

Watershed Voice

SPRING 2002

A Publication of the Escondido Creek Conservancy

WATERSHED ENEMY: INVASIVE PLANTS

PART I

by Deborah LeLevier

The invasion of non-native plants in the Escondido Creek watershed has reached disastrous proportions. Many non-native plants (also known as exotics) have escaped their landscape planting and become naturalized. Not all exotic plants have the potential to devastate natural areas; many exist happily in gardens along with a wide variety of both native and ornamental plants. The majority of invasive plants were introduced both wittingly and unwittingly by European settlers after 1769. The focus of this series is on those invasive plants that have truly earned this moniker by wreaking havoc in natural areas through displacement of native species and wildlife habitat.

Currently, the most invasive and problematic plants in the Escondido Creek watershed include arundo (*Arundo donax*), pampas grass (*Cortaderia selloana*), jubata grass (*Cortaderia jubata*), eucalyptus (*Eucalyptus* spp.), Cape or German ivy (*Senecio mikanioides*), castor bean (*Ricinus*

communis), wild fennel (*Foeniculum vulgare*), and tamarisk or salt cedar (*Tamarix* spp). These plants will be discussed in detail in a new *Watershed Voice* series. Beginning in this issue with arundo, each plant's history, its effects on the watershed, and acceptable eradication methods will be highlighted.

The ubiquitous *Arundo donax* (also known as giant reed, giant cane, or bamboo) is a robust perennial grass brought to California by Spanish settlers. It was used as building material, for adobe reinforcement, roofing and fencing, and for basket-making. It can be harvested for paper and fiber production and is favored by today's musicians as reeds for woodwind instruments. However, material for these products comes from controlled, commercial operations.

Once you familiarize yourself with this plant, you will begin to see it in every riparian area yet to be restored. It is tall, as

high as 30 feet or more, and can grow up to four inches per day. Its rhizomes (thick, knotty roots) spread rapidly, especially when the root masses are undercut by stream flow. When large rhizome masses are uprooted, they can rip out huge chunks of stream bank, flow downstream to create new infestations, and cause expensive damage to bridges and other infrastructures. Massive infestations, which can extend for acres, alter the normal meandering stream channel, causing further stream undercutting, erosion, and flooding; all resulting in loss of property.

Arundo crowds out native plants by usurping nutrients, sun, and moisture. The dense "forests" of arundo block natural wildlife corridors, effectively cutting animals off from their water supply and migratory trails. *Arundo* displaces the normal creek-shading native shrubs and trees; because it grows vertically without creating a shading canopy, the water temperature rises, and habitat for fish, bugs, and other critters becomes hostile. *Arundo* offers no food or habitat for mammals, birds, fish, or amphibians while destroying the native plant nutrition these species depend on. As infestations grow, entire plant and animal populations can be lost, except for rats which seem to flourish.

As if all this is not bad enough, arundo is extremely flammable. When heated, it can actually "explode", inflaming nearby oil-rich eucalyptus (another invasive species), and spreading fire rapidly. The loss can be tremendous for other riparian vegetation, structures and homes, and human and animal life. When the destruction is complete, the arundo rhizomes start growth anew.



Arundo, also known as giant reed, can grow four inches per day and up to 30 feet tall. Here, stands grow along the power line corridor west of El Camino Real and north of Tamarack in Carlsbad. Note its size in relation to the automobile in this photo.

ON THE GRANTS FRONT

by Martha Blane & Deborah LeLevier

A \$9,500 grant application written by TECC volunteer, Martha Blane, was funded by the Charles H. Stout Foundation in June 2001. These funds will be used to purchase equipment, supplies, signs, and services for a volunteer habitat enhancement project to remove exotic/non-native plants from the non-wetland portions of the Escondido Creek Preserve. The 97-acre TECC-owned preserve consists of two parcels; the 76-acre parcel adjacent to the Elfin Forest Recreational Reserve (EFRR) and a 21-acre parcel located approximately three miles downstream. The project will remove invasive, non-native plants (primarily eucalyptus, cape ivy, castor bean, fennel, arundo and tree tobacco) that are competing with and choking out native vegetation that provides habitat for wildlife. TECC's project will be similar to exotics removal conducted upstream at the EFRR by the Olivenhain Municipal Water District (OMWD).

