## UP&coming conservationists

## Steppe eagles and Sanctuary trainees

By Robert DeCandido, Ph.D.

## **NEPAL MAY BE ONE OF THE POOREST**

PLACES TO LIVE and work, but the natural wonders are amazing: here are found eight out of ten of the world's tallest mountains, including the world's highest, Mount Everest. Among them moves an unprecedented east-to-west migration of raptors each spring and autumn through the imposing ridges. Hawk Mountain has been instrumental in helping the Nepali people document this migration, and has developed here a training program for aspiring raptor biologists. In the last 15 years, the Sanctuary and its members have made a significant investment, and in Nepal, a little goes a long, long way.

It was 1999 when I first ventured to Nepal and watched the steppe eagles and other raptors move across the foothills of the Himalayans. The birds leave their breeding grounds in China and Mongolia and travel west across Nepal to winter in India, Pakistan and Saudi Arabia. Some eagles likely continue on to Africa.

The birds begin to move in late October when the last of the monsoon rains end.



off, navigating through high mountain cuts. If cloudy weather prevails at high elevations, it's a windfall for watchers. Such days obscure the big peaks and nearby valleys, forcing the steppe eagles to drop their flight altitude and fall into the lower foothills. This is precisely where I worked together with local birders to establish a

Juvenile steppe eagle

an autumn count in 2000, 2001 and 2002, tallying birds from a nearby hill where he lived. We assisted as best we could: sending binoculars and field guides via Sherpa guides who worked for an American tour company. Conveniently, the business is run by Dr. Will Weber, president of the Hawk Migration Association of

North America. He understood our need.

Professional training began the following spring when Surya arrived to join the 2003 international class at Hawk Mountain. Two years later, his daughter Shanti travelled to Hawk Mountain and with Kyle McCarty completed and published a scientific paper on steppe eagle migration. She used data collected by her father and her brother Sumit, and the paper provided a solid baseline report of raptor migration in Nepal.

By 2008, the long civil war was over and in autumn 2010, Hawk Mountain accepted another Nepalese biologist named Tulsi Subedi. Upon his return to Nepal, Tulsi had just one burning goal: to complete the first August through December raptor count in Nepal. It was time for me to visit Nepal once again.

Since then, Tulsi, Surya and I have worked as a team to collect data and build a more detailed picture of the migration. We found a new and better watch site at a higher elevation, along the edge of the Annapurna Conservation area, a world heritage site. The spectacular setting has no remnant military installation, and Tulsi stands watch daily, August through mid-December.

When he's not counting the birds, he's analyzing the data, and his preliminary findings suggest that in a typical year, when mostly clear skies dominate, an average 10,000 steppe eagles pass from east



low us, the steppe eagles pass at eye-level.

A relative of our slightly larger, North American golden eagle, the steppe eagle is part of the genus Aquila. While seeing up to 15 golden eagles on a November day at Hawk Mountain is exceptional, in Nepal, sometimes you can see 15 steppe eagles ride the same thermal.

During that first season I met Surya Gurung, a mathematics teacher from a nearby government school in the mountains of Nepal. Each November, schools close in Nepal, allowing children to return to their villages and help to harvest wheat, barley and rice. With Surya and my companion Deborah Allen, we monitored the flight for just two weeks, and instantly knew a full season count had to happen.

Civil war thwarted our plans, and quickly, the scenic plateau we used to scan and count became a military installation. Undaunted, Surya and his family managed between the gunfire to complete to west, with older birds making up most of the early flight. Should a monsoon year occur—when clouds obscure the mountain peaks from late October through early December—the historical reports suggest that as many as 30,000 could pass by our lower elevation. As only a few of the impressive eagles move south from China through Thailand and Malaysia, this population is big news for raptor conservationists, and Tulsi and Surya's reports are now raising eyebrows world-wide.

Though eagles are the big attraction, there are 30 migratory raptor species in total, and another seven that are local residents. The migrants include the lesser kestrel, amur falcon, Egyptian vulture, redheaded vulture and cinereous vulture—all species of special concern in Asia.

The breathtakingly close views are great for data collection: we can age about 60

percent of the eagles because they pass so close. Indeed the views we have of these eagles and the other Asian raptor migrants are better than any other site on the earth. The long-term plan, pending a funder, is to fit some of the eagles with satellite transmitters. In the meantime, we continue to collect data on the more than 30 migrating species including eight other species of eagle that we commonly see. Besides the few golden eagles that pass, we also see the gorgeous mountain hawk-eagle, another resident bird and a species of special concern in other parts of Asia.

From a broader perspective, the ornithological community has reported a recent, significant decline in the European population of the steppe eagle that passes through the million-bird bottleneck in Eilat, Israel. As a result, western raptor biologists need solid baseline data from



eastern Asia, which is the stronghold breeding area of the steppe eagles we see in Nepal. We suspect that the sub-species we count may be in decline due to an increase in agriculture and overgrazing of cattle on farmland. Sadly, too, in parts of China, farmers have taken to using poisons to eliminate rodents in their fields, yet another potential negative impact on both the steppe and golden eagle.

Resident birds in Nepal, though, enjoy a culture that reveres animals. In this agrarian land where most make a living by farming, Buddhists and Hindus have deep respect for the large birds of prey that pass so close. Surya Gurung, now retired from teaching, has trained all of the local children in watching and counting the raptors. At the watch site, Tulsi Subedi interprets the migration and shares his own passion for raptors with the inter-

national hikers who trek toward the big peaks. Last year we welcomed hundreds of high-end tourists from Japan, China and Malaysia, as well as many European countries, and even several groups of Americans who stopped to talk with us. Against all odds, these Hawk Mountain trainees are making a difference. And it's your small investment to the Sanctuary that is yielding these big results.

About the Author: A 1985 Hawk Mountain trainee, Bob has studied raptor migration in Europe, Asia,



the Middle East and North America. Tulsi Subedi (pictured) is a 2010 trainee and up & coming conservationist who

started a raptor-migration study in the foothills of the Himalayas, the first full-season migration count for Nepal.

