

## **Yolo Bypass Wildlife Area**

Trip Armstrong and Peter Moyle, last update, October 2007

### **Introduction**

Yolo Bypass Wildlife Area is a 15,830-acre reserve that is mostly seasonal and permanent wetlands. It also contains some riparian habitat and upland or grassland habitat. One of the best aspects of this reserve is its proximity to the City of Davis: it is only about three miles east of Mace Blvd. A trip to this area during the fall or winter provides the visitor with a chance to see thousands of over-wintering waterfowl, including many species of ducks and geese. The Great Central Valley of California is the largest and most important wintering area for birds that travel in the corridor known as the Pacific Flyway, one of the four major migratory corridors for birds in North America. The Central Valley is important because historically much of it was a vast wetland, often flooded in winter. Only about 5% of all historic wetlands in the Central Valley still exist, with less than one third of these being on state or federally protected land. Dwindling habitat from development makes protected areas such as the Yolo Bypass Wildlife Area (YBWA) extremely important for conservation, yet it also provides excellent wildlife viewing opportunities. The designers of this natural area have not tried to return the land to the way it looked 500 years ago. Instead, they have developed a seasonal wetland system that can be intensively managed to favor native animals and plants. Other objectives of the reserve include providing educational opportunities with respect to wetlands and providing controlled hunting opportunities. Hunting is permitted on some specially designated areas only and most of it is closed to all activities other than wildlife observation.

For more information, including maps, go to:

**[http://www.dfg.ca.gov/lands/newsites/wa/region2/yolo\\_bypass/yolo\\_index.htm](http://www.dfg.ca.gov/lands/newsites/wa/region2/yolo_bypass/yolo_index.htm)**

### **What one can expect to see**

Well over 200 species of migrating birds can be observed at the YBWA. There are numerous resident species as well. Some of the migrating birds use the wetlands of the Central Valley as a temporary resting point along longer journeys, while many others stay for an entire season. Among the most common types of birds you should look for when visiting the YBWA are: egrets, great blue herons, black crowned night herons, red-winged blackbirds, white faced ibis, tundra swans, Canada and snow geese, great horned owls, white pelicans, and many species of ducks, hawks, and shorebirds. From mid-fall into winter, the large number of over-wintering waterfowl attracts large raptors, including peregrine falcons, golden eagles, and bald eagles.

Yet birds are not the only wildlife that reside in the YBWA. Dragonflies can be seen roaming the open areas for other insects to eat, while grasshoppers abound in the more upland dry areas. A few species of butterflies are common including varieties of sulfur and whites. In addition to these obvious insects, many other species reside in the water in either larval or adult forms. Lower Putah Creek flows along the south edge of the Wildlife Area and connects the wetlands with the Sacramento River to the south and the Coast Range to the west. A few native species of fish are present in the waters of the

YBWA such as the Sacramento splittail, chinook salmon, steelhead, green and white sturgeon, and Sacramento sucker, as are many alien species such as common carp, mosquitofish, bluegill, threadfin shad, and striped bass. Although it is usually difficult to see fish, glimpses of them can be caught in shallow areas along shores or by seeing remains of individuals captured by herons and otters. Bullfrogs, diminutive Pacific tree frogs and western fence lizards are usually fairly easy to observe. In addition to all of these animals, numerous species of mammals inhabit the reserve throughout the year. Among these are the beaver, river otter, muskrat, raccoon, opossum, cottontail rabbit, coyote, striped skunk, gray fox, and mice.

