A Decade of Change and Its Effects on the Vegetation Management Landscape

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Habitat restoration and the protection of native habitats have taken on increased importance in the 1990s. Farmers, ranchers, and land resource managers are more concerned with maintaining natural landscapes, greenbelts to conserve beneficial insects, and concentrating on controlling invasive weeds. Ironically, environmentalists trying to save and restore native habitats are battling other environmentalists over herbicide use and animal rights; and are having to navigate the very regulatory maze which they helped create.

Joseph Sexton was a prominent farmer and nurseryman in Santa Barbara County in the late 1800s. Among his many accomplishments include the creation of the Santa Barbara soft shell walnut from which many of today's walnut varieties are descended. The palm trees lining Cabrillo Boulevard, planted in 1893, were from the Sexton Nursery. Joseph Sexton, however, is also famous or perhaps infamous for being the "pampas grass king."

In 1872, Joseph Sexton, began experimenting with pampas grass for cut flower production. Pampas grass had originally been introduced to California by sailors of clipper ships around the time of the Gold Rush. Sexton found that by removing the sheath from immature plumes and letting them dry in the sun, the plumes from the female plant would become fluffy white and durable, while the plumes from the male plant would dry stiff and hang heavily. He earned fifty cents each for his first shipment of a few plumes to the San Francisco flower market.

By 1889, he was producing over half a million plumes a year from 5,000 plants at his San Jose Creek ranch. The plumes were mainly used to decorate horses in military and funeral parades in Europe as an alternative to the more expensive, (and traumatizing for the ostrich), ostrich feather. Sexton received $200 per thousand plumes for his first shipment. Production increased and prices fell to $30 per thousand, but a boom year in 1888 saw prices as high as $60 per thousand. However as the 20th Century approached, the ostrich feather and pampas plume fad fell off and the pampas grass plume industry expired.

Unfortunately, pampas grass is still being sold in nurseries[7]. Gardeners buy it for its fountain-like growth habit, the showy plumes and wind break feature. The plant growth traits desired by Joseph Sexton and horticulturists in general – rapid growth, high seed production, ease of growth, etc. – are the same traits of a successful weed. Hence, pampas grass and other invasive ornamental plants, such as fountain grass, ice plant, and English ivy, have spread far beyond the boundaries of the home garden.

In 1990, Greg Archbald, then the Director of Volunteer Development for the Golden Gate National Recreation Area, was alarmed by the proliferation of invasive exotic weeds like French broom, gorse, freeway daisy, and pampas grass in natural areas of the San Francisco Bay Area.

[7] Carloyn Martus, a Cal-EPPC member in Carlsbad, California was able to convince Wal-Mart to discontinue the sale of pampas grass in California. In late November 2002, Linda Prendergast, the company's horticultural buyer for Wal-Mart stores west of the Rockies, removed pampas grass from the list of plants available to the one hundred Wal-Mart stores in California. Once current stock in stores is gone, pampas grass will no longer be sold by Wal-Mart in California.

Over lunch at the 17th Annual Natural Areas Association Conference in Concord, California, Greg along with other far sighted individuals like John Randall, Carla Bossard, and George Molnar, saw that invasive exotic plants were displacing native plants and creating flood and fire hazards in many native ecosystems throughout California, but there wasn't any central place to obtain information on biology and management, public awareness was very low, and there wasn't any government infrastructure to assist with this issue on natural areas.

George Molnar's presence was serendipitous as he had just moved to California from Florida where he was instrumental in the formation, in 1985, of the Exotic Pest Plant Council there. Already in the five years since its founding, the Florida Exotic Pest Plant Council had many significant achievements in the protection of native habitats from invasion by exotic weeds in Florida. Florida's EPPC board of directors had recently authorized the creation of new chapters and agreed to assist chapter organizational efforts.

