



Land of the West Wind

April 2024

Volume 24 Issue II



Field educators leading a discussion of a group of sixth graders as they participate in hands-on science activities at Rush Ranch in the Suisun Marsh.

The Watershed Explorer's Program in Suisun Marsh

By M. Guzman, SRCD staff

The Suisun Resource Conservation District (SRCD) appreciates the landowner and general public support it finds across the Suisun Marsh, and community outreach remains an important part of SRCD's efforts. SRCD makes public outreach a focus by assisting with events like California Waterfowl Association's *Suisun Marsh Field Day* and providing a platform for permitting agencies to reach landowners by organizing gatherings like the annual Suisun Marsh Landowner Workshops. The latest community outreach efforts SRCD has been helping to support are in educating "student scientists." The lead field educator for the Solano Resource Conservation District uses this term to describe the group of sixth graders that are part of the countywide Watershed Explorer's Program. The program is designed to enrich local sixth graders' natural resource skills by exposing them to nature through educational based field trips.

The Watershed Explorers Program offers an opportunity to students who normally do not receive environmental education in the field a chance to act like scientists and investigate wildlands that are in their region. It is an all-encompassing program where educators visit the students' classroom for three weeks leading up to a field trip to Suisun Marsh. In the classroom, the educators provide lessons on threats to watersheds, how pollutants move through the environment, and the different concepts about how water travels from source to tap. With the 2-hour lessons, students can learn to recognize the importance of their local watersheds and see where their storm water goes while practicing good stewardship at home to keep debris and pollutants out of storm drains. The program is designed to teach the students about watersheds and then immersing them in their local watershed by attending the field trip to Suisun Marsh.

[Watershed Explorer's Program, Cont. on Pg. 2]

Land of the West Wind

Quarterly Newsletter
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**SRCD's public meetings are every
second Wednesday of each month at
2PM at the
Solano County Supervisors Chambers:
675 Texas Street
Fairfield, CA 94533**

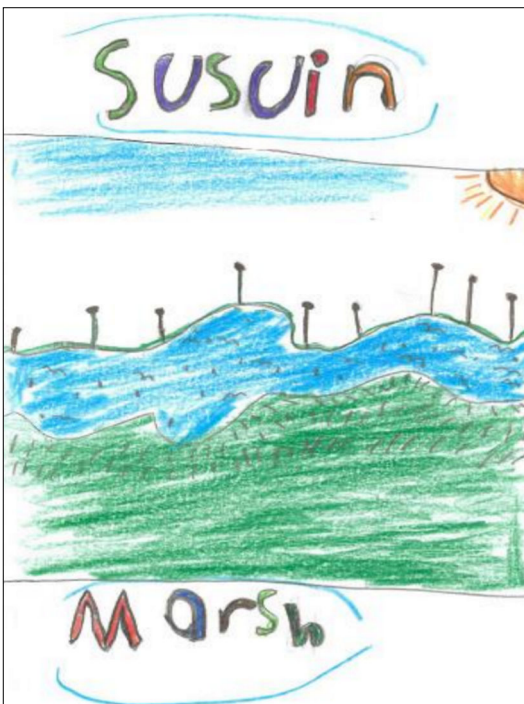
SRCD represents private landowners of the Suisun Marsh at the Federal, State, and local levels. It's historic goal has been to achieve a water supply of adequate quality so that preferred wetland habitat values will be retained through appropriate management practices. With cooperation from landowners and various agencies, SRCD develops new programs aimed at protecting and improving the Suisun Marsh for future generations.



Sixth graders participating in hands-on water conservation experiment at Rush Ranch in the Suisun Marsh.

This year, the students participating in the program will have access to an outdoor science lab where they can observe endangered species habitats, practice collecting soil cores to analyze in the classroom, and study wetland plants that prevent erosion. The program also asks students to consider how climate change can affect each of those topics, leading to larger discussions such as the threat of saltwater intrusion to Suisun Marsh. The final experiment of the field trip involves students in collecting brackish water from nearby sloughs along Rush Ranch to test the water's pH. Marianne Butler, Solano RCD Education Director discusses the meaning of the test results with the student scientists and explains other water quality factors such as turbidity, clarity, and temperature.

