

Last light at the Wildlife Area - December, 2014

## A Fresh New Look for the YBF Website

The Yolo Basin Foundation website has a new look! Photo galleries, a calendar of events, and seasonal updates about YBF and the Yolo Bypass Wildlife Area are a few of the added features.

Looking for something to do? Click on the Upcoming Events icon on the home page to find out about our monthly tours, Flyway Nights speaker series, special events, and volunteer training opportunities.

DISCOVER THE FLYWAY VOLUNTEER UPCOMING YOLO BYPASS

Towards the bottom of the home page, two columns, Updates from the Wildlife Area and Yolo Basin Foundation News, provide quick reference for immediate and current topics such as YBWA

closures, road and birding conditions, monthly programs, and other points of interest.

We hope the new design makes it easy to find information about our programs and the many ways to support YBF while providing a glimpse of the beauty to be found in the Yolo Bypass Wildlife Area. 🥒

One of the major inspirations for the change was the desire to share images from YBF's large collection of photos. In addition to the highlighted images on the home page, there are several galleries featuring the art and photos from this year's Bucks for Ducks silent auction and a collection of assorted photos from our archives.



Nick Grabert (in blue) and his fellow Scouts building the new walkway.



Robin Kulakow and Michael Herrera on the finished steps.

# **Another Successful Eagle Scout Project**

Nick Grabert completed his Eagle Scout project over the summer for Yolo Basin Foundation and the Department of Fish and Wildlife. The project transformed a poorly sloped area outside one of the doors of the headquarters building into a much safer stepped walkway with a railing. Nick's design, using the existing substrate and incorporating weather resistant railroad ties, was a great fit for the location.

During the recent rains, the new walkway has been an especially welcome improvement. It is a pleasure now to walk out the back door and safely down the gently graduated and wide steps, with the option of the railing support when needed. We are very grateful for Nick and his crew's hard work and dedication in completing this much needed upgrade.

Nick Grabert is a member of Boy Scouts Troop 66, sponsored by the Davis Rotary Club, and a senior at DaVinci High School. He officially became an Eagle Scout in August, and a special Court of Honor ceremony was held for him on December 6th.

Congratulations, Nick and many thanks!

(3)

Duck Days Celebrates
its 20th Year!

## Nature Bowl 2015

ach spring for the last 30 years schools and youth groups from around Northern California have come together at various locations to show how much they know about the local environment and conservation. This beloved program is sponsored by the California Department of Fish and Wildlife.

Yolo Basin Foundation is one of the ten host sites for the Nature Bowl Semi-finals, but this is not where the story begins. Na-



ture Bowl teams form in the winter and spend three or four months learning about flora, fauna, environmental issues and team work. The 3<sup>rd</sup> through 6th grade students focus on the Sacramento Valley and surrounding foothills. They learn through science and nature-based activities to become

more environmentally aware. The semi-finals feature game based activities where children use their knowledge and teamwork to solve problems, show their knowledge and have fun. The winners at the semi-final level go on to compete at Sacramento State University in May.



Yolo Basin Foundation will hold a Coaches' Workshop in January and the Nature Bowl Semi-finals on April 16, 2015. If you're interested in forming a team, visit www.yolobasin.org/nature-bowl/ to learn more about the program or contact Corky Quirk at 530-902-1918.

## Thank you to our 2014 Discover the Flyway Grantors

Each school year, 4,000 students visit the Yolo Bypass Wildlife Area on a Discover the Flyway fieldtrip! One third of these students come from underserved Title 1 schools who don't have available funding for fieldtrips. In an effort to share the wonders of the wetlands with all children, Yolo Basin Foundation offers bus mini grants to in-need classrooms. Yolo Basin Foundation is able to offer bus mini grants with the support of generous foundations and agencies. It is an incredible opportunity to inspire students, introduce them to the natural world, and engage them in hands-on science education. Many students experience nature for the first time on a Discover the Flyway fieldtrip. Students, teachers, and even parent chaperones learn so much on each visit. The Yolo Basin Foundation would like to thank all of the grantors who support Discover the Flyway. We would like to share a special thank you to our first-time funders who have sponsored Discover the Flyway classes in 2014: The Albert & Elaine Borchard Foundation, Umpqua Bank, Stuart Foundation, and Strong Foundation.

Here are some of the comments we received:

"I had a terrific time. We dissected owl pellets. We also got to put on water proof boots and fish around in the pond looking for insects. I learned that dragon flies live in water when they are babies. We also got to use binoculars and go looking for birds. Clearly, we had fun and learned a lot!"

-Jazmin, 4<sup>th</sup> Grade Class, Twin Rivers Unified School District, 11/4/14

"I have been teaching for 25 years and have been on many fieldtrips. I have to say this is my very favorite fieldtrip. It is outside in nature, very hands on, completely age appropriate and guided by people who are passionate and love what they are doing."

- Sara Robles, First Grade teacher, Esparto Elementary, 11/20/14

#### 2014 Discover the Flyway Supporters:

- California Department of Fish & Wildlife
- Central Valley Joint Venture
- City of Davis
- The Albert & Elaine Borchard Foundation
- Kinder Morgan Foundation
- Monsanto Community Fund
- Sacramento River Cats
- Stuart Foundation
- Strong Foundation
- Teichert Foundation
- UC Davis
- Umpqua Bank
- US Bank
- US Fish & Wildlife Service
- Wallis Foundation
- West Sacramento Foundation

## Insects and Other Life at the Demonstration Wetlands

by Corky Quirk, Program Coordinator

iscover the Flyway (DTF) hosts school classes four days a week during the school year, and almost every class visits the Demonstration Wetlands, behind the Yolo Basin Foundation office. The wetlands consist of two ponds for teaching purposes—one seasonal and the other permanent. These wetlands are rich with life--a whole food web. Each grade studies a different topic that can be illustrated

by learning about pond life, including habitat, life cycle, adaptations, food chains, food webs, and indicator species.

