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ESTUARY

YOUR BAY-DELTA NEWS CLEARINGHOUSE

THE SHADOWY RAIL

The strong arm of wetland restoration has flushed a small, secretive rail from the North Bay salt marshes, and it isn't the clapper kind. The last few thousand California black rails live in the last relatively pristine and mature marshes of the North Bay, flanked by more degraded turf that is the focus of dozens of well-intended restoration projects. "These projects are more than a golden opportunity for the rails," says the San Pablo Bay Wildlife Refuge's Betsy Radtke, "Restoring this habitat is essential for their survival."

The black rail has often been overlooked when it comes to conservation because it simply less obvious—and maybe less "charismatic"—than certain other endangered species, according to Jules Evens of Point Reyes Bird Observatory. The clapper rail is "larger and louder" and easier to detect than the black rail.

But there are other reasons for the black rail's obscurity. It prefers well-vegetated upper marsh over the lower marsh used by many species, which "is good news in a way because the rail is so furtive and difficult to detect that its been overlooked in some spots, which may have actually helped it," says Evens. "But the highest reaches of the marsh are also usually the first places to be developed—where the filling and levee-building takes place. So the impact has been greatest there. Of the bay wetlands, this upper fringing habitat has suffered the greatest loss."

Evens predicts that if and when the black rail is finally federally listed (it is currently a state "threatened" species), and its habitat protected, enormous public outcry will be heard from those who will equate preserving rail habitat with lost economic opportunities.

But economics and politics aren't the only enemies of the tiny, oddly-shaped bird ("think of a heavy-bottomed robin or towhee without the tail" says Evens). In extreme high tides, the rail is forced to the upper limits of the marsh where, especially in degraded, poorly vegetated marshes, it becomes easy prey for hawks, egrets, and herons (not to mention numerous non-native predators like feral cats and Norway rats). If forced to, the rail will fly—but not well. "I've seen egrets swoop right down and catch them mid-flight," says Evens.

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ESA Evolves With Steelhead

Just how dramatically an innovative effort to save a high-end game fish will redefine the debate over endangered species will be seen when the Endangered Species Act comes up for a sorely overdue reauthorization. In the meantime, a good measure of the debate over the upcoming listing of steelhead trout stems from the fact it is almost indistinguishable from the mundane but beautiful rainbow trout, a fish which proliferates in lakes and water impoundments. Often the steelhead share the same territory with rainbows. But the steelhead receives a genetic call to move out to sea. Because of the steelhead's vast range, which stretches from Siberia's Kamchatka Peninsula to Baja California, and its remarkable diversity of behavior and habitats, biologists have had to come up with a complex proposal for listing, protecting and restoring the fish.

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"There's nothing comparable to this listing," says Mark Capelli, an analyst for the California Coastal Commission. "This is the most sophisticated, complicated use of the ESA since its inception. There's more science behind this and there are more people involved."

The steelhead trout listing proposal, expected to be finalized this August, reflects the genetics, politics and biology of a complex coastal species that ranges from fresh mountain creeks to the salty ocean deep. In a remarkable essay, John Krist of the *Ventura County Star* describes how steelhead and other members of the salmonid family possess "an onboard desalinization plant" that allows them to drink salt water as they reach the sea, shutting down their kidneys and activating special cells in the gills to filter out sodium and chloride.

"It's an elaborate, elegant and remarkable adaptive mechanism," he writes, "offering the seagoing salmon and trout two distinct survival advantages: By leaving the nutrient poor environment of small, high-altitude streams for the richness of the sea, the migratory fish obtain access to an abundant food source. And by escaping the confines of its birthplace, it is free to colonize new river systems — entering from the sea — where competition may be less fierce."

Adaptability could be considered the defining quality of steelhead, paradoxical as that may sound. For fishermen, steelhead and rainbows are quite different. Steelhead grow muscular and tough on their journey to the sea. They are in an entirely different weight class, coming in at around 8-10 pounds instead of the rainbow's two or three.

For biologists, steelhead are what is called an umbrella species, which means that if steelhead are protected, then other species generally receive protection, too. This is because the steelhead's range exceeds that of other anadromous fish. They possess the ability to migrate further upstream than most chinook salmon species and can tolerate a greater range of temperatures. Runs vary across a wider spectrum of the year, which allows them to select from a variety of niches. And steelhead don't always follow the bumper sticker advice "Spawn and Die." Up to a third return to the sea after spawning.

In political terms, the steelhead's adaptability could cause even more clashes with commerce than the listing of various salmon species. The salmon's range stops around Monterey Bay, while steelhead run smack into the tangled plumbing of southern

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