After the end of the field trip, students gather in the classroom to learn more about drinking water sources and the importance of water conservation.



Artwork drawn by a sixth grader after attending the Rush Ranch fieldtrip.

They were then asked to try their hand at composing poetry to describe their experiences. The Watershed Explorer's Program is funded by multiple sources in Solano County, and it meets California's Next Generation Science Standards. Since the program started in 2008, it has become more interactive and hands-on for the students. In 2013, 800 students participated, and last December, the program had 1,435 students surpassing the goal of enrolling 30% of the sixth graders in Solano County. By the fall of 2024, the program will have introduced >20,000 students to Suisun Marsh, and seven school districts within Solano County have participated. The hope is that students will be inspired by their experience, and some may even consider future careers in conservation.



The Memories We Make...
*Her first duck — a story related by
M. Guzman*

Harvesting wild game is a learned skill, and those who love to hunt tend to share the experience with their children. Children are often first exposed to hunting experiences during youth hunt days which provide an opportunity for them to see and harvest wild game birds. All types of stories come to mind when recollecting memories from youth hunts. One story, however, stood out from the rest that was told by this young hunter herself.

After returning from the marsh, this young hunter ran into the garage of her family's friend to tell her story. She was determined to share the exciting news with her neighbor, Jean, since Jean was a hunter at the duck club where the girl had her outing. Jean had already heard about the child's success, since the child's father had shared the photo of her epic hunt with every contact in his phone, but Jean still enjoyed listening to the adventures of the young hunter, who was barely tall enough to see over the edge of the blind.

The young hunter explained that in the morning, she along with her father, mother, 3-year-old younger sister, and 2-year-old dog, Mag, were standing out in a grueling

downpour in winds reaching 35 mph. They were feeling exhausted and were minutes away from having her father grab their boat to pack up. There were zero birds on the strap, so her father suggested that they wait another 27 minutes, hoping for a last Hail Mary of good luck.

The mother and youngest daughter were huddling close to "Mr. Heater," the portable heater her father carried to the blind for them. While the girl focused on the sky, her father called and watched countless birds work the pond but never quite close enough. The girl remained still and quiet but discouraged by the weather, until a group of 3 ducks turned and began to work the pond.

The ducks circled the blind two or three times, she said she couldn't remember which, because she only recalled watching their bright orange feet waving in the air. Her father calmly encouraged her to shoot and hoped she was ready, while her mother covered her younger sister's ears even though she already had ear plugs in place. The girl rose and took the shot.

Despite her young age, this was the girl's 3rd year hunting waterfowl, and with a few clay targets under her belt, she shot a bit under the bird but still on target. The bird buckled and dropped into the water, and her father shouted out his congratulations. She smiled across the blind at her mother and sister and waited for their dog to run out and retrieve the bird. Mag, however, was too excited and ran in the opposite direction!

The girl laughed at the dog and decided to wade over to the bird herself, and her father followed a few feet behind to give her a chance to claim her prize. She grabbed the duck by its feet and raised it to show it off to her younger sister. At that moment, her father shouted out — his eyes had caught a glimmer of silver on its leg, and he called her back to inspect it. She thought she had done something wrong and hurried back to him with the bird, but he showed her that the bird was banded with two silver rings, one on each leg! She wasn't sure what that meant, but her father was already on the phone excitedly telling his friends about her first duck.

The little girl was proud of her first successful hunt, and back at the garage, she asked Jean to add her prize duck to the group of birds being readied for the post-hunting barbeque. They would all join in the meal harvested and shared that same day, and the girl would remember the experience for the rest of her life.



