



## Wildlife Area News

### After the Flooding...

The effects of the winter flooding at the Wildlife Area have continued to be felt all summer and into the fall. After nearly five months of being inundated, the ground began to emerge in May, and the entire property was finally opened to the public on June 1.

A reminder of the flooding after the water was long gone was that the large, triangular sign in Parking Lot A was destroyed by floating trees moving down the bypass. This scenario was repeated many times throughout the whole property, and it will be months before the Fish and Wildlife sign shop catches up.



Photo credit: Steve Hampton

A rare Black Skimmer at the Wildlife Area.

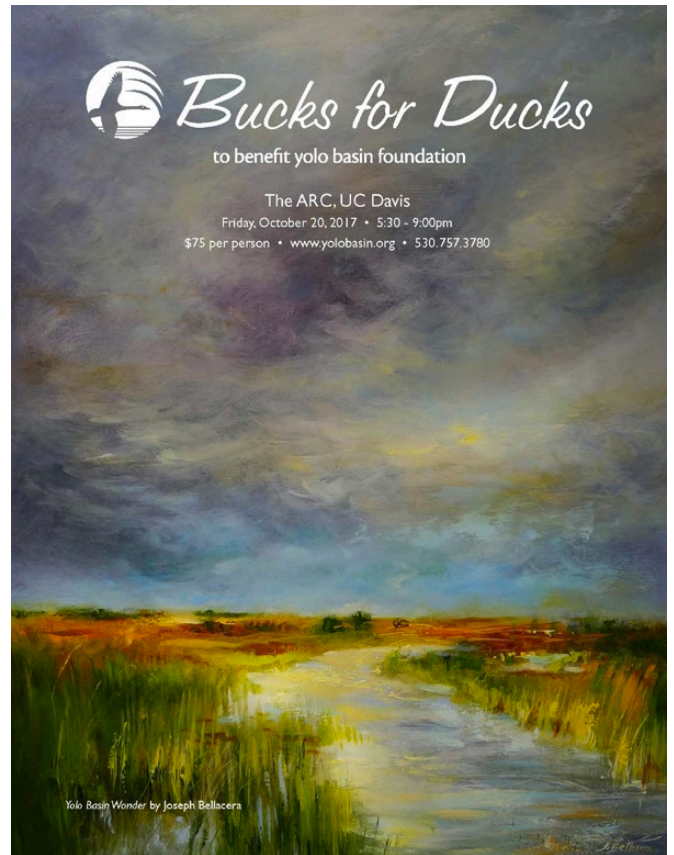
The hunting season was drastically curtailed due to flooding. Wildlife Area Manager Jeff Stoddard estimated that it was about one-third of a normal season with December being the only good month. The *Discover the Flyway* school program was able to shift sites from the Wildlife Area to the City of Davis South Fork Preserve for the flooded months, so the kids were more fortunate than the hunters.

In a normal summer, Fish and Wildlife staff try to disk 20% of the wetlands, but

that wasn't possible this year, so visitors will notice more tules than usual, which sometimes block the view into ponds. This is a reminder of how much management goes into keeping the Wildlife Area in optimal condition for people and animals. Cocklebur and sweet clover, both unwanted weeds, were also much more prevalent due to the late water. Conversely, reports that swamp timothy, which is grown to benefit the waterfowl, is below average height this fall. This is because the normal soil drying out process was two months late, and when the seedlings did come up, the late spring heat took a toll.

Rice planting was also significantly delayed—the farmers couldn't get into the fields to prepare the soil until late May, so only about half the normal amount was ultimately planted. Wild rice has a 90-day growing cycle, which made it more feasible to plant late, as opposed to the 120-day cycle of white rice. The danger is in running into fall rains while the rice is still in the fields, reports farmer Mike DeWit.

