

Watershed Voice

SUMMER 2004

A Publication of the Escondido Creek Conservancy

WATERSHED ENEMY

Invasive Plants Part VIII – Perennial Pepperweed

by Deborah LeLevier

INTRODUCTION

The invasion of non-native plants in the Escondido Creek watershed has reached disastrous proportions. Many non-native plants (exotics) have escaped their landscape planting and become naturalized. In past issues of *The Watershed Voice*, seven invasive plants – arundo, purple loosestrife, pampas grass, castor bean, cape ivy, eucalyptus, and wild fennel – were discussed. In part VIII of this series, perennial pepperweed takes the spotlight.

THE PLANT

Perennial pepperweed (*Lepidium latifolium*), a native of Eurasia, is a multi-stemmed herb growing three to

eight feet

tall. It

was first docu-

mented in Cali-

ifornia in

1936 and is

now

found in all

but three

counties; its

range has

significantly

expanded over the last 15 years. While

there are 15 closely related native plants, *Lepidium* is an aggressive, habi-

tat usurper with no beneficial characteristics.

Lepidium leaves and stems are gray-green and waxy, with occasional red spots. Tiny, white, dense flower clusters appear from May to July; the plant also bears a small, brownish fruit. Reproduction is achieved from seed, pieces of root stock, or intact root systems making this plant extremely hard to control. Each plant can produce thousands of seeds which are readily spread by wind, water, and possibly waterfowl.

Seedlings grow rapidly, die back in the fall to create a thick thatch of dead stems on the ground, and then reappear through the thatch again in the spring. *Lepidium* prefers brackish to alkaline or salty soil and is found in wetlands from the coast to the interior. It is also found in agricultural fields.

THE DANGERS OF *LEPIDIUM*

As with most invasive plants, *Lepidium* aggressively out-competes native plants. Its dense monostands overtake native plants, such as the grasses nesting waterfowl feed on, thereby destroying native habitat and further threatening already endangered creatures, like the salt marsh harvest mouse, California black rail, and California clapper rail.

ERADICATION AND CONTROL

Lepidium is very difficult to eradicate: manual removal, controlled burning, as well as insect and fungi control are in-

effective. Chemical application has been successful but requires close, long-term monitoring.

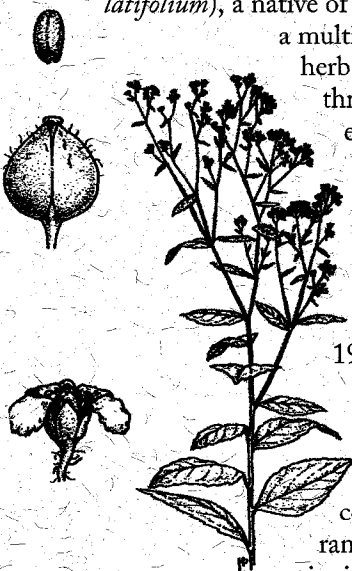
An astonishingly low tech and very promising management tool is the employment of grazing goats! The county recently 'hired' a herd of goats to eradicate the ubiquitous plant in the San Pasqual Valley. The goal is to remove the blossoms and weaken the plants prior to chemical application. These goats are trained specifically to eat *Lepidium*; luckily, they regard it as a delicacy. Goats are capable of eating large quantities and, under supervision, are not destructive. To minimize fire threat, several California counties also regularly use goats to thin brush.

WHAT YOU CAN DO

Many local conservancies, including TECC and San Elijo Lagoon Conservancy (SELC), are currently conducting invasive plant surveys and eradication and wetland restoration projects throughout the watershed; please support their efforts by allowing access to your property and/or volunteering to help. Removal of this invasive plant will not only be esthetically pleasing, it will eliminate its hazards, increase property value, and benefit the sensitive and complex watershed as a whole.

The Escondido Creek Watershed Alliance (ECWA), led by TECC and SELC, has placed invasive plants at

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WATERSHED ENEMY

Perennial Pepperweed *continued from page 1*

the top of its 2004 agenda. Priority lists are being developed and, as already instituted in some local municipalities, there is the possibility that many of these plants will be 'banned' in new projects. Check member websites (County of San Diego, Encinitas, Escondido, and Solana Beach) for information and updates.

RESOURCES:

Books: *Invasive Plants of California's Wildlands* edited by Bossard, Randall, Hoshovsky

Aquatic and Riparian Weeds of the West by Joseph M. DiTomaso and Evelyn A. Healy

Websites:

California Invasive Plant Council: www.Cal-IPC.org (Please note change of name from California Exotic Pest Plant Council (Cal-EPPC) to California Invasive Plant Council (Cal-IPC); same organization, same mission.)

