



The purpose of the Department of the Interior (DOI) U.S.-Mexico Border Field Coordinating Committee (FCC) Newsletter is to communicate relevant developments and other information that may be useful as we manage, protect, inventory, and monitor natural and cultural resources along our international border with Mexico.

A Student Conservation Association Restoration Project in the Yuha Basin of Southern California

The Bureau of Land Management (BLM) California Desert District has sponsored joint internships with the Student Conservation Association (SCA) for a number of years. These stalwart young folks camp and live in the desert and aid the District in restoring lands subject to off-road vehicle uses or illegal activities.

The BLM El Centro Field Office has contracted with SCA for the past three years for restoration work in the Yuha Basin Area of Critical Environmental Concern related to Off-Highway Vehicle (OHV) management and OHV route designation. The Yuha Basin provides quality habitat for the flat-tailed horned lizard, a BLM sensitive species. In the Western Colorado Desert, only 16% of the historic habitat remains and some of what remains is discontinuous and fragmented. The Yuha Desert lies just north of the Mexico-U.S. border, east of the Jucumba Wilderness and south of interstate highway 8.

The crews work for 8 months consisting of approximately 16 ten-day "hitches," with four days off in between hitches. During the hitch, the crew camps out in the restoration project area and works up to 10 hour days restoring designated closed trails and reducing habitat fragmentation issues for the flat-tailed horned lizard population. During the off times, the crew rents a house in the town of El Centro and takes trips to experience the wonders of California, Mexico, and other western states. Many of the crewmembers hail from the East Coast and this is often their first chance to experience the West and the international border issues.

Habitat Restoration in the lower elevation desert is difficult in the best of conditions. The crewmembers grow to love the Yuha Desert for its sparseness, beauty, and serenity. The SCA project lead, Rebecca Pike, has been organizing the restoration crews since restoration began in the Yuha. Her passion for this part of the California desert is passed on to her crews and many of her past crewmembers return to visit with the current restoration crews. Last year's final "All Corps" work project consisted of a combined effort of all seven Desert Restoration Corps crews and alumni members from past Yuha crews.

The Yuha restoration crew has actively restored up to 500,000 square meters of habitat over the past three years and passively protected up to ten times that amount in habitat beyond the restoration sites. Restoration techniques include planting dead "nurse" plants to disguise linear features (closed trails), and creating micro-habitats that catch wind-dispersed seed, provide shade and moisture, and protect recruit seedlings from the harsh lower desert environment. Other techniques are employed to accelerate natural revegetation and include soil decompaction, transplanting, barricades, rock work, raking of existing tracks (to discourage continued illegal riding), and soil pitting and transferring native seedbanks to the restoration site.



Restoration in the Yuha Basin involves SCA interns and BLM staff.

Crewmembers encounter a variety of experiences, ranging from living, working, and functioning as a



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group in the harsh desert environment to interacting with Agency personnel to provide the most effective and efficient management techniques for successful restoration. While many of the crewmembers take advantage of learning many of the valuable work skills related to large-scale restoration projects, others simply enjoy their time in the Yuha Desert as a valuable "life experience" that is unique to the Yuha Basin of the Colorado Desert.

U.S.-Mexico Border Mapping Update

Please contact Jean Parcher, U.S. Geological Survey for more information on mapping:
jwparcher@usgs.gov

International Boundary Demarcation Meeting:
On March 7, the Instituto Nacional de Estadísticas, Geografía, e Informática, (INEGI) hosted the International Boundary and Water Commission (U.S. and Mexico), and the U.S. Geological Survey (USGS) in Aguascalientes, Mexico to discuss the procedures for creating a highly accurate digitally georeferenced version of the U.S.-Mexico International boundary. Other discussions were to include agreement on public release of geospatial data from INEGI for the border region, new border image maps, and production of networked hydrography for border watersheds.

North American Land Cover Collaboration:
Tri-national collaboration between the Canadian Center for Remote Sensing (CCRS), the U.S. Geological Survey, and the Instituto Nacional de Estadísticas, Geografía, e Informática (INEGI) of Mexico are underway to design a dynamic Land Cover Change Monitoring System for North America. In November 2006, meetings were held in Ottawa among the three agencies which resulted in plans to produce new land cover data using the Moderate Resolution Imaging Spectroradiometer (Modis) satellite data with 250 meter resolution pixels. The new product will be created using the USGS National Land Cover Datasets' methodology of creating a supervised classification system based on decision trees. The USGS has agreed to train both CCRS and INEGI in the decision tree

process with the Mexican training scheduled to begin April 2nd 2007 in Aguascalientes.