A STRONG NESTING SEASON BRINGS GOOD LUCK IN THE FALL

By M. Guzman, SRCD staff



Everyone wants to harvest greenhead mallards, since they are striking, larger-bodied birds that are good to eat. However, the local population in California has been declining in recent years, making it more difficult to harvest mallards. Hunter harvest data indicates that California isn't producing the large number of mallards it once did, and the Suisun Marsh specifically is not supporting or holding the amount of local nesting mallards it was in the 1980s and 1990s.



Band return data from these decades indicates that about 80% of harvested mallards were from the state's local population. Local populations within the Suisun Marsh depend on seeds for food in the winter, but managing for seed production or their preferred water depth or amount of open water in the winter does not help support populations during the spring and the summer.

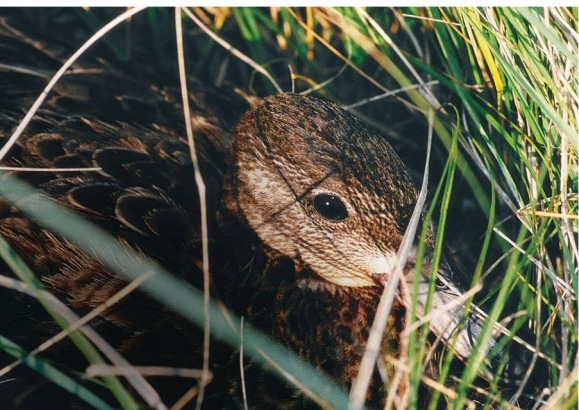


Currently, only a handful of clubs in Suisun Marsh actively manage for breeding local mallards during the nesting season. Management strategies of these clubs include promoting thick and tall standing vegetation to remain through the late summer and maintaining habitats that connect upland fields to summer brood ponds. This management benefits the local nesting population of both mallards and gadwall in Suisun Marsh. It aids in supporting both nesting hens and ducklings at their most vulnerable stages.

For nesting hens, the most vulnerable period takes place starting when egg incubation begins and lasts for about 26 days. During this time, the nesting hens rarely take more than 2 breaks during any given day, so their bright white eggs remain hidden from predators and are protected against the elements. Due to the long incubation periods, tall standing upland vegetation and thick cover provide the nesting hens with protection from searching skunks and raccoons.

U. S. Geological Survey researchers studied these predators for several years by marking and tracking them, and they found that they preferred to travel along habitat borders. The movement data from radio-marked animals showed that skunks and raccoons often do not take the quickest route by directly walking across a field, but rather, they will wander down levees, mowed paths, ditches, and roads in hopes of finding nests along the boundary.

Although, the researchers did not study coyotes, the coyotes likely act as a top predator in Suisun Marsh. They may benefit the nesting ducks by controlling the number of egg eating predators like raccoons, skunks, opossums, snakes, crows, and other bird predators.



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[Good Luck, Cont. on Pg. 5]

[*Good Luck*, Cont. from Pg. 4]

For ducklings, the most vulnerable stage is during the initial movement period when they travel from nesting sites to a freshwater source. Management strategies that protect habitat cover and connectivity between upland fields to summer water may significantly increase duckling survival. At the water source, ducklings are more agile and can quickly hide from land or avian predators in emergent vegetation. Close proximity of summer water to upland fields may dramatically increase the odds of duckling survival. Predators including river otters and striped bass may still lurk under emergent vegetation, but maintaining a shallow water level within the ponds may help.

California Department of Fish and Wildlife (CDFW) acknowledges the value of Grizzly Island Wildlife Area (GIWA) for waterfowl production. Compared to other wildlife areas like Sacramento and Grey Lodge, GIWA successfully hatches an average of 2-times more nests a year than any other Wildlife Area. The large uplands fields at GIWA can be a key driver of duck production in California, since nest success is much higher compared to other areas. Waterfowl biologists estimate that Mayfield nest success of 20% is required to maintain duck populations.

In response to the current low local population, CDFW staff conducted a habitat enhancement project to improve connectivity of the upland fields. The project included leveling ditches, levees, and mounds between the upland fields and cutting a swale in the middle of the fields. The swale provides a nearby water source for ducklings and helps to effectively drain rainwater off the wetland when water depths are high. The project also re-established many native grasses that were lost to a fire that burned 1,000 acres in October 2019.