### **History of the Wildlife Area**

Efforts to create the Yolo Bypass Wildlife Area began in 1989 when a group of local citizens, alarmed at the decline of habitat for wildlife, decided it made sense to have an area devoted to wildlife conservation in the Yolo By-pass. To see make their dream a reality, they worked with state, local and federal agencies and with farmers, conservation groups, hunters and politicians. This diverse coalition worked because each of its constituencies could see benefits from managed wetlands in the Yolo basin. The California Department of Fish and Game identified the Yolo Basin as a high priority site for restoration efforts in the Central Valley, because it was in a location halfway between major wildlife areas in the Sacramento and San Joaquin valleys. Concerns existed that restoration of the wetlands might prove harmful to local farmers, flood control efforts, or mosquito control efforts. In response to these fears, studies were performed that demonstrated that health, safety and economic concerns could be satisfied were a restoration project to be undertaken. In 1991, 3,150 acres of essentially neglected farmland were purchased for the California Department of Fish and Game. Since that time, additional holdings have been purchased and annexed, bringing the total land area of the Wildlife Area to 15,830 acres. The U.S. Army Corp of Engineers was contracted by Ducks Unlimited in 1995 to design the engineering specifications of the reserve. Much of the Wildlife Area have been designed to be managed as permanent wetland, seasonal wetland, and native grassland. About 100 acres has been set aside for the park headquarters and maintenance facilities. What may appear to be a natural system of ponds and marshes is actually a complex imitation of an intensely managed system. Each of the various bodies of water can be drained and filled according to the particular management goals.

Although the YBWA was created with the primary intention of providing habitat for birds, it also provides habitat for other wildlife. Many native fish species are adapted to forage and spawn in the slow moving warm waters of the floodplain. The entire Yolo Bypass and the wildlife Area provide the needed floodplain habitat for native species such as chinook salmon, Sacramento blackfish, and Sacramento splittail. Splittail were recently removed from the Endangered Species list because population sizes have been increasing as a result successful spawning in the floodplain habitat provided by the Bypass.

It is also important to recognize that this preserve is not an enclosed ecosystem. All parts of the Wildlife Area are interconnected with the surrounding more developed areas. The Yolo Basin Foundation is attempting to develop new approaches to conservation outside the YBWA that will protect its many fragile ecological processes. Once the

engineering designs for the wetlands were complete, the bulk of the work still needed to be accomplished. The greatest achievement of this project lay in its success at bringing together the various politicians, farmers, state agencies, federal agencies, interest groups and private citizens. In 1997, President Clinton visited the YBWA in order to praise its restoration and organizational accomplishments. In his dedication speech, he commended the Wildlife Area's planners on their commitment to obtaining conservation and economic harmony.

The Yolo Bypass Wildlife Area is now under the management of the California Department of Fish and Game (CDFG). The Yolo Basin Foundation, a community based education group, is responsible for educational programs that link the general public with the Wildlife Area. The area has been officially named the Vic Fazio Yolo Bypass Wildlife Area in honor of the local congressman who played a major role as a catalyst in getting agencies to work on wetlands and in getting diverse groups to work together.

### **Best Time to Visit**

The YBWA is open all year around, sunrise to sunset, depending on the condition of its roads. This guide is designed to work best in mid-October- January because this is when the most birds are there, when the seasonal wetlands are flooded to attract the birds, and when the By-pass is unlikely to be flooded. The elevated walking and driving paths usually remain open year round. Some winters, however, the flooding closes the auto tour roads for weeks at a time. These closures usually occur during February and March. Also during certain weeks of the winter parts of the reserve are closed for hunting. It is important to learn what areas are restricted to observation and which are open to hunting. When spring returns to the Central Valley, the wetlands of the Wildlife Area once again begin to dry, and many of the birds leave for other areas. Information on roads and other topics can be obtained by calling (530 -758-1018), or checking at the YBWA Headquarters. The Headquarters is open on most week days. A good time to visit is in the mornings when it is cool, because that is often when the most wildlife can be seen. Alternately, go late in the day, *leaving at sunset*, because ducks and geese often have spectacular flights as it begins to get dark.

### **Precautions**

The primary rules to observe when visiting the wetlands of the YBWA are to remain quiet and stay in your car, except on designated hiking trails. Most of the birds and other wildlife in the reserve will remain undisturbed by you if you do not make loud noises. Particularly in the spring, one should also be aware that there are often nests along the roadsides. Banks are often slippery or not as solid as they appear, so stay on roads or marked trails. Always observe the closed areas, they are closed for your safety and for the protection of wildlife. Feel free to get out of the car to observe things more closely, but remember that you will often see more using the car as a blind. Bathrooms are located at the headquarters and in the parking lots.