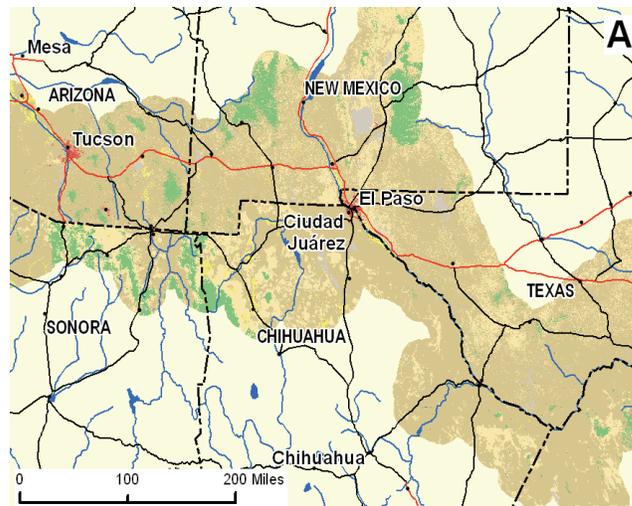


Figure A. Example of harmonized binational land use and land cover data, using USGS NLCD and INEGI Uso de Suelos national datasets.

Texas Colonia Infrastructure Database:
Cooperation with the Offices of the Texas Attorney General (OAG), Secretary of State (SOS), and the Texas Water Development Board (TWDB) has allowed the U.S. Geological Survey (USGS) to improve Texas colonia boundaries and develop the Colonia Health, Infrastructure, and Platting Status tool (CHIPS). CHIPS stores current infrastructure, platting, and public health data collected by SOS ombudsmen for six of the most populous counties along the Texas-Mexico border. Using these data, CHIPS's report generator allows a user to create a table of colonias that satisfy criteria defined at run-time. For more information on CHIPS, contact Delbert Humberson at dghumber@usgs.gov

Border Environmental Health Initiative
<http://borderhealth.cr.usgs.gov>: The USGS Border Environmental Health Initiative project is implementing a new online data download page for GIS users to download harmonized datasets along the border. The site will allow downloads for binational vector data at scales ranging from 1:100,000 to 1:2M, contaminants datasets, and





land use and land cover. Users desiring the large imagery or elevation datasets will be redirected to the USGS or INEGI sites for data access. Other improvements to the site include Spanish translation of the methodology processes, improved metadata, and new harmonized local transportation, urban area boundaries, and high resolution hydrography datasets.

Mexico National Geography Convention: INEGI, in conjunction with the State of Jalisco will host the 2007 Mexico National Geography Convention in Guadalajara from April 18-20th, 2007. This will be the fourth annual Mexican geography and earth science convention, which brings together specialists in GIS and geography from various Mexican federal and local agencies and academic institutions to collaborate together to build the National System of Statistics and Geographic Information for Mexico. For more information on the Convention, visit the site at: <http://mapserver.inegi.gob.mx/geografia/espanol/eventos/cng2007/index.cfm>

New Publication:

Norman, Laura M., 2007. United States-Mexican Border Watershed Assessment: Modeling Nonpoint Source Pollution in Ambos Nogales, Journal of Borderland Studies 22 (1): 20 p. lnorman@usgs.gov

Biodiversity Along the Border

The California Biodiversity Council (CBC), a group of state, federal, and local agencies involved in natural resource conservation across California, met in September, 2006 for one of its most memorable events in over 15 years. The meeting in Coronado addressed "Biodiversity Along the Border" through collaboration not only among the Council's member agencies, but also with several key Mexican governmental entities. The meeting was a successful and memorable event even though its organizers had to manage an international field trip for a large group during heightened border security.

This two-day meeting began with a field trip attended by a record-breaking 80+ people,

including CBC members and other interested individuals. The trip started with a stop at the Otay Mesa - Mesa de Otay border area, an area that is considered to be very critical for binational planning efforts with Tijuana. There participants learned about the Las Californias Binational Conservation Initiative, a vision for habitat conservation in the border region.

By early afternoon, the field trip had crossed the international border and reached its main destination, Los Laureles Canyon, a critical sub-basin of the Tijuana River Watershed. This Canyon drains directly into the Tijuana River National Estuarine Research Reserve (TRNERR) in California and is a major source of sediment and waste in the Estuary. The sub-basin has become increasingly degraded by development that lacks the most basic infrastructure.



Here an impressive ceremony took place (above) in this canyon with city of Tijuana officials, led by the Mayor, and California representatives: the CBC Co-Chair/ BLM State Director; the San Diego Association of Governments (SANDAG) Board Member/ City of Del Mar Mayor; an Imperial Beach City Councilmember; the State Coastal Conservancy Executive Officer; and the California State Parks Director. The ceremony dedicated a playground facility to the residents of Los Laureles and signified an agreement of cooperation from both sides of the border to work towards improving conditions in Los Laureles and TRNERR.