Unlike the permanent pond, the seasonal pond Orasonfly larva sits dry, hard like cement all summer. Some of the cattails and grasses persist and a few footprints may appear, but otherwise this pond looks quite barren. Some summers the pond bottom is mowed and scraped to remove extra plant growth and dead algae. Yet each year, in the late summer when water returns, life soon abounds. The children cycle through the pond station about 10 at a time with DTF docents guiding their activities. With great enthusiasm they put on boots and head into the shallow water with their dip nets.

With the algae blooms of the warm fall weather come the **Daphnia or water fleas.**Near the base of the pond food chain, these very small zooplankton feed on algae, bacteria and detritus. They are translucent red crustaceans that gather in the corners of the white trays where the students empty their nets. They reproduce quickly and serve as a food source for many of our other pond insects and fish.

Soon to follow are the **water boatmen**, which spread their oar-shaped legs to motor about the pond. These "true bugs" lack the piercing mouth parts of most insects in the Order *Hemiptera*. They are not predaceous; instead, ingesting living material that they stir up from the bottom of the pond as well as sucking juices from algae, plants and detritus. Since they don't have gills, they wrap a bubble of air under their wings and around their abdomen. They are so buoyant

that they must hold on to vegetation to stay under water. Water boatmen are both strong fliers and strong swimmers and are attracted to artificial lights at night.

A great example of adaptation is the **back-swimmer**. This true bug, as suggested, swims belly up where its dark underside blends with the bottom of the pond and its light colored

back is difficult to see by those looking up from below.

The children are fascinated, and a bit disgusted, by

the piercing mouth parts. Backswimmers wait quietly for prey and then lunge stinging and subduing other insects, small fish or tadpoles. Their saliva begins the digestion process; next they suck the liquefied contents from their victim. Often

There is no other insect like a **dragonfly**, Order *Odonata*, for helping us teach any lesson. They stand out since some become quite large compared to the other invertebrates, and most people are familiar with the adult winged form. They don't realize that dragonflies spend most of their lives under water as nymphs. The students usually think

the kids recognize backswimmers since they

are sometimes found in swimming pools.

they are seeing spiders in the water, until they count the number of legs. The small wing buds are visible, which helps the students to imagine the aquatic nymph as an adult with wings. Possibly most fascinating is their method of breathing. As *DTF* docent Al put it, "The kids are amazed that dragonfly gills are in their rectums, hence "butt breathers," and that they can use "jet propulsion" to help evade predators."

Mosquito fish are both predator and prey. As predators, they devour mosquito larvae. As prey, they periodically get eaten by dragonflies. *DTF* docent Joanne reported, "When we went over to look at what was in the trays, I saw a look of horror cross one girl's face. She had spotted a dragonfly nymph with the head and eyes of a mosquito fish protruding from the nymph's mouth, and she exclaimed, 'We have to save the fish!' One of her classmates, in a very matter-of-fact voice, retorted, 'It's too late.' I think the concept of food chain was reinforced!"

The pond is so full of life. These are only a few of the remarkable animals of the Demonstration Wetlands The pond serves as

a food source, or restaurant, for so many of the wetland animals.

Engaging the children with the pond helps them to understand first hand the

wonderful complexity of the wetlands.

After watching a class of 6th grade students from a school in Sacramento, *DTF* docent Colette

Water boatman shared, "All of the kids, jumped right into the pond without hesitation and were eager to see what they could catch. I overheard several of the children state with great enthusiasm; 'This is the best day I've ever had!' while scooping around in the reeds and grasses." No matter from what city the students come, what age or demographic, everyone loves getting into the pond to catch the critters. DTF docent Rick summed it up, "I've had a lot of kids say the pond is the best station and that the whole experience of *DTF* was the best field trip ever. Not so surprising from first graders, but pretty special from older kids. It's just a lot of fun for everyone."

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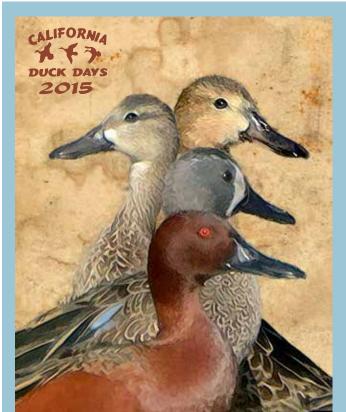
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To become a member of Yolo Basin Foundation, go to: www.yolobasin.org and select "Donate".



Cinnamon and Blue-winged Teals image by Dan Brown • www.naturestoc.smugmug.com

# California Duck Days 2015

### Friday, February 20:

Duck Days Welcome Reception and Student Wildlife Art Show 5:30-7:30 pm • Davis Art Center • 1919 F Street, Davis

### Saturday, February 21:

Workshops, Field Trips & Activities All Day • Yolo Bypass Wildlife Area Headquarters 45211 County Road 32 B (Chiles Road), Davis

### Fun for the Whole Family!

For a full schedule of events and to register for Duck Days go to www.yolobasin.org.

Questions? Contact Yolo Basin Foundation at 530-757-3780 or duckdays@yolobasin.org