# Volume 34 Number 6 **August 2017**

# The Water Garden

Journal of the Colorado Water Garden Society

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### **Pond Side Meeting & Potluck**

**Burkert Residence Northglenn, CO** 

Saturday, August 26<sup>th</sup> 12:00 pm – 2:00 pm

Ken & Teresa's Back Yard with Various Container Water Gardens, (photo courtesy of Teresa Burkert)

# **Summer Pond-Side Program**

# by Teresa Burkert

Are you considering adding one or more container gardens to your water feature? It's easy to do! Ken and Teresa Burkert invite you to enjoy some of Ken's 26 varieties of hardy water lilies and hear his tips and tricks about planting container gardens. Canna lilies, nymphoides, water hawthorne, and lotus are all grown this way.

Ken and I will be hosting the second Pond Side program scheduled for Saturday, August 26<sup>th</sup> from 12:00 pm to 2:00 pm. Our house is located at 9862 Alamo Drive in Northglenn. The nearest main intersection is Huron Street & 99<sup>th</sup> Avenue. For more detailed directions, see the CWGS website at:

http://www.colowatergardensociety.org/Category.cfm?CategoryID=41.

This meeting will be a Pot Luck. The Club will provide drinks. Please bring a main dish, side dish, salad, or dessert to share. Also, please bring a chair for yourself and any guests.

For more information, please contact Ken or Teresa Burkert at (720) 219-6480 or (720)-219-6481 or via e-mail at ikbdenver@gmail.com or terburkert85@gmail.com.

Online at: www.colowatergardensociety.org

2 Club Governance

### 2017 Board of Directors:

<b>President</b> Brenda Parsons-Hier	303.278.2106
Vice President Vicki Aber	303.423.9216
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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: Balance as of August 18, 2017 -\$12,556.48

### 2017 Committee and Event Chairs:

<b>Newsletter Editor</b> Dorothy Martinez	303.279.3137
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Pond Tour / Picnic Rebecca Nash Dennis Weatherman Sue Weatherman Fran Hoffman (Picnic) Vicki Aber (Picnic)	303.921.8144 303.457.1783 303.457.1783 303.978.0124 303.423.9216
Water Blossom Festival Tamara Kilbane	303.865.3556
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### Remember...

Dorothy Martinez

**Hudson Gardens' Volunteers** 

Unless you have specifically requested receipt of The WaterGarden in paper form, you will receive it electronically.

303.279.3137

To request a change in delivery, report a change in email, or to report a problem with downloading of the electronic journal, reply to Dorothy Martinez:

dorothy.martinez@colowatergardensociety.org.

Monet Pond at DBG, (photo courtesy of Bill Powell)



Romantic Pond at DBG, (photo courtesy of Tamara Kilbane)



Teresa Burkert working in the Monet Pond at DBG, (photo courtesy of Bill Powell)

# **August Hosts a Festival!**

### by Bill Powell

Lovely weather and a beautiful aquatic display delivered a steady stream of visitors to the 2017 Water Blossom Festival. A joint event co-sponsored annually by CWGS and Denver Botanic Gardens, this celebration of all things aquatic is timed to coincide with the height of blooms in DBG's impressive waterways.

This year's Festival included public outreach and general pond-keeping information, a small but popular display of carnivorous plants that really appealed to kids, and free tours focused on differing aspects of aquatics. Jim Arneill, long time CWGS member and Gardens' Docent, led tours of the Aquatic Collection, examining recent hybrids and the processes behind the spectacular display. Bill Powell conducted a tour that was focused on the interface of native prairie and water and how that juncture creates an environmental niche that is especially valuable in the dry west. (If this subject interests you, read the accompanying article "The Fluid Edge" beginning on page 4. It's drawn from Bill's tour.)

In addition to the Festival booth, CWGS members and DBG Docents also operated the Gardens' new "Aquatics Cart." It's a pond-side rolling information center complete with displays, books, and lots of answers to questions that intrigue visitors. This Festival Saturday, the cart was located near examples of Victoria's and Euryale's ferocious leaves that had been trimmed and overturned to reveal the plants' impressive radiating and prickly structures.