Dr. Exequiel Ezcurra of the San Diego Natural History Museum spoke at dinner enlightening CBC participants about the history of the area they'd come to study for two days. Presentations and discussions of the border-area conservation topics continued on day two in Coronado. The Conservation Biology Institute and the Institute for Regional Studies of the Californias, SDSU, provided an overview of existing and potential Trans-border Cooperation in the California - Baja California Borderlands. The Nature Conservancy Pronatura talked about the Las Californias Binational Conservation Initiative: A vision for habitat conservation in the California-Baja California borderlands. A representative from the Tijuana River National Estuarine Research Reserve, California State Parks) offered a video and talk about Los Laureles Canyon, his project's accomplishments, and some ways in which the CBC might be able to contribute to his efforts. SANDAG informed the group of the Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan, a cross-border collaborative planning effort headed by SANDAG.

The day's highlights included the signing of an MOU by the Honorable Jorge Hank Rhon, Mayor, City of Tijuana and Ruth Coleman, Director, California State Parks. The MOU establishes "a common interest for the environmental health of the Tijuana River Estuary. The CBC agreed to form a new "Biodiversity Along the Border Committee" that would consist of CBC member agencies, officials from Mexico, and other key partners. The purpose of the committee is to explore the feasibility of implementing the following proposed projects: 1) Las Californias Binational Conservation Initiative, 2) Conservation Easements, and 3) Tijuana River Valley Management. The formation of a binational committee to implement these projects recognizes that a coordinated approach to managing natural resources between the two states requires frequent dialogue. The committee's first meeting occurred on January 30, 2007 in Imperial Beach.

For more information about the "Biodiversity Along the Border" meeting or committee, please visit <http://ceres.ca.gov/biodiv>. Contact: Lauren

McNees, Communications Coordinator, California Biodiversity Council.

Wildlife Diseases in the Mexico-US Region

Dr. Jose I. Gonzalez Rojas, a professor in the Biological Sciences Department at the Universidad Autónoma de Nuevo León, spoke at the October Las Cruces FCC meeting on wildlife diseases in the US-Mexico border region and the emerging field of conservation medicine. The fact that 75% of today's infectious diseases affecting humans are zoonotic (from animals) would be reason enough to study wildlife diseases, but this relatively new area of science has importance beyond impacts on humans. The field of conservation medicine which examines the relationship between changes in the environment and diseases identifies emerging diseases important in wildlife conservation through monitoring, predictions of out-breaks, and quantification of the impacts.

Conservation medicine has evolved out of the crisis of unprecedented levels of disease and ill health in many species, driven by an increasing burden of anthropogenic environmental change. There is now proof that diseases can deplete biodiversity locally, by leading to the removal of whole populations (e.g. rainforest amphibians and African wild dogs) and globally by causing extinctions (e.g. Polynesian tree snails and Australian amphibians). The consequences of these diseases can be equally disastrous to humans (e.g. HIV and avian influenza) <http://www.conservationmedicine.org/wcm.htm>.

Climate change, chemical pollution, global trade, domestic animals, encroachment into wilderness areas, and the overuse of antibiotics are some of the primary mechanisms through which humans are rapidly transforming host-parasite ecology worldwide.

There are several examples of wildlife disease programs important along the U.S.-Mexico border. **West Nile Virus** is found in birds in the state of Nuevo Leon in northeastern Mexico. The virus has been spreading since 2002, along the coast and



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the border and the primary cause of the spread is thought to be via horses from California. **Hantavirus** has also been detected in rodents in the south of Nuevo Leon, the occurrence of this disease in Mexico is thought to be related to an outbreak in Arizona and New Mexico in 1993. **Encephalopathic chronic wasting disease** in white tail deer is being monitored as it comes down from the US to Mexico - already believed to be at the Chihuahuan border. Factors believed to be important in the spread and outbreak of such diseases in the border region include habitat fragmentation, increased use of pesticides, and changes in land use resulting in stresses on wildlife.

Dr. Gonzalez Rojas emphasized the importance of binational participation in monitoring wildlife disease through collaborative opportunities such as unified efforts toward research to form multidisciplinary professional teams, promotion of the development of diagnostic laboratories that can also support research, standardization of protocols and assays, and development of better detection tools.

