



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.

Several articles in past newsletters have emphasized how critical partnerships are to DOI managers. The article below, contributed by the US Fish and Wildlife Service (USFWS), illustrates partnerships in the context of inventory, research, conservation actions, and management for binational lands in Sonora.

Binational Amphibian and Reptile Monitoring and Conservation in the Frontera of Sonora, Mexico

Jim Rorabaugh and Erin Fernandez, U.S. Fish and Wildlife Service, Tucson, AZ

The borderlands of Sonora, México exhibit an amazing herpetological biodiversity due to a range of habitats from the hyper-arid dunes and sand fields of the Gran Desierto to mixed conifer forests in the Sierra Madre Occidental and associated montane sky islands. This region is also at a convergence of temperate and tropical biomes, with elements of both reflected in the area's amphibian and reptile fauna. In the Sonoran Frontera, one can find tropical or subtropical species such as Boa constrictors and Lowland burrowing treefrogs, but also Prairie rattlesnakes and Great Plains toads, which are more characteristic of the Rocky Mountain or Plains states to the north and east.

The Fish and Wildlife Service's México Program in Tucson has been working with Mexican and U.S. partners to research, inventory, monitor, and conserve amphibians and reptiles in the Sonoran Frontera. Although we have collaborated on general biological inventories in the borderlands, our work has focused on sensitive species.

In northwestern Sonora, we are working with the Reserva de la Biosfera Alto Golfo de California y Delta del Río Colorado, Reserva de la Biosfera El

Pinacate y Gran Desierto de Altar, Pronatura, and our U.S. partners on inventory and conservation of the flat-tailed horned lizard (or Camaleón del Gran Desierto), a species listed as amenazada (threatened) by the Mexican government, and the subject of a multi-agency conservation agreement and strategy in Arizona and California.



Flat-tailed horned lizard in the Gran Desierto east of El Golfo de Santa Clara

Along the Río Sonoyta in the eastern Gran Desierto south of Organ Pipe Cactus National Monument, we funded IMADES (now CEDES - a state agency in Sonora) to survey for the Sonoyta mud turtle, a subspecies endemic to the limited and shrinking wetlands of the Río Sonoyta (we discussed this and other Río Sonoyta conservation work in the 7 August 2007 edition of the FCC Newsletter).

Farther to the east in the mountains, we also funded IMADES to survey for Tarahumara frogs and locate breeders for reestablishment of this rare frog into Arizona. The Tarahumara frog is a species from the rugged barrancas, tinajas, and plunge pools in the Sierra Madre Occidental and adjacent sky islands. It disappeared from its limited range in Arizona and the U.S. in 1983. With the help of our Mexican and U.S. partners, we were able to obtain breeding stock and ultimately return the Tarahumara frog to historical habitats in the Santa Rita Mountains of Arizona in 2004.

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While in search of Tarahumara frogs in the Sierra el Tigre, we camped at Campo Bonito and shared our carne asada with local vaqueros.

In 2007 we participated in collection trips to obtain tissues for genetic studies of the Lowland leopard frog in Sonora, but we also traveled east and south into the Sierra Madre Occidental of western Chihuahua and Durango to collect genetic samples of Narrow-headed and Mexican gartersnakes. Collaborators on these projects included the Universidad Nacional Autónoma de México, Arizona State University, University of Nevada at Las Vegas, USGS, Arizona Game and Fish Department, Arizona-Sonora Desert Museum, the El Bosque Nacional y Refugio de Vida Silvestre Los Ajos-Bavispe, and others.

In 2006 and 2007, we led herpetological surveys at two ranchos in northeastern Sonora: Ranchos Los Fresnos and El Aribabi. Los Fresnos, located just south of the border in the San Rafael Valley, is owned by a Mexican NGO – Naturalia. Surveys there complement threatened and endangered species work in the Arizona portion of the valley. El Aribabi is the subject of a USFWS Sonoran Joint Venture project to exclude cattle from a riparian corridor. Our work there helps quantify the benefits of the Joint Venture project and we hope will assist in laying the groundwork for a Federal Reserve designation on the rancho. Exciting finds include Arizona tree frogs, Mexican gartersnakes, and Sonora tiger salamanders at Rancho Los Fresnos, and a Neotropical whipsnake and Tarahumara salamander at the northern edge of their distributions at El Aribabi.



In southern Sonora, the authors and Mexican amigos discuss the differences between the harmless Sinaloan milksnake (in hand) and dangerously venomous coralsnakes. Photo by M. Jakle.



Jeff Servoss, USFWS Phoenix Office, holds a black-tailed rattlesnake in the Sierra Azul, Rancho El Aribabi.



Mexican gartersnake at Rancho Los Fresnos. This species has declined substantially in the U.S. and to some degree as well in northern Sonora.

Surveys of these ranchos, as well as our Tarahumara frog and Lowland leopard frog work, will continue into 2008. We are also seeking funding with Mexican and U.S. partners to survey for the threatened Chiricahua leopard frog in Sonora, inventory sea turtle nesting areas on the beaches in the Sea of Cortez, and to conduct a series of Amphibian Workshops to build capacity for Mexican biologists to accomplish amphibian monitoring and conservation in northwestern México.

U.S.-Mexico Border Mapping Update

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

USGS and the Mexican Institute of Geography, Census, and Statistics (INEGI) sign project annex for public data sharing:

This annex between the U.S. Geological Survey (USGS) and the Mexican Institute of Geography, Census, and Statistics (INEGI) allows the public release of binational harmonized geospatial datasets along the U.S.-Mexico border by way of

the Internet under the umbrella of the USGS U.S.-Mexico Border Environmental Health Initiative (BEHI).

