

## IN FLIGHT

**Chukiat Nualsri  
at the autumn  
hawk watch site  
in Chumphon,  
Thailand.**



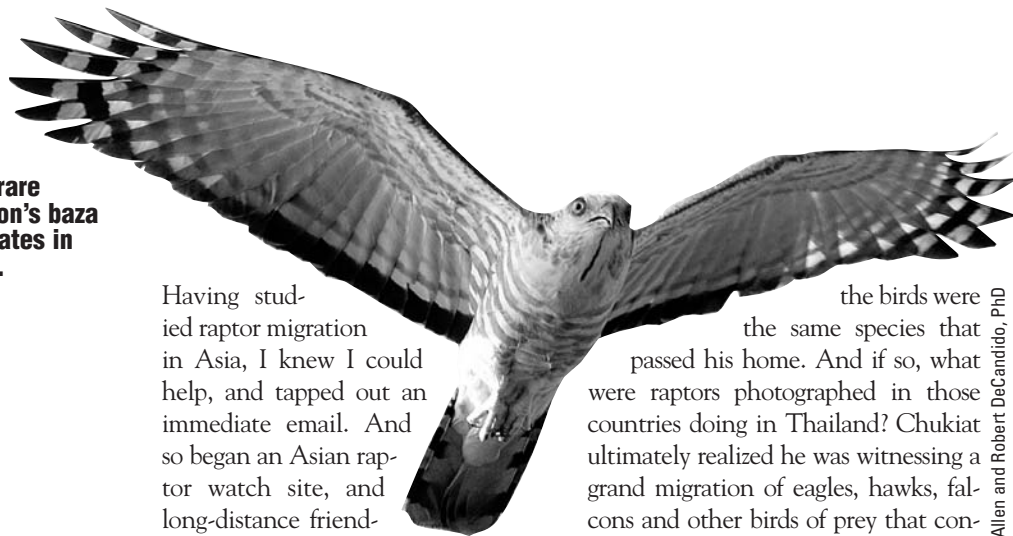
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# Raptor Migration in *Thailand*

Text and Photos by Deborah Allen and  
Robert DeCandido, PhD

It was autumn 2002 when a post on the Asian Raptor Research and Conservation Network website made me do a double-take. A young Thai government officer named Chukiat Nualsri had observed and was now counting birds of prey in Thailand. What Chukiat didn't realize, and what I instantly suspected, was that he may have uncovered a migration flyway of global significance.

**The rare  
Jerdon's baza  
migrates in  
Asia.**



Having studied raptor migration in Asia, I knew I could help, and tapped out an immediate email. And so began an Asian raptor watch site, and long-distance friendship, on the other side of the globe.

I first learned through our email correspondence that Chukiatt had noticed the birds on a September morning in 1997, at first just a few, and then, a monsoon of large birds passing his house. Later that same afternoon, he noticed the birds still moving south overhead. Throughout the autumn he observed the birds only in the morning and late afternoon, and always headed in the same direction.

A year passed, and in 1998, the birds reappeared over Chukiatt's home on the east coast of Thailand. Despite his best efforts, he could not determine their identity. Friends knew little about wild birds, and there were no field guides in Thai. Getting a close look was nearly impossible, as binoculars were too expensive. Answers to simple questions remained a mystery. Where did the birds go? Where did they come from? Why did they travel in groups? How many passed? Why did he only see them in autumn? Where did the birds disappear each afternoon?

Three autumns passed, and by then, Chukiatt learned to look for the first large birds each August. Online, he found raptor photos posted on websites in Taiwan and Japan, but was unsure if

the birds were the same species that passed his home. And if so, what were raptors photographed in those countries doing in Thailand? Chukiatt ultimately realized he was witnessing a grand migration of eagles, hawks, falcons and other birds of prey that connected Thailand with people and countries to the north and the south.

By autumn 2002, Chukiatt recorded the raptors when he could and posted the data on the website of the Asian Raptor Research and Conservation Network [www5b.biglobe.ne.jp/~raptor/](http://www5b.biglobe.ne.jp/~raptor/), where I eventually read his posts. After our initial email correspondence, I quickly made plans to visit join him for a full season count.