In December of 1991, Greg and his new friends invited a number of botanists working in the invasive weeds field to an exploratory meeting in Tiburon, California. There they planned a symposium to bring together California's leading academic experts, non-profit and public agency personnel, and concerned citizens to present lectures and have discussion groups on the issue of invasive plants.

The symposium was held in Morro Bay on October 9, 1992. The 200 or so attendees were asked if they would like to form a new, professionally based organization to provide a regular forum for the exchange of ideas, promote research and funding, enhance public awareness, and advocate effective solutions for the invasive weeds problem. The attendees responded affirmatively and thus, the California Exotic Pest Plant Council was born to eventually incorporate as an independent non-profit organization. CalEPPC has since become the authoritative source of new information on all aspects of wildland weed management in California.

Up until the mid 1980s, the Santa Barbara County Agricultural Commissioner's Office was heavily involved in weed management. We had an 800 gallon weed sprayer, contracts with the state department of transportation to assist them with the control of roadside weeds, and staff devoted to the control of noxious weeds such as Johnson's grass and yellow starthistle. A popular duty in our office was to share a ride on the cattle barge, enduring pitching seas and the smell of cow pies, to spend a week on Santa Rosa Island surveying and controlling yellowspine thistle. Then, on June 6, 1978 the Jarvis-Gann Initiative, Proposition 13, was passed and significantly reduced property taxes. It took a few years for the passage of the initiative to directly affect us, but in response to the resulting loss of revenue, our department sold our weed sprayer, eliminated our weed and vertebrate management program, and shifted personnel to other funded priorities. The response was similar in other counties in California.

Through the 1990s, the Santa Barbara County Agricultural Commissioner's Office did not have a budget to spend on preventing the spread of lower rated noxious weeds in the County. (We did still pay attention to the control of "A" rated noxious weeds, with the assistance of the CDFA.) However, in 1998, because of the efforts of an extraordinary alliance of ranchers and environmentalists, money was brought back to weed management programs through the establishment of weed management areas. Assembly Bill 1168 was the first bill to kick off weed management area funding. That bill was spurred on by El Niño rains and the ranching

community's outcry for yellow starthistle control. The California Exotic Pest Plant Council, California Native Plant Society and the Nature Conservancy also supported the bill. In September of 2000, Senate Bill 1740, sponsored by the Regional Council of Rural Counties, appropriated 5 million dollars more for the fight against noxious weeds.[8]

With money supplied by Senate Bill 1740, the Santa Barbara County Agricultural Commissioner's Office with the assistance of Darlene Chirman and the Santa Barbara chapter of the Audubon Society formed the Santa Barbara County Weed Management Area in the winter of 2000. Various public agencies, land resource managers, and agricultural associations were invited to help develop a strategic plan and memorandum of understanding. Fortuitously, Greg Archbald had retired to Santa Barbara County and was very helpful in the development of the plan and MOU.

Previous to the formation of the Weed Management Area, the Agricultural Commissioner's Office was primarily concerned with agricultural noxious weeds. Now as part of the WMA coalition, we chose to target three noxious weeds – yellow starthistle (*Centaurea solstitialis*) which clearly presents problems for rangeland agriculture as well as natural areas, *Arundo donax*, a weed of riparian areas, and the pampas grasses (*Cortaderia selloana* and *C. jubata*), which are primarily pests of coastal wildlands. Yellow starthistle is designated a "C" rated noxious weed by the California Department of Food and Agriculture. Arundo and jubata grass (*C. jubata*) have recently been nominated for addition to the CDFA's noxious weed list. Native habitat advocates attempted to get *Cortaderia selloana* added to the list, but the regulations prevent the designation of any species as a noxious weed if that designation would be detrimental to agriculture.

