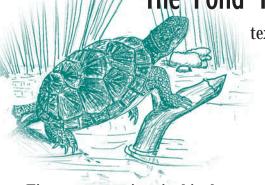
The American River Natural History Association



Number 131 www.arnha.org Spring 2005

The Pond Turtle: Hoping for a Better Season

text and drawing by William E. Avery



Fierce, non-native rival is threat

By early spring the western pond turtle, *Emys marmorata*, has become an increasingly common sight—basking on logs near the banks of backwater areas of the American River. One has to be careful with identification, however. In many areas, western pond turtles are outnumbered 10-1 by a fierce non-native competitor – the red-eared (or pond) sliders, *Tirachemys scripta*. In fact western pond turtles are designated a "Cali-

fornia Species of Special Concern." Even though turtles were on earth before the dinosaurs and the western pond turtle species itself has survived continental drift and massive global climate changes over the last several million years, most populations are now in serious decline. Very few hatchlings make it to the adult stages of life. The causes of the decline are many: habitat loss due to urbanization and water table alterations, interactions with cars and predators, pollution and, possibly most important of all, competition with the "bully of the backwaters"—the redeared sliders.

From a distance, the generally larger sliders (originally from the southeastern

United States) will appear dark-greenish with pinstripe yellowish lines on the head, neck, legs and tail. A linear red patch is often visible behind each eye and concentric rings may be apparent on the carapace (upper shell) shield scales. Some sliders have a greater amount of black pigment, a condition known as melanism, and many of the lines and stripes will be difficult to see.

The western pond turtle, in contrast, will have a generally dark-brown appearance, no greenish tint, no lines or stripes on head, neck, legs or tail and no red patch behind the eye. The shape of the western pond turtle's head is generally blockier than that of the slider. The pat-

Turtle, continued on page 3

ARP-PDA (American River Parkway - Public Display of Appreciation)

With Sacramento County facing a \$9.7 million budget shortfall, a big turnout for the American River Parkway PDA Day is more important than ever.

That's PDA as in "Public Display of Affection," and it's scheduled for Sunday, May 1, from 10 a.m. to 1 p.m., along the American River Parkway. The sponsor, the American River Parkway Coalition made up of ARNHA, Save the American River Association, and the American River Parkway Foundation, will have tables

with informational material, stickers, etc. at Guy West Bridge at CSUS, William B. Pond Recreation Area, Lower Sunrise Recreation Area, and Nimbus Fish Hatchery.

"The purpose is to bring out members of parkway user groups such as bicycle, running, paddling, birding, and plant groups to show through the media how much they love the parkway and how important adequate funding for it is," said Lou Heinrich, ARNHA representative to the coalition.

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2

American River Parkway Stakeholder Summit

People who attended the American River Parkway Stakeholder Summit meeting Feb. 26 might have concluded that the parkway was not in crisis, but needed a good deal more intensive care.

A near-capacity crowd in the Sacramento County Board of Supervisors chambers heard local government officials and leaders of the American River Coalition diagnose the community crown jewel. The coalition is made up of the Save the American River Association, American River Natural History Association and American River Parkway Foundation.

County Parks Deputy Director Gary Kukkola said the department faced nothing like the dramatic, if temporary, \$3 million budget cutback it faced a year ago. Although parks' expenditures are down 16 percent to \$4,797,000 in 2004-05 from 2001-02 and the department has lost 13 fulltime-equivalent employees since then, "it is possible we'll get through o.k. this year," he said.

Jane Hagedorn, who since 1997 has been a leader of a citizens committee seeking a dedicated funding source for the parkway, said a \$1 per month levy on Sacramento County households could raise \$6 million annually for regional parks. A public opinion poll sponsored by her group indicated that a benefit assessment for this amount was "doable."

The growing issue of mountain-bike riders leaving the paved Jedediah Smith Memorial Bicycle Trail to ride cross-country on the parkway was raised by a rider in attendance who urged that the county legalize the activity. "Plan it, don't ban it," he said. But Kukkola said the issue goes to the difficulty of controlling the practice in a sensitive environment with only a limited law enforcement force.

Commenting from the audience, Sacramento Mayor Heather Fargo urged consideration of diverse uses of the parkway, including a proposed state California Indian Heritage museum, mountain bikes and dog park in the "jungle" area near Discovery Park.

A host of other concerns were voiced, such as homeless camps near Discovery Park, threats to the fishery due to continued lack of adequate minimum flows, and construction of buildings incompatible with the parkway's natural environment.