El Camino Real in New Mexico and the Camino Real International Heritage Center

In October 2006, the attendees of the FCC Las Cruces meeting were treated to a field trip along the el Camino Real (trail) organized by the Las Cruces BLM and partners. In addition to visiting the new El Camino Real International Heritage Center, stops were made a historic Fort Craig, the Bosque del Apache National Wildlife Refuge, and Elephant Butte. FCC members were educated on the significant history of the El Camino Real throughout the Spanish Colonial period, on trail management, and about current approaches for the long-term vegetation management of tamarisk (salt cedar).

El Camino Real de Tierra Adentro is an important legacy of the Spanish settlers who arrived in New Mexico in 1598. This "Royal Road" extended 1500 miles between Mexico City and San Juan de los Caballeros, in the Espanola Valley north of

Santa Fe. The road followed older trails used by Native Americans. El Camino Real became a vital road over which people, livestock, trade goods, and cultural traditions traveled and linked with Spain, Mexico, New Mexico and later the US.

The El Camino Real International Heritage Center opened in November 2005. The Heritage Center is a partnership between the BLM, New Mexico State Monuments, heritage organizations and local communities. Heritage Center visitors experience the journey from Zacatecas, Mexico to Santa Fe, New Mexico through state-of-the-art exhibits, artifacts and art, and personal stories.

If you can't experience the physical remnants of the road or the Heritage Center, check out the interactive map maintained by BLM which links the trail, chronology, events and cultural history, at <http://www.caminorealheritage.org/trail/map/>

OTHER BORDER HIGHLIGHTS

Good Neighbor Environmental Board

The Good Neighbor Environmental Board (GNEB) has released its 10th report, which is entitled: *Environmental Protection and Border Security on the US-Mexico Border*. The GNEB was created by the Enterprise for the Americas Initiative Act of 1992 and is an independent advisory board. An Executive Order delegates the implementing authority to the EPA. The Act requires that the board membership include representatives from appropriate U.S. Government agencies; the governments of Arizona, California, New Mexico, and Texas; and private organizations, including community development, academic, health, environmental, and other non-governmental entities with expertise on environmental and infrastructure problems along the southwest border. The GNEB regularly confers with Mexican organizations and with citizens along the border.

The statute also requires the GNEB to submit an annual report to the President and to Congress. The 10th Report, released March 14 2007, focuses on two important issues: 1) undocumented



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migration and 2) the movement of hazardous waste across the US-Mexico border. The Report provides recommendations on how agencies can collaborate on environmental issues and communicate more effectively. View the report at: <http://www.epa.gov/ocem/gneb/>

FCC ACTIVITIES

FCC Strategic Plan and Operating Procedures Updated

The FCC was chartered in August 1994 with seven DOI bureau members—the Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, Minerals Management Service, National Park Service, U.S. Fish and Wildlife Service, and U.S. Geological Survey.

In September 2006, the FCC Strategic Plan 2003-2008 was revised slightly to reflect the accomplishments over the past 11 years, to ensure consistency with the DOI Strategic Plan, and to make minor changes in how FCC conducts its business. The FCC also updated its Operating Procedures. See the FCC website for fuller details on Strategic Plan goals and planned actions: <http://www.cerc.usgs.gov/FCC/About.htm>

New FCC Website

Thanks to the hard work of Lynn Johnson and Diana Papoulias (USGS), the FCC website has been revised. The website provides contact, links and FCC activities and is a great source of information on the border region resources and mapping including past projects of the FCC.

FCC Says Farewell to Lloyd Woosley

The members of the FCC wish to thank Lloyd Woosley for his outstanding years of service to the FCC and to the border region. Lloyd served as Chair, Vice-Chair, and Newsletter editor. He highlighted FCC meetings and field trips with his fishing stories and love for college basketball. Lloyd has not retired from federal service but admits looking forward to the fishing.



Next FCC Meeting: Tucson April 2007

The spring meeting of the FCC will be held in Tucson, Arizona April 24-26, 2007. The April 24 session is scheduled for the Sonoran Desert Museum. The morning presentations will focus on groundwater issues and the recent signing of the Transboundary Aquifer Act. Afternoon papers will include a mixture of topics on border natural and cultural resource issues. April 25 will be a field trip to Buenos Aires National Fish and Wildlife Refuge. April 26 is the half day FCC business meeting.

For more information about the meeting, contact Diana Papoulias, FCC Chair, 573-876-1902 or at dpapoulias@usgs.gov; or Charlie Ault, FCC Vice-Chair, 505-248-6281 or at cault@fws.gov

If you would like to submit an article for the FCC Newsletter or to announce the availability of a publication or future meeting relevant to the U.S.-Mexico border region, please contact or send your contribution to Shela McFarlin (Tucson) at Shela_McFarlin@blm.gov

