



Seeing Green: The Unexpected Value of Living Among Plants

by Michael Plotkin

*Give me a land of boughs in leaf,
A land of trees that stand;
Where trees are fallen there is grief;
I love no leafless land.*

A.E. Housman

Plants delight us deeply. Beyond their obvious value as sustenance, medicine, and agents of everyday pleasures, from potpourri to tea to coffee, we also apparently find them necessary in less distinct ways. How to explain, for example, the impressive amounts we dole out to decorate our landscapes with plants—over \$10 billion annually in California alone, an amount equal to nearly half the expenditure on staple food agriculture. We also commit resources to maintaining parks, greenbelts, and urban forests. The American River Parkway is a prime example. The cultivation of plants for their beauty alone—once a distraction reserved for the wealthy—is now so commonplace that a recent survey ranked it as America's most popular leisure activity (beating out fishing, reading, and television).

But for many of us, finding ourselves among plants is more than a frivolous expenditure of time and money, or a way to emulate the rich; we harbor the notion, like the designers of medieval hospitals and monasteries, that plants have the magical power to heal, to restore, to soothe.

Surprisingly, given the nearly univer-

sal reach of such beliefs, science has only recently begun to investigate the effect of plants on our psychology. The results have been astonishing. One study was so simple in design and had such amazing results that it was accepted by the prestigious journal *Science* in 1984 (Ulrich, R.S. 224(4647): 420-421). Several dozen patients recovering from surgery in a hospital were given rooms with a view of greenery. Several dozen

other patients were given rooms with a view of a wall. The greenery-view group had shorter stays, fewer negative evaluations from nurses, and required less pain medication than the wall-view group. Simply seeing greenery through a window apparently had a profound impact!

Other studies have supported these findings. One study found that a view of greenery through a window signifi-

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American River Habitat Restoration

By Ed Littrell

Recent levee reconstruction along the lower American River has spotlighted another aspect of the river. As a permit condition for some of the engineering work, vegetation is being replaced along the river, especially its lower portions. In addition, non-native shrubby plants such as red sesbania, giant reed, and pampas grass are being removed. Weedy annual plants that you may have noticed here include yellow star thistle, mustard and wild radish.

Several organizations are involved in these removal activities, including the "Weed Warriors" (a section of the Sacramento Valley chapter of the California Native Plant Society), U.S. Army Corps of Engineers, Sacramento Area Flood Control Agency, Sacramento County, and others. At times, private contractors are hired to plant riverside areas such as the levee across from Cal-Expo and the slope adjacent to the American River Fish Hatchery.

Until the time of the gold rush, the American, Feather, Sacramento, and other rivers in the area were not static or fixed within their banks. They would "meander" back and forth within their flood plains. Sutter's Fort, for instance, was on a slough or former meander of the American River. That site was selected because it was high enough to avoid most floods, and it was convenient

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PARKWAY FUNDING CHALLENGE

American River Parkway support groups pressed efforts this summer to develop new funding sources to maintain the health of the Sacramento region's treasured natural resource. A county funding crunch has cut the 2004-05 parks budget by 20 percent or \$665,000, resulting in, among other things, elimination of one parkway ranger position and one Effie Yeaw Nature Center position, and impacting parkway restroom and other maintenance. And at *The Acorn* deadline in late August, parks advocates had their fingers crossed in hopes that final resolution of the state budget would not wound the 23-mile-long parkway further.

Meanwhile, the longstanding stakeholders group known as the American River Parkway Funding Working Group changed its name to the Regional Parks Funding Solution Group and announced a fund drive to raise \$50,000 to conduct a poll to measure public support for a new tax to support regional parks including the Parkway. Jane Hagedorn, one of the group's founders, explained that it had become increasingly apparent that other prized parkland, such as Mather, Gibson Ranch, Cosumnes River, and Deer Creek, and even some in neighboring counties, were also threatened by threadbare funding.

