THE CALIFORNIA BLACK RAIL REPORT

A NEWSLETTER FOR LANDOWNERS COOPERATING WITH THE CALIFORNIA BLACK RAIL STUDY PROJECT

Vol. 2, No. 1

Dear Landowner: The bird-in-the-hand that you see to the right is the **California Black Rail**, scientifically known as *Laterallus jamaicensis coturniculus,* almost never seen in the wild.© It is North America's most elusive bird and our tiniest rail, the size of a sparrow, gray-black, with white speckling on the back, and with a brownish mantle on its upper back that you can see in the photo. Its eyes are a startling bright red. Even the most experienced birdwatchers and bird scientists have never seen this bird. The reason you are now receiving this newsletter (and probably got one last year too) is that this rare and beautiful little creature either is found on your property, occasionally is found there, or you have a small wetland area that it might one day discover and in it decide to raise a family. A pair of Black Rails can exist in an area as small as **one acre**, so long as the ground is moist, muddy, and covered with the densest vegetation—short, wiry rushes or tall cattails and tules.

For the last ten years we have been studying this bird where no one ever thought they existed—right under our noses in Yuba, Butte, and Nevada Counties. For decades they had been known from coastal California marshlands and from marshes along the Lower Colorado River near the Mexican border, but it wasn't until 1994 that they were found in our foothills at the University of California's Sierra Foothill Research and Extension Center (known to the neighbors as "**The Field Station"**) near Browns Valley. In fact, they are quite common in many foothill wetlands formed by springs and irrigation water run-off or leaks; areas most landowners find too wet to use and often just leave alone for "wildlife" use. **Well, guess what, they do use them!!**

Though you might be unaware of their presence, maybe you've heard the Black Rail singing in spring or early summertime: A strange, repetitive **Kee-Kee-Doo**. And if you've approached too close, perhaps you've been startled by their fierce **growling "grrs"**, which sounds like it might be coming from an unseen, huge creature.

We are able to find these almost invisible birds because they readily respond to tape recordings of their song and we've learned how to recognize these responses. Our field research is as simple as this: We play a couple of stanzas of Black Rail calls, listen for a few minutes, and then play it again. Within ten minutes we can tell you if rails are present or absent in a wetland. If the wetland is large, we have to play the recording in a few locations to be sure and cover the entire area. And if there is no response, we need to return and repeat the process two more times to be really sure that no rails are there.