In order to maximize educational outreach, Chukiatt convinced his colleagues in the regional government to sponsor an autumn raptor watch. At first, a small amount of funding was budgeted to print posters, flyers and even highway signs that emphasized the importance of Thailand and its people for birds of prey. Articles about the migration began to appear in newspapers throughout the country. Birders and non-birders, curious to know more about the big birds passing through Thailand, began to visit.

The regional government realized the eco-tourism potential, and increase funds to purchase binoculars and spotting scopes. This year, more than \$5,000 was pledged annually for the migration count at Chumphon, and the watchsite attracted corporate sponsors. Like other migration watch-

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sites around the world, this count remains a success because of Chukiatt and his cadre of volunteers, who view the migration as a gift from Buddha to all Thai people to enjoy, study and protect.

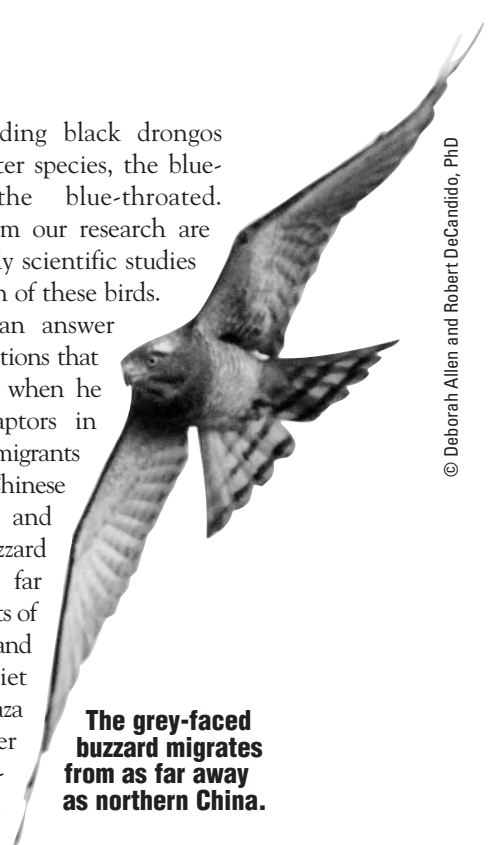
Chukiatt's field crew constructed bamboo shelters to shield visitors from the sun and rain and in autumn 2003, I used the same shelter while conducting the first season-long count in the country. The results were impressive: more than 170,000 raptors of 17 species were counted, the highest single-season totals for any location in Southeast Asia at that time. On one day in late October, counters tallied more than 50,000 raptors. Four species composed approximately 90 percent of the flight: black baza, Oriental honey-buzzard, Chinese sparrowhawk, and grey-faced buzzard. Each species primarily travels in single-species flocks, much like our own broad-wing, and I quickly recognized ospreys and peregrine falcons. However, not a single migrant (or resident) vulture was observed, making for a very different sky than in the Americas.

Since that initial count, I have been able to return and work with Chukiatt to establish the first spring raptor watch in his country. From late February to mid-April 2007, we tallied more than 50,000 raptors of 15 species migrating north through eastern Thailand. We confirmed prior observations by the Thai Raptor Group [www.thiaraptorgroup.com](http://www.thiaraptorgroup.com) that the rare Jerdon's baza and the crested serpent eagle, do indeed migrate in Asia, and our combined research shows that the black baza is the most common migrant in both spring and autumn in Southeast Asia. We have also counted and analyzed the migration of other birds that pass through

Thailand including black drongos and two bee-eater species, the blue-tailed and the blue-throated. Publications from our research are the first and only scientific studies on the migration of these birds.

Today, we can answer some of the questions that puzzled Chukiatt when he first noticed raptors in 1997. Autumn migrants including the Chinese sparrowhawk and grey-faced buzzard come from as far away as the forests of northern China and eastern Soviet Union. Black baza migrate shorter distances, originating in Nepal east to southern China.

