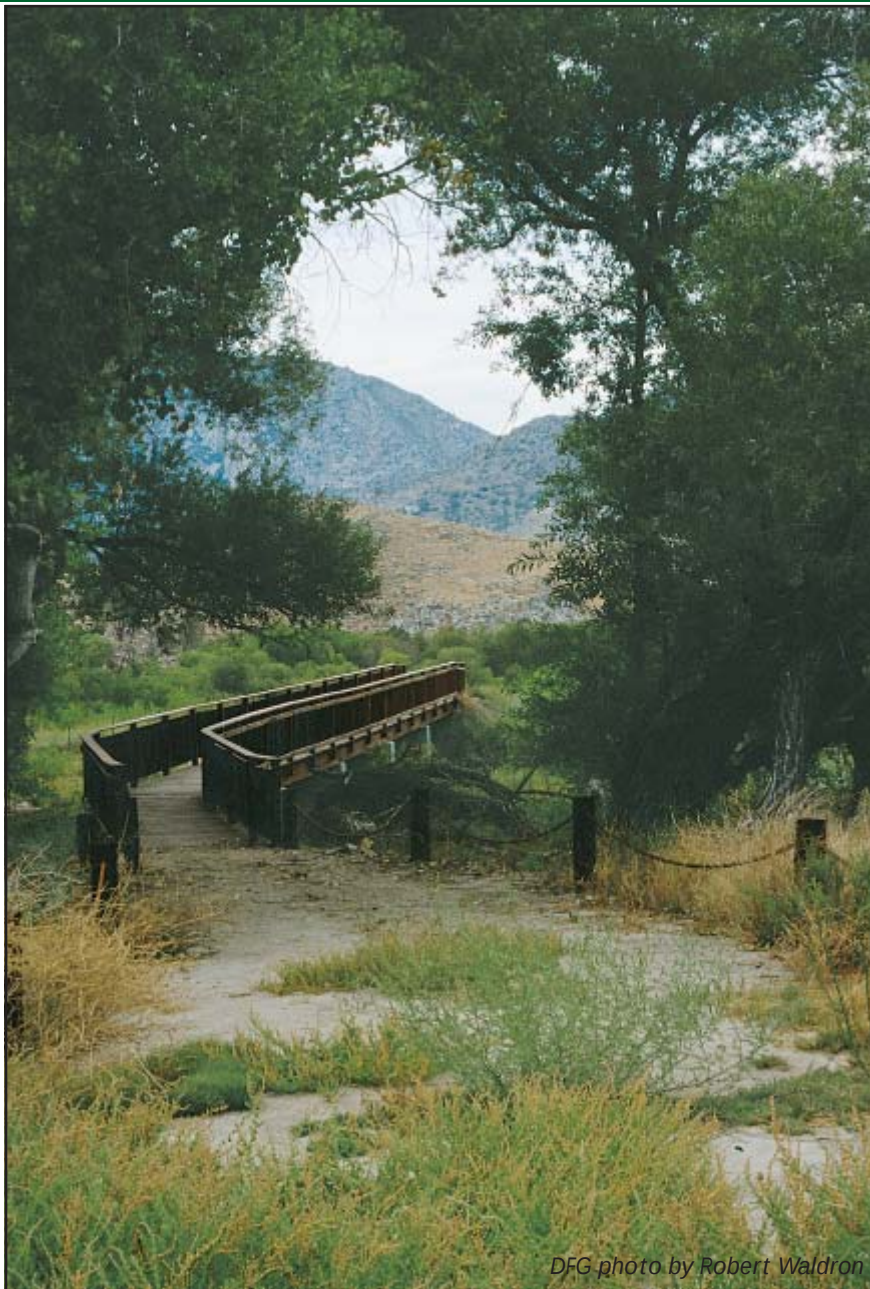




DFG photo by Robert Waldron



DFG photo by Robert Tibstra



DFG photo by J.W. Wilburn

Above, Canebrake. Top right, rattlesnake. Bottom, tri-colored blackbird.