On a good note, the two hundred acres DeWit Farms set aside for shorebird habitat as part of the lease with the Wildlife Area was successful. The first field—shallowly flooded for birds in July—even briefly hosted an extremely rare Black Skimmer. The second field was just drying up in early September, and even though no rarities were reported, it did provide habitat for a nice variety of waterbirds. As part of their



### Bucks for Ducks 2017

Yolo Basin Foundation will hold its annual *Bucks for Ducks* benefit on Friday, October 20 at the UC Davis ARC Pavillion from 5:30 to 9:00 pm. This year we will be honoring the 20th anniversary of the *Discover the Flyway* school program, recognizing the successes of the program in our region and celebrating the educators who make it possible. The evening includes both live and silent auctions, raffle prizes, a Buckhorn catered meal, local wine and beer, and returning for another year, the dynamic auctioneer, Joe Gates. The beautiful event painting, *Yolo Basin Wonder*, is courtesy of artist, Joe Bellacera.

This year the Grand Raffle Prize is a fully stocked wine refrigerator donated by Yolo

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lease agreement, the DeWits also plant for bird nesting habitat, but unfortunately the 50 acres they had planted in native grasses in the winter died due to the flooding.

In addition, the inundation allowed invasive weeds to flourish, out-competing forage, which has resulted in a significant reduction in the number of cattle on the Wildlife Area this summer. Tom Schene, YBWA rancher, reported that they ran a third less cattle this year over last.

And the problems weren't limited to the farmers and ranchers. The flooding wreaked havoc with the small mammals—they either left or drowned—and this, in turn, has affected the raptors. Whalon Wittry, Fish and Wildlife Habitat Assistant, said that the nesting raptor numbers were down significantly this summer. On the bright side, the brood ponds produced normal levels of ducklings, mainly Gadwalls, and more pheasants nested than expected.

## And now the good news...

Long before last winter's flooding, the Yolo County Recourse Conservation District applied for a grant from the Delta Conservancy (funding from Proposition One) entitled "Wildlife Corridors for Flood Escape on the Yolo Bypass Wildlife Area" (<http://deltaconservancy.ca.gov/wp-content/uploads/2016/05/Prop-1-Y1-2015-016.pdf>). Now the grant has been awarded and permits are being sought from the Flood Board and the US Army Corps of Engineers.

This project will provide corridors for wildlife to flee from flood waters and enhance year-round wildlife habitat by the creation of five miles (22 acres) of new, floodway-compatible wildlife and pollinator habitat as well as a 0.5-acre buffer patch in the Wildlife Area.

According to the proposal, "Project proponents have identified corridors that, if planted with a mix of native plants, could provide year-round wildlife passage and much-needed cover for wildlife escaping flood events. This project is an initial effort to implement multi-benefit habitat restoration that provides cover for a diverse set of species and is compatible with the surrounding agricultural operations on the YBWA."

Having seen the devastation to wildlife fleeing last winter's flood, the staff at the Wildlife Area is very excited to see this project come to fruition. Stay tuned! 📺

## Statistics for the 2016-2017 Discover the Flyway School Year

Category	Detail	Numbers
Who Served	Classes	181
	Schools	58
	School Districts	17
	Counties	5
Field Trips	Teaching Days	138
	Volunteer Hours	3,049
Participants	Students	3,656
	% Title 1	44%
	Teachers	172
	Docents	51
	Interns (UC Davis)	1
Transportation Grants	Number of Buses	53
	Number of Students	1,474

## Bucks for Ducks *continued from p. 1*

Basin Foundation's Board of Directors. Our live auction will highlight some past favorites such as a kayak tour of Elkhorn Slough for two, a Joe Bellacera original painting, and live bat presentation for a group with Corky Quirk of NorCal Bats. There are some exciting new additions this year including two Southwest Airline tickets and four one-day park hopper tickets to Disneyland. In our silent auction, we will also showcase the incredible talent of local photographers and artists as they share their craft and love of California's natural beauty.