The group hoped that a poll would indicate which of various funding options should be pursued. For instance, a tax by a regional park district would require two-thirds voter approval, while a benefit assessment district could be approved by a simple majority of property owners.

And the newly-formed American River Parkway Coalition of representatives from ARNHA, Save the American River Association and American River Parkway Foundation continued every-other-week meetings to develop grassroots funding ideas. The brown-bag lunch sessions are open to the public, starting at noon, Sept. 3, and 17 and Oct. 1, 15, and 29, and every other Friday thereafter, at the ARNHA office 3710 Mission Ave. (at Engle Rd.), Suite 23, Carmichael. ■

Make Your Voice Heard!

"I spend all my time working for the environment, I can't waste time on politics!" If this sounds like you, think again! All the time you spend writing letters, attending meetings, even testifying before boards and committees is of little value if you've let the wrong people be elected to office. NOW is really the critical time! Find out where the candidates stand on the issues that are important to you, then vote for the ones who'll be on your side! Work for them, donate to them, help in any way you can. As someone said of war and generals, Politics is too important to be entrusted to Politicians!

—Bill Dillinger ■



Sacramento biologist/author/artist Tim Manolis's video presentation about Dragonflies and Damselflies attracted the biggest turnout yet for one of ARNHA's new public forums. A total of 115 people heard the longtime ARNHA member describe in words and pictures the fascinating life history of the insects in his appearance at the Effie Yeaw Nature Center Assembly Building July 27. ■ **Dragonflies and Damselflies**

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cantly predicted job satisfaction for office workers. The more greenery the workers saw, the more they liked their jobs, the lower job stress they reported, and the fewer sicknesses they suffered. In another study, researchers reported that people performed 12 percent better on a computer task when a potted plant was present in a windowless room compared with the same task in a room with no plants. The participants in this study were unaware they were being tested, and so could not have known that the plant in the room was relevant to their performance. The improvement was apparently an unconscious response to the plant's presence.

The Human Environment Research Laboratory (HERL) at the University of Illinois (herl.uiuc.edu) has conducted a number of fascinating investigations of the impact of vegetation on urban communities. One of their major findings is that neighborhoods in Chicago with greater amounts of vegetation have lower rates of domestic violence, and fewer crimes in general. This finding challenges the advice of most police departments, who claim thicker vegetation increases crime, and suggest removing vegetation for safety. Researchers at HERL have also documented a range of other greenery dividends, including greater self-discipline, better cognitive functioning, fewer Attention

Deficit Disorder symptoms, closer communities, higher property values, and happier people.

Clearly, the research to date, though still scanty, agrees with our intuition; plants somehow confer huge blessings on us. How they do this is not clear. We can rule out the direct influence of chemicals as many of the documented effects occur as a result of nothing more than the sight of the plants. Some researchers have suggested that we learn to love plants in childhood, and that their salubrious influence is a conse-

quence of the comfort we feel for the familiar. This theory fails to explain the apparent impact of plants on inner city youth.



A more likely explanation involves our long history of coexistence with plants. Our ancestors evolved into people on the savannas of Africa. To the earliest humans, the scattered groves of trees in the vast grasslands would have meant safety, food, water, and other benefits. Plants became powerful signals to us, and though divorced from their original meaning, we still thrill to them, as

must our forebears. Modern life has erased the content but not the *frisson* of the message. The implication of plants' power for us is clear. We have in plants a potent way to sustain both our bodies and our minds and we have in the American River Parkway a great place to be sustained. A visit to the Parkway can improve our cognitive functioning, heal our illnesses, restore our physiological balance, and inspire peaceful feelings. Best of all, we don't have to exercise vigorously or go great distances to benefit. We may simply have to look at the beauty that exists there. Our time spent among plants connects us to an essential part of our human identity.

