The Water Garden

May 2006

CWGS Volunteers honored for work at Denver Botanic Gardens

The annual Denver Botanic Gardens Volunteer Recognition Luncheon was held March 29. The luncheon recognizes volunteers for their dedication and commitment to DBG, both in number of years and in hours per year of service.

Six CWGS members were honored for years of service—Doris and Len Freestone, 20 years; Bob Hoffman, 15 years; Carla Littlefield, 10 years; and Bill Powell and Bo Lindsey, 5 years.

In addition, several special awards are presented to outstanding volunteers. One such award is the Bernice “Pete” Petersen Award, given to a volunteer with “exceptional long-term service to Denver Botanic Gardens in advancing the organization’s mission”—someone who is an inspiration to other volunteers, and who has ten years or greater service.

This year, the recipients of the award were Doris and Len Freestone. They have volunteered in the Botanic Garden’s Water Garden division for 20 years, and their dedication, expertise and enthusiasm are known to all the water garden volunteers, as well as many other DBG volunteers and staff members.

The award was presented by CWGS Board member and DBG Volunteer Coordinator Bill Powell, and Joe Tomocik, Curator of the DBG Water Gardens.

Support those who support CWGS!!

International Waterlily and Watergardening Society (IWGS) http://www.iwgs.org
Falls by Fox, Inc.
http://www.fallsbyfox.com
Natural Elements
http://www.techconsult.org/
Natural Elements
Nick’s Garden Center
http://www.nicksgardencenter.com

Included in this issue:
2006 Hardy and Tropical Waterlily Pre-orders
- Bring your order & pay at the DBG Spring Sale, May 13-14 OR
- Return this order by mail with payment

Either way, pick up your orders at the June 11 Sale/Swap, Falls by Fox, 2001 E. 58th Ave., Denver

PayPal will be available this Month!!
Board of Directors

Gary Blubaugh, President 303.989.4464
Pond Tour/Picnic, Water Blossom Festival
glblubaugh@comcast.net

Jim Arneill, Vice-President 303.843.9619
Outreach/Publicity, ‘Get Wet’ Kickoff
arneill4@msn.com

Bill Powell, Secretary 303.355.8098
DBG Plant Sale, Volunteers, Super Smart
wbpow@comcast.net

Ken Lange, Treasurer 303.393.8410
Membership
LangeKL@aol.com

Members-at-Large
Vicki Aber 303.423.9216
‘Get Wet’ Kickoff, Plant Sale/Swap
docvicki@msn.com

Joyce Blubaugh 303.989.4464
Holiday Banquet, Water Blossom Festival
joyceblubaugh@comcast.net

April Hough 303.499.6578
Holiday Banquet, Plant Sale/Swap
aandjhough@hotmail.com

Jonathan Hough 303.499.6578
Pond Tour/Picnic
aandjhough@hotmail.com

Bo Lindsey 303.753.6620
Volunteer Coordinator, Super Smart Sunday
lindcap1@aol.com

Marge Oleson 303.989.4809
Outreach/Publicity, DBG Plant Sale
margeoleson@yahoo.com

Cyndie Thomas 303.755.1885
Education, Newsletter/Web, Plant Sale/Swap
spaash@comcast.net

Michael Thomas 303.755.1885
Newsletter/Web, Membership, Education
newsletter@colowatergardensociety.org

Opinions of the authors in this publication are their own. Any products reviewed in this publication are not specifically endorsed by CWGS, nor does the Society accept any liability arising from the contents of this publication. CWGS requests that other organizations and publications wishing to reproduce articles or portions of articles from The Water Garden please contact Michael Thomas, Editor, regarding permission. Reproductions should credit CWGS and the author.

http://www.colowatergardensociety.org

If you would be willing to help CWGS reduce its mailing expenses for this newsletter, we can deliver your latest issue to you each month in .pdf format via e-mail.

To activate the electronic edition, just e-mail the editor at the address below:

http://newsletter@colowatergardensociety.org

Membership Application

Membership Fees: $15.00 Individual; $20.00 Family
Join or Renew Today!

Make checks payable to Colorado Water Garden Society;
DO NOT send cash; Check or Money Order only, please. Thank you.

