

**Project 3679****Reintroduction of Greater One-horned Rhinoceros to the Royal Bardia Reserve, Nepal**

WWF Expenditure 1985 — \$24,250

**Project Executants:** King Mahendra Trust for Nature Conservation.**Participating Organizations:** His Majesty's Government of Nepal, Department of National Parks and Wildlife Conservation; Smithsonian Institution/Nepal Terai Ecology Project.**Objective:** To move a group of 13-20 one-horned rhinos from Royal Chitwan National Park to Royal Bardia Wildlife Reserve in an attempt to establish a second viable population in Nepal.

South Asia's rhino populations are declining rapidly, including the greater one-horned rhinoceros (*Rhinoceros unicornis*), a species which once ranged from the Brahmaputra River Valley to the Indus but is now restricted to two major reserves, one in India (Kaziranga) and another in Nepal (Chitwan). The total population is now only about 1500. Sound management of this endangered species requires relocation of small populations to well-protected reserves where rhinos once occurred. Surveys of suitable relocation sites were made and techniques for immobilization and transport worked out. This project follows on the heels of a successful relocation of four rhinos from Chitwan to Dudhwa National Park, Uttar Pradesh, India, carried out by the same project staff.

Preliminary work included extensive review of ecological data necessary for the choice of a relocation site. Fortunately studies on rhino food habits, forage quality and availability, movements, home ranges, reproductive activity and population ecology in Royal Chitwan National Park were already completed or underway. As the ecology of Chitwan is very similar to that of Royal Bardia Wildlife Reserve, data from Chitwan were appropriate in evaluating relocation sites at Bardia.

Coordinated efforts among project researchers, equipment suppliers, the Timber Corporation which provided the trucks to transport the animals and the Roads Department which supplied a crane to load the rhinos onto the trucks were arranged. In January 1986 four greater one-horned rhinos (three females and one male) were translocated from Chitwan to Bardia Wildlife Reserve.

The animals were immobilized, general data on size, age and health were collected and the rhinos were loaded into individual crates and then transported sixteen hours to Bardia Reserve. Once in the new reserve, all animals were released in the preselected location. Systematic observations on the movements, activity patterns, habitat and diet selection and behaviour of the rhinos are being made. Additional animals will be relocated to Royal Bardia Wildlife Reserve during 1986.

Since the impact of rhinoceros feeding on crops can be destructive, plans also include construction of solar-powered electric fencing along the border of the

reserve and agricultural fields of the local people living adjacent to the reserve. Through early construction of the electric fences it is hoped relations with local villagers will remain good and the rhinos will maintain ranges within the reserve away from human habitation.

**Project US-331****Snow Leopard Studies, Nepal**

WWF Expenditure 1984 — \$15,000

(Project initiated 1982)

**Project Executants:** Rodney Jackson and Gary Ahlborn. California Institute of Environmental Studies, in association with His Majesty's Government of Nepal. Department of National Parks and Wildlife Conservation, Kathmandu.

**Participating Organizations:** Natural History Museum, Tribhuvan University, Kathmandu; King Mahendra Trust for Nature Conservation, Kathmandu; National Geographic Society, Washington; New York Zoological Society; International Trust for Nature Conservation, Kathmandu.

**Objectives:** To investigate the ecology of the endangered snow leopard, including its activity and movement patterns, home range size and configuration, habitat use and requirements, and basic predator-prey relationships in the Langu Valley of west Nepal.

Until this study, almost nothing was known about the endangered snow leopard (*Panthera uncia*) in the wild because its secretive habits, low numbers, sparse distribution and inaccessible terrain have discouraged attempts at research. Snow leopards are widely but sparsely distributed through the mountains of inner Asia, including the Himalaya of Nepal, India, Bhutan and Sikkim, the Hindu Kush of Pakistan, the Pamirs of Afghanistan, Tibet and the ranges along the border of the Soviet Union and the People's Republic of China. Except for Nepal, Pakistan and parts of USSR, where brief surveys were undertaken in the 1970s, the cat's present status, distribution and abundance are unknown.

In close cooperation with biologists from the Department of National Parks and Wildlife Conservation in Kathmandu, R. Jackson and G. Ahlborn initiated in-depth work in January, 1982 in the remote Kanjiroba Himal of the roadless Karnali Zone near the Tibetan border. Base camp is a two week walk from the nearest STOL airfield, and all supplies had to be portered in for the 8-month annual field seasons.

Snow leopards were trapped using specially designed leg-snare traps that cause no injury to the animals; in all, traps were placed out for nearly 4000 nights over the 26 month study period. Cats were trapped and immobilized on 11 occasions.