Public access to this georeferenced data increases the value of the data and the quality of the scientific products. Researchers and managers will now have a common and consistent geographic information database to work from to develop graphics, make comparisons, run models, and perform statistical analyses. These geospatial datasets are available at various scales and can be downloaded from the BEHI data download page at <http://borderhealth.cr.usgs.gov/datalayers.html>.

OTHER BORDER HIGHLIGHTS

Good Neighbor Environmental Board <http://www.epa.gov/ocem/gneb/>

The Good Neighbor Environmental Board (GNEB) is holding its 2008 Spring meeting in Washington, D.C. on March 19-20. At that time the board will release its 11th annual report titled "Effects of Natural Disasters on the U.S.-Mexico Border Environment". The meeting will also include briefings on the board's 12th report theme

"Innovation, Including Incentives, to Prevent/Reduce Pollution at the U.S.-Mexico Border". Other 2008 GNEB meetings will be held in Calexico, California on June 18-19, and El Paso, Texas on September 24-25. Jim Stefanov's 2-year term as the Department of the Interior (DOI) representative to the board expired in February 2008. The DOI is searching for a replacement for Jim Stefanov as he transitions into a new position with the USGS in the Office of the South-Central Regional Executive.



NEWS FROM THE FCC

<http://www.cerc.usgs.gov/FCC/index.htm>

FCC BENEFITS:

Why is FCC a value-added experience?

The FCC has been chartered since 1994 as the DOI organization charged with connecting field units and headquarters on issues and opportunities along the US/Mexico border. At its Fall 2007 meeting, FCC members re-visited what FCC offers its members and participants. Why is the FCC a worthwhile expenditure of time and resources?

- Participation in FCC assists in border partnership building. FCC members have long-standing relationships with their Mexican counterparts, both institutions and individuals, and with emerging partnerships within Mexico. Projects such as shared heritage trails and newer efforts in “sister” areas result from these DOI partnerships.
- Bi-annual FCC meetings at various locations along the SW border provide information and links to local DOI agencies. FCC members plan these meetings to ensure that attendees receive the latest findings, mapping efforts, management practices, and contacts. Mexican participants are encouraged to attend and translation is provided. Managers take home immediate information about regional topics ranging from tamarisk control to disease and health along the border.
- Managers and scientists work together on transboundary subjects. FCC work groups (issue teams) have an established record having taken serious looks at a range of topics: watersheds, health, habitat conservation, and training. Current work groups are focused on groundwater, climate change and border infrastructure.
- FCC member agencies have long pursued collaborative efforts such as “sister” protected areas, cross-border projects, shared grants, and interagency forums. . FCC members work directly with other federal and state agencies in the US and in Mexico--- such as the Institute for the Environment and Sustainable Development of the State of Sonora, (IMADES) and Mexico’s federal Secretariat of Environment and Natural Resources (SEMARNAT). Managers and scientists have direct connections to their counterparts and other potential partners through FCC members.
- The FCC is a forum and has organized conferences, published papers, sponsored research, and worked with federal, tribal, state, and local government partners in all border states on a variety of projects.
- FCC members assist managers and partners in land use analysis and approval processes for various land uses affected by the international border. The FCC also assists in implementing best management practices, and mitigating impacts on natural and cultural resources. The FCC website maintains information ranging from how to obtain maps to issue papers on watersheds.
- The FCC maintains a strategic plan that provides priorities for border natural and cultural resources issues. The strategic plan ties FCC agency performance to the DOI strategic plan. The FCC provides direct field input to DOI on border topics.
- DOI bureaus are all represented in the FCC. The FCC not only enables bureaus to focus on a significant area for the future of the US Southwest, but it contains the institutional knowledge of the past DOI and bureau US-Mexico programs, contacts, partnerships, etc.
- Access to interdisciplinary, interagency teams for issues resolution through the FCC can jumpstart new DOI land managers. FCC members have already demonstrated how cooperative management can be used to achieve a sustainable border region and have established networks ranging from mapping to weeds.
- Sharing information and resources through the FCC avoids duplication of efforts for bureaus with scarce resources. FCC members not only share resources such as databases and mapping services, but have encouraged the development of

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standards for data and GIS used in border work to ensure compatibility among DOI bureaus, other agencies, and to the extent possible, with Mexico.

- FCC--which represents a group of agencies--- increases the likelihood of grant funding to any one agency. For example, the current climate change grant proposal by FCC/USGS that will benefit all DOI agencies. Multiple sources of resources can be a key to resolving an issue or to attracting further monies.
- The FCC maintains tangible products, but this requires an active membership to ensure that the availability and quality of information remains high for bureaus to use. These products include the FCC website and a Newsletter with current projects. These products provide bureau managers and specialists with a tremendous resource. Certain features, such as border safety, are provided for the benefits of DOI employees.
- Participating in FCC improves DOI manager understanding of binational cultural perspectives, social values and governmental processes. Through biannual meetings, managers can interact with Mexican managers and scientists.

Your next opportunity to participate is April (below).

Next FCC Meeting: April 22-23, 2008 El Paso at the Camino Real Hotel

Please contact Lorenzo Arriaga, FCC Chair, 915-534-6324, LArriaga@uc.usbr.gov for more information.

FCC WEBSITE

For more information about the FCC or bi-national resources and activities, please go to:

<http://www.cerc.usgs.gov/FCC/index.htm>

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 520-624-0560, or Shela_McFarlin@blm.gov