ARNHA received the following letter from retired county parks director William B. Pond, subject of an article in the winter, 2004-05 Acorn titled "Bill Pond: Father of the American River Parkway"

Dear Friends:

What a surprise to receive the Acorn Extra in the winter issue. I'm overwhelmed and I had to ask my wife who they were talking about.

I was just a guy who dreamed with most of you, but I was paid for having fun. You folks, and others like you, helped the dream come true.

There were so many environmental groups and organizations giving of their time and talents that giving one individual so much credit seems unfair to all of you and others. I appreciate the thoughts and work of Fred (author Fred Gunsky) and others I know helped Fred.

Thank you for something that I can show my grandchildren and great grandchildren and say to them, "See it is possible to make dreams come true."

With great appreciation, Bill Pond

Turtle, fron page one

tern on the carapace shields, if any, will be fine yellowish lines or dashes radiating out from the centers of the shields as opposed to the concentric rings of the slider.

Careful observers may also occasionally spot the introduced painted turtle, *Chrysemis picta*, with no red stripe on the head but usually red lines or spots visible somewhere on the carapace or plastron (lower shell).

Though variable in behavior along their native range, Pacific coastal states from Baja to southern Washington, many western pond turtles will have just recently emerged from a state of hibernation. This entails burrowing into the mud of a shallow watercourse or pond or, alternatively, trekking inland up to 500 yards or more into a relatively protected area and burrowing into the leaf litter and then remaining semi-dormant for one or two winter months (the length of time increasing from the southern range to the northern). Also emerging from the ground in the spring will be

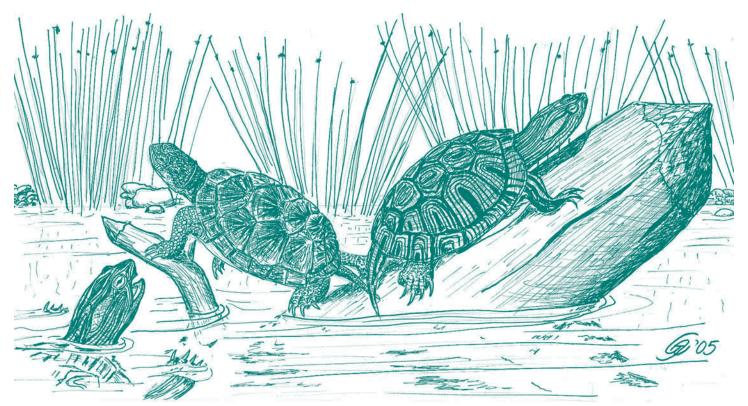
last year's surviving hatchlings—finally scrambling from the nest excavated by their mother last spring or summer.

Upon emergence from the nest or hibernation burrow, finding food and a safe, suitable basking site is of utmost importance. Western pond turtles are omnivorous, eating a variety of small aquatic invertebrates ranging from water fleas to native and introduced crayfish, insect larvae and annelid worms. Occasionally, they will eat small fishes, frog eggs, tadpoles, small adult Pacific tree frogs or young bullfrogs. They also may eat algae, aquatic plants, emergent vegetation such as cattail and tule reed roots and young shoots. Depending upon the season and local availability, western pond turtles will scavenge upon carrion such as dead fish, mammals or birds. Any carrion eaten must be floating or submerged because the western pond turtle can only swallow food while underwater.

Basking in the sun stimulates the production of Vitamin D and brings the turtle up to its optimal warm body tem-

perature, which is essential for digestion of food and for growth. Failure to have adequate basking time can be disastrous for turtle survival – especially in the early years after hatching. The keen competition for limited basking sites may be a prime factor causing pond turtle population declines. The generally larger and more aggressive sliders are also interested in the prime basking sites. Sliders will gape and hiss at western pond turtles until they relinquish their spots. They will physically push them back into the water or crawl on top of them. Sliders are also somewhat less apt to be disturbed, say by an approaching canoe, than western pond turtles, which are usually the first to dive back into the water.

Though the red-eared slider may be capable of filling part of the natural niche occupied by declining populations of the pond turtle, we would like to preserve the western pond turtle if possible. Keeping native species around, particularly top predators, ensures that we are maintaining enough habitat and other continued next page



"Bullies of the backwater," non-native red-eared sliders (lower left in the water and right on log) often claim the choice basking spots, forcing the native western pond turtle (middle) to accept poorer sites.

important species required for a healthy stable, intact ecosystem. Consumer species close to the top of the food chain therefore can act as indicator species and our conservation of them helps to ensure conservation of the entire ecosystem.

