water lilies in the Japanese Garden. Although preventive measures were taken, the herbicide subsequently weakened all the plants throughout the interconnected water system. This was especially sad because of the hundreds of hours spent by CWGS volunteers to divide, repot, and move the plants to the pools. With the support and encouragement of staff and volunteers, I felt confident that we could overcome this mishap. Maintenance immediately drained and added fresh water to the upper pools; they also drained and cleaned the Gates Pond. A trip to Berkley Park and generous donations from Florida Aquatic Nurseries and Nelsons Water Gardens (Texas) resulted in our potting and placing 200 water lilies in the water gardens. Very few taxa have been lost, as there are several nurseries that have almost every water lily in the DBG collection. The better news is that the water lilies have rooted, been fertilized, and are doing nicely. We fully expect a grand show for the remainder of the season.

Best of All. Electricity and exciting renovations characterize our gardens. You can now enjoy the Monet Water Garden while having lunch in the shade of the Le Cafe Monet, newly created at the south end of the pool. Beyond the Monet bridge you may spot the bright colors of the Drop Dead Red Border, also new. To the east is Paradise Revisited with bold tropical foliage. And, finally, under construction to the west, is Wildflower Treasures with native flora displayed in earth tone container troughs.

By now it should be evident that, indeed, there is a conspiracy, a conspiracy to work together in creating the most beautiful, fun, impressive gardens, and continues to take the Gardens to new levels. See you at poolside!

Joe V. Tomocik
Aquatic Plant Curator

The Water Garden
Pesticides and Ponds Don’t Mix

By Cyndie Thomas

Over the last two years there have been several CWGS members that have encountered problems with their pond, primarily algae, that turned to chemicals for a “quick fix.” Outcomes were not positive, they included fish deaths, plant decline and death with minimal control of the algae problems. It is not known if the products were a direct cause, but may have created other imbalances that caused the outcomes.

There are many products now on the market to treat algae, clear pond water, and even decrease sludge at the bottom of the pond. After attempting to research these products I found most of them do not list any active ingredients. They are not registered with the Environmental Protection Agency (EPA). Most state they are not harmful to plants or fish, IF used according to directions. Only after obtaining a Safety and Data Sheet on algae control products did I finally find a clue to how they might actually control algae. Their claim is control is through “clumping” the algae, so it can be removed either by a mechanical filter or through siphoning it off the bottom of the pond after it settles. Further research revealed that the primary chemical compound that provides this “clumping” is aluminum sulfate. Aluminum sulfate is alun, we find it in Maalox, pickles and septic sticks. In the pond it works by removing phosphorus, thus eliminating a necessary nutrient for algae to live, causing it to starve. Technically, aluminum sulfate, when added to water, forms solid aluminum particles that sink to the bottom. The solid is reactive and phosphates stick to it. If pH of water is below 6 or on the acidic side, then the aluminum does not form a solid precipitate and remains free, which can be toxic to fish.

In contrast, pond keepers with lush marginal plant and lily growth methodically add plant tabs to each pot to feed their plants once or twice each month. These tablets have various percentages of Nitrogen, Phosphorus and Potassium, but most often the phosphorus is in greatest quantity, as it promotes root growth and blooming. If to control algae a product binds phosphorus, then it is likely going to also affect more than the target algae.

Beyond the products sold for pond use, there are innumerable products to control an equal number of so called “pests” in the landscape. The term pesticide is a generic term for all the products used to suppress pests. Insecticides are used to decrease undesirable insects, herbicides are used to control weeds and grasses, fungicides are used to control mildews and fungi, and rodenticides are used to control rodents. Fertilizers are not thought of as being a pesticide, but can be a contaminant to water causing increased ammonia levels which may effect fish. Too often we assume that if a little bit does good, then a lot more will do better. Not generally the case.

(Continued on page 6)
“Introduction to Aquatic Insects”

Everyone is encouraged to bring an insect from your pond for identification. Place your insect in a suitable container in alcohol. A bug from your garden will be ok.

With the CWGS donation, Andrew acquired a software program, DEscription Language for TAxonomy or DELTA format, to build a character set of diagnostic information (descriptions) for DBG’s waterlily collection, including both Nymphaea species and cultivars. DELTA has the capability of generating natural language descriptions for any plant at whatever level of complexity is required. To the DELTA character set will be added all the information compiled for the IWGS Registration. After being coded in DELTA format, the data can then be linked to the BG-BASE™ database, developed by Dr. Kerry Walter, taxonomic computing specialist at the Royal Botanic Gardens Edinburgh. BG-BASE is a relational collections management database program which has a number of modules, including 1) a plants’ module for recording observations of given plants, their location at DBG, any measurements, etc. and 2) a propagation module for recording the accession number, propagation source (who and where), the type of propagule, the propagation environment, etc.

Andrew’s goal is to make the data, along with graphics (photos/drawings), accessible to individuals, water gardens, and water garden societies as a searchable database on the DBG website. The remainder of the CWGS donation will be used to develop graphics for the website and a “front end” telling and enabling the user, visually, how to query the dataset. In other words, we soon will be able to find descriptions and photos of all waterlily cultivars and species online. And also use the database to generate labels for all the Nymphaea at DBG. There are many possibilities, all of which are very exciting. CWGS had a small but very significant part in launching this project!

Tired of DRY Gardeners’ Hands?

For those who have the problem of their hands drying, cracking, you know working in water and soil increases the severity of the problem.

We first need to recognize that the soaps we use to wash our hands often are the source for the start of this problem. Many soaps contain lye, which is very caustic. Choose a soap such as Dove™ or Caress™, which do not contain lye.

Next the washing and follow up care methods are equally important to the choice of a non-lye soap. After washing the hands and drying, you will need to apply a hand lotion. The time-line is important with the lotion application. For moisture to be contained in the skin, the lotion must be applied within three minutes. The best lotions or creams are Eucerin™ or Aquaphor™. A less costly product that is also effective is Curel™.

— John Mirgon