For table and sponsorship opportunities please contact Kara Smith, Fund Development Coordinator, at [ksmith@yolobasin.org](mailto:ksmith@yolobasin.org). Tickets are available now on our website, [www.yolobasin.org](http://www.yolobasin.org). We hope to see you all there! 📺

## Our Sponsors

We are extremely grateful for the support of our 2017 *Discover the Flyway* program sponsors. Our donors' generosity has made it possible for thousands of students to visit the Yolo Bypass Wildlife Area. Each year close to 4,000 students participate in *Discover the Flyway*, and one-third of these students come from underserved schools that don't have available funding for field trips. In an effort to ensure that no class misses out on a field trip due to financial constraints, Yolo Basin Foundation offers bus mini-grants to in-need classrooms. It is a wonderful 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 with *Discover the Flyway*. And our generous grantors and donors make this possible – thank you!

- Albert and Elaine Borchard Foundation
- Arata Brothers Trust
- California Department of Fish & Wildlife
- Central Valley Joint Venture
- CH2M
- City of Davis
- Gannett Foundation
- Monsanto Fund
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- Walmart Community Giving

# From Outdoor Education to Scientific Literacy — Celebrating 20 years of Discover the Flyway

By Heidi Satter, Yolo Basin Foundation Education Coordinator

*"If this is science, I like it!"*

— 3<sup>rd</sup> grader, Ramon Tafoya  
Elementary, Woodland

Seeing the thrill on a child's face from experiencing science firsthand, embodies the essence of the *Discover the Flyway* (DTF), Yolo Basin Foundation's (YBF) K-12 school program.

At the Yolo Bypass Wildlife Area (Wildlife Area) groundbreaking celebration in August 1995, YBF founder, Robin Kulakow expressed hope for the newly-created program: "We have labored over eight years to make our vision of restored wetlands a reality. Now we are ready to share it with children throughout our region".

**"Why did we do this? We worked to create the Wildlife Area for our children ... I hope that they will chase dragonflies, learn about insects, search for otters, listen for bitterns, and count geese."**

—Robin Kulakow, *Founding Executive Director, Yolo Basin Foundation*

In the midst of a fledgling Yolo Bypass Wildlife Area (YBWA), the stage was set. It was time for school children to *Discover the Flyway!*

## Program Development & Teacher Workshops

During the next two years, YBF staff worked with teacher advisors to create a field trip program designed specifically for schools. According to Kulakow, "Elementary school teacher advisors were contacted to assess what ... unique needs the program should address. The consensus was that teachers need a local place to take their students, materials to interpret the place, and an understanding of the subject matter themselves."

"Reading, Writing and Wildlife", the first Teacher Workshop, took place in August 1997. The all-day workshop was led by representa-

tives from YBF, Department of Fish & Game, US Army Corp of Engineers, and Yolo Audubon. At the end of the training, over 50 teachers had learned about wetland management, planted sedges, identified birds, and observed field trip activities. They also received wetlands education materials, including Habitat Fun Packs and Wildlife Area Handbooks.

Now, as then, teachers are required to attend a one-time workshop before bringing their class to DTF. Today's trainings still include presentations about the YBWA and commonly seen birds of Yolo County, as well as a tour of the Wildlife Area. Changes have been made over the years. Additions include a history of Yolo Basin Foundation and the presentation, "What is a Wetland?" The hands-on demonstrations of "field activities", now called Learning Activities, have greatly expanded. Offered twice a year to accommodate all interested teachers, the Teacher Workshops are now led exclusively by YBF staff and DTF docents.

## Volunteer Roles Over Time

Known as Flyway Assistants, the first DTF volunteers met teachers and their students directly in the Wildlife Area. They provided binoculars for wildlife viewing, specific field activities, and assisted on the field trip. They led teachers to appropriate areas for field activities, set up spotting scopes for bird id, and assisted with habitat restoration activities. In addition to the Flyway Assistants, Yolo Basin Foundation recruited Wildlife Observers. Their job was to regularly visit the auto tour route, take notes and provide status reports for the teachers before their field trip. Today over 50 volunteer docents donate over 3,000 hours every year to guide the students through the activities.



