

Chinese Biologists Compare Argali to Bighorn

by Michael Kreger and
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“**S**top the car!” cried Liu Chuguang through our interpreter, Julia Su. The minibus slid to a halt on the rocky washboard road. As the dust cleared, we made out a thin tawny figure picking its way around a field of boulders. Then, about 50 feet (15 meters) away, an adult female desert bighorn sheep, a yearling, and a lamb came into view. We were visiting the Hualapai Indian Reservation in northern Arizona at the base of the Grand Canyon, a special place for us and for our colleagues from China. Seeing a desert bighorn sheep in the wild was as exciting for them as seeing the endangered argali (a large Asian bighorn sheep) had been for us when we had the opportunity to visit China the previous year.



The delegation from China was thrilled to see bighorn sheep (top and right) on their U.S. tour.
USFWS photos above; photo at right by Corel Corp.

The visit of five Chinese delegates was coordinated by the Service's International Affairs program, which implements the "Nature Conservation Protocol Between the State Forestry Administration of the People's Republic of China and the Department of the Interior." As part of the agreement, the United States sent biologists to China in 2001 to learn about argali (*Ovis ammon*) management. In return, we spent two weeks with the Chinese delegation, first in Arizona, home of the desert bighorn (*Ovis canadensis arizonai*), and then in Montana, home of the Rocky Mountain bighorn (*Ovis canadensis*). In both states, the Chinese delegation met with scientists, managers, and researchers who work together to manage these marvelous animals at the federal, state, and tribal levels.

At their peak, desert bighorn sheep in North America may have numbered more than 2 million animals, but competition with livestock in the 1800s reduced the population to approximately 20,000, of which 4,500 are found in Arizona. Representatives from Arizona Game and Fish Department, the Phoenix Zoo, and the Hualapai Reservation introduced the delegation to Arizona wildlife, discussed methods of estimating population sizes, and provided information on predation, disease, and nutrition. The delegation also learned that, on occasion, when bighorn from the reservation cross into Grand Canyon National Park, and vice versa, the three governments coordinate material or technical assistance.

Rocky Mountain bighorn sheep populations in the contiguous United States also declined by the early 1900s due to commercial exploitation, habitat loss, and competition and diseases from domestic livestock. Then, in the 1940s and 1950s, state wildlife management agencies began reintroducing bighorns to their historic range, using animals from the remaining stocks and herds from Canada. Now, Rocky Mountain bighorn sheep are widely distributed throughout the Rocky Mountain states and south into New Mexico, with an estimated population of more than 19,000 in 1985. In Montana, the Chinese delegates learned about these animals from University of Montana researchers, Forest Service and Fish and Wildlife Service biologists, and staff from the Montana Department of Fish, Wildlife and Parks, who described such tools as prescribed fire and the reintroduction of bighorn sheep to manage wildlife resources. They learned about Montana's hunting laws, as well as regulations covering the sheep. In addition, they visited a

taxidermist who instructed them in the science of preserving lifelike specimens. Of particular interest was a demonstration that involved permanently marking legally hunted trophy heads to discourage poaching.

Our visitors saw spectacular wildlife and habitat, took copious notes, shot many rolls of film, and asked insightful questions. They received information that may improve their ability to manage their own wild sheep populations. In addition, U.S. and Chinese biologists formed strong bonds of friendship that likely will benefit both nations.

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