

California Clapper Rail Conservation

Common Name: California clapper rail
Scientific Name: *Rallus longirostris obsoletus*
Status: Listed as endangered by United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game



Photo courtesy of Peter LaTourrette.

Description/Identification: Characterized by a hen-like appearance; one of the largest rails with a length of 13 to 19 inches from bill to tail; males tend to be larger than females; overall color is reddish-brown with dark streaks above, a rust colored breast, and bold white and gray vertical stripes on its flanks. Have you seen or heard (cac, cac, cac, cac, ca, caha, caha) a California clapper rail in Western Stege Marsh or the surrounding marsh and slough areas?

Habitat and Distribution: Clapper rails typically use emergent salt and brackish tidal marshes in the San Francisco Bay area for feeding, shelter, and nesting. Its preferred habitat is characterized by areas of herbaceous vegetation dominated by pickleweed, Pacific cordgrass, or bulrush. In the early 1800s, clapper rails were abundant in tidal marshes of San Francisco Bay, and smaller populations were present in coastal marshes from Humboldt Bay to Morro Bay. Its current distribution is restricted to tidal marshes in the San Francisco estuary, where the only known breeding populations occur. Presently, the entire population of clapper rails in the San Francisco Bay area is estimated to be 1,040 to 1,264 individuals. Surveys conducted for clapper rail presence near the Richmond Field Station in February 2003, observed clapper rails using marsh habitat in Western Stege Marsh and south of the East Bay Regional Parks District Bay trail.

Natural History: Clapper rails prefer dense native cordgrass habitats. They are opportunistic feeders, feeding primarily in tidal channels and mudflats exposed during low tide. Clapper rail diet consists mainly of invertebrates, including mussels, crabs, snails, worms, and insects; they also prey on small fish. Clapper rails breed beginning mid-February; nesting begins in mid-March and continues through late-August. Peak breeding season occurs between April and May. They lay approximately seven eggs per clutch. Clapper rail young leave the nest early and are accompanied by an adult for approximately the first 8 weeks.

Conservation Threats: Between 1850 and 1915 over-hunting by market and sport hunters drastically reduced the once abundant clapper rail populations and decimated many local populations. Current threats to clapper rails include destruction and fragmentation of tidal marsh habitat, predation by native and non-native animals, and contamination of marsh sediments. Destruction of marsh habitat due to increasing development in San Francisco Bay is the largest threat to clapper rail conservation. Predation on clapper rail adults, juveniles, and/or eggs by animals, such as red foxes, cats, raccoons, skunks, and rats, is also a substantial threat. Destruction of transition refuge areas between marsh and upland habitats in conjunction with increased predator populations compounds clapper rail conservation problems.

How we are helping: The University of California, Berkeley (UC Berkeley), in consultation with the United States Army Corps of Engineers, United States Fish and Wildlife Service, the Bay Conservation and Development Commission, and the San Francisco Bay Region Regional Water Quality Control Board, has remediated polluted sediments in Western Stege Marsh and Meeker Slough to reduce risk of exposure to marsh inhabitants, including clapper rails. As part of the remediation process, we are restoring disturbed marsh areas and creating new marsh and ecotone (transition to upland) habitats. Additionally, we are implementing a Feral Animal Management Program to help control feral predator populations near potential clapper rail nesting areas along Meeker Slough. Decreases in the extent of impacted sediments, increases in acreage of marsh and ecotone habitats, and management of feral predator populations will help efforts for clapper rail conservation. Information regarding these programs can be found in the remainder of this brochure.

University of California, Berkeley and Agency Contact Information

This brochure details how UC Berkeley, local, state, and federal agencies work together with the surrounding community to provide a healthier and safer environment. We hope the information provides you with an opportunity to learn more about the dynamic environment in which we all live and work. For more information about the agencies involved and our commitment to a healthy environment please visit the websites listed below:

UC Berkeley Office of Environment, Health & Safety
(510) 642-3073 <http://ehs.berkeley.edu>

UC Berkeley Office of Pest Management
(510) 642-0878

UC Berkeley Richmond Field Station Facilities Management
(510) 231-9501

The Watershed Project
(510) 231-5783 www.thewatershedproject.org

Contra Costa County Animal Services
(925) 646-2995 <http://contra.napanet.net/depart/animal>

