

VOLUME 25, NO. 2 Summer 2007

Bats and Education
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Mexico's Canyons of Cumbres de Monterrey National Park takes your breath away. Raw, rugged cliffs rise like skyscrapers 100 feet (30 meters) above your head, framing the stunning vistas of the Sierra Madre mountains. A sweating band of about a dozen middle-school children and three instructors, all wearing backpacks, have just hiked for hours to attain a summit. Now the nervous students are preparing to descend about 80 feet (25 meters) back down to the ground in a matter of moments.

Welcome to Outward Bound Mexico. This innovative "Bats and trails of experiential learning" project was developed by the Punto Verde Consultores of Mexico and BCI's Borderlands Project to give bat education a powerful new twist in the region. Student Javier Ramos peers over the edge of the cliff down which he is about to rappel, and his uncertainties are clear. As he contemplates the harness, ropes and extensive security systems, he reviews the basic training he completed the previous day. Under the watchful eyes of instructors, the youngsters help each other don their gear and prepare for the thrilling/frightening drop over the side. An instructor describes the critical importance of collaboration, not only on this rocky cliff but among all humans "and in all of nature. One by one, the students step over the edge for the rapid, bouncing descent, to the cheers of their comrades. As Javier takes his turn rappelling down the cliff, he notices an unlikely sight: agaves that somehow found a rare bit of soil and held on long enough for seeds to germinate and plants to grow from that vertical wall of rock. Collaborative relationships suddenly start to make more sense to him.

As the excited, successful students gather at the bottom of the cliff, the instructors guide them in sharing the experience. Javier describes the collaboration he saw between the agave and the mountain. Diego, one of the instructors, seizes this educational moment for a story about the Sierra Madre bats.

"Just so," Diego tells the students. And so it is with bats and agaves. Some bats in the Sierra Madre survive by eating the fresh nectar from the bright, richly scented night blooms of the agave, and in return for their meal, the bats pollinate the plants so they can reproduce and thrive. Collaboration pays off for both animal and plant.

The story of the free-tailed bat is different, Diego continues. These bats are hunters that spend their nights pursuing and eating countless insects that might otherwise decimate agricultural crops on which humans depend. In these ways, he says, bats help maintain the delicate balance of our planet.

This is a lesson that could last a lifetime.

Educators call this "experiential learning," delivering information through active participation. Students take part in activities that help them relate knowledge to experience, rather than just committing information to memory.

Punto Verde and several local partners spent three years working with teachers and students to incorporate experiential learning in support of BCI's conservation efforts in the state of Nuevo L  n, Mexico.

In a collaborative project with the State Ministry of Education, a total of 900 teachers and thousands of students received bat education to counter dangerous myths and clarify the many benefits of bats. Many of the children even became advocates in their own communities.

Punto Verde, meanwhile, trained Grupo Imagina (which works with underprivileged

children) and Outward Bound instructors, created the educational materials and developed strategies for bat-related activities. After the courses, both groups implemented programs and workshops.

The main objectives of the workshops, organized by Grupo Imagina, were to generate proposals for improving their communities, care for the environment and develop leadership skills. Outward Bound's program incorporates bats heavily into its outdoor programs. Bats are presented as flagship species because of their ecological importance and the prevalence of misinformation about them.

More than 720 students have already participated in these programs, learning details of the bats of the Sierra Madre and how they improve natural and human environments. These young people not only change their perceptions, but they take their knowledge home and share it with others in their families and communities. Education works.

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