

More than a conveyance: Altering perceptions of the urban riparian patchwork through service learning



Adam Comer – Service Learning Program Manager

Main Themes

- Austin Youth River Watch History and Impact
- Service Learning Program
- Perceptions of the Urban Patchwork
- Possible Solutions andthe Future

Austin Youth River Watch advances personal and academic achievement through environmental monitoring, education, and adventure.

Founded in 1991, Austin Youth River Watch was formed to address the rising juvenile crime and drop-out rate through a unique approach - combining water quality monitoring and environmental education for “at-risk” high school students with an afterschool program.

River Watch serves approx. 115 students from nine Austin ISD High Schools during the school year and summer

75% are eligible for free or reduced lunch

65% Hispanic

30% African-American

Nearly 60% female

Leading to high school graduation...and cultivating a **diverse** group of future environmental stewards

Mission and Impact



Service-learning is a teaching and learning method that connects meaningful community service experiences with academic learning, personal growth, and civic responsibility.

- <http://www.dropoutprevention.org>

Civic Engagement and High School Academic Progress: An Analysis Using NELS Data

(Dávila & Mora, 2007) A review of data from the National Educational Longitudinal Study of 1988 (NELS) suggested that participation in civic engagement activities including voluntary community service, service- learning, and student government during high school years enhanced academic achievement.

The Silent Epidemic: Perspectives of High School Dropouts

(Bridgeland, Dilulio Jr. & Morison, 2006) 81% of respondents said that “if schools provided opportunities for real-world learning...it would have improved my chances of graduating from high school.”

Service Learning Research



Service Learning Program

- 9 weeklong projects (One per HS group)
- Afterschool and Volunteer Workday
- Hands-on, substantive projects improving stream health and hydrological functioning



Core Program

- 9 High Schools
- Each HS meets once a week
- Afterschool to 8pm
- Paid a daily stipend
- Water Quality Testing
- Holistic Youth Development
- Financial Aid & Literacy
- Overnight EcoTrips

This map of Austin, Texas, displays the locations of 25 bird sightings. The sightings are categorized by color: blue (15), green (5), and red (5). The map includes major highways (Interstates 35, 37, 10, 183, 290, 275, 71, 45, 130, 360, 1), parks (Barton Creek Habitat Preserve, Walter E. Long Metropolitan Park, Lady Bird Johnson Wildflower Center), and neighborhoods (North Shoal Creek, Windsor Hills, Allandale, Rollingwood, West Lake Hills, Barton Hills, South River City, East Riverside, Del Valle, Manchaca, Onion Creek, Sunset Valley, Oak Hill, West Oak Hill, Circle C Ranch, Hady Hollow). The sightings are distributed across the city, with a high concentration in the central and northern areas.