Canebrake Ecological Reserve, the emerald in the state's golden crown

Imagine yourself walking along in the blazing desert sun looking at the jagged peaks of the high sierra as they tear into the sapphire sky. Suddenly, the buzzing sound of a rattle prompts you to action — you swiftly skirt past an enraged, coiled mojave rattlesnake poised at the edge of the shade of a Joshua tree. Within seconds of your adrenaline-fueled retreat you enter the cool and shaded shelter of massive cottonwood trees lining a bustling creek. Rising above the sounds of the running water you hear the melodious singing of birds in the breeze. As you look up to the

sounds, you see the brilliant red color of a pair of summer tanagers. Where are you? Some exotic locale or distant land?

By Kevin O'Connor

No, your feet are soundly on the ground in California at the Department of Fish and Game's (DFG) Canebrake Ecological Reserve (CER).

Tucked away in a quiet corner of northeastern Kern County, known as the South Fork Valley, the CER holds

unparalleled diversity and striking natural beauty where five out of the seven bioregions that occur within California (Mojave Desert, Central Valley, Sierra Nevada, Chaparral, and Great Basin) converge. Over 330 species of birds have been documented nesting in or migrating through the South Fork Valley. Approximately 2,000 species of plants (one fourth of the state's total), 67 percent of the state's butterfly species, and 115 species of mammals also occur in the South Fork Valley.

This enormous display of biodiversity



Canebrake ER information.

DFG photo by Robert Waldron

has given the South Fork Valley many distinctions. It was one of the first 10 "Globally Important Bird Areas" designated in the United States. It is also one of four "Flagship Projects" for the California Riparian Habitat Joint Venture. Without question, the CER and the South Fork Valley are a biologist's and nature lover's paradise. And, upon closer inspection, there is even more to offer.

History

The CER is located where the South Fork of the Kern River leaves the steep and rugged hillsides of the Sierra Nevada and enters the flat bottom of the South Fork

Valley. Historically, the river's natural meander would begin here, as its slower flow would cause the deposition of sediments transported from the high sierra. This meander and high water table formed a wide and fertile carpet of lush riparian habitat along the length of the South Fork Valley's floor. This greenbelt, undoubtedly an oasis and sanctuary for countless numbers of wildlife and fish, supported a vibrant population of Native Americans who were a part of the Tubatulabel culture. It is estimated that the Tubatulabel first inhabited the South Fork Valley at about 1000 B.C. They are a part of the Uto-Aztecan family and are most closely related to other Native

American cultures of the Great Basin.