East Bay Regional Park District
(510) 635-0135 <http://www.ebparks.org>

Regional Water Quality Control Board,
San Francisco Bay Region
(510) 622-2300 <http://www.swrcb.ca.gov/rwqcb2>

San Francisco Bay Conservation and
Development Commission
(415) 352-3600 <http://www.bcdc.ca.gov>

California Department of Fish and Game
(916) 445-0411 <http://www.dfg.ca.gov>

United States Fish and Wildlife Service,
Sacramento Fish and Wildlife Office
(916) 414-6000 <http://pacific.fws.gov>

United States Army Corps of Engineers, San Francisco District
(415) 977-8460 <http://www.spn.usace.army.mil>



Front cover California Clapper Rail, courtesy of Peter LaTourrette.

Richmond Field Station

Western Stege Marsh Restoration



Teaching, Research, and Public Service

Berkeley
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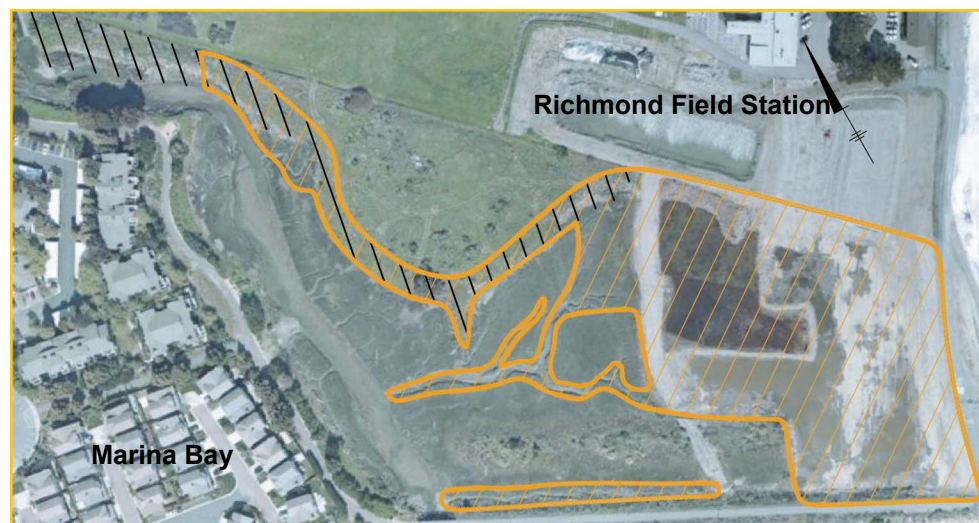
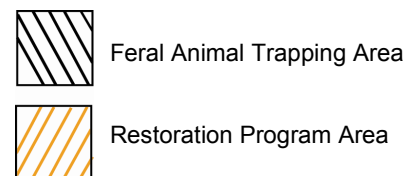
Western Stege Marsh Restoration Program

Since 1999 UC Berkeley has investigated and worked to remediate a large area of legacy industrial wastes deposited by prior shoreline property owners into Stege Marsh at the Richmond Field Station (RFS). Decades of industrial use along the Richmond shoreline, dating to the 1870's, resulted in polluted sediments in Western Stege Marsh. To reduce risk of pollutant exposure to ecological resources in Western Stege Marsh, UC Berkeley has excavated portions of the marsh on the RFS, which it purchased in 1950 for teaching and research. Remediation of Western Stege Marsh began in 2001 and will continue in phases until approximately 2006.

As part of the remediation process, we have consulted with United States Army Corps of Engineers, United States Fish and Wildlife Service, Bay Conservation and Development Commission, and San Francisco Bay Region Regional Water Quality Control Board to design a wetland restoration program that will increase and enhance the habitat of the endangered California clapper rail as well as benefit the native plants and animals that reside in Western Stege Marsh and surrounding marsh areas. This restoration will benefit clapper rails by increasing preferred cordgrass and pickleweed habitat, removing invasive non-native vegetation, removing concrete rip-rap used by clapper rail predators, adding and improving tidal channels to increase tidal flow in the marsh, and regrading and replanting the steep marsh edges to provide clapper rails with refuge during high tides.