We are finding that we humans are also dependent upon intact original ecosystems (flood control, pollution detoxification, fresh water, fresh air, healthy recreation). Though much of the threat to long-term survival of the western pond turtle is probably the loss of critical habitat (slow-moving, seasonally interconnected, natural, bodies of water with protected upland habitat for hibernating and nesting), enhancing turtle habitat with anchored, artificially placed basking logs has been proposed as a good way to improve their chance of survival. Creative ways to reduce the constant release of red-eared sliders as unwanted pets and, instead, to augment western

pond turtle populations with captive breeding or "head-starting" of hatchlings may also prove valuable in future conservation efforts.

Throughout the spring and early summer, the life of a western pond turtle is all about feeding, basking and avoiding predators. Hatchlings face a gaunt-let ranging from otters, raccoons, gulls, crows and herons to bass and bullfrogs. Larger turtles are troubled by coyotes, occasionally by humans, cars and domestic dogs. Western pond turtles, if fortunate, may live to be 40 or 50 years old.

Between eight and ten years old (when they are about 4 ½ inches long) they are old enough to mate. A pregnant female typically becomes interested in finding a suitable nesting site beginning in April but ranging through July. This is another time of vulnerability. She will have to go on an overland search for a rare piece of landscape – a secluded

but open, sparsely grassy, shallow-sloping area 300-400 yards or more away from the water, with compact, dry, silty soil in which to excavate a nest.

If she finds such a nest site, she will empty the contents of her bladder to soften the soil and then dig an urnshaped hole with her back legs. She will then deposit 1 to 13 eggs (average 7 or 8) into the nest and scrape a bit of soil and vegetation back over to plug the top of the nest. If all goes well (optimal temperature, no predators, no human disturbance, etc.) incubation will be complete about two months later when the young turtles will break through their shells and egg membranes and emerge into the nest. Throughout fall and winter the new hatchlings will remain in their nest.

With the return of the late fall and winter, food becomes more scarce, temperatures cold, weather, sunlight and water levels unpredictable and the risk of capture and predation is high. Most adult western pond turtles once again seek the quiet of a shallow muddy bottom or secluded upland hibernation site to wait, along with the new hatchlings, for spring to return again.

William E. Avery is an Associate Professor in the Department of Biological Sciences, California State University, Sacramento. He earned a B.S. and M.A. from Humboldt State University and a Ph.D. from Utah State University. He has worked on a variety of biological projects: kelp forest monitoring, coral reef studies, Neotropical migrant bird habitat assessment and monitoring, Spotted Owl surveys, and various herpetological and avian habitat assessment surveys. He is a regular participant of the ARNHA Wildlife Counts (1998-2004). Dr. Avery is currently teaching General Zoology, General Ecology, Herpetology and Graduate Research Methods at CSUS. He lives in Sacramento and is an avid hiker, bicyclist, canoeist and kayaker on and along the American River Parkway. He also enjoys art, piano and dogs.

ARNHA Grants Effie Yeaw Nature Center \$75,340



The Board of Supervisors thanked ARNHA Board members for a check for \$75,340 Jan. 25 in support of the Effie Yeaw Nature Center. Shown here are, l. to r., Ron Suter, Director of Sacramento County Parks; Marilee Flannery, Director of Effie Yeaw Nature Center; Supervisor Susan Peters; Supervisor Don Nottoli; Supervisor Illa Collin; Supervisor Roger Dickinson; Supervisor Roberta MacGlashan; ARNHA board member Lee Wilner; ARNHA associate board member Carol Doersch; ARNHA board member Paula Baldi; ARNHA board member Roberta Wilner. County photo by Lorraine Silva.

American River Discovery Trail Opens

text and photo by Georgia Jones

What do you see when you look at the American River? Whatever your current perception, visit the new ARNHA-supported American River Discovery Trail for a look at the river through new eyes.

Designed with the mission of bringing people to nature, this gentle loop trail starts at the Nimbus Fish Hatchery, passes by two ponds and runs a quarter mile downriver on top of the bluffs, providing an outstanding view of the river and Sailor Bar County Park.

Interpretive nature panels with information about conservation and the multiple resources of the American River mark nature study spots along the trail. These beautiful panels, painted by local artist Mike Maydak, blend into the environment. They depict wildlife, native plants and natural formations to help focus your discovery adventure while expanding your awareness or renewing your passion for this scenic river.

You will connect to this habitat for wild terrestrial and aquatic animals. Here is the home of water-dwelling crayfish, salmon and steelhead; mergansers and other waterfowl bobbing on the water; songbirds calling from cottonwood branches, a soaring red-tailed hawk. And all the while you will learn ways to help protect the river.

Panels help tell the dramatic story of the American River salmon and steelhead. The hatchery and natural spawning areas for these fish create a feeding paradise for gulls, herons and many other types of birds, making this one of the best places for bird watching on the river.