### **Length of Trip**

The Yolo Basin Wildlife Area is only a ten-minute drive from downtown Davis. The amount of time a typical visit takes ranges from about 2 hours to most of the day.

## **Trip Guide**

From Mace Boulevard, cross the I-80 overpass to the south and turn east on Chiles Road. Start keeping track of mileage here.

### Mileage

0.0 Intersection of Mace Boulevard and Chiles Road, head East on Chiles Road

1.3 YBWA Headquarters on right side of road. Turn right at the sign that indicates the parking area. If you are there during visiting hours, enter the headquarters and take a look around at the small displays of local wildlife. Feel free to ask any questions you may have. You can also obtain one of the small printed maps of the Wildlife Area. Once you have finished here, continue to drive east along Chiles Road.

3.3 Just past the freeway entrance and a large metal rice drying building, turn right onto a gravel road, that climbs up onto a levee (embankment). At the top of the levee, stop the car and get out for an overview of the Yolo Bypass. For orientation, the levee runs north to south and the Yolo Causeway runs east to west. The Yolo Bypass, built in 1917, is an area that is designed to carry the flood waters of the Sacramento River around Sacramento (through which the river itself flows), keeping the city from being periodically inundated. It is essentially a wide flat area with high levees on each side to contain the water. 43 miles long and four miles at it widest, the flooded bypass is one-third the size of the San Francisco Bay. When high flows come down the river, the water tops a low wall at the north end of the bypass (Fremont Weir) and flows into the bypass. The water then spreads across it, eventually rejoining the river near Rio Vista to the south. The bypass is generally flooded only in wet years and for fairly short (2-8 weeks) periods of time, so it can be farmed in the summer, which is its primary use.

Follow this road as it makes a couple of turns and enters into a gravel parking area.

3.6 Look at the signs in the parking area to double check for hunting closures and other regulations. Make sure that you are aware of these before you start on your tour. Follow the only road that heads to the south from the parking lot. The actual auto tour begins here, so remember to drive slowly. Also try to keep your eyes and ears open the entire time in order to observe the numerous animal species that you are likely to encounter. The guide will help you experience much of the preserve, although, not surprisingly, animals move around and cannot be described as being in one place or another. If you leave your car, move slowly and quietly.

3.7 Note the small trees on the right. These are willows growing along a ditch. Because they are a high perch in a flat land, there are often hawks sitting on top of them. As you drive along, continue to look for hawks on trees and utility poles. The most common hawk you are likely to see perched is the red tailed hawk, a large bird with a reddish tail. The most common hawk you are likely to see flying is the northern harrier, a dark hawk with a white rump patch that swoops low over the marshes seeking water birds as prey.

Experienced birders can expect to see 4-5 other kinds or raptors in a short trip. The brown birds along the road that fly up as you drive are most likely meadowlarks, identified by the flash of white tail feathers. They have a melodious song that you can hear at times when you stop.

4.5 Bud Pahl pond is located on the right (west) side of the road. This is the first place you can really begin to see ducks and other aquatic birds. Often on this permanent body of water you can observe numerous species of waterfowl, including mallards, coots, and piedbilled grebes. A careful examination of the trees just beyond the pond may reveal several black crowned night herons. These are large birds that remain mostly inactive during the day by roosting in the trees along the edge of waterways, or by wading in the shallows and the shadows at the water's edge. The best sign of the richness of this habitat for wildlife are all the birds you can usually see in the air around here. Look for big flocks blackbirds wheeling around in the sky, dropping suddenly to roost in a tree or to feed in a field. Small flights of ducks can be identified by their quick wing beats and, often, v-formations. Individual herons and egrets are constantly flying from one feeding site to another, while vultures soar overhead.

Depending upon the time of year, the fields to your right (south) will be either dry grass, or a wet marshy area. This is an example of one of the management strategies that the wildlife area uses. This *seasonal wetland* can be flooded or drained at the manager's discretion in order to provide the proper habitat for different species of waterfowl or other animals. Wetlands are an important part of the ecosystem of the Central Valley. They provide flood control, groundwater recharge, storm buffers, shelter for wildlife and pollutant absorption. Many native species that reside in the Central Valley have evolved to take advantage of the seasonal flood patterns that occur annually. The adaptations of native plants and animals remind us that flooding is a natural phenomenon that we need to learn to live with and benefit from rather than constantly trying to control.

