



Conservation Volunteers International Program

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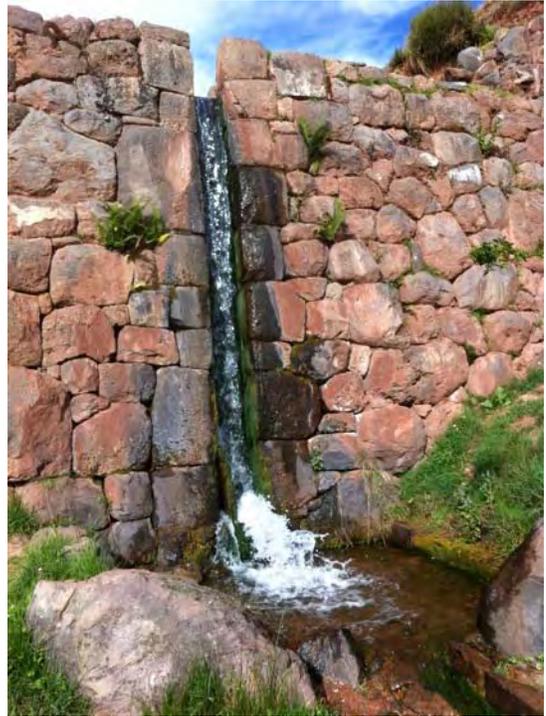
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Volunteer Expedition Trip Report Machu Picchu Sanctuary, Peru November 1-10, 2011

Project Summary: Conservation Volunteers International Program, in cooperation with REI Adventures, organized and directed a volunteer expedition to the Machu Picchu Sanctuary November 1-10, 2011. The project was authorized by Sra. Ada Castillo, Director of the Historic Sanctuary of Machu Picchu (National Service for Protected Area Management (SERNANP) within the Ministry of Environment), Dr. David Ugarte Vega Centeno, Regional Director of Culture (Ministry of Culture), and Sr. Oscar Valencia, Alcalde (Mayor) of Machu Picchu Pueblo. Fourteen volunteers completed a variety of work identified by our host organizations, including: removal of unwanted plants growing on 2,750 square feet (255 square meters) of building and terrace walls within the Sacred City of Machu Picchu; maintenance of approximately two miles of the popular Putucusi Inca Trail, including installation or maintenance of 42 water drains and removal of jungle growth along the trail; maintenance of boundary markers between the community of Machu Picchu Pueblo and the Sanctuary; restoration and trail construction within the Sanctuary's Orchid Garden; planting of trees to stabilize a landslide area inside the Sanctuary boundary threatening homes within Machu Picchu Pueblo; restoration work within an established butterfly sanctuary, and review of needed trail repairs along a section of the Royal Inca Trail. In addition, a five-person Santa Barbara County Search and Rescue Team taught a technical training program in vertical rescue techniques to 44 sanctuary rangers and municipal police. Volunteers donated 1,064 hours of time and over \$12,000 in tools and equipment, in addition to local expenditures for lodging, food and transportation.



Detailed Project Description:Volunteers began the expedition with guided orientation tours of Cusco, Sacsayhuaman and Tipon historic sites. Volunteers first visited the Inca Sun Temple of Koricancha and the historic Cusco Cathedral. Sacsayhuaman is a hilltop stone fortress overlooking Cusco. The largest of the stones used in the construction of Sacsayhuaman weigh over 360 tons and stand more than 20 feet tall. At Tipon archaeological site, volunteers observed restoration activities, and learned how the Inca experimented with a variety of plants in much the same way modern universities have agricultural experiment stations. Volunteers also visited a textile cooperative, learning how the Inca used alpaca and other fibers for weaving into traditional clothing and household items. Volunteers later visited Ollantaytambo and Pisac archaeological sites. Orientation tours are part of the training for volunteers in preparation for their restoration projects within the Machu Picchu Sanctuary.