Look for the "giant" salmon sculpted for school tours and children hiking the

trail with their families. Children are lured inside this interactive "playscape" for a tactical, fun experience, and perhaps a look at the river through the eyes of a fish.

Most interpretive panels feature "Things to Try." The nocturnal animal panel suggests, "In the fall or winter look for the occasional coyote, fox or raccoon feeding on dead fish. Arrive early or stay late for the best chance to see these elusive animals."



Mariemont 4th graders Emily Jane Achtelik and Beau Dibble read the interpretive panel to learn about nighttime critters along the American River Discovery Trail.

Public and private sector sponsors contributed more than \$250,000 to construct the trail. ARNHA contributed \$5,000. The California Department of Fish and Game, on-site project overseer, and other sponsors are exploring ways to expand the trail.

The surface of Discovery Trail is decomposed granite and is wheelchair accessible. Parking and admission to the hatchery, as well as use of bike racks located at the hatchery, are free.

The American River Discovery Trail will be celebrated in a grand opening ceremony this summer. Call DFG naturalist Meg Grow at (916) 358-2893 for details. ■

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PAGES FROM THE ALMANAC

Flying colors

It's a toss-up these days whether a certain member of the woodpecker family is seen or heard first.

The northern flicker is a jay-sized bird that wears a coat of many colors. Perched on a cottonwood snag, it shows off a brown back, a black crescent across the breast, numerous black spots on white underparts, and the male sports red sideburns. When it flies, it flashes salmon-red colors under the wings and tail, along with its trademark, a white rump.

While the flicker is no song stylist, it signals its presence with a yelping call that carries the sound of its name long distances through woodlands and suburbia. And about now it may be heard drumming on a tree trunk, drilling a nesting hole with its chisel-like bill.

For a flicker, raising a family can be more stressful than for most birds. After moving into a freshly built cavity to lay her eggs, the female may be joined by a pesky starling with the same thought in mind. The flicker is usually evicted by the aggressive starling in one of nature's less desirable practices, which has reduced the population of flickers, at least hereabouts.

But ordinarily, the flicker doesn't spend as much time in trees digging out insect larvae as do other woodpeckers. Indeed, it's the only woodpecker that forages on the ground, hopping awkwardly about and using its long sticky tongue to search out its favorite food, ants.

Over the years, the flicker has had colorful, local names. In the west it's sometimes called the red-shafted flicker for its wing and tail feathers, which were used for native vests and headdresses in ceremonies. The eastern variety were known as the yellow-shafted flicker.

It is also called high-hole, red hammer, yocker bird, wilcrissen, and wakeup. The last name refers to its occasional practice of drumming on rain spouts and wood siding of houses in the predawn hours. At such times, even the flicker's most ardent admirers might decide that this avian fashion plate would be better seen than heard.

From ARNHA's "An American River Almanac: Reflections on nature throughout the year," with essays by Peter J. Hayes and photographs by Tom Myers and George Turner. It can be purchased at the Effie Yeaw Nature Center and selected book stores.

Illa Collin Honored

Sacramento County Supervisor Illa Collin, now in her seventh term of office, was honored in an "Illa Collin Day" ceremony for her extraordinary support of the American River Parkway. The ceremony at the Effie Yeaw Nature Center Assembly Building Dec. 4 was sponsored by the American River Parkway Coalition, made up of the Save the American River Association, American River Natural History Association and American River Parkway Foundation.

"She is not retiring. We just wanted to thank her for always being on the side of the parkway," SARA President Alan Wade said. "She has always voted right, even when in the minority. It was high time we honored her." ■

ARNHA BRIEFS

AR Watershed Conference

Top natural resource experts will participate in the American River Watershed Conference on April 21-23, hosted by California State University, Sacramento, at the University Union. Thursday and Friday events will be geared toward technical presentations, followed by a free Saturday morning session.

Goals are to review understanding of the American River watershed and to bring together a diverse group of people who are interested in scientific, technical and management decisions on the river.

The public is invited to all three days of talks, with a \$75 registration fee Thursday and Friday up to April 1. Thereafter, the cost rises to \$125. There is no charge for the Saturday session, which will be an overview of the American River, with local experts providing information about everything from flood control and dam releases to recreation and water quality. It begins at 9 a.m.

Go to www.cce.csus.edu.cts/arwc/for details on the more than 85 scheduled talks, or contact Prof. Tim Horner, (916) 278-5635 or hornertc@csus.edu.