Science has confirmed what we have known for millennia—vegetation is not a pleasant luxury but vital to our wellbeing. And what more compelling, less fraught, overwhelmingly happy and profoundly fulfilling pastimes are given to us than to consider the lilies of the field, tiptoe through the tulips, roll in clover, or stop and smell the roses? ■

Michael Plotkin, a frequent contributor to the Acorn, teaches classes in gardening, native plants and garden design. He is currently at work on a botany textbook and a bilingual book on Mexican gardens

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to move goods from the fort by water down the American. Until recently, there were giant cottonwood trees at the fort that sprouted along its slough 150

“A “weed” is a plant out of place, so for biologists, red sesbania from South America, pampas grass from Argentina, and giant reed from Europe are weeds.”

years ago. Some of our parks such as South Land Park and Southside Park have lakes that are old sections of the Sacramento River.

But as we put up levees to protect ourselves from flooding, we fixed the location of the streambeds and lost the natural beauty of the vegetation that grew along the river courses. Vegetation was removed as a by-product of construction and to facilitate inspection of the levees. This problem has been

known for a long time among biologists who study the effects of flood control, but attempts to prevent vegetation loss have only been partially successful.

Times change, and now we see more on-the-ground projects to restore streamside or “riparian” vegetation. One of the more interesting is the construction of gabions, or cages filled with rocks, and stepped slopes on the south or left bank of the lower American River across from Cal-Expo. This approach puts big woody vegetation on the terraced levee, but because of the steps keeps the tree roots away from the strong center of the levee. Using methods like this protects the integrity of levees, but also provides a suitable growing environment for woody vegetation.

A method used in the Sacramento-San Joaquin Delta involves placing a dirt bench at water level, extending out from

the levee cross section. Usually the bench is protected with riprap, or occasionally with wooden boxes containing tree pieces.

Another aspect of the re-creation of the native plant groups of our rivers is to remove noxious, non-native plants from riverbanks. A “weed” is a plant out of place, so for biologists, red sesbania from South America, pampas grass from Argentina, and giant reed from Europe are weeds. Giant reed was intentionally brought here to protect stream banks. It turns out that it doesn't, and the plants can be washed off stream banks or levees, leaving a big hole, and a weak spot. It also doesn't support native wildlife. So groups such as the California Native Plant Society and its subgroup, the “Weed Warriors,” have weeding days along the American River and other localities. Join them if you can by calling (916) 447-2677; sacvalleycnps.org.

The next time you're biking or walking along the American, look for flagged bushes or trees. Or look for trees partly

enclosed by wire cages to protect them from beavers, squirrels and deer. These are likely to have been planted there as part of these rehabilitation projects. Hopefully, in the near future, we'll have a return to the groves of trees found here in olden times. ■

Ed Littrell, a member of the ARNHA Associate Board of Directors, is a retired California Fish and Game Department biologist.



San Juan Unified SD students participating in a National Youth Service Day event in April of 2002 remove Spanish broom near the American River below Sunrise Bridge. Photos by Frank Wallace, Weed Warriors Coordinator.



This is the largest Red Sesbania stump ever removed from the parkway! AmeriCorps volunteers removed this from the edge of the American River near Rio Americano.

ARNHA PUBLIC FORUMS

Public discussion of plans for 60,000 square foot Indian Museum

Slide Presentation of the river's seasons, wildlife and conservation issues by Jim Jones, an American River icon

Not one but two outstanding programs will be presented at an ARNHA public forum **Tuesday, Sept. 28 at 7 p.m.** at the Effie Yeaw Nature Center Assembly building. Proponents for a new state Indian museum here will outline plans for the 60,000 square foot structure. And Jim Jones, tireless activist for Lower American River protection and nature photographer, will give a slide presentation of the river's seasons,

wildlife and conservation issues.

The museum will be known as the California Indian Heritage Center and will be under the jurisdiction of the state Department of Parks and Recreation in cooperation with a non-profit group that will represent Indian peoples.