Return this form with your payment to:

CWGS Membership
100 Glencoe St.
Denver, CO 80220

(Please Print)
Name(s) ________________________________________________
Street __________________________________________________
City ____________________________ State _______ Zip ________
Home Phone (          ) _____________________________
E-Mail __________________________________________________
Signature _______________________________________________
Date ___________________________________________________

Pond Experience (Beginner) _____ (Some Skill) _____ (Pro) _____
Contact me concerning volunteer opportunities I have checked below:
Plant Exchange/Sale (June) ____ Water Garden Spectacular (August) ____
Pond Tour (July) _____ Holiday Party (Dec.) _____ DBG Volunteer _____

http://www.colowatergardensociety.org

1st PLACE
Newsletter Contest/Critique 2004
International Waterlily and Watergarden Society (IWGS)

OR

If you would be willing to help CWGS reduce its mailing expenses for this newsletter, we can deliver your latest issue to you each month in .pdf format via e-mail.

To activate the electronic edition, just e-mail the editor at the address below:

http://newsletter@colowatergardensociety.org
Edible Water Plants

Water plants haven’t always been grown to simply show off their beautiful blooms or striking foliage. There was a time, and that time still exists in some parts of the world, where water plants were as important to the daily nutritional requirements of the inhabitants as fruits, vegetables and other terrestrial plants.

This summary is not intended to be all-inclusive, and use caution when selecting plants - even if the plant is safe to eat, parts of the plant may not be safe. CWGS is not responsible for the content of this article. Full references can be found at the end of the article.

Cattails - In early summer, the new flowers appear as green bloom spikes (soon to be the decorative brown cattail stalk). These tender spikes make an excellent vegetable when still young and green, requiring only 10-20 minutes of cooking. They can also be roasted, buttered, and eaten like corn on the cob.

As these early green spikes get taller, a very fine yellow pollen forms at the very top of each flower stalk. This pollen can be gathered, sifted and used either with regular flour, or can be used alone to make yellow-colored bread, muffins, and pancakes.

In Winter and Spring, the young cattail shoots can be eaten. Pulling back the outer green leaves, grasp the white inner leaves of the young shoot and briskly pull it up. The bottom 12 inches of the shoots can be eaten. The outer fibrous layers should be pulled back to get to the tender insides. This is probably the best part of the cattail, described by various people as tasting like celery or cucumber.

When the fully-mature brown flower spikes are broken open, all the fluffy hairs and small seeds can be pressed into a wound to stop bleeding. The down is also used to stuff pillows and blankets, or as excellent fire tinder. The long erect leaves can be used in making chairs, sandals, mats and other items. The stalks can be cut and used as chopsticks.

Horsetail - Although horsetails are not an important food source, the very young, newly-emerging shoots (about an inch long and as large as your little finger) can be eaten if first carefully peeled of their thin outer layer of gritty skin.
Edible Water Plants

Best gathered in Spring, horsetail is highly regarded by herbalists for its medicinal value. The shoots, used fresh or dried, are ground and cooked in water to make a tea. The tea is then used for cases of nervous breakdown, insomnia, or purifying the blood. To treat any wounds, cuts, sores, swellings, or rashes, one is told to wash the area with horsetail tea and then apply horsetail compresses. The tea is also useful for bad breath, stuffy nose passages, and some cases of extreme tension.

Horsetail can cause mild poisoning if grazed in large quantities by horses, cattle, and sheep, although it doesn’t kill. Symptoms include weakness, nervousness, staggering, and unsteady gait. Indians and early settlers used the silica-covered stems to scour pots and pans. Many campers do this today.

Watercress - Can be eaten in salads or lightly cooked or gently fried. An excellent source of vitamins and minerals, it includes a substantial portion of vitamin C, and is one of the best sources of vitamin E (which helps the body use oxygen and increases physical endurance). Eaten raw in salads, it has an enjoyable peppery or mustardy flavor. Watercress, boiled like spinach and seasoned, makes a tasty dish. The leaves can be dried, powdered and used as a seasoning to flavor foods. Watercress is used by the herbalists as a diuretic, expectorant, and for gout and stomach aches. A tea is made from the leaves.

