

Discordgrass

by Ann Thomas

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Lowly cordgrasses do not make the headlines the way that Sudden Oak Death does, but some cordgrasses represent a serious threat to the ecology of our estuary.

The Pacific cordgrass, a native of tidal marshes of Corte Madera Creek, is part of a web of life where salt and freshwater meet and mix. Marshes like Creekside Park are the primary producers of food for microscopic animals, small invertebrates, and fish and are feeding stations for hundreds of species of birds, and other larger animals.

However, a non-native cordgrass is spreading rapidly and has begun playing havoc in the marshes of our watershed, and a battle to control it is underway. The invader is a non-native marsh grass that was innocently introduced in plantings at Creekside Park almost 30 years ago. The species, *Spartina densiflora*, or dense-flowered cordgrass, was brought to Marin from Humboldt Bay in 1976-77 by a landscaper working on Creekside who mistook the Humboldt plantings for a variety of our native cordgrass, *Spartina foliosa*. The visitor thrived too well in the marshes, displacing native tidal marsh flora and disrupting the creek's natural composition. It grows at a higher elevation than our native cordgrass, outcompetes it and has now spread along the creek to the bay. Researchers eventually learned that it was a form of cordgrass native to the coast of Chile that was very likely brought to Humboldt during the 19th century in the ballast of a ship.



Dense-flowered cordgrass has colonized the upper level of Creekside Park

Dense-flowered cordgrass, and an even more virulent cousin, Atlantic cordgrass, *Spartina alterniflora*, brought from the East Coast also about 30 years ago, are now the subject of intense eradication efforts sponsored by the California Coastal Conservancy, CALFED, and the National Fish and Wildlife Foundation. The Atlantic cordgrass colonizes mudflats, grows much taller than the Pacific cordgrass, and it could change the whole food web in the Bay if tidal flats become vast meadows of the Atlantic plant. A few clumps can be seen near the Larkspur Ferry Terminal where they may hybridize with Pacific cordgrass. It is widespread in the South Bay.

Another foreign cordgrass, *Spartina anglica* (English cordgrass) has also been found in Creekside Park. The aliens could completely change the hydrology of a salt marsh. At risk areas for takeover include all saline reaches of creeks throughout the North Bay with possible expansion into the Delta.

Eradication strategies for these invasives include repeated weed whacking, winter mowing, smothering small populations in black plastic (maybe you've wondered what those black plastic blankets are doing covering marshy areas) herbicide application and a combination of these techniques.

Dense-flowered cordgrass, the one that started in Kentfield, has taken over quite a lot of Creekside Park, has spread to scattered areas in San Rafael and is found as far north as the San Rafael quarry. Biologists hope fervently that they can prevent the exotic cordgrasses from getting into China Camp State Park.

Action is being led by the Invasive Spartina Project, headed by Debra Smith. Among those taking action have been students from Kent Middle School and other classrooms in the Ross Valley who have had workdays in the creek to remove these weeds. Friends of Corte Madera Creek will be following efforts to remove, or at least control these cordgrasses in our watershed.

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Website design by Karen Peterson, San Anselmo

Friends of Corte Madera Creek Watershed

P.O. Box 415, Larkspur, California 94977 phone: (415) 457-6045 fax: (415) 457-6362

info@friendsofcortemaderacreek.org