Ethnobotany Explored

Renee Shahrokh, biology professor and Biology Department Chair at American River College, is the headliner at another in ARNHA's series of public forums Wednesday, April 20, at the Effie Yeaw Nature Center Assembly Building. She will speak on "Native American Uses of Plants and the Issues Native People Face with Respect to Gathering." The free event starts at 7 p.m.

Shahrokh has also taught Ethnobotany at DQ University, Davis, the only

tribal college in California. She currently teaches Ethnobotany field courses for The Miwok Archaeological Preserve (MAPOM) at Point Reyes National Seashore and Yosemite National Park.

. . . .

Value of Field Trips

Are Sacramento area schools and government policy makers overlooking the value of field trips as a means of giving pupils "real world" exposure to class subjects?

Field trips have fallen about 10 percent at the Effie Yeaw Nature Center this year; trips to the Crocker Art Gallery are off 35 percent in two years. Sacramento Bee reporter Will Evans attributed the decline to budget cuts, increasing busing costs, and schools' growing emphasis on government curricula standards.

But Effie Yeaw Nature Center director Marilee Flannery was quoted in the Bee article as saying that trips to Effie Yeaw are tailored for each grade level to meet science requirements. Here is how EYNC tour topics coincide with each grade level in the State Science Standard for public schools:

- Preschool/Kindergarten: Sensory Awareness
 - First Grade: Habitats
 - Second Grade: Life Cycles
- Third Grade: Food Chains and Food Webs
- Fourth Grade: Producers, Consumers, Decomposers and Raw Materials.
- Fifth and Sixth Grades: Introduction to Ecology.

Molly Keller, second grade teacher at Creekside Elementary School in Arden-Arcade and ARNHA Board member, said, "When we consider a field trip, we look very closely at the standards.

"When second graders see the chrysalis of a butterfly hanging from a twig, they're not just aware of the different stages of life cycles; they understand them."

Harsh budget cuts in the San Juan Unified School District make field trip cutbacks arguable. In the meantime, with its \$75,340 grant to EYNC Jan. 25, ARNHA is helping introduce many more children to up-close principles of science through field trips to the nature center.

• • • •

Three-legged Deer

Forty-eight expert observers participating in ARNHA's 20th annual Winter Wildlife Count on the American River Parkway Dec. 4 found 108 bird species and 11 mammals, including a three-legged deer.

The distinctive deer apparently wasn't handicapped by the missing hind leg. Coordinator Jack Hiehle said it had been seen previously in Goethe Park, indicating it had been able to find its way across the river to Ancil Hoffman Park.

The 108 bird species that the observers spotted were two shy of the previous record for the count and, for the first time, no new species were turned up. But Jack said that, thanks to the American Ornithological Union (AOU), the total was one more than it would have been if recorded the previous year. AOU scientists recently ruled that the cackling goose, a subspecies of the Canada goose, was actually a separate species Both geese were seen Dec. 4.

Eighty-one wild turkeys, including continued next page

American River Natural History Association

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EVENTS CALENDAR

Wednesday, April 20, 7 p.m.

ARNHA PUBLIC FORUM. Renee Shahrokh SPEAKS on "Native American Uses of Plants and the Issues Native People Face with Respect to Gathering." Effie Yeaw Nature Center Assembly Building.

Thursday, April 21-Saturday, April 23

AMERICAN RIVER WATERSHED CONFERENCE. 85 scheduled talks by experts. California State University, Sacramento, University Union.

Saturday, April 23, 9 a.m.-12 noon

EARTH CLEAN UP DAY. American River Parkway, individuals and groups, call American River Parkway Foundation, 916, 456-7423.

Sunday, May 1, 10 a.m.-1 p.m...

PDA ("PUBLIC DISPLAY OF AFFECTION") DAY. Cyclists, wildlife viewers and others demonstrate importance of adequate funding support for American River Parkway. Locations: Guy West Bridge, CSUS; William B. Pond Recreation Area; Lower Sunrise Recreation Area, and Nimbus Fish Hatchery.

WELCOME NEW MEMBERS

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Three-legged Deer, continued many more females than usual, were seen, and a rough-legged hawk, which had been spotted just once before, was reported.

Overall, 91 deer were reported, including 48 in Ancil Hoffman Park where, Hiehle said, efforts are underway to reduce their impact on the oaks and other vegetation. Deer eat the leaves, and the bucks rub their antlers on the bark.

On a cold, mostly clear day, the observers saw three tree frogs and no reptiles. Other mammals included beaver, river otter, cottontail rabbits, blacktailed hare, two coyotes and 10 house cats

The 20-year-old wildlife count is a continuation of a Carmichael census originated by teacher-naturalist Effie Yeaw and later carried on by Bruce Swinehart, American River College biology teacher, now retired.