During Roman times in Italy and other Mediterranean areas, it was considered good for deranged minds. Pliny (23-79 AD) lists over 40 medicinal uses for watercress, including the knowledge that the smell of burned watercress was supposed to drive away serpents and neutralize the venom of scorpions. To other ancients watercress was something to be avoided. According to the Greek physician Oioscorides (40-70 AD), the seed of these plants was bad.

For sale
Two Koi, 20-22” long, one spectacularly colored, multi-orange, white and black, the other more subdued in color. Please contact Earl Ammerman in Northglenn at (303) 452-6548.

10 Commandments of Maintaining Optimum Water Quality

adapted from “Why Test Water?”, The Wardley Corporation

1. Know the requirements of the species of fish you keep
2. Be sure your filter is adequate for your fish population and size of pond
3. Regularly maintain your filtration system
4. Test water periodically, especially when starting a new system
5. Record test results to determine trends that might require later attention
6. Do no overfeed or overcrowd
7. Remove chlorine from all water you add to the pond
8. Perform regular partial water changes
9. Be sure pond test chemicals are fresh
10. Store test kits in a cool dry place, away from children and pets

These commandments apply more to a new, unseasoned pond with a new fish population. After the pond has seasoned and you have more experience, you “know” more about how your pond and its environs should appear.
**Ponds vs. Grass**

Which takes more water to maintain, grass or a pond?

by Cyndie Thomas

Updated for water gardening season 2006

As we begin a new gardening season, 2006 will still go into the record books as a drought year. At such times, many people question, then, why anyone would build a water garden in their yard? The answer is relatively simple to most of us water gardeners - water gardens require less water through a typical drought season than a bluegrass lawn.

First, we must make some assumptions related to pond size, irrigation efficiency, evaporation rates, etc. For the purpose of this example we are using an average 11 ft x 16 ft pond with a 10 ft long stream, an evaporaration rate of 1/2" per day, and 50 percent irrigation efficiency (it will take 1" of watering to cover the lawn with 1/2").

When a pond is installed, much more turf is removed than just the 11 x 16 pond area. Most homeowners will include a large berm, as well as multiple new planting areas which can be drip-irrigated much more efficiently than turf. We are assuming the total sod removed will be 3 times the pond area and the pond surface will take up 75% of the 11 x 16 footprint.

**Gallons of Water Required for Grass**

(\textit{every 3 days})

1" water per 3 days x 1 foot per 12" x 396 square feet x 7.5 gallons per cubic foot = 247.5 gallons every 3 days

**Gallons of Water Required for a Pond**

(\textit{every 3 days})

1/2" water loss per day x 3 days x 1 foot per 12" x 132 square feet x 7.5 gallons per cubic foot = 123.8 gallons every 3 days, a 50% water savings versus grass!

As with any example, your results may vary. This example clearly shows that replacing part of your lawn with a pond will increase water conservation. One homeowner reported a 28% decrease in overall water usage after adding a new pond last year.

When a pond is installed, much more turf is removed than just the 11 x 16 pond area. Most homeowners will include a large berm, as well as multiple new planting areas which can be drip-irrigated much more efficiently than turf. We are assuming the total sod removed will be 3 times the pond area and the pond surface will take up 75% of the 11 x 16 footprint.

**Edible Water Plants**

from previous page

for the stomach, harmed the spleen, and killed the unborn child, although they would expel worms. He also felt the seeds of watercress were a good aphrodisiac, but Pliny said they had the opposite effect.

**Lotus** - The seeds or duck acorns have a hard shell but, once open, the starchy contents are edible. You can roast the fresh seed like popcorn or boil them. They are very pleasant eat- ing, tasting much like boiled chestnuts but not quite so sweet. The entire plant is edible, especially the large, starchy, tuberous roots, which sometimes weigh half a pound and have a sweet potato flavor.

**Water Hyacinth** - Only the very young- est plant parts should be eaten raw, since a prickly irritation develops in the throat. All the parts must be thoroughly steamed or boiled before eating. Due to the plant’s fibre content, the young plants are always preferred. The steamed stolons are the most tender and desirable part of the plant, tasting in texture to steamed asparagus. Water hyacinth researcher Godofredo Monsod has developed a method of producing a protein concentrate from the plant. The resulting flour is a rich source of vitamin A, B1, B2, niacin, protein and chlorophyll.