The Festival brought out a lively mix of old and new friends. Former DBG Aquatics Curator Joe Tomocik was on hand along with Tamara Kilbane, the current Senior Horticulturist in charge of water plants. Club members dropped by, sprinkled among daily visitors to the Garden. Best of all, we captured a few new CWGS members and volunteers to the world of water gardening.

Restored Riparian Landscape near the Confluence of the Platte River & Cherry Creek, (photo courtesy of Bill Powell)



Native Milkweed & Willow Thrive in the Platte River Greenway, (photo courtesy of Bill Powell)

# The Fluid Edge

### by Bill Powell

The effects of water seem ordinary enough, even in the thirsty west, but consider the native landscape that was Denver before wagons rolled in from the east. Today Denver is verdant with grass lawns, a continuous canopy of deciduous trees, and a renewed native greenway along the Platte. We forget that the front range was once largely a rolling, mostly grassy landscape - the last gasp of the high plains prairie. We also forget that our familiar modern landscape is almost entirely artificial in its execution and sustenance.

Certainly within the original native grass plain occasional trees and woody vegetation existed here and there. The restored Platte River greenway is a wonderful recreation of this exception to the indigenous dry rule - a wet edge to an otherwise semi-arid landscape dominated by grasses. Historically, native trees were few and limited in species as well as location. The largest trees were often plains cottonwood or hackberry that grew along streams and in seasonal drainage ways sheltered between the rolling thighs of the predominating prairies. Below the few trees, rooted in comparative damp, grew buttonbush, native plum, and persimmon.

Evidence suggests that these natural riparian (meaning river or streamside) habitats in the high plains were once more extensive than today. Man's presence has reduced natural greenways while, ironically, increasing the extent of modern, artificially supported green lawn and urban canopy.

Prior to European settlement and the introduction of horses it's thought that the ancient ancestors of Native Americans kept more to the plains, crossing river basins but rarely settling there. Perhaps the grazing and watering needs of horses introduced by the Spanish encouraged native Americans of the 17<sup>th</sup> and 18<sup>th</sup> centuries to settle closer to the water's edge. Streamside settlement, which led to gathering of woody plants from the riparian setting, may have begun the reduction of both the extent and diversity within natural greenways. Other Native practices, like the burning of the plains to encourage fresh spring growth so as to attract grazing bison, demonstrate the way in which man's presence has progressively altered the landscape.

# The Fluid Edge

(continued from page 4)

With the arrival of European settlers, the landscape changed more quickly as water use conformed to habits and preferences of the eastern settlers who, after all, came from other wetter environments. Congress Park, which was settled in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, bears no resemblance to the Plains Garden that Denver Botanic Gardens has re-established to replicate the original Denver landscape. Landforms, architecture, and the landscaping of Congress Park instead mimic areas of Chicago, itself a reimagining of European values and circumstance.

Despite warnings from the Native Americans concerning the dangers, the Eastern immigrants often settled by rivers and wet weather streams. Denver was founded at the "Confluence" of Cherry Creek and the South Platte River, an area that has flooded as recently as two years ago, despite restoration along the Platte.

Modern engineering practices, based upon increased efficiency in storm water transport, sought to solve problems of cyclical flooding by "channelizing flow". Remnants of this practice (and its consequence) linger at Chatfield Farms, Denver Botanic Gardens' other property near the Chatfield Reservoir. What had been a shallow, meandering wet weather stream was made by the Corp of Engineers to run straight and deep. Sounds logical, doesn't it ... that if you have a problem with too much water, simply drain it off as quickly as possible? And so far as hydrologic transport efficiency was concerned, channelization worked, albeit with unfortunate effects downstream. But channelization also had other adverse consequences that became evident years later when vegetation, often non-native species also introduced by man, exploited the disturbed "niche" created by fast moving water.