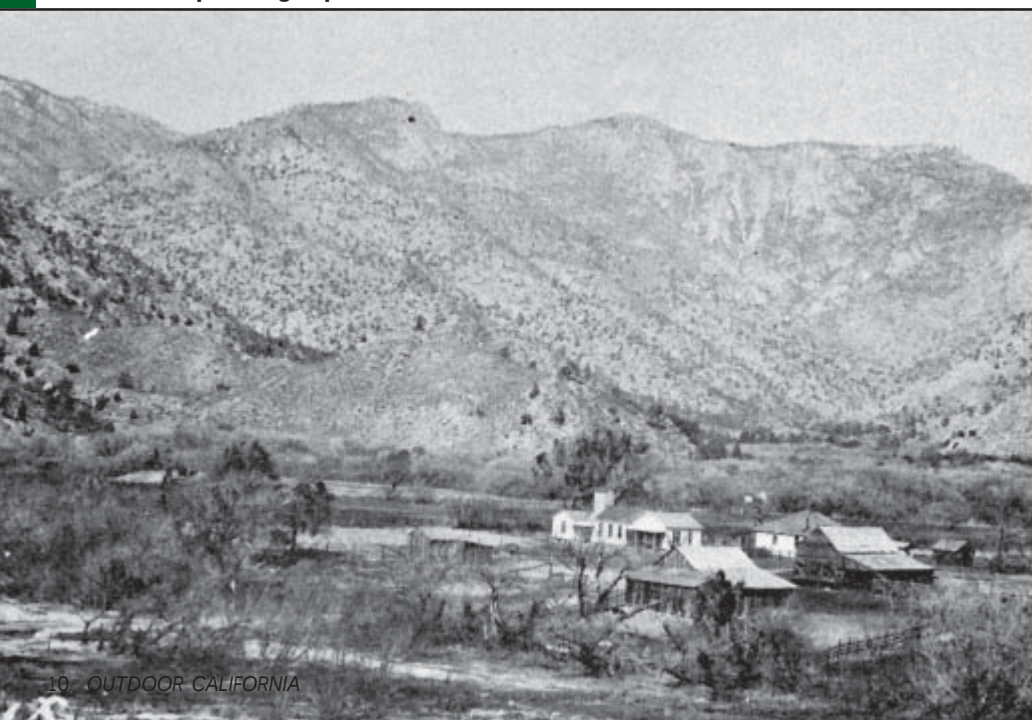
The Tubatulabel had several villages or family hamlets throughout the South Fork Valley. The confluence of the South Fork and Canebrake Creek, where the CER is located, was an ideal location for one of these settlements. In fact, today evidence exists throughout the reserve in the form of artifacts, that this site was a very important settlement for the Tubatulabel people during the cooler weather months as they migrated from their summer camps in the high sierra to the lowlands. Food, shelter, and other resources were abundant and able to sustain them throughout most of the year.

The European culture first visited the South Fork Valley in 1834, when Captain Joseph K. Walker of the United States Army made contact with the Tubatulabel near the location of CER. Settlers soon followed and by 1860 fully established residence. Though most of their former lands and culture have been altered, remnants of the Tubatulabel still exist and the descendants still live in the South Fork Valley on the White Blanket Reservation. Though the DFG's mission focuses on the protection of natural resources, it is also committed to providing that same level of stewardship for the significant cultural resources that occur on the CER.

Canebrake Creek was named in 1853 by Lieutenant R.S. Williamson while searching for a railroad route over the Sierra Nevada. Reportedly, Lt. Williamson came up with the name as a result of finding that the Tubatulabel people would camp by the creek and collect a native cane from which they would process a sweet sugary substance. The name of the creek is also the source of the name for the reserve since the watercourse passes through and empties into the South Fork of the Kern River within the boundaries of the CER.

Before acquisition by the state, CER was known as the Bloomfield Ranch. This ranch was one of the first in the South Fork Valley, established as a co-op around 1872, when James Pruitt filed for river water rights on the South Fork of the Kern River. Various owners have operated the Bloomfield Ranch over the last 129 years, and early family names include Rankins, Hutchison, Thomas, Gardner, and Powers. Evidence of this long ranching history is widespread over the CER in the form of old wagons, ditches and structures. Some of the current structures of the main ranch complex date back to the early 1900s. An 1890 cedar and earthen flume still stands and runs along the northern boundary.

This ranching history of the South Fork Valley and Bloomfield Ranch greatly



Historical photograph of Canebrake.

altered the river system and riparian habitat that runs through it. Several ditches carry river water away from the river bed to irrigate fertile valley floor soils to grow crops and productive pasture. Many years over the past century the mighty South Fork of the Kern River has almost run dry. Acres of historic riparian woodland has been converted to agriculture, removing key habitat for many riparian dependant species of wildlife. But, not all impacts of this development are negative for the fish and wildlife of the South Fork Valley — the irrigation network spreads water to upland areas that were previously dry. All along the ditch networks, hundreds of riparian trees and shrubs, mostly cottonwoods and willow, have sprung up to take advantage of these year-round water sources. Over the last century the result has been the development of numerous miles of riparian stringer habitats snaking out over the valley floor.