Management burn on Grizzly Island Wildlife Area, October 2019



[*Good Luck*, Cont. on Pg. 6]

To further help support the local mallard population within Suisun Marsh, CDFW also has promoted a recent research project that is studying the benefits of installing cylindrical nesting structures commonly known as hen houses. These hen houses are made of rolled chicken wire stuffed with straw and mounted on a steel pole over a wetland holding summer water. The hen houses provide elevated nesting options where hens can easily incubate their brood but stay out of a ground predator's reach.

Hen houses are typically deployed in wetland habitat areas with high densities of breeding mallards but where nesting cover is scarce. Delta Waterfowl practices the use of hen houses in a variety of states including Minnesota, North and South Dakota, and Manitoba and Alberta in Canada. Research studies from Delta Waterfowl show huge benefits from hen houses, suggesting that hens in hen houses are 10 times more likely to have a successful hatch than ground nesting hens in nearby dispersed cover.



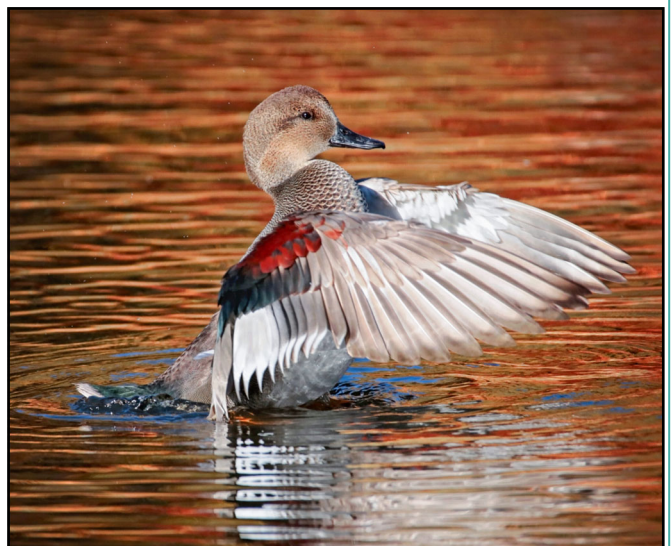
Oregon State University is among the first schools to test the predominantly Prairie Pothole Region management strategy in Suisun Marsh. With CDFW and CWA support, the university started the research project to focus on maintaining and observing nest success in hen houses across GIWA and the Central Valley. The project began its second nesting season this year, and with the help from easily accessible private clubs such as CWA's Grizzly Ranch, over 200 hen houses have been installed. Hen houses scattered across Grizzly Ranch can be seen from Grizzly Island Road along with other hen houses at GIWA Pond 14. Although very early in the long-term study, the project has found that the hen houses are in use by nesting mallards. The biologists also plan to install cameras to observe nest success and duckling departure from the elevated nesting structures. The project will bring a different lens to the nesting season at GIWA and may potentially lead to improved success of the local nesting population. Management for beneficial habitats during the nesting season will be an important practice for increasing more wintering waterfowl hunting opportunities. As the saying goes, good luck is simply when opportunity meets preparation.



GADWALL
MARECA SIREPERA

- Male & females look similar with a prominent white patch on their wing.
- Compared to other dabbling ducks, Gadwall tend to eat more leaves and stems of plants with fewer seeds in their diet. They are more likely to eat crustaceans and mollusks which can give them a deep orange to yellow fat layer.
- Young ducklings are found to eat many insects before shifting to more vegetarian diet.
- Female Gadwalls have a large-square shape head with a steeper forehead than female Mallards. They are also perceived as more protective mothers and will stay sitting on eggs longer when a predator is close by.