Volunteers next traveled by van and train from Cusco through the Sacred Valley to Machu Picchu Pueblo (also known as Aguas Calientes). Upon arrival into Machu Picchu Pueblo, Supervisory Park Ranger Yolanda Hidalgo Sifuentes of SERNANP provided volunteers orientation to the Sanctuary, highlighting ongoing projects and describing many of the significant challenges facing park rangers. Training in the proper use of tools and methods to work safely was also provided. A highlight for many volunteers was learning about the life of park rangers in the sanctuary, including a tour of the park offices and living areas.

The Ministry of Culture asked volunteers to assist in restoration efforts within the Sacred City of Machu Picchu. Because of the moist jungle setting, archaeologists must constantly remove plants that begin to grow in the cracks between stones of ancient buildings and agricultural terraces. If plants are not continuously removed, roots reach deep inside the stone structures, eventually destroying the Inca constructions. In addition, plants growing on the surface of stone buildings accelerate exfoliation (weathering) of the stones. Volunteers worked within the eastern terraces (Occidental Sector 5), removing unwanted plants growing on 2,750 square feet (255 square meters) of building and terrace walls. Below, left, volunteers received training from Sanctuary Biologist Gladys Huallparimachi in the proper techniques and tools in order to remove unwanted plants while protecting the stones placed by Inca craftsman over 500 years ago. Below, center, Resident Sanctuary Archaeologist Piedad Champi provides additional training and orientation based on her two decades of experience working within the Machu Picchu Sanctuary. Both scientists spent many hours working alongside volunteers.



SERNANP asked volunteers to help Sanctuary Rangers with a variety of projects, beginning with continued maintenance on the Putucusi Inca Trail. This historic trail, originally constructed by the Inca, allows access to the top of Putucusi Mountain, providing a commanding view of the Sacred City of Machu Picchu. Efforts are underway to restore a 120-foot tall wooden ladder that was destroyed two years ago and effectively bifurcates the trail, preventing visitors from safely completing the hike. SERNANP finished the design work for the replacement ladder, but is in need of funding for construction materials. Volunteers maintained the lower section of trail leading to the ladder construction site by clearing the trail of plants and other debris, maintaining or installing 42 water drains, and repairing sections of this popular two-mile section of trail.



Rapid development in the community of Machu Picchu Pueblo may directly affect the Sanctuary through encroachment or removal of trees for firewood. Volunteers purchased supplies, cleared and re-painted concrete monuments clearly marking the boundary between the community and the Sanctuary.

