## A Philippine Eagle's Tale

Jayson C. Ibanez is the Director for Research and Conservation of the Philippine Eagle Foundation. Apart from Mindanao Island, his team also works in three other islands where the eagles they study are only found — namely Luzon, Leyte, and Samar. No more than 400 breeding pairs are estimated for the Philippine eagle, and more than half of its global population is believed to be on Mindanao Island.

The IUCN "critically endangered" Philippine eagle (*Pithecophaga jefferyi*) population has declined due to two reasons - massive destruction of the Philippine tropical forests, and the hunting and shooting of its kind. Because every individual top forest predator is precious, the Philippine Eagle Foundation (PEF), an NGO helping to save the country's national bird from extinction, rescues injured eagles and restores their health. Birds that recover are then released back to protected forests where they can potentially breed and add offspring to the already very small wild population.

On Mindanao Island, Southern Philippines, one female eaglet survived shooting and maltreatment by her human captor. Six years after her rehabilitation and release, she reached sexual maturity, paired with a mate, and bred.

This article is her story.

Photo courtesy of PEF



On March 20, 2008, a group of recreational bikers stumbled upon a young eagle held captive in a remote village. PEF and government staff verified the bikers' report and found an injured, one-year-old bird inside the captor's hut.

worn. She was thin and

Philippine eagle Kalabugao inside her captor's hut in 2008.

severely dehydrated. The poor bird had bruises and swelling on her upper right chest, which x-rays showed was due to a broken collar bone. There was also an airgun pellet lodged inside the bird's right ankle. The bird was given medical care at the Philippine Eagle Center (PEC) in Davao City. She was named "Kalabugao" after the village she was rescued from.

Kalabugao survived and recovered, and was very restless in captivity. On October 29, 2009, she was released inside Mt. Kitanglad Natural Park, a protected area about 50 km away from her capture site. Nearly three years old by then, Kalabugao was an immature eagle, driven to disperse by instinct. We tagged her with an LC4 GPS PTT along with a leg band, and monitored her movement remotely and from the ground.

Not surprisingly, Kalabugao left her hack site barely three months after release. She was very wary of people. But instead of exploring the forest interiors, she began a slow, perilous journey outside of the protected area, along a narrow riverine forest across a sea of farmlands. The riparian forests carpeted deep and very steep ravines, and apparently hosted lowland-dwelling wildlife, including eagle prey.

February 15, 2010 marked the first time the team monitoring Kalabugao witnessed a successful hunt. The prey was a Samar cobra, Naja samarensis. The next day, she hunted a young Philippine long-tailed macaque, Macaca fascicularis ssp. philippensis. The forest corridor, it seems, offered food and safe passage.

At some point, the GPS transmitter was battered by Kalabugao and malfunctioned. On May 4, 2010, she was re-trapped and her LC4 transmitter replaced. To keep her safe, we released her again inside the protected area. But in no time, she was back trailing the forest corridor. We let her be, but closely followed her.

In two months, she reached the forest edge of Mt. Tago, a mountain range northeast of Mt. Kitanglad, and completed a gradual journey over human landscapes along the 40-km riparian (riverine) forests network of Mangima, Kulaman, and Tagaloan Rivers. This is the first scientific evidence



First photograph of eagle Kalabugao in the wild after she was seen killing a Samar cobra. Photo courtesy of PEF

the unit had bite marks from Kalabugao's formidable beak. Thereafter, we lost track of her.

harness was ripped off, and

of an immature

as a dispersal route.

Unfortunately, the feisty

Philippine eagle using forest

corridors between two mountains

Kalabugao battered her transmitter

anew, and on January 10, 2011,

the unit was found on the forest

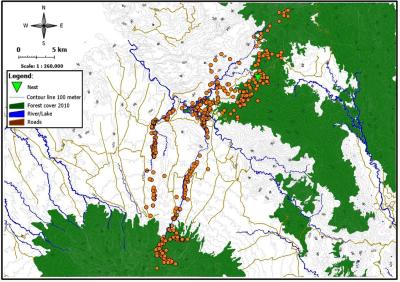
floor of Mt. Tago. The backpack

Four years later, just before Christmas 2014, a farmer snared her. She had killed and ate a domestic pig, and the farmer

had retaliated by trapping her. But when the farmer saw her leg band, he realized that the bird was being monitored and reported the incident to authorities.

Luckily, Kalabugao was healthy and had no injuries. On March 31, 2015, she was released back to Mt. Tago after a brief rehabilitation at the PEC. She had a "brood patch," suggesting that she is of breeding age. She was given a new GPS tag, and videographers from Cornell Lab of Ornithology covered her release. Her footage will soon appear in an international film about Philippine eagles (see http://birdofpreymovie.com/).

Tracking Kalabugao was made more exciting by the fact that she would nest soon. Two months after release, our field crew saw her with a wild eagle, and the couple showed successful pairing. By October 2016, GPS fixes from her transmitter clustered in one place, which continued for the next two months. In January 2017, our field crew saw Kalabugao sitting on her egg. Sadly, the egg failed to hatch.



Movement of eagle Kalabugao inferred from 531 GPS fixes (brown dots) from three LC4 GPS PTTs.

But although her first nesting attempt failed, Kalabugao's story represents the first case of a rehabilitated juvenile Philippine eagle surviving to sexual maturity and breeding.

We continue to monitor Kalabugao's movement through her GPS transmitter and data suggest she has re-nested. Hopefully, this year's attempt will be successful.

Kalabugao's case represents another triumphant pairing of human dedication and technology to help a "critically endangered" eagle survive the perils of living in a humandominated world. Many animals are facing extinction. But Kalabugao's story, and the care and concern of the people helping her adjust with a changing world, gives a reason for hope.