- Occasionally referred to as the “gray duck”



Suisun Marsh Field Day



The *Suisun Marsh Field Day* is an annual fund-raising event hosted by California Waterfowl Association (CWA) to raise donations from local sportsmen and women to support outdoor activities and education for children. It has been part of Suisun Marsh for 41 years. In fact, the event's original location at Grizzly Island Wildlife Area's housing compound. It has since moved to CWA's Grizzly Ranch property to accommodate its growing attendance.

The origins of the event and its organization dates back to when CWA, California Department of Fish and Wildlife (CDFW), and Suisun Resource Conservation District (SRCD) employees worked together on nesting waterfowl projects. Robert McLandress, a former CWA president, remembers the event as a gathering party for landowners and an opportunity for the biologists on site to inform the public about their project outcomes in Suisun Marsh. Now, CWA is the primary host overseeing the event with support from individuals at CDFW and SRCD ensuring that different aspects of the Marsh are represented. A *Suisun Marsh Field Day* is a one-of-a-kind public event and a fund-raiser for CWA. All are welcome to participate, so Save the Date!

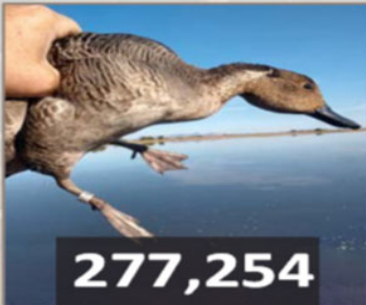
Saturday, June 1, 2024

Grizzly Ranch - 4179 Van Sickle Road Suisun City, CA 94585

FREE ADMISSION FROM 9AM TO 4PM
KIDS EVENT FROM 9AM TO 1PM

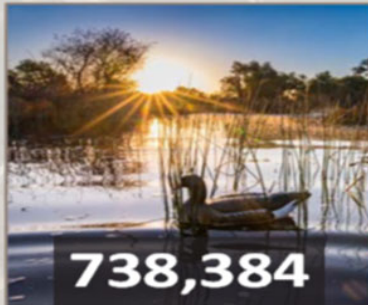
PRE-ORDER ONLY! Order by May 27th to receive a New York Steak lunch with sides, salad & Drink for \$40

Birrieria Gera Food Truck & Hot Dog lunches are available the day of event for purchase



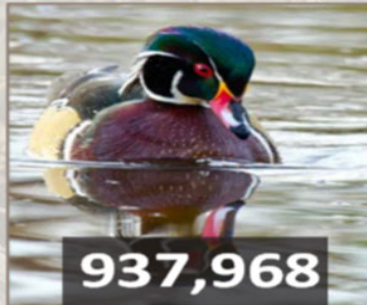
277,254

waterfowl banded



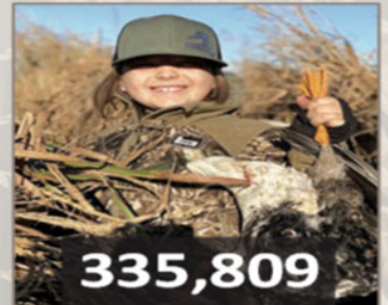
738,384

acres preserved



937,968

wood ducks hatched



335,809

youth educated

WATERFOWL | WETLANDS | HUNTING | EDUCATION | ADVOCACY

For more information, contact Orlando Rocha at (916) 719-1993,
Zach Stratton at (925) 200-3606, Jeff Taylor at (530) 588-3765 or
Aidan Brennan at (707) 439-6487

Or you can register online using QR Code >>>>>



Activities

- Youth Duck Calling Contest
- Youth Shooting & Duck Banding
- Youth Art Projects
- Bounce Houses
- Vendors
- Live Auction
- Raffles & Games
- PFDA Decoy rig competition



Land Of The West Wind
SRCD Newsletter

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Spring is in air, and Summer is coming quick! Reminder for the upcoming seasons:

The Preservation Act Implementation (PAI) Grant Program next deadline is June 30th

The Suisun Conservation Fund Fun Shoot and Social will be hosted on July 26th

The Dredging Application deadline is April 30th

Chemical applications for *Phragmites* control are currently being accepted

The Delta Smelt closure is in affect until May 31st