Three sites are under consideration for the facility: two on the Lower American River, Folsom Lake State Recreation Area overlooking Lake Natoma at Iron

Point, and upriver from Discovery Park near Northgate Boulevard, and the third at Stone Lake south of Freeport next to the Sacramento River. A final selection is expected a few days after Sept. 28.

An initial \$5 million in voter-approved parks bond monies was allocated for the project this year to fund the preliminary phase. It will be designed to be a center for Indian people from throughout the state to come together, celebrate and preserve their past and promote the continuation of their traditions. It also will let California students, teachers and families, along with out-of-state visitors, learn about the history and heritage of Indian peoples.

Jim Jones was a rocket scientist at Aerojet and avid fisherman in 1968 at the outset of Bureau of Reclamation plans to divert Lower American River water at Nimbus Dam via the Folsom South Canal Water to the East Bay Municipal District in Alameda County. "I couldn't believe they could let that happen," he said, and joined with the Save the American River Association in a protracted legal fight that ended with stopping construction of the canal at the Rancho Seco nuclear power plant.

Jones, now retired and a consultant to Aerojet, went on to be president of SARA, founder of the American River Parkway Foundation, and serve as co-chairman of critical bond issues to buy land for the American River Parkway in 1972 and to stop all sewage discharges into the Lower American in 1981. In recognition of his achievements, the former gravel company bridge across the river below the Sunrise Boulevard bridge was named "Jim's Bridge."

Discussing his Sept. 28 program, Jones said: "Besides showing the seasons and the critters, I'll talk about how we can't take anything for granted about the river. We have to be vigilant." ■

PAGES FROM THE ALMANAC

Garden engineer

Draped between two branches of a willow is a slender silk web, illuminated by the sun, orb-shaped, a masterpiece of symmetrical beauty. Right in the center climbs the black-and-yellow spider that created the web, waiting for an unwary fly or mosquito to happen by.

This is a prime time of the year to admire the handiwork of the web-spinning engineer in gardens, parks and along the rivers. They're among the few animals that make traps to snare their food. And though the traps appear gossamer-thin, they have enormous elasticity and tensile strength greater than steel. It's said that a rope of spider's silk one inch thick could suspend 74 tons.

Very likely the garden spider built its web under cover of darkness. The silk is produced by glands in the abdomen. The spider uses its hind legs to draw the silk from "spinnerets" located on the undersurface near the abdomen. As soon as the silk comes forth it hardens quickly. The spider attaches a sticky strand to one branch, then fastens the other end to another branch. It then crosses back and forth over the bridge, putting on additional strength to hold up the web. A box-shaped frame is created, then a series of spokes leading to the center, followed by sticky spiral strands from spoke to spoke.

The female usually spins the web and catches the food. The female also produces silk to serve as a large sac in which to protect the eggs from the weather.

Thanks partly to poor public relations, such as the widely publicized incident involving Miss Muffett, the spider is a much-maligned member of the animal kingdom. It will bite if anyone is so imprudent as to manhandle one, but only the black widow and the brown recluse are poisonous, and the recluse does not live in California. On balance, all are highly beneficial to humans, helping to hold down populations of pest insects such as the gypsy moth and cotton worm.

Who could ignore the tale of Scottish hero Robert Bruce, who learned to overcome failure by watching a spider try again and again to fasten a thread? Finally it succeeded and the inspired Bruce went forth to victory in battle. So it's said.

From ARNHA's "An American River Almanac: Reflections on nature throughout the year," with essays by Peter J. Hayes and full-color photographs by George Turner and Tom Myers. It can be purchased for \$24.95 (less 10 percent for ARNHA members) at the Effie Yeaw Nature Center and selected bookstores.

Effie Yeaw Nature Center Assembly Building Dedication

by Pete Hayes

It was notably fitting that children were given leading roles when local dignitaries and Effie Yeaw Nature Center friends and staff members gathered to dedicate the new EYNC Assembly Building.