<http://wric.ucdavis.edu>

Periodicals: Cal-IPCNews



EARTH DAY CREEK CLEAN-UP 2004

by Ranger Todd Nordess

Earth Day was a great success thanks to the more than 40 people who showed up to volunteer their time to clean up the creek within the boundaries of the Elfin Forest Recreational Reserve. Much of what we removed was the ubiquitous and vexing arundo (*Arundo donax*; see WSV Spring 2002) which breaks loose from stands upstream to become tangled obstructions downstream. We tackled large, gnarly masses of it and removed all the trash and debris which had collected underneath. We felt quite a sense of satisfaction as we filled the 25-foot roll-off Dumpster with wheelbarrow load after wheelbarrow load.

Our hardy volunteers deserve special recognition because it is a nasty job at the best of times and this particular day was brutally hot. The day was made delightfully bearable due to the efforts of Park Patron, Rose Marie; a professional cook, she catered the event with her homemade sandwiches, delicious artichoke pasta salad, and an Italian dessert I cannot even pronounce! And for the second year, Frank McCulloch acted as our very capable crew leader.

CONSERVANCY LOSES A FRIEND

This spring, with great sadness in our hearts, TECC bid farewell to dear friend and long-time supporter, Nils Lunnerdal.



Born in Stockholm, Sweden on October 24, 1921, Nils lived in North San Diego County for 42 years. He was a TECC founding board member and lent his artistic talent to designing its first brochure.

A passionate gardener, Nils established the acclaimed Elfin Forest fire wise garden located at the fire station. A longtime flower grower, Nils owned Nordflor Roses Greenhouses in Encinitas, was a member of the San Diego Flower Grower Association, and was a popular docent at Quail Botanical Gardens. He was also an energetic member of the Elfin Forest Volunteer Fire Dept. and the San Diego Fire Safe Group. In 1986 he and his wife, Elfriedel, were voted Elfin Forest Citizens of the Year. Nils received the local Channel Ten Leadership Award in 1999.

Nils loved to share his extensive knowledge of plants and passion for nature with anyone willing to take time to slow down and 'smell the roses' with him. He had a delightful sense of humor and a charming smile for all. Nils is sorely missed by his wife, daughter Maria, grandchildren Kent and Cari, and all of us at TECC. His legacy lives on through all the beautiful gardens he created and tended.

Happy Trails, Happy Horses, Happy Creek — Is it Possible?

by Meleah Ashford

BROUGHT TO YOU BY THE ESCONDIDO CREEK WATERSHED ALLIANCE (ECWA)

Fines for not cleaning up after your horses? It may not be as farfetched as it seems. Recently in Orange County, citizens were faced with fines of up to \$100 for not cleaning up their horses' manure 'trails'.

What's wrong with a little horse manure? Well a little may not be a problem, but look around, it generally isn't just a little. But how much of a problem is it? Lots of studies have been conducted to determine just that and the resounding answer is that it can be a big problem if not properly dealt with. Even though horse manure and bedding material is organic and biodegradable, it is associated with sediment, phosphorus, nutrients, and bacteria which are detrimental to human health and aquatic life. This is a particular problem for Escondido Creek since it feeds San Elijo Lagoon, which is listed by the State as being impaired for sediment, eutrophic conditions (nutrients), and bacteria (2002 CWA Section 303(d) List of Water Quality Limited Segments, SDRWQCB, July 2003).

Activities most detrimental to water quality are storing manure (and bedding materials) adjacent to waterways without a proper management plan, horse washing areas that discharge into the creek, and erosion from heavily grazed and overused areas. Solutions to these problems may not always be easy, but the benefit to the environment can be great. The main goal is to separate 'clean water' from 'contaminated water' and to reduce erosion caused by runoff. Contaminated runoff should not be allowed to leave your property. Below are some of the key management practices that can improve Escondido Creek

and result in a healthier environment for your family and horses:

- Think about how you wash your horses; keep the wash water out of the creek.
- Remove manure regularly, daily if possible, or keep manure under cover (especially in the winter) so that runoff doesn't come in contact with manure piles. Build a berm to divert water around manure piles so runoff doesn't carry the manure away into the creek.
- Keep horses out of the creek, off creek banks and wetland areas whether in the pasture or while you're riding them. A 30 to 50-foot setback from the creek is desirable and often required by law.
- Be prepared for rain! When it looks like rain, cover stockpiles, clean up manure, minimize erosion on your property (use sandbags, straw waddles, etc. to slow erosive runoff).
- Keep a well-vegetated strip down slope of bare areas such as paddocks and turnouts to help trap sediment.

These and many other management practices are provided in the "*Equestrian-Related Water Quality Best Management Practices*" guideline developed as a cooperative effort among private and public entities in Orange and San Diego Counties, April 29, 2004. The guide can be found on the Clean Water Program page of the City of Encinitas' website at www.ci.encinitas.ca.us.



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for
the
Watershed'*

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