© Photo courtesy of Jules Evens and USGS

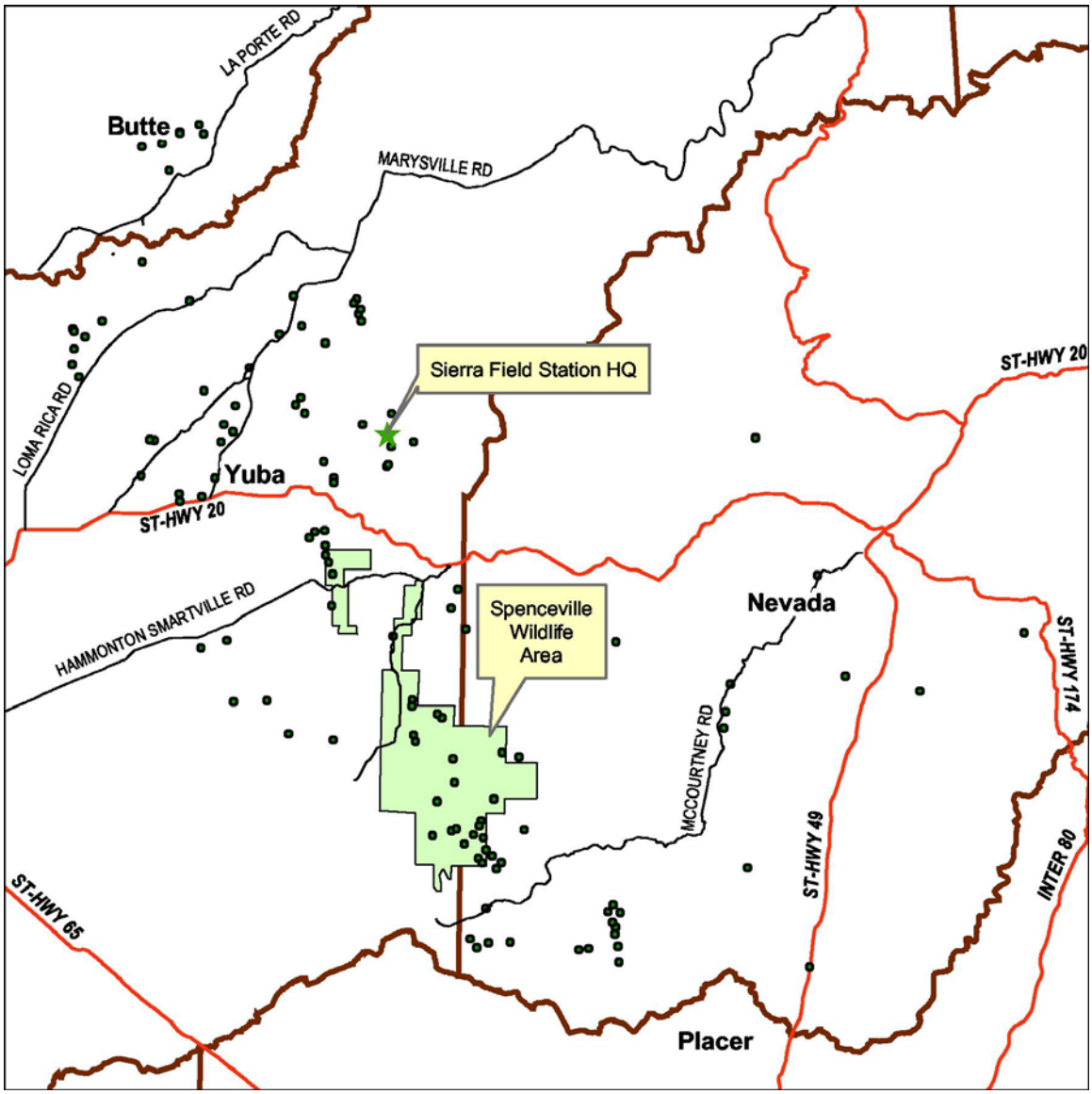
Why We're Doing This Research. Black Rails in their foothill marsh homes are a classic example of what population biologists call a "**metapopulation"**, that is, a bunch of little or subpopulations that are separated from each other by distance and inhospitable habitats. If you think about it, this is pretty much the way many critters are now distributed in our highly transformed world. We often moan about the destruction and fragmentation of habitats and its negative effects on wildlife, but we don't know a lot about how populations of animals fare when they are naturally distributed on little islands of habitat across a landscape, like the Black Rail. Curiously, while we may not know a lot about the details of Black Rail life, we can easily tell if they are present or absent on their little wetland islands because **they love to talk-back** to our tape recordings. Once we know if they are present or absent, we can begin to learn how they may be moving around the whole landscape, whether they are colonizing new areas, or are failing in some of the areas where we know they used to exist. This kind of research takes patience and year after year of repeated field surveys in order to put together **The Big Picture.** That's why we keep coming back every summer to ask your permission to survey your wetland. Understanding the principles or dynamics of Black Rail populations in the foothills may also apply to other organisms. Interesting isn't it, that a small creature, elusive and almost invisible, might lead us to understand some big problems in biology.

Who We Are. This research was begun in the late 1990's by **Jerry Tecklin**, a Research Associate at the University of California Field Station, where he has been stationed for the last fifteen years. For several years the California Department of Fish and Game contracted him to look for Black Rails in the foothills. He knows Yuba, Nevada, and Butte Counties as if they were his own backyard. Over the years, many of you have been contacted by Jerry for permission to enter your property.

