

# Preventing the Purple Plague from Taking over California's Wetlands

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The California Department of Food and Agriculture (CDFA) was recently awarded a grant by the CALFED Bay-Delta Program to conduct a purple loosestrife prevention, detection, and control program. Purple loosestrife is a showy ornamental that has escaped home gardens and nurseries and moved extensively throughout the wetlands of the United States causing immense ecological destruction. Loosestrife is listed by the CDFA as a “B” rated noxious weed and as a “species with potential to spread explosively” by the California Exotic Pest Plant Council. Based on historic records, the distribution of purple loosestrife is currently in multiple, mostly small and scattered populations, in the Sacramento-San Joaquin Delta system and nearby hydrological units. However, infestations of purple loosestrife often follow a pattern of establishment, maintenance at low numbers, and then dramatic population increase when conditions are optimal.

Purple loosestrife, which spreads primarily by copious production of seed the size of ground-pepper, threatens to become established and forms dense stands that crowd out native wetland vegetation and associated wildlife, thus threatening the overall biodiversity of aquatic, wetland, and riparian areas. The complex interface between farm land and water in the Bay-Delta estuary also provides rich and varied habitat for wildlife, particularly waterfowl. The displacement of valued flora and fauna and the diminishment of critical fish and wildlife habitats by purple loosestrife infestations has been well documented throughout the United States.

Primary program objectives will be to conduct: (1) a broad education and training campaign, (2) extensive surveying and mapping, (3) a collaborative assessment meeting of cooperators to develop site specific adaptive management plans, resulting in (4) comprehensive local management, control, and eradication efforts, and (5) monitoring. The geographical focus will be on the Sacramento-San Joaquin Delta watershed where there are a number of threatened and declining species due to a multitude of environmental stressors. The project will be an extensive collaborative effort with: CDFA Integrated Pest Control Branch District Biologists, County Agricultural Commissioners, local Weed Management Areas, CA Department of Boating and Waterways, the CA Department of Fish and Game, CA Parks and Recreation, U.S. Fish and Wildlife Service, USDA-ARS Resource Conservation Districts, and local watershed groups, amongst others.

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