Photo credit: David Kalb

## From Outdoor Education to Scientific Literacy

DTF's origins corresponded to a movement in educational reform toward achievement, with a focus on content. The 1983 report, *A Nation at Risk*, published by the National Commission on Excellence in Education, brought education to the headlines. The conversation eventually led to the adoption of the Science Content Standards for California Public Schools in October 1998, described by



Photo credit: David Kalb

the State Board of Education as "the foundation for increasing the scientific literacy of all students." At the same time there was a new emphasis on "hands-on, inquiry based

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Photo credit: Dennis Plesau

environmental education.” The new *DTF* program was the perfect place to pioneer this approach.

In 1999, with this new emphasis on what to teach, Judy Fleenor, science teacher at Pioneer Elementary School in Davis, spent a year aligning state teaching standards with *DTF* wetland curriculum and developed in-class and field trip activities appropriate for each grade level. New activities included taking a core sample, water quality testing, and learning to appreciate the quiet of nature. Suddenly, outdoor education became scientific literacy and *Discover the Flyway* provided exactly what teachers needed to address the push in STEM (science, technology, engineering and math) education and meet the state’s new science standards.

### Continued Curriculum Growth

With the addition of the Demonstration Wetlands at the YBWA headquarters in September 2000, Fleenor once again created new hands-on activities, this time for the younger grades. *How Do I Compare to an Egret?* was introduced to supplement the existing pond, plant and soil activities that previously occurred in the Wildlife Area. And in 2002, a salmon migration activity, and its relationship to Putah Creek, was introduced for students in 2nd grade and above. Students were given the opportunity to plant sedges at the edge of the new Demonstration Wetlands. Those early plantings have grown into the lush sedge lined ponds we see today.

In the mid-2000s, a new social studies unit,

*Living With Water: The Story of Yolo Basin and its People* was developed by experienced science teacher, Margaret Kralovec. Within that unit, the third-grade program, *Patwin Life: A Circle of Seasons* became particularly popular.

The process of updating the curriculum focus continued with the 2010 adoption of the Common Core State Standards, as well as the 2013 *Next Generation Science Standards for California Public Schools (NGSS)*. Different from the 1998 standards, NGSS “emphasize the importance of having a deep understanding of science concepts and engaging in scientific thinking.”

Most recently, the program was updated to include a revision of the 6th –12th grade Learning Activity, *Water Quality Testing*, using state of the art water quality meters donated by Extech Instruments. With this, the current *DTF* curriculum now offers 14 Science Learning Activities and two Social Studies units, all focused on Central Valley wetlands.

### Expanded Locations

The first *DTF* field trip was October 10, 1997. Originally the program took place in the Wildlife Area exclusively. Starting in the fall of 1998, however *DTF* field trips also took place at Conaway Ranch and City of Davis Wetlands. Additional activities included bird banding wild mallards, demonstration placement of wood duck boxes, and wildlife-friendly farming.

Now integral to *Discover the Flyway*, work started on the Demonstration Wetlands at the YBWA headquarters in spring 1998. This three-acre microcosm of the Wildlife Area, with the same habitat components, changed the program in September 2000 when it became *DTF*’s new outdoor classroom. Short, focused Learning Stations, staffed by volunteers and parent chaperones at the Demo Area fol-



Photo credit: Annetta Van den Eynde

lowed by a trip to the Wildlife Area for the big picture perspective became the new format. With staff and *DTF* docents as station leaders, the same basic format continues today.

### Partnerships are key

*Discover the Flyway* started as a partnership with Department of Fish and Wildlife (then Department of Fish and Game) that continues to this day. Students see first-hand how public lands are managed and get to interact with the friendly DFW staff on site.

Other partners that made *Discover the Flyway* possible include the CalFed Bay Delta Program that gave two significant grants to fund YBF in the first five years. Central Valley Joint Venture continues to provide resources as they did in the early years. Private funders including Wallis Foundation and Teichert Foundation among many others have funded Title I class participation for many years. And then, of course, there are the hundreds of YBF members who give year after year.



