

# Junior Rangers

Ages 7-12

At Tijuana Estuary, California State Park's Junior Ranger Program takes place every Thursday from 3:30-4:30pm with different topics presented at each session. Each week, one of twelve different topics is presented. Estuarine ecology, natural and cultural history, plants, and wildlife are among the subjects likely to be explored. The program is designed so that the topics build on each other but can also stand alone. After 12 weeks, the topics repeat, however, the themes and activities are different for that topic. The program follows this pattern for the entire calendar year and then starts over every new calendar year. This gives Junior Rangers the flexibility to attend each week for an entire year or come and go during the year. Awards such as pins, certificates, and patches are given to participants as they progress through the program.



The Junior Ranger Program is offered free of charge. Each Junior Ranger must be signed up by a parent or guardian who can do so at the beginning of any program. Parents are welcome to sit in on the first program their child attends, however, it is not necessary. Please be considerate of time when dropping off and picking up your child. Proper clothing (tennis shoes, hats, sunscreen) should also be considered.

# Scout Programs

Scout groups interested in discovering the Tijuana Estuary will find that they can earn a particular badge or fulfill a required project. Programs can either be guided by Reserve staff or self-guided by troop leaders or a combination of the two. Interested groups should call at least 4 weeks in advance to make a reservation and discuss with the education staff which badge they are trying to earn. Programs are generally 1 -1 ½ hours in length.



Scout Badges or Requirements that can be fulfilled at the Tijuana Estuary:

- Cub Scouts:
  - Wildlife Conservation Belt Loop
  - Naturalist Badge
- Brownie Try-Its:
  - Animals
  - Eco-Explorer
  - Watching Wildlife
- Junior Badges:
  - Earth Connections
  - Wildlife
  - Certain requirements for the following badges can be met: Plants and Animals, Water Wonders, Your Outdoor Surroundings
- Cadette, Ambassador & Senior Interest Projects:
  - All About Birds
  - Wildlife

Please call the Education Department regarding merit badges and service projects for Boy Scouts.

## Mission

To provide interactive, hands-on, thematic bilingual environmental education to local and regional students and the community, working in partnership with local schools, community groups, and government agencies.

Designated by NOAA as the Tijuana River National Estuarine Research Reserve (TRNERR), we are one of 27 estuarine reserves in the country devoted to education and research. The Reserve is managed cooperatively by CA State Parks & the USFWS.



And supported by:



**WEBSITES:**  
[www.tijuanaestuary.org](http://www.tijuanaestuary.org)

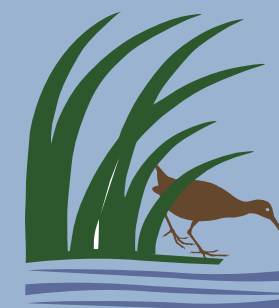
**NOAA**  
<http://nerrs.noaa.gov/TijuanaRiver/welcome.html>  
**(education)**  
[www.estuaries.gov](http://www.estuaries.gov)

**CA State Parks**  
<http://www.parks.ca.gov>

**USFWS**  
<http://www.fws.gov/sandiegorefuges/Tijuana.htm>

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# Education Programs



**Tijuana River**  
National Estuarine Research Reserve



# Tijuana Estuary Explorers

Grades 3-6

# M.A.R.S.H Marsh Awareness with Resources for Slough Habitats

Grades 1-6

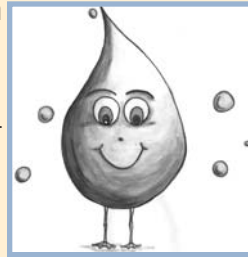
# Middle School/ Coast Alive!

Grades 7-8

# High School

Grades 9-12

"Tijuana Estuary Explorers" is an in-class and field trip program, targeted at 3rd - 6th grade, that meets state content standards and incorporates reading, writing, and science into four comprehensive activities about the Tijuana Estuary and its watershed.



Using a personalized field journal, students will read the field notes written by two characters, Pablo and Silvia Hernandez, as they explore the watershed and estuary that your students will soon visit. Along with their journal notes, students will find pages to start their own journal, using the questions and activities provided.

