

SAN DIEGO CITIZEN SCIENCE NETWORK

April 23, 2013 Meeting Notes

The fourth meeting of the San Diego Citizen Science network/group was held on Tuesday, April 23, 2013 from 4:00 to 6:00 pm at the Living Coast Discovery Center in Chula Vista.

Introductions. Thirty-five participants offered short introductions and their interests in citizen science. Shelley Glenn Lee gave an overview of citizen science processes.

Presentations. Ben McCue, Conservation Director at WILDCOAST, presented information about MPA Watch Volunteer Program, a citizen science program in which trained volunteers collect scientific data on coastal and marine resource use. The collected data is shared with resource managers and helps to inform the adaptive management of California's **Marine Protected Areas (MPAs)**. WILDCOAST has an active MPA Watch program in Imperial Beach to collect data to help manage the Tijuana River State Marine Conservation Area. It is their hope that the MPA Watch can be expanded to cover the entirety of San Diego County's MPA network.

With many of our fish stocks at historically low levels and damage to the overall marine environment becoming increasingly evident, California has created a network of Marine Protected Areas to give the ocean the protection it needs to recover and replenish, <http://www.wildcoast.net/programs/8-marine-protected-areas>. Researchers have determined that well designed and strategically placed MPAs would not only help to recover fish populations within the MPAs but would help to repopulate surrounding coastal areas. That is why WILDCOAST is working with the Marine Life Protection Act Initiative (MLPAI) <http://www.dfg.ca.gov/marine/mpa/intro.asp> to establish and manage a science-based network of MPAs in California that will benefit our ocean, our economy and our future.

WILDCOAST developed the first MPA Watch Volunteer Program in San Diego to survey and monitor MPAs on marine recreational activities to better understand how people are using these areas. They also provide up-to-date information to the public on appropriate recreational activities and fishing in MPAs. They have designed, printed, and distributed two bilingual (English and Spanish) brochures at marine recreational outlets and conservation centers across San Diego County. <http://www.wildcoast.net/media-center/news/644-mpa-watch-program>

Participants discussed steps in the Citizen Science process (from Bonney, et al 2009), and made these suggestions for the project:

1. Choose a scientific question.
How does human use change over time, in areas adjacent to MPA designation? What are the effects of enforcement actions on human use?
2. Form a scientist/educator/technologist/evaluator team.
The stakeholder collaborative for the MPA includes scientists, enforcement officers/rangers, and educators. Volunteers could be invited to play a more active role in this group.
Participants in this project work with the California Department of Fish and Wildlife and the California Ocean Science Trust.
3. Develop, test, and refine protocols, data forms, and educational support materials.
The MPA Watch has developed statewide data protocols. They were adapted from the Heal the Bay program, <http://www.healthebay.org/get-involved/volunteer/mpa-watch>.
4. Recruit participants.
Presentations in high school classrooms. Post invitations in community calendars and flyers.
Seek volunteers who already visit the beach each day.
5. Train participants.
Volunteers are required to complete both classroom and field training. The program would benefit from incorporating more incentives and recognition for volunteers.

6. Accept, edit, and display data. 7. Analyze and interpret data. 8. Disseminate results. 9. Measure outcomes. (These four not addressed, due to time limits.)

Lisa Cox, from the San Diego National Wildlife Refuge Complex (US Fish and Wildlife Service) described the **Shorebird Stewards Program** at Tijuana Slough National Wildlife Refuge (TSNWR), <http://trnerr.org/?p=1024>. This program started in 2012 to help protect the Western snowy plover (WSP) and California least tern (CLT) during nesting season through educating beach users about obey refuge rules, such as dog leash laws. Visitors are welcome to converse on the beach with volunteers and the Shorebird Stewards Program Leader, with the hope that the visitors will become self-motivated to obey leash laws. Data is collected about beach use activity and total contact time with visitors. Educator Shannon Turks is now setting-up and staffing an outreach booth, interacting with the public, interpreting natural resources, encouraging leashing of dogs, conducting recreational and visitor surveys, and assisting with nest barrier fence maintenance, periodic trash clean-up, data entry, report writing, and mentoring of Shorebird Steward volunteers. Bird monitoring is done by a consultant, not volunteers.

Increased human populations along the California coastlines have restricted the endangered CLT and threatened WSP populations of birds to a few nesting and roosting sites in San Diego County. TSNWR is one of the most successful nesting sites and it only fledges on average 50 CLT chicks per year. One of the primary threats is human disturbance, in particular off-leash dogs. By reducing this type of human-related disturbance at nesting and breeding sites, both numbers of active nests and successful fledging of CLT and WSP within TSNWR may increase. For more information, contact Lisa Cox, Public Information and Outreach, US Fish and Wildlife Service, (619) 476-9150 X 106, C: (760) 420-3175, lisa_cox@fws.gov, www.fws.gov/sandiegorefuges.

The following suggestions were offered for the Shorebird Stewards project:

- Engage dog-walking groups and wildlife conservation groups.
- Meet with the volunteers at the end of the season, for their ideas, questions, suggestions.
- Invite beach walkers to change their behaviors
- Consider adding artist-in-residence to focus on nature-related art and interact with beach visitors.

Upcoming events and projects.

- The San Dieguito River Park Conservancy been funded for monitoring, in the Multiple Species Conservation Program. More information from David O'Connor, david@sdrvc.org
- Kym Janke, of San Diego Zoo Global, is assembling a database on local citizen science efforts, kymjanke@hotmail.com
- Rose Creek Watershed has received a grant to control invasives, http://www.sdnews.com/view/full_story/21111401/article-Rose-Canyon-to-receive-deep-cleaning-with-cooperative-effort
- Birch Aquarium is sponsoring a free workshop on May 11 and June 1 for teachers to incorporate the exciting and relevant topic of invasive species into the classrooms and lead a student stewardship projects in the local coast and watershed, more information at <http://sdsa.org/resources/calendar/watershed-and-invasive-species-education-workshop/view> .
- The "What's Invasive" app is available for reporting data on San Diego County, also internet-based at <http://whatsinvasive.org/>. Select park = San Diego County.

Send meeting note corrections to Anne Fege, fege@sandiegoaudubon.org . For further information about the Network, contact Shelley Glenn Lee, s Glenn@ucsd.edu