The Aug. 18 ceremonies began with Sacramento County Parks Director Ron Suter inviting Effie's six grandchildren and great grandchildren who were present with Effie's daughter, Ellen Stillman, to lead the audience in reciting the Pledge of Allegiance.

Later, the children joined County Supervisors Muriel Johnson and Illa Collin in unveiling a handsome plaque recognizing this outstanding teacher and environmentalist for showing how to use nature as an education tool.

Then, as the ceremonies concluded, the folding partition behind master of ceremonies Ron's podium swung open, dramatically revealing 16 little "Nature Detectives" seated around tables, smiling out at the audience.

The youngsters, 1st and 2nd graders, were participants in an EYNC "Summer Fun Days" nature program conducted by EYNC naturalists Lynne Pinkerton and Shawna Protze. Each child had made a colorful drawing of nature center animals and scenes and presented them to Effie Yeaw's offspring, along with a framed portrait of Effie and children.

The ceremonies celebrating completion of the 3,000 square foot Assembly Building were so appropriate because it was almost 50 years ago that the gentle kindergarten teacher began leading children on walks in the nearby area known as Deterding Woods. These inspirational walks have blossomed into a program of teaching the appreciation and protection of plant and animal life to more than 50,000 youngsters annually at the Effie Yeaw Nature Center, dedicated to her memory in 1976. The new building

opens a new chapter in the legacy of Effie, who died in 1970.

"This is a very, very high achievement for Sacramento County," said Supervisor Johnson, in whose District 3, EYNC lies.

She promised to press for funding for Assembly building landscaping including proposed "critters," stainless steel sculptures of dragonflies and other parkway wildlife. And she said she wouldn't give up trying to raise funds to get rights to the bluff behind the center, perhaps an easement, "to preserve Effie Yeaw Nature Center in all its glory."

Another speaker, William B. Pond, Sacramento County's first parks director known as the "father of the American River Parkway," paid tribute to Effie for her environmental activism in working to develop the idea of a "parkway" along the river to include the preservation of Deterding Woods, now known as the Effie Yeaw Nature Area.

He also gave high praise to longtime ARNHA Board member Jo Smith who

helped Effie teach youngsters about nature and the parkway. And Jo reminisced of having to shepherd youngsters onto the bus when it started rain in those early days before the nature center was built. And citing Effie's concern for preserving heritage oak trees, she recalled driving past a busy Carmichael street corner one hot day and observing Effie watering two young oak trees.

Other speakers at the dedication included Supervisor Collin, Terry Schutten, County Executive, and Marilee Flannery, nature center director.

The \$1.3 million structure next to the nature center was funded with 2000 state park bond money. With its three partitioned classrooms, porch and expansive patio area, it doesn't just serve children from 76 school districts in six counties. The partitions can be opened for large meetings, such as American River Natural History Association public forums and weekend nature programs for adults as well as children.

Shown with plaque honoring Effie Yeaw at Assembly Building dedication were, l. to r. Chantel Frankenbach, Effie's granddaughter; Ellen Stillman, daughter; Kyra Stillman, great granddaughter; Carl Stillman, grandson; Supervisors Muriel Johnson and Illa Collin; Julia Frankbach, great granddaughter; Sofia Frankenbach, great granddaughter, and Rowan Frankbach, great granddaughter. Photo by Brian Gilmore



Maidu Indian Day at EYNC October 2nd

Crafts, games, dancing, storytelling, ethno botany walks and native food tasting are among activities that will be featured at Maidu Indian Day at the Effie Yeaw Nature Center in Ancil Hoffman County Park Saturday, Oct. 2, from 10 a.m. to 4 p.m. The popular family event brings to life the culture of the early native residents of the area and is a benefit for the Maidu Indian Cultural Heritage Program offered at the nature center through the American River Natural History Association.