DFG's chapter in the history of the Bloomfield Ranch began in 1990 with the development of a conceptual plan to acquire and protect riparian habitat in the South Fork Valley. DFG coordinated with the Partners in Flight Program and completed this plan in accordance with the California Riparian Habitat Conservation Program of the Wildlife Conservation Board (WCB). DFG acquired the Bloomfield Ranch in 1994 and involved the valuable assistance of many partners including agencies such as the WCB, the U.S. Forest Service (USFS), and the Bureau of Land Management (BLM). Other invaluable partners included members of the private sector such as neighboring land owner Carl Allen, and non-profit conservation organizations such as The Nature Conservancy and Audubon Society. In 1996 the Bloomfield Ranch and its 1,300 acres became the Canebrake Ecological Reserve as it was designated by the California Fish and Game Commission. Within the last year, DFG acquired an additional 120 acres that has been added to CER. DFG is also currently making significant progress in acquiring an additional 1,000 acres of adjacent Cap Canyon to permanently protect a valuable wildlife corridor and watershed that flows to the CER.

Who calls the Canebrake home?

Many species of fish, wildlife, and plants call CER and its habitats home. In fact, numerous rare species either occur or have strong potential to exist on the property. One is the southwestern willow



A rock house, part of the old ranch.

DFG photo by Robert Waldron

flycatcher (*Epidonax traillii extimus*). This species of bird nests only in dense riparian vegetation associated with watercourses and wetlands. Populations declined in the 20th century primarily due to the loss and modification of this habitat type. This species is currently listed by the federal and state agencies as endangered and protected under their respective laws. The southwestern willow flycatcher is known to breed at only 75 sites in riparian areas throughout the southwest. The South Fork Valley is currently the western-most extension of this breeding range with several pairs nesting at a nearby Audubon Preserve. Within the last couple of years, biologists have detected the presence of

male southwestern willow flycatchers apparently attempting to establish territories on the CER where suitable nesting habitat either exists or is being restored. Undoubtedly, through the DFG's management, with assistance from its partners, the CER, along with the rest of the South Fork Valley, will significantly contribute to the successful recovery of this rare species.

Other rare species that occur on the CER include the yellow-billed cuckoo (*Coccyzus americanus*), tricolored blackbird (*Agelaius tricolor*), summer tanager (*Piranga rubra*) and southwestern pond turtle (*Clemmys marmorata pallida*). In the early 20th century, foothill yellow-

Canebrake trail leads to many attractions.

DFG photo by Robert Waldron.