Over the next several years you will have the unique opportunity to observe Western Stege Marsh as it is gradually restored into a productive tidal marsh habitat. You will see areas that have been excavated and regraded with clean bay mud naturally recolonize with native wetland vegetation. The natural tidal process will bring in seeds from surrounding areas to allow for revegetation. UC Berkeley will also institute a revegetation program to actively plant native marsh and ecotone plants and shrubs. Additionally, we are implementing an Invasive/Exotic Vegetation Management Program to help control the colonization and spread of non-native and invasive vegetation in Western Stege Marsh and surrounding areas.

How can you help: The Invasive/Exotic Vegetation Management Program and ecotone planting rely heavily on volunteer assistance and could use your help. If you are interested in learning how you can become actively involved in restoring Western Stege Marsh please contact The Watershed Project at (510) 231-5783 or visit The Watershed Project website at <http://www.thewatershedproject.org>. Additionally, you can minimize impacts by staying on established trails, keeping dogs on a leash, not allowing cats to free-range, and joining in community service opportunities like the shoreline cleanups.



Cordgrass habitat in Western Stege Marsh and Meeker Slough.



California Clapper Rail photo courtesy of USFWS/Mike Boyland.

Feral Animal Management Program

The California clapper rail (*Rallus longirostris obsoletus*) is a federal and state listed endangered species. Control of feral animals (wild or untamed animals, such as wild domestic cats) is a major concern for clapper rail conservation because feral animals often kill clapper rails. Common feral predators of clapper rail adults, young, and/or eggs include red foxes, cats, raccoons, skunks, and rats. As part of the Western Stege Marsh restoration program, UC Berkeley is implementing a Feral Animal Management Program (the Program) at the Richmond Field Station (RFS)'s Western Stege Marsh along the northern shore of Meeker Slough. The Program is designed to help reduce the impact of feral animal predation on clapper rails, while restoration activities are ongoing. The Program will include three primary aspects:

- creating additional habitat refuge for clapper rails;
- instituting an educational program regarding feral animal management, including domestic cats, for the RFS and the surrounding community; and
- actively managing feral predators in and around the northern boundary of Western Stege Marsh along Meeker Slough.

As part of actively managing feral predators, we have reduced access to shelter areas under buildings on the RFS to prevent use by feral animals, and are developing methods to reduce access to trash bins and compost areas. Active management will also involve trapping feral predators in upland and ecotone (the transition between the marsh and upland) areas surrounding the northwestern portion of the marsh where clapper rails are most likely to feed and nest. UC Berkeley plans to hire an experienced wildlife biologist, licensed by the state of California, to trap feral predators. Traps used in the Program will be live traps to reduce stress to trapped animals. UC Berkeley will notify the surrounding community one week prior to initiation of trapping events on the RFS. If you see a trap, such as the one in the picture, please do not disturb it. Disturbing the trap or a trapped animal can be dangerous to the animal and to you. Trapped animals may bite or claw their well-meaning rescuer.

During trapping activities, tame (not wild) domestic cats that stray onto the UC Berkeley property may be accidentally trapped. Cats that hunt on the RFS may be a threat to clapper rail conservation efforts. You can help us in our conservation efforts by keeping your cat indoors or by closely supervising their time outside. Keeping your cat indoors not only helps clapper rail conservation, but also keeps your cat healthier. Outdoor cats are much more susceptible to diseases, such as feline leukemia, and may be seriously injured by other cats, wildlife, or cars. Additionally, please make sure that your cat has a collar that clearly identifies the owner and provides contact information.

As required by Chapter 416-8 of the Contra Costa County Code, any cats trapped on the RFS will be placed under supervision of the Contra Costa Animal Services (Animal Services) at the Martinez animal shelter. The Martinez animal shelter can be reached at (925) 646-2995. UC Berkeley will notify owners of an accidentally trapped cat if contact information is available. Additionally, Animal Services will notify the owner of a cat that they receive in their custody within two days of receipt, if the cat has a valid County license. Animal Services will hold cats received at the shelter for three working days following the day of receipt or the day of owner notification. Please, keep your cat indoors and license it with Animal Services. If possible, trapped cats that are unclaimed will be relocated to new homes.

If you have any questions regarding the RFS Feral Animal Management Program or trapping activities please contact UC Berkeley Office of Environment, Health & Safety at (510) 642-3073. If you need to report an animal problem on the RFS please contact UC Berkeley Pest Management at (510) 642-0878.



Photo courtesy of USFWS/Jim Thiele.



Photo courtesy of USFWS/John and Karen Hollingsworth.



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