Event admission is \$3 per person, children 3 and under, free; park entrance fee is \$4 per car, free for ARNHA members. ■



ARNHA Invites You to Our Annual Holiday Shopping Event!

Saturday, December 4th
from 9:30am-1pm at the
Effie Yeaw Nature Center Discovery Shop

Featuring Holiday Music & Refreshments
Gifts for all ages – come and see what's new!

2004 Edition of
Outdoor World of the Sacramento Region.
Update your library or give a great gift.

Stocking Stuffers

Local artists and photographers
selling their treasures

Free gift-wrapping of your purchases

Members get 10% discount (20% off retail)
(excludes original art work on consignment)

The Nature Discovery Shop in the Effie Yeaw Nature Center offers a great variety of books for children and adults, jewelry, puppets, toys, nature t-shirts, ornaments, decorative gifts and more. All profits go toward environmental education programs along the American River Parkway. Questions? Call 489-4918.

SALMON FESTIVAL 2004

A Salmon Cook-off featuring the culinary gifts of renowned local chefs and celebrity waiters will be one of many new attractions at the annual American River Salmon Festival Saturday and Sunday, Oct. 9-10, from 10 a.m. to 4 p.m., at the Nimbus Fish Hatchery and Lake Natoma in Rancho Cordova.

The free event, celebrating the return and importance of the Chinook (King) Salmon to the Lower American River ecology, is co-sponsored by the American River Natural History Association, along with the state Department of Fish and Game and others. There's a \$7 parking fee, with free shuttle service.

Other festival features will include a water conservation show by the Sacramento Theatre Company, a large aquarium at Lake Natoma, River Otter water excursions, environmental music by the Recycle String Band, and a Challenge Course for 6-to-10-year-olds evoking the physical attributes of the Chinook Salmon.

Children's activities will include puppetry and storytelling, salmon golf and games. River recreation will offer rafting, fishing, and canoeing, along with the chance to marvel at the drama of returning salmon. Also: Children's art activities, fine art and salmon shop, wildlife demonstration, fishing clinics and hands-on exhibits.

ARNHA members will staff a Discovery Shop booth selling ARNHA books, T-shirts and other gift items.

Parking is located off Tributary Point Drive, west off Hazel Avenue just north of U.S. 50. It can also be reached from Sunrise Blvd. via Gold Country Drive. Continuous, frequent shuttle service will operate to the fish hatchery and across Hazel Avenue to the Lake Natoma festival site. There also will be valet bike parking. Cyclists and pedestrians will be able to move between the two sites via a Hazel Avenue underpass. ■

American River Natural History Association

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EVENTS CALENDAR

- **Sept. 3 & every other Friday thereafter** American River Parkway Coalition discusses parkway funding. ARNHA office, 3710 Mission Ave. (at Engle Rd.), Suite 23, Carmichael.
- **Sept. 12** Great American River Cleanup.
Information: 456-7423 and www.arpf.org
- **Sept. 28** ARNHA Public Forum (page 5)
- **October 2** Maidu Indian Day, Effie Yeaw Nature Center
- **October 9-10** Salmon Festival, Nimbus Fish Hatchery
- **December 4** Holiday Sale, Effie Yeaw Nature Center
- **December 4** ARNHA Wildlife Count, American River Parkway

WELCOME NEW MEMBERS

Here's a warm welcome to the following new members of ARNHA:

Karen Borman • Pamela Brown • Bill Bryant • Elizabeth Hall • Susan McCrea • Richard and Lori Mersereau
Paula and Jim Munson • Pantis/Garrett Family • Kathleen Pirtle • Elisa Reuter • Lynn Saxelby • Jeff Wade
Terry Wilson and Scott Necco

Natural History Books • Wildlife Jewelry • Field Guides & Maps
Kid's Nature Study Tools

The Nature Discovery Shop

Inside the Effie Yeaw Nature Center
489-4918 • Proceeds to ARNHA

OPEN
daily
9-5