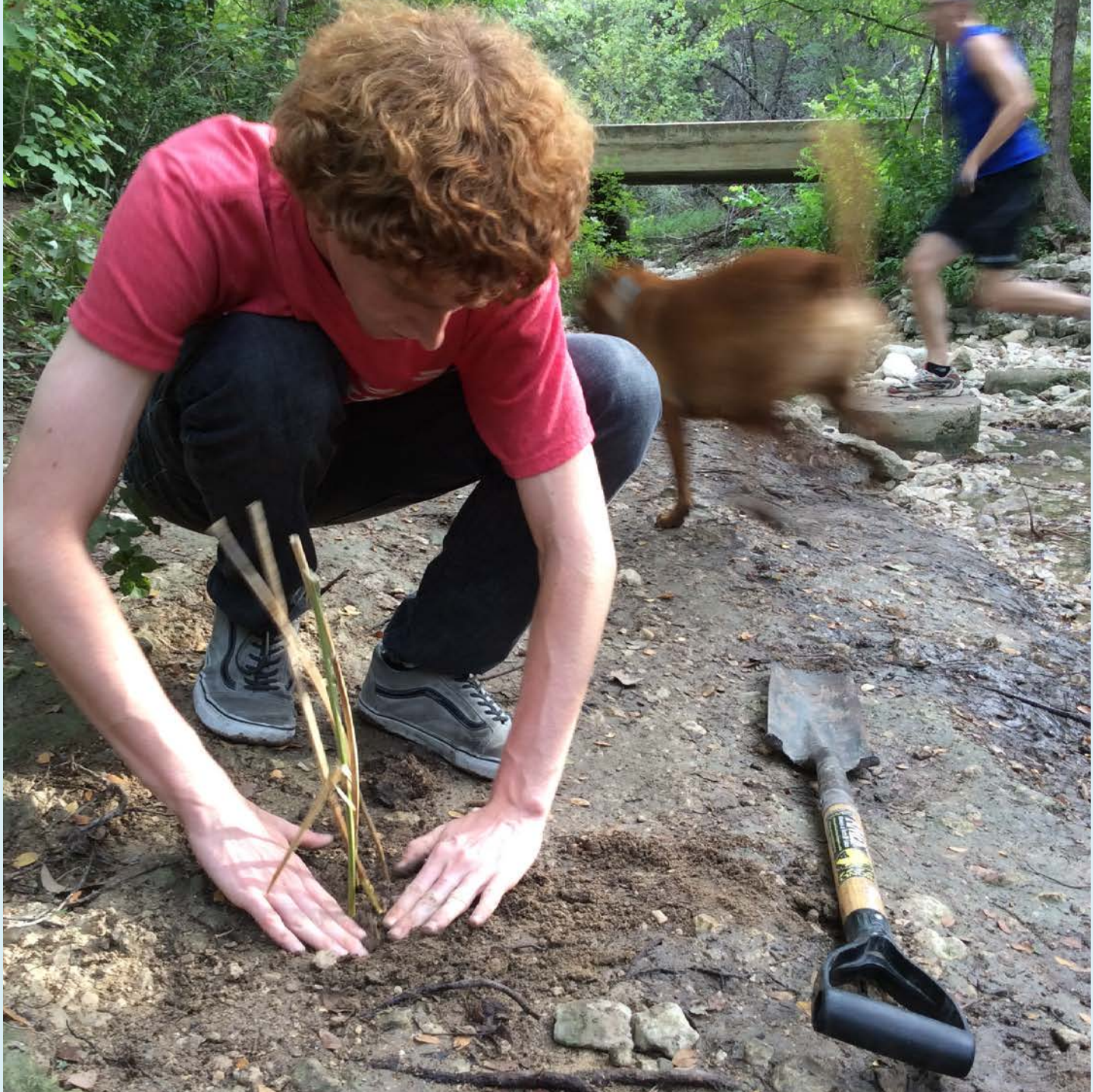
















Areas of Concentration for AISD Middle School Students with High-BMI

Language barrier issues?



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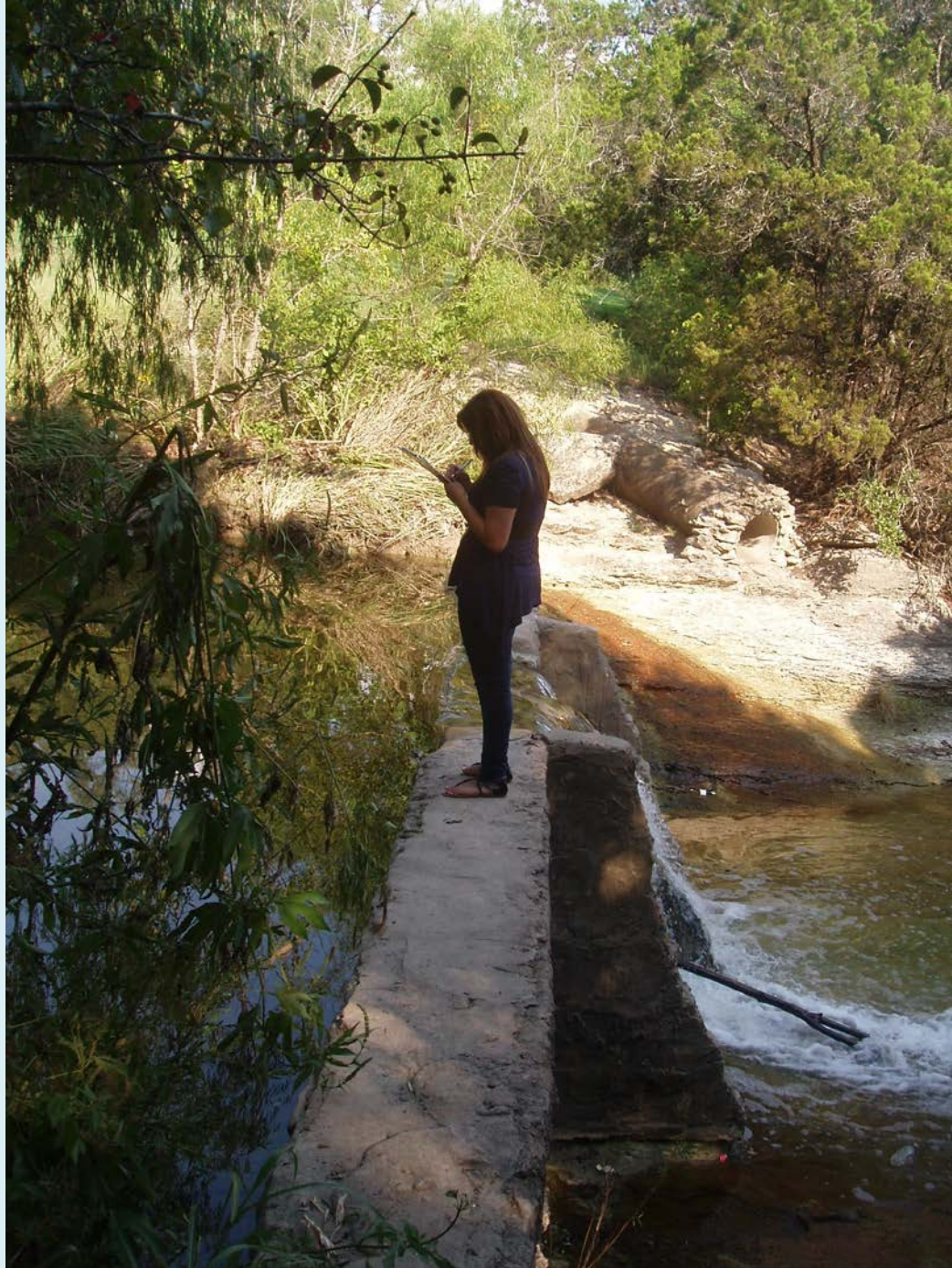
“In the end, we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught.” – Baba Dioum