TECC's habitat enhancement project will be conducted in the non-wetland portions of the preserve. The wetland portions are not included in this volunteer project since they require planning and permitting by local and state agencies before enhancement can be implemented. However, removal of exotics adjacent to the wetland areas reduces further invasion into wetland areas. The equipment TECC will purchase using Stout grant money will be used for years to come as TECC continues its work restoring and preserving native habitat within the Escondido Creek watershed. Thanks to volunteer, grant implementation assistants Ann Beck-Witte and Frank McCullogh.

In February, staff obtained a grant from the San Diego Stream Team that will fund chemical testing supplies and training to start this additional water quality testing program on Escondido Creek. Also, TECC will purchase additional equipment to enhance its benthic macroinvertebrate (bug) collecting to monitor the health of the creek. The shopping list includes such items as a densiometer to measure creek canopy cover, a laser level to measure creek gradient, and a digital camera for recording physical habitat. Additional essentials like hip waders and Leki hiking poles (necessary for safety on rugged trails and fording the creek) will also be purchased. "Life-saving" Leki poles have previously been loaned by generous TECC member, Dr. Betsy Keithley.

In partnership with the San Elijo Lagoon Foundation and the San Diego Department of Parks & Recreation, TECC submitted an Urban Streams Restoration grant in March. Staff also wrote a small grant for land acquisition through the Wetlands Recovery Project. TECC is excited about the possibility of working on these projects. Look for news about these highly competitive grants and keep your fingers crossed! Grant recipients will be notified this spring.



Great News!

TECC's anonymous donor has extended the 1:1 fund raising challenge beyond March 31, 2002.

If you have been meaning to send in your extra donation or renew your membership, this is the perfect time! All funds will be deposited in the TECC Land Acquisition Fund at the San Diego Foundation. TECC needs your help to preserve the few remaining wild places in the Escondido Creek watershed. Please use the enclosed envelope for your convenience.

WATERSHED EVENTS

INTRODUCTION TO CITIZEN WATER QUALITY MONITORING

Citizen Water Quality monitoring offers the opportunity to constructively engage the public and increase understanding of the respective roles of citizens and government agencies in protecting the state's waters. This one-day course is designed to introduce citizens to the techniques involved in measuring water quality. The Clean Water Team, the citizen monitoring coordinators of the State Water Resources Control Board, will present this course. Topics to be covered include: the role of citizen monitoring, citizen monitoring success stories, water quality monitoring techniques, quality assurance planning and implementation, and services available from the Clean Water Team. The course will be a combination of lectures and hands-on demonstrations. Leaders from local citizen monitoring programs will participate as featured presenters.

Saturday April 13, 2002

Mission Trails Regional Park

1 Father Junipero Serra Trail

San Diego, CA 92119

Hours: 9:00 a.m. - 3:00 p.m.

Fee: No Charge

Special Instructions: casual dress, appropriate for outdoor activity and water sampling

Class maximum: 25

Contact teccsters@yahoo.com to register for this and upcoming workshops

COMMUNITY SERVICE THROUGH ART: A TECC STUDENT WATERSHED ACTIVITY PROJECT

Students wishing to enhance their community are invited to help The Escondido Creek Conservancy through creative activities in the outdoors

Meet Saturdays In The Field To:

DRAW

PAINT

PHOTOGRAPH

MAKE RUBBINGS

DESIGN TRAIL MAPS

FIND PLANTS AND ANIMALS

WRITE STORIES WITH IMAGES

COMPOSE POETRY / MUSIC / SONG

MAKE CASTINGS OF ANIMAL TRACKS

PREPARE COLLECTED MATERIALS FOR WEB PAGES

Be part of the field team or the web team or both. Create independently or as a group to develop your creations and discoveries into website content. Student work may be shown on the TECC website to facilitate identification of plants & animals.

FOR MORE INFORMATION: (760) 436-7198

Or e-mail twhirled@yahoo.com or

<http://www.escondidocreek.org/artsite.html>

Student Community Service Project
Directed By TECC Volunteer Webmaster,
Mr. Ted Whirlledge, Credentialed Art Teacher