4.45 The structure on the right side of the road is a pumping station that is a tool for the management of the wetlands of the preserve. This small pump is used by the preserve managers to maintain water levels in the marsh that encourage the growth of native fauna and flora.

4.5 Just past where the road veers left (east), there is a turn-off for parking lot B. Drive up and park. Quietly get out of your car and observe the large pond just ahead of you. This is another of the seasonal bodies of water in the YBWA that has been sculpted from former flat farm fields to create the ponds and islands you see. Since the Gold Rush, freshwater seasonal marshland in the Central Valley has declined over 95% from its original acreage. Protected marshes such as this one are critical in providing habitat for numerous species of birds that over-winter here and also for birds that use this as a rest stop during long migrations north and south to summering and wintering grounds, respectively. This pond is a favorite foraging and roosting place for herons, egrets and other water fowl. The egrets are the white herons; the small ones are snowy egrets, the large ones, great egrets. The largest wading birds (with a white streak on the sides of their heads) are great blue herons, although white pelicans can also be seen here on occasion.

As you drive back to the tour road, notice the field immediately to the north across

the road. This agricultural area is part of the reserve that is used to grow wild rice and other wildlife-friendly crops. Other agricultural lands are privately owned. During the spring, areas like this are flooded. Many of these areas are divided into oddly shaped fields, with each separate segment isolated from the next by winding walls of earth. Because this part of the Yolo Basin has always been a flood plain for winter pulses of water, and the soil is clay-like and not as porous as other soil types, local farmers have found it good soil upon which to plant rice. The flood cycle and impervious soil work well with the requirements of the rice plant to grow in standing water. The wavy dikes are designed by the farmers in order to keep the depth of the water as consistent as possible. Traditionally once rice was harvested in the late summer, farmers would burn the fields to remove the plant stubble. Today, in order to encourage migratory birds and to meet air quality standards, farmers break up the plant debris with a disker and then re-flood the fields. This practice provides thousands of acres of temporary habitat for waterfowl all across the Central Valley and does not contribute to air pollution. Wildlife-friendly farming practices such as this are examples of the types of innovations that conservationists strive to develop. These wild rice fields, which are also important habitat for waterfowl also illustrate the need for managers of wildlife areas to work with surrounding landowners to maximize benefits to wildlife.

4.7. Look in the ditch on the left side of the road for pied-billed grebes (small birds that swim with a jerky motion, perhaps catching a fish) and white egrets.

5.1 Stop by the large pool of standing water on the right (south) of the road, just before the road curves to the right. The pond is screened by dry weeds so is hard to see but they also screen your car from the ducks. The tall hollow-stemmed plants that you see growing on the west side are tules. Tules (also known as bulrush) are a group of species that only grows in places that are wet year round. Park managers encourage its growth because birds of the marsh thrive on the seeds it produces. Immediately south of you are cattails, the large marsh plants with long narrow, flat leaves and brown or fuzzy white "cat tails" on the top of stalks. Cattails good cover and nesting habitat for many birds but they can completely fill in ponds and wetlands, necessitating their control. If you hear a hidden bird singing a loud call that is a mixture of bubbling gurgles and squeaks, you are hearing a marsh wren, a small brown bird that nests among the cattails.

5.3 You are now driving on one of the Wildlife Area's eastern borders. To your left is private farmland, to your right a protected marsh. It is important to note the lack of a real border here. Why do you think that there is not even a fence here? What sorts of things would a fence keep in or out and what would not be hindered in any way by the presence of a barrier of some kind?