Photo credit: Annetta Van den Eynde

## Growing the Program & Meeting Demand

Demand for the program has increased steadily throughout the years, growing from 800 in 1997, to over 3,500 students served during the 2016/17 school year. To date, the 2017/18 school year filled to capacity in August, with hopeful teachers adding their names to the wait list. With over one-third of our students coming from Title 1 schools, YBF strives to keep the program affordable. Schools are asked to make a per student donation; however, from the beginning Yolo Basin Foundation has never turned away a class because they couldn't afford the per student donation. Additionally, in 2007 YBF formalized this policy with a new mini-grant program to underwrite the cost of a bus, ensuring that transportation costs are never a stumbling block to attending a *DTF* field trip. To date, YBF has given out 415 grants, totaling close to \$100,000.

Launching in winter 2018, YBF will be taking a modified version of *Discover the Flyway* directly to the schools, expanding our reach well beyond the current annual capacity of 3,500 students.

## Celebrating 20 Years

Over the past two decades, *Discover the Flyway* has expanded its location, format, curriculum, volunteers, docent training, and students reached annually. The first year, 47 teachers brought 800 students to the Wildlife Area. By May 2017, over 60,000 school children have donned binoculars and left their small footprints in the clay soils of the wetlands.

At the Yolo Bypass Project Groundbreaking Dedication on August 17, 1995, Robin Kulakow remarked, "Why did we do this? We worked to create the Wildlife Area for our children ... I hope that they will chase dragonflies, learn about insects, search for otters, listen for bitterns, and count geese."

Occasionally, a biologist visiting the Wildlife Area will remark to YBF staff how clearly they remember their *DTF* field trip when they were in elementary school. Who knows, maybe that first trip kindled a life-long passion for more than one young visitor.

To paraphrase our young friend from Woodland quoted at the beginning of the article — *If this is education, I like it!* 🌱

## Welcome to our Board members!



### Lisa Fischer

Lisa is the Director for the University of California Division of Agriculture and Natural Resources (ANR), Research and Extension Center System (REC), a nine-center system offering a unique outdoor laboratory, across almost every ecosystem in the state. Lisa provides oversight and leadership for research and extension coordination, and advocacy for the REC System, bringing over 25 years of programmatic oversight for natural resources management in natural systems, including 21 years with the USDA Forest Service.

In addition to her professional experience, Lisa was trained as a *Discover the Flyway* docent and enjoyed teaching wetlands science to our students for eight years, from 1996 - 2004. Speaking about the opportunity to match her professional and volunteer experience up as a board member, Lisa says, "I love the new opportunity to work with Yolo Basin Foundation, applying my knowledge and skills to support the Foundation's efforts."

In addition to her career and volunteer pursuits, Lisa is a triathlon swim coach, and most recently has decided to take her leadership and partnership training to a new level by starting her own business as a Life and Career Coach. Welcome Lisa, we're glad to have you aboard! 🌱



### Chris White

Chris is changing the world with alternative transportation. She works for the transportation division of Frontier Energy and works with government and industry clients to promote zero-emission and autonomous vehicles. The California Fuel Cell Partnership is managed by Frontier Energy, and Chris has been the group's communication director for 12 years. She leads a team of six communications professionals who have created some of the most-used outreach materials for FCEVs and hydrogen stations, including an award-winning social media campaign and a software system for hydrogen stations. For most of her career, she has created communications strategies for new technology products and for five years was a spokesperson for IBM.

In addition to serving on the YBF board, Chris is the vice-chair of the West Sacramento Foundation and the 2017 chair of the West Sacramento Chamber of Commerce. Chris also serves on the West Sacramento Economic Development and Housing Commission and is a panelist for Neighborhood Court. She has three grown sons and two grandsons. Chris is excited to bring her knowledge of marketing and communications to YBF to help the organization achieve its strategic goals. She also hopes to build a stronger relationship between YBF and West Sacramento residents. 🌱

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