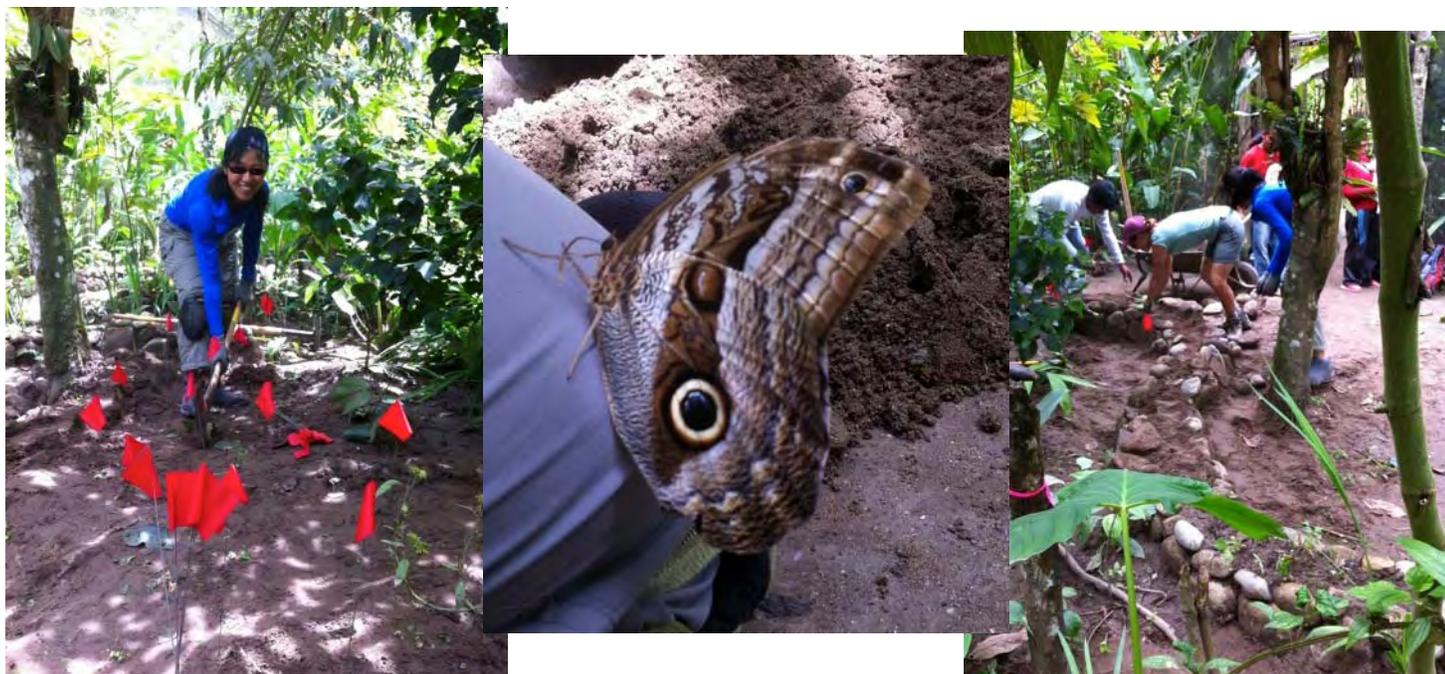


Volunteers planted 50 native trees to stabilize a landslide area inside the Sanctuary boundary. The steep slope perched above Machu Picchu Pueblo threatened homes below. Rangers grew these trees in a native plant nursery near Chachabamba, an archaeological site volunteers would later have the opportunity to visit.

SERNANP asked volunteers to maintain the Orchid Garden Nature Trail. The Sanctuary is home to hundreds of orchid species (Orchidaceae), creating one of the greatest concentrations of orchids in the world. Restoration included maintenance of the existing trail, correcting poor drainage that was destroying a segment of the trail, and spreading forest litter to improve habitat for orchids. Access to the orchid garden had been made more difficult when a community construction project eliminated the beginning of the trail. Volunteers converted a narrow footpath into a trail safe for all visitors.



Volunteers improved conditions within a native butterfly sanctuary located close to Machu Picchu Pueblo by improving drainage, re-routing a visitor trail, and re-locating plants that are used by the butterflies. Over 100 species of butterflies exist within Machu Picchu Sanctuary.



While one group of volunteers focused on cultural and natural resource restoration projects, five volunteers from the Santa Barbara County Search and Rescue Team (SBCSAR) taught technical rope rescue skills to 44 Sanctuary rangers and local emergency personnel. Team members also facilitated the formation of a volunteer unified search and rescue team. REI Adventures, CMC Rescue and the SBCSAR donated over \$12,000 in equipment to the training course. The search and rescue team plans to return and expand training to include swift water rescue. Donations of equipment, especially specialized equipment for swift water rescue, are being sought for this upcoming training. Following completion of the volunteer activities, Mayor Oscar Valencia presented certificates of completion to the rescue class and praise for all the volunteer efforts.



On scheduled rest days, volunteers enjoyed guided exploration within the Sacred City of Machu Picchu (after most visitors departed) and the Royal Inca Trail. Supervisory Ranger Yolanda Hidalgo accompanied volunteers hiking the Inca Trail from Chachabamba to the Intipunku Sun Gate. During the hike, trail conditions and needed repairs, such as this trail sign, were discussed. To effectively work on this section of trail, future volunteer groups would need to camp near the work sites.





Conservation Volunteers International Program acknowledges and thanks the Ministry of Culture, the National Service for Protected Area Management (Ministry of Environment), and the community of Machu Picchu Pueblo for the privilege of volunteering in Peru. We look forward to returning with additional volunteers.

*“Never doubt that a small group of concerned citizens can change the world.
Indeed, it is the only thing that ever has.”*

Margaret Mead