Who needs charismatic megafauna?...





Austin Youth River Watch







**WE ARE
RIPARIAN**

www.riverwatchers.org

Increased Engagement and Presence

“Efforts to restore parts of Beaver Pond for improved fish and wildlife habitat only meet partial needs of the urban ecosystem. Immediate residents around Beaver Pond are disadvantaged by the current uses of the space, and feel unwelcomed and afraid to use the space. More inviting and clearly maintained natural areas could increase foot traffic and diversity of uses, increasing safety and enhancing the cultural and educational value of Thornton Creek to the community.”

-Beem (2014) *Connecting Urban Residents to Their Watershed with Green Stormwater Infrastructure: A case study of Thornton Creek in Seattle, Washington*

Rail-Trails and Safe Communities: The Experience on 372 Trails. National Park Service Rivers, Trails, and Conservation Assistance Program, January 1998.iii Tammy Tracy & Hugh Morris.

“The research that has been conducted, along with anecdotal evidence, suggests that converting an abandoned rail corridor to a trail actually tends to reduce crime by cleaning up the landscape and attracting people who use the trail for recreation and transportation.”

“The study found that incidents of vandalism and burglary did not increase as a result of the trail.”

Methods to engage community in stream health and monitoring

Interactive Signage



A student created field guide

Perspectives of San Diego Bay

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A Field Guide

by the students of High Tech High

Foreword by Jane Goodall

January 2006 ♦ Paperback ♦ 246 pages, 500 color photographs, charts, and graphs ♦ ISBN: 0-9762706-5-X ♦ \$24.95

ORDER Click on the "Buy Now" button below the book cover.

Download (PDF) excerpts from the book.

Holding a meter-square contraption made of white PVC pipes, a few students crouch over a patch of tide-washed sand, counting the limpets and barnacles they find within the transect. Up the shore, classmates are using a laser leveling device and a pole to measure off the tide's height at regular intervals. Others poke around the water's edge, turning over rocks or following the path of a shorebird. A few solitary students sit at a distance with notebooks, writing or drawing in response to the urban seascape before them.

Like the explorers who sailed into this bay 300 years ago, 56 students at High Tech High in San Diego have discovered a new world in their urban neighborhood, where land meets sea—and where schoolwork actually matters.

For three months in spring 2005, an eleventh-grade High Tech High teaching team centered its math, science, and humanities coursework on an ambitious investigative project. In expeditions to sites around the nearby bay, students carried on the tradition of the explorer's log, rendering close observations—scientific, cartographic, etymological, even poetic and political—for others who might follow.

Now those students have brought their work to the public, as a striking and useful field guide called *Perspectives of the San Diego Bay*. The 240-page book, which they designed and produced themselves, with a small grant from What Kids Can Do and the Bill & Melinda Gates Foundation, already has found an eager audience in local and national environmental groups.

For its authors, that means more than any A on their report cards. "Every kid has that question, 'Where am I going to use this in the real world?'" says Evan Morikawa, one of the guide's chief student editors. "Well, you can't get much more attached to the real world than this. My friends are like, 'I'm studying for finals right now,' and I'm like, 'Well, I'm going to make and publish and print and sell a book!'"

Beautifully illustrated and designed, filled with color photographs, maps, and charts, the field guide teems with life, energy, and detailed information. It stands on its own as a naturalist's guide, identifying, analyzing, and quantifying the life forms found in the bay's intertidal zones and harbors. A student-written history of mapmaking by early explorers segues into a state-of-the-art overview of present-day biogeography, with students using sophisticated GIS mapmaking technology to represent their data. And in the tradition of the adventurer's log, students offer philosophical perspectives on the worlds they observe, in reflections, poems, and commentary pieces.

Not least, these young authors have an explicit public purpose: to awaken San Diego to the potential destruction of its Bay, as the balance grows ever more precarious between their city's natural life, industry, and



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Converted Intentional Habitats



We prefer Unmanned Aerial Vehicle (UAV) – Stream mapping and monitoring



Local Engagers of Urban Riparian Areas





"We helped build a healthier community."

"I could show others what I learned."

"Worked with nature."

Austin Youth River Watch

"In doing we learn." - George Herbert, Poet



Learn more about our work and increasing impact

<http://www.riverwatchers.org>

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