Ironically, the Santa Barbara County Weed Management Area's first project, the removal of pampas grass on Ward Drive, is next door to the historic Sexton House and Nursery. With a backhoe and shovels, we removed over 80 tons of pampas grass from the area, which is also adjacent to the Goleta Slough. The project is a companion project to the work of the Goleta Slough Management Committee. Formed in 1991, the Committee has been gradually removing non-native plants from and restoring the Slough. We hope to convince managers at the Pacifica Suites Hotel, the current owners of the Sexton House, to let us remove the remaining 5 or so pampas grass plants found on the Sexton House grounds.

Despite the good intentions of native habitat restoration projects, they do not always proceed without controversy. In response to high coliform bacterial counts discovered on Santa Barbara beaches, especially after it rains, 70 % of Santa Barbara voters voted for a 2% increase in the hotel bed tax to fund a clean water program. The tax increase raised nearly 2 million dollars in the first year. The City of Santa Barbara created a Creeks Restoration/Water Quality Program.

A component of the Creeks Program is the restoration of Old Mission Creek. Their goal for the restoration of riparian and aquatic habitat is to improve water quality through natural filtration and stabilize the banks to reduce erosion and sedimentation. In the summer of 2002,

[8] Unfortunately, the financial forecast may become gloomy again, as recent budget cuts in the California Department of Food and Agriculture have impacted the department's weed management program hardest. Of the requested 1 million dollars of cuts that the CDFA had to make, $750,000 came out of the department's biological control, vertebrate control and weed eradication programs

the City obtained approval for a restoration project in the natural riparian areas of Bohnett Park. Their plan is to remove non-native ornamental trees, like eucalyptus, palms, and figs, and replace them with native species. A perennial city council speaker and west side activist questioned the wisdom, to the council and in letters to the local newspaper, of removing fully grown, specimen ornamental trees and replacing them with less grand, sapling size willows and cottonwoods.

Other citizens and the editors of the Santa Barbara News Press have also expressed their discontent with recent restoration attempts. An August 2002 letter to the editor expressed dismay at the arrogance of National Park Service biologists who have determined which species should be allowed to live on the Channel Islands. The letter writer called restoration projects a "crazy invasive species scam", questioned the support for the "pseudoscience of nativism", and claimed that big chemical companies are behind the "scam" in order to sell more chemicals. His plea to CalTrans and the Park Service: "Pick up the litter and leave the fennel alone."

Ironically, we and other habitat restorationists are finding that we have to navigate the same regulatory maze which we helped create as environmentalists, and in the case of the Agricultural Commissioner's Office, which we help enforce.

Arundo is a fast growing weed, up to 4 inches a day, of riparian areas in California. While it was once planted intentionally for erosion control, (which it does not do well), it is now despised as a detriment to native habitats. The Weed Management Area has obtained approval to remove arundo from a portion of Arroyo Burro Creek in Santa Barbara. But it wasn't easy.

The benefits of arundo removal outweigh the impacts to the system, but it took a little prodding to get a city official to put that down in writing so that we could proceed with obtaining a streambed alteration permit. Additionally, the city's regulations required that we get approval from their Architectural Board of Review. While they did allow us to consolidate nine applications into one, that review required a fee of $576, despite that our project will be working, free of charge to the city, on city property, for the benefit of the city.

Technology, culture, economics, and the environment impact the way we manage weeds. Change is unrelenting. Those of us who are newly involved in wildland invasive species management must be prepared for those changes. Are you ready?

References:

Archbald, Greg. 2003. Personal Communication.

Combs, Gary B., Ed. 1986. Those Were the Days: Landmarks of Old Goleta. Institute for American Research.

Creeks Restoration/Water Quality Program. 2001. Report to the Community 2001. City of Santa Barbara.

Schoenig, Steve. 2002. Personal Communication.

Tompkins, Walker A. 1966. Goleta the Good Land. Goleta Amvets Post No. 55

Tompkins, Walker A. in collaboration with Horace A. Sexton. 1983. Fourteen at the Table. An Informal History of the Life and Good Times of the Sexton Family of Old Goleta. Goleta Valley Historical Society and the Institute for American Research.