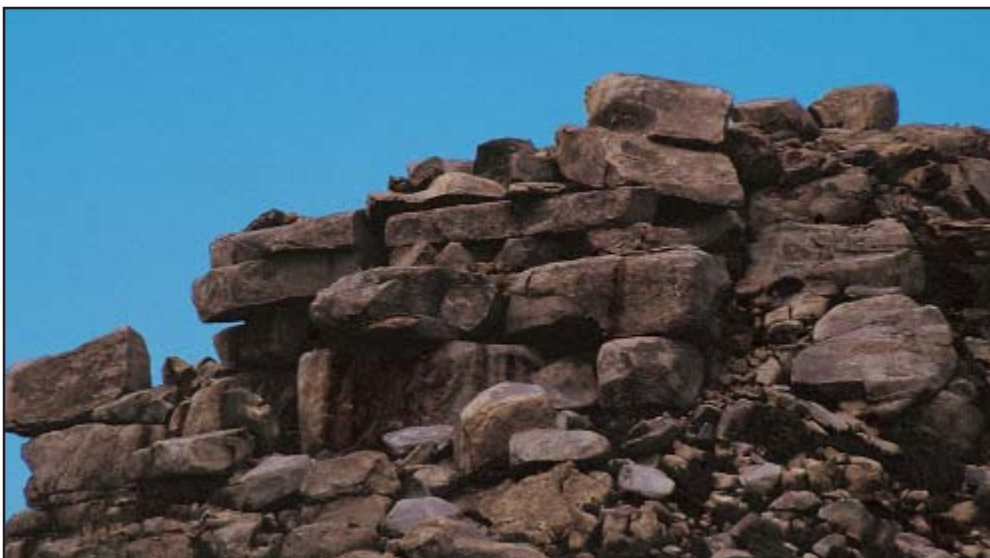


legged frogs were also found throughout the South Fork Valley and the CER. Historically, California golden trout (*Onchoryncus mykiss aquabonita*) and Kern River rainbow trout (*O. m. gilberti*) thrived in the South Fork of the Kern River. Today however, those species have been replaced with introduced brown (*Salmo trutta*) and rainbow trout (*O. mykiss*). Other native fishes that occur on the South Fork of the Kern River include hardhead (*Mylopharodon conocephalus*) and Sacramento pikeminnow (*Ptychocheilus grandis*).

Current events

In 1999, DFG contracted with the California State University, Fresno Foundation to begin implementation of a riparian habitat restoration plan developed by Eremico Biological Services (a local consultant). Funded by WCB, the plan calls for the restoration of riparian habitats throughout the CER that have been converted to pastures. The initial phase involves restoring only about eight acres of irrigated pasture to dense riparian associated woodland. Over time DFG will monitor the site's progress and assess its attributes, making adjustments to its management and planning for the balance of the CER and other restoration sites identified in Eremico's plan. The Audubon's Kern River Preserve employees and volunteers directed and carried out the planting of the initial phase, now completed. To date, the project has been very successful with extremely high survival rates of the plantings. Species that were planted include Fremont cottonwood, red willow, Oregon ash, white alder, mulefat, mugwort, and hoary nettle. Future phases of this restoration plan will be implemented over time, as funds become available, so that the current ranching operation on site can be adjusted, without interruption to its viability, to help manage and maintain the existing and restored riparian habitats.

In addition to the biological restoration efforts being planned and implemented on the CER, DFG is also developing plans and facilities to allow the public to use and appreciate the unique values of the property. Recently DFG, with the financial assistance of the WCB, completed the initial construction of a public use trail that crosses the northern portion of the CER. This trail allows the public to use a portion of the reserve to hike, birdwatch, or just enjoy the cool afternoon breeze under the shade of a cottonwood tree while sitting on a bridge overlooking Canebrake Creek. This trail also provides



Rock formation at Canebrake.

DFG photos by Robert Waldron

the public the opportunity to access federal lands to the north that were previously isolated. Although hunting is not allowed on the CER, historically excellent chukar hunting has occurred on the federal property. Visitors should be sure to bring lots of water, to watch for rattlesnakes, and to pack a camera because the views are awesome. In the future DFG, with cooperation of the WCB, USFS and BLM, will provide improvements to this trail to enhance the public's experience.

How to get there

Canebrake Ecological Reserve is located along Highway 178, 20 miles east of Lake Isabella, five miles east of the town of Onyx, in northeastern Kern County. Currently, the only public access is at a marked dirt parking lot off of the highway. There you will find an information sign with a map at the head of the public use trail. There are no seasonal closures, but regulations are in place to protect the resources as well as the outdoor experience for everybody. Also, visitors must close all of the gates they walk through so wayward cattle do not find their way onto the trail. Most important though, remember to take time to indulge the senses and enjoy the natural heritage.

What the future holds

The diversity of the entities interested in protecting, preserving and enhancing all of the resources of the South Fork Valley is comparable in scale to the biodiversity present. Proponents include not just the typical conservation-oriented organizations and government agencies, but also an array of local community



Jimson weed.

members who wish to see not only the fish and wildlife flourish, but also the preservation of agricultural and historical heritages. With this spirit in mind, DFG and its partners in the South Fork Valley will manage the CER so that rare habitats and their dependant species be enhanced and recovered, as the local history is preserved in perpetuity. Furthermore, opportunities will be developed to allow the people of the State of California to enjoy, learn about, and above all appreciate the natural, cultural and historical resources that make the CER and the South Fork Valley the emerald in the state's golden crown.

Kevin O'Connor is an environmental scientist with DFG's Timberlands Conservation Program in the San Joaquin Valley and Southern Sierra Region.