At the end of the field trip, teachers and students will be given Take Action magnets and worksheets to assist them in working to conserve wetland habitats.

A mandatory 4 hour teacher training is required for all teachers who wish to participate in this program. The training will guide teachers through the student journal and teacher's guide, which encompasses the in-class and field portion of the program. Trainings are held periodically based on interest. Please call the Education Department (or check out website) for more information and dates of upcoming trainings.



This program was also made possible by the San Diego Zoological Society and Chevron.

Field trips should be booked at least 2 weeks in advance. No fee for this program.

One of the original education programs of the Tijuana Estuary, M.A.R.S.H. was developed to introduce students to basic wetland and upland ecology and cultural history. The program has basically two components that vary depending on the grade.

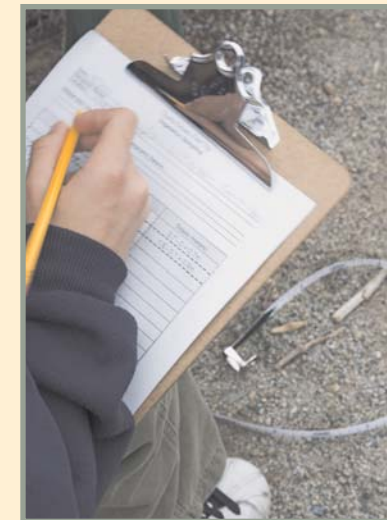
In the field, students use hand lenses and binoculars to observe and record upland plants and shorebirds with an emphasis on adaptations and/or cultural history.



Inside, students may watch a video, play an adaptation game or explore the visitor center and its interactive exhibits. It is not required that students do any of the supplied pre-visit activities although it is encouraged. All teachers who participate in this program must attend a 1-2 hour orientation and will be provided with classroom lessons as well as required materials for the class field trip. Please call the Education Department to schedule an orientation.

Field trips should be booked at least 2 weeks in advance. No fee for this program.

California State Parks partnered with the California Institute for Biodiversity to produce the Coast Alive! coastal and marine middle school teachers guide and field trip activities. The Coast Alive! Teacher Guide can help your students explore the magnificent California coast. It contains over 200 pages



of activities, lesson plans, and background information that fall into seven categories: Land, Sea, Marine Food Webs, Biodiversity, Watershed, Marine Ecosystems and Humans, and Stewardship. The guide meets California Science and Language

Arts content standards.

The curriculum isn't specific to estuaries, but Reserve education staff use the field trip lessons in our programming. Similar to the high school program, the field trip activities focus on biological monitoring. Teachers who wish to participate in this program must attend an orientation. Please call the Education Department to schedule an orientation.

Field trips should be booked at least 2 weeks in advance. No fee for this program.



The only field-based estuary science high school program in the County, the Tijuana Estuary High School Teachers' Guide is available thanks to the Friends of San Diego Wildlife Refuges and the National Park Service.

The High School Teachers' Guide is divided into five chapters covering ecology, geology, history, human use, and language arts. This high-quality, inter-disciplinary curriculum is aligned to state content standards. The guide contains lesson plans that utilize reading, lab, site visits, and service-learning that are spread throughout all the disciplines. The curriculum is available on-line. To download the curriculum, please go to [www.tijuanaestuary.org](http://www.tijuanaestuary.org) and search under Education and Outreach.

The National Estuarine Research Reserve System recently developed an on-line high school curriculum called Estuaries 101. There are three modules- Life Science, Physical Science, and Earth Science - that use real data from several of the system's Reserves around the country. Go to [www.estuaries.gov](http://www.estuaries.gov) to download the lessons.



Field trip opportunities are available at both the visitor center, in Imperial Beach, and at Border Field State Park, in the southern end of the Reserve. Teachers who wish to bring their students to the Tijuana Estuary must attend an 11 hour/1.5 day teacher training. To learn more or to sign up for a teacher training, please look at our website or call the Education Department.