The fibres are used for making more expensive, fine papers such as currency, security paper, and others.

Water hyacinth can be introduced into polluted bodies of water to filter the wa- ter of heavy metals - lead, silver, mercu- ry, cadmium, cobolt, strontium, zinc, and aluminum. Hyacinth can also be harvested and digested in a methane digester for the production of household biogas.

**Arrowhead** - The starchy and nutritious- ly important parts of the arrowhead are the tubers that form at the ends of the of ten long, narrow roots, frequently several feet beyond the plant. Mature after mid-summer and in the autumn, these are also nourishing throughout the winter. The tubers, which have a milky juice, are edible raw. They have a bitterness which can be dissipated by cooking. Roasted, baked, boiled, creamed, French-fried, or scalloped, they can be handled like new potatoes, although their sweetness and smoothness gives them more of a water chestnut flavor.

**Sweet Flag** - Candied sweet flag has somewhat the same aromatic pungency of candied ginger. Once regarded as a country aid to digestion, raw sweet flag is excellent in the springtime, when the partially-grown flower stalks stems are edible, and the interior of the young stalks and half-formed leaves are sweet and tasty enough to be taken home for salads. The spicy fragrance of the sweet flag’s leaves were a major reason why our pioneer ancestors chose to spread them on

**Coming in future issues: In-depth profiles of the three largest water garden nurseries & suppliers in Texas**

Lone Star Nursery, Bryan, TX  
Nelson Water Gardens, Katy, TX  
Strawn W.G., College Station, TX
Edible Water Plants

from previous page

the floors of their cabins. They are also natural insecticides, a property that is concentrated in the dried and powdered roots of the plant.

Wild Rice - Although it is ordinarily too precious to be used indiscriminately, it will improve any recipe calling for domestic rice. You can even pop it, placing a small amount of unwashed seeds in a fine sieve, immersing in deep hot fat until the kernels pop, drain on paper towels, salt and serve hot.

If the home-gathered wild rice is not well washed in cold water before using, it is apt to have too much of a smoky flavor.

Nuphar (Yellow Spatterdock) - The roots and seeds are richest in starch from autumn to early spring. The roots can be roasted or boiled, after which they peel easily. The sweet interiors are usually cut up in soups and stews.

The round seed vessels become filled in late summer and autumn and are easily gathered, fried and shelled. The seeds resemble popcorn in taste. The Indians ground the poppings for flour.

Other edible plants:
- Marsh Marigold
- Green Arrow Arum
- Golden Club
- Water Parsley
- Great Burrush
- Pickerelweed
- Chufa, Yellow Nut Grass
- Marsh Mallow
- Bur Reed
- Manna Grass

The list goes on and on ••••••

Before fixing any water plants please consult a book! Some plants, or parts of plants, can be poisonous.

Source Materials:
- Guide to Wild Foods, Christopher Nyerges
- Field Guide to Edible Wild Plants, Bradford Angier
- Edible Wild Plants, Oliver Perry Medsger
- Field Guide to North American Edible Wild Plants, Peter A. Dykeman
- Wild Edible Plants of the Western U.S., Donald R. Kirk

Society News

New Memberships

Jack Curtin, Denver
Chris DeMay, Northglenn
Bill & Brinda Henley, Louisville
Bert Myers, Lakewood
Anna Nunn, Denver
Deirdre Parker, Boulder
Herb Reynolds, Aurora
Alex Richardson, Aurora
Raymond & Kathleen Tocke, Fairbanks, Alaska

Treasurer’s Report

Bank Balance

March 12 $14,775.07

Got bugs?!? CSU seeking volunteers for insect study

This summer, researchers from Colorado State University would like to do a survey of water garden insects in the Denver Metro area and are seeking volunteers. Water gardens have their own unique insects, including those that feed on aquatic plants, but also a myriad of unusual species that live in and around water.

A graduate student in Entomology from Denver would periodically visit area gardens and collect samples. Together with the Taxonomist at CSU and Whitney Cranshaw, CSU Entomologist, they would determine what insects are present, photograph them, and collect information on their seasonal biology.

There is no funding to support the program. If you wish to participate, contact Cranshaw via e-mail: bugbooksdirect@yahoo.com or Whitney.Cranshaw@Colostate.edu