5.7 Parking area "C". Park here and walk first to the culvert under the entry road. If water is flowing into the ditch on the north side, and you may see schools of mosquitofish that have been planted for mosquito control. If you don't see them here look for them in other ditches. They are an important food for many of the herons. At times, you can see Chinese mitten crabs trying to climb into the outflow, eager to move upstream. These 6-10 inch (claw to claw) invade California in the 1990s, traveling here from China as larvae

in the ballast water of ships. Their impact of these crabs on local ecosystems has not been determined, but they can sometimes clog fish screens, rendering them non-functional. Their role in local food webs is also unknown, although otters eat them. Walk to the west end of the lot and proceed down the trail that heads away from the lot and to the right (north). Walk quietly and watch for birds in the water on your left. Note birds roosting on low islands that were created just for this purpose. Occasionally, a large flock of white pelicans will roost in this pool. They are amongst the largest birds in the reserve and have one of the largest wingspans of any bird in the world. When you have had enough, turn around and head back to the car. Continue driving along the road in the same direction as before.

6.5 At this point the road ends at a T. During hunting season, a trailer is parked here to house employees of the California Department of Fish and Game who check hunters in and out, keeping track of the kinds and numbers of ducks and geese that are shot. Turn left if you have brought your shotgun and hunting license with you and it is duck hunting season. Otherwise, turn right and drive west. Notice the irrigation canal on the left side of the road. You are once again driving next to private farmland and this canal transports water from one area to other parts of a field. It is an ancient method that has been used in all parts of the world. In the Central Valley of California, irrigation canals carry fish and invertebrates (especially non-native species) to other parts of the valley, in addition to carrying water to fields. These species can then invade natural habitats to the detriment of native species.

The water also is carried to ponds of the YBWA to help keep the water fresh. A major problem in wildlife areas like this one is die-offs of waterfowl from diseases such as waterfowl cholera and botulism. The disease organisms thrive in stagnant water, so keeping the water flowing is an important preventative measure, as is removing all birds found to be dead or dying of disease.

6.6 Turn into parking area "D" and park the car. Walk along the loop trail that leaves from the northern edge of the parking lot and trends in a westerly direction. Note the willow thicket on your right, an important roosting area for small birds and herons. **This trail may be hard to find, despite signs.** You are walking along seasonal wetland and should keep your eyes open for more birds that are feeding and swimming in the waters to your right. To the left is or was permanent grassland. Contrast these two habitats. What are the differences between the plants and animals found to the left and to the right of the path?

Eventually you will reach a patch of riparian forest: trees and woody plants that grow alongside of water. Turn left (south) as the trail splits in opposite directions. These are the only trees that you have come near during the tour. If you look to the north, you will notice that this line of trees extends almost to where you started the auto tour, at the edge of the causeway. Why do you think that trees are found here and not in other parts of the reserve?

Beaver are quite active in this part of the Wildlife Area. Look at some of the smaller trees on your right, and the smaller stumps for gnaw marks, evidence of beaver activity. In order to manage and encourage the growth of trees in this part of the reserve, it is necessary to protect the smaller trees with wire mesh, which the beavers' teeth cannot

gnaw through.

You should also keep your eyes open for owls and raptors that can often be seen residing high in the branches of these trees.

Once this trail meets up with the road, turn left (east) and walk back to your car. Continue driving easterly back towards where you entered the road to the lot "D".

6.7 Turn left on the road that is marked as "auto tour". You are now driving directly through the seasonal wetlands of the YBWA. Be especially observant as you drive this last section of the tour, stopping at the turnouts provided. Probably the commonest water birds you will see here are coots, chunky black "ducks" with white pointy bills. Often coots swim in slow flotillas. If you have not yet seen a flock of white-faced ibis, look for them in these wetlands. They are shiny black/green birds with long legs, white circles around their eyes, and a long, curved beak. Ibis are fairly uncommon in California and represent the kind of birds that birders love to come to observe.

7.9 Look to the right here and you will see an elevated section of earth that runs most of the length of the marsh. The managers of the park built this dike in order to provide solid ground which birds could use for cover. Most likely there are many individuals in there now, hiding from your sight.

8.4 You are now heading back on the two-way road on which you entered. Continue past the main parking lot and retrace your route back to Chiles Road. Turn right if you want to return by freeway, left if you want to go back to the YBWA headquarters. Say a brief thank you to former congressman Vic Fazio for leading the political effort necessary to make this wildlife area a reality and the many citizens who made this area possible. For information about being volunteering to help out in the area, go to the website of the Yolo Basin Foundation.