Some migrants, we learned, never seem to stop traveling and challenged my own long-held beliefs about migration strategies. For example, each September a few Oriental honey-buzzards migrate south from the breeding grounds on Japan southwest through



**The grey-faced buzzard migrates from as far away as northern China.**

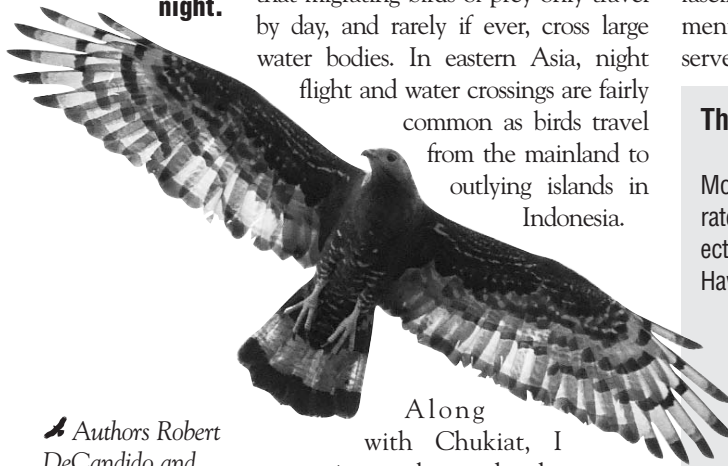
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**Thai Hawkwatchers Ying, Apple and Side Promsri watch for raptors.**



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**The Oriental honey-buzzard sometimes migrates at night.**



*Authors Robert DeCandido and Deborah Allen have conducted raptor migration research in Asia from Israel and Turkey east to Nepal and south to Malaysia since 1998. At home in New York City, they are studying urban nesting kestrels in Gotham.*

Thailand and mainland Malaysia to Indonesia, and then turn north and reach the Philippines in late November, an autumn migration of more than 7,000 miles. Oriental honey-buzzards sometimes migrate at night. Other raptors, including Chinese sparrowhawks and grey-faced buzzards, regularly make long over water crossings as they migrate from Japan and Taiwan south to the Philippines, Borneo and Indonesia.

The realization that some Asian birds of prey crossed water and migrated at night caused me to re-examine my own beliefs about raptor migration. In North America, most biologists are taught that migrating birds of prey only travel by day, and rarely if ever, cross large water bodies. In eastern Asia, night flight and water crossings are fairly common as birds travel from the mainland to outlying islands in Indonesia.

Along with Chukiat, I was curious to learn why the raptor flight seemed to disappear from noon until 3 pm. We solved this puzzle by watching raptors closely as they rose higher and higher in thermals during the middle of the day. In the tropics thermals are so strong, raptors often went out of sight, and it was not unusual to see flocks of Chinese sparrowhawks disappear into the clouds. By flying so high, these raptors are able to migrate above rainstorms. We also learned why Chukiat only saw raptors passing over his home near the coast in autumn but not spring: From

August through mid-November, raptors presumably drift toward the coast with the prevailing northwest wind. In spring, the prevailing wind is from the east, so the migrants drift several miles inland with these onshore winds.

Together with Chukiat and his network of volunteers, we are working to solve other mysteries of raptor migration, and this is just the beginning of a successful international conservation effort. Experience has taught us that raptors are ambassadors of the environment. Both in Thailand and at Hawk Mountain, people will stop to gaze skyward when flocks of raptors pass overhead. Our mission is to channel this fascination into a long-term commitment to protect raptors, and to conserve the environment for all.

**The Hawk Mountain connection**

Bob DeCandido interned at Hawk Mountain in 1985, and has since collaborated with the Sanctuary on several projects, including this one, which received a Hawk Mountain Project Soar grant.

Other key Sanctuary actions in this part of the world include two additional Project Soar grants, one to Sanctuary trainee Ruth Tingay in 2005 for her studies of lesser-fishing eagles in Cambodia, and another to Francesco Geremi in 2006 for his studies of raptor migration in Sangihe, northwest Sulawesi, Indonesia. Hawk Mountain has also trained two interns from Nepal, one from Viet Nam and another from Cambodia, and next year, will host three additional interns from Indonesia.

Although we still know far too little about raptors in Asia and the South Pacific, our ongoing efforts there suggest that this unfortunate gap in our knowledge is about to close.