Non-native species, because they have no natural competition, often spread to become monocultures that support a singular network of plants and animals, bereft of diversity. Reducing the variety within the aquatic and riparian niches, it turns out, adversely affects water quality by cutting down on the diversity of organisms that can remove pollutants ranging from toxic metals to simple sediment.

Channelization also slows infiltration of stream water into soil, reducing natural replenishment of the aquifer below. The impact of this loss in "re-charging" ground water might be intuitively apparent: less water for wells and agriculture, for instance. Less obvious is the potential loss of basic soil stability. Some of the first channelization in the new world took place in present day Mexico City, the site of Tenochtitlan, the center of Aztec culture. At the time of the Spanish arrival in the second decade of the sixteenth century, Tenochtitlan was an island citadel in Texcoco lake, the vestigial remaining bit of what had once been a huge sub-alpine lake trapped by mountains. (The San Luis Valley of south central Colorado near Alamosa, is a similar high mountain playa.).

# The Fluid Edge

(continued from page 5)

NEW!

The native Aztec population and their predecessors the Nahuatl people managed and even exploited their boggy setting. The conquering Spanish sought instead to recreate their European home; they paved plazas and channelized water. Unfortunately, increasing pavement and speeding storm water more quickly into the lake led to more frequent and sustained flooding. One Spanish colonial flood was recorded as lasting more or less continuously for five years!

Today Mexico City is the largest metropolis in the Western Hemisphere. Lake Texcoco is all but vanished having been drained, consumed, filled in, and built up following European models. Little of the Aztec footprint remains except for a remnant of Chinampas, the native semi-aquatic gardening system that once supported the Aztec population and that now hangs on as a tourist attraction. And now a great portion of Mexico City's center is subsiding. Flooding is controlled, but the loss of water in soils has led to widespread differential collapse of soil structure. Both modern and historic buildings are cracking and sinking into the deep alluvial basin of the ancient playa.

Failure to live in harmony with the resources and rhythms of an ecological system has consequences... a lesson a number of American cities in the dry west are now grappling to understand and plan around. Denver may not be quite as artificial as Phoenix or Las Vegas as we've taken steps to conserve and restore our native water along the Platte. But the fragile interface between wet and dry, growth and sustainability, commercial efficiency and conservancy remains dimly understood and poorly supported by public policy.

# **New and Returning Members for June - August 2017**

June 2017August 2017Keith HarmonRenewalKim Montenegro

Reith Harmon Renewal Kim Montenegro

Denver, CO Denver, CO

Karen Lee Renewal Jerry Swanson NEW!

Centennial, CO Dacono, CO

Chuck & Jean Mitton Renewal Englewood, CO

Joel Hamm & Carolyn Blakley Renewal

Lafayette, CO

**July 2017** 

Bill Powell & Bruce Polkowsky Renewal

Denver, CO

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8 Market Place





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Annual advertising in the newsletter also includes a listing on the CWGS website with an active link direct to your commercial webpage.

We also run single-event ads.

For details regarding rates, sizes, and formats of ads, contact Dorothy Martinez dorothy.martinez@colowatergardensociety.org

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Membership Fees \$15.00 Individual; \$20.00 Family



From... FIRST CLASS MAIL

### The Water Garden

c/o Dorothy Martinez, Editor 14837 W. 57<sup>th</sup> Drive Golden, CO 80403-3001

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

### THIS YEAR

DBG, 6:00 PM - 9:00 PM

A calendar of CWGS Activities and Events:

August 26: Pond Side Program & Potluck Burkert Residence Northglenn, CO 12:00 PM – 2:00 PM

Sept. 21: Potluck, Annual Board Elections, Presentation featuring a round-robin discussion on winterizing your pond, & 2018 Planning Meeting – Plant Society Building, DBG, 6:00 PM –9:00 PM Oct. 19: Potluck, Presentation featuring Jim Arneill on the architecture of Jules Jacque Benois Benedict, & 2018 Planning Meeting – Great Room, Waring House, DBG, 6:00 PM – 9:00 PM Dec. 14: Holiday Banquet & Volunteer Recognition, – Plant Society Building,