Two years ago **Dr. Steven R. Beissinger** began to work with Jerry to found **the Black Rail Study Project**, the current long-term study we are now doing. He is Chairman of the Department of Environmental Science, Policy, and Management at the University of California Berkeley, and a nationally recognized leader in studying rare birds and their conservation. His assistants have been doing most of our surveys, and many of you may remember seeing some of these courteous young men in the field. This year we will be assisted by a courteous young woman, **April Robinson**, an experienced wetland biologist. You will certainly be contacted by her at some time prior to or during our survey season, June1 to September 1.

You can always contact us by calling Jerry or April at the Field Station, 530-639-8800; or emailing us at jetecklin@ucdavis.edu, or Dr. Beissinger at beis@nature.berkeley.edu. Consider visiting our website: http://nature.berkeley.edu/~beis/rail/. There you will find pictures as well as sound recordings of these birds (look under "Links"), and lots of other information.

What We've Been Finding. When we started the Black Rail Study Project two years ago, we were surveying at 70 wetland patches in the three county area around the Field Station. Since then we have increased this number to 125. The map below will give you some idea of where these wetlands are located.



Map of Butte, Yuba, and Nevada Counties, showing Black Rail survey sites

Wetlands surveyed ranged from 0.5 to 25 acres. In 2002 66% of 103 sites were occupied by Black Rails; in 2003 we added 25 sites to our surveys and 55% of these were occupied by Black Rails. We've found that these birds readily find new wetlands in our area, but that colonization of new sites seems to be happening at a slower rate than sites being vacated. The birds are three times more likely to abandon a wetland than to colonize a new one. We need several more years of survey data before we can be sure of these rates and before we know if this has some relationship to environmental stresses on the population. We are fairly certain that a perennial water source is the most important factor for supporting rails. But it needn't be a whole lot of water - just enough to flow over the surface to a depth of 1-2 inches, with drier patches here and there to create a soggy surface. Drying up of an occupied wetland can lead to rapid abandonment of it, but the birds are resilient and may rapidly recolonize once a permanent water source is reestablished.

There are an enormous number of wetlands in our area with such watery conditions. We now know that we need to add many, many more sites to our survey list in order to increase the sureness of our conclusions. So we will be scrutinizing topographic maps, aerial maps, and possibly satellite imagery for the subtle signs of wetlands. And it will be our main job to seek out the landowners of these wetlands to ask for permission to survey for the birds. In five years we'll probably have some answers---and probably a lot more questions!

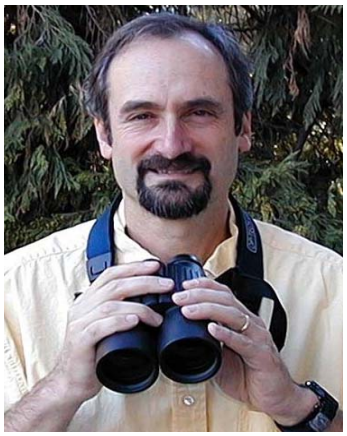
How You Can Help. You can contribute to this scientific project by continuing to cooperate with our surveys. We respect your privacy and are very attentive to your needs. We know that gates are to be closed and that we are never to disturb anything on a landowner's property. We're usually present for less than a half hour, and we hope you won't even know we're there. We will always ask permission to enter your property ahead of time. Our study project is one of the most unusual in the United States because so much of our survey work is conducted on privately owned land; most biological field research is done on public lands and nature preserves. We think our work is important because it deals with the real world where real people live and work---and co-exist with our wildlife resources.

One thing you can do to help us would be to **return the enclosed postcard** that inquires about granting permission to enter your lands. If you feel comfortable giving us permission, it would save us a lot of time and effort by mailing back the postcard. If you'd rather we get in touch and let you know exactly when we'd like to come by for a visit, feel free to check that box.

Thanks so much for your cooperation and we look forward to chatting with you any time about our work.

Sincerely,

Jerry Tecklin



Steve Beissinger

April Robinson