



# Great Mother of the Hornbills

TRAVELLING WITH PROFESSOR PILAI POONSWAD TO KHAO YAI NATIONAL PARK, LINDA VERGNANI FINDS HOW THE RESEARCH THIS HORNBILL HEROINE STARTED HERE GREW INTO A CAMPAIGN THAT PUT PAID TO POACHING IN THAILAND'S SOUTH. NOW THE FUTURE OF SOME THAI HORNBILL SPECIES IS UNDER RENEWED THREAT

The Rhinoceros hornbill is one of the species that Professor Poonswad has helped to save in Thailand's south, by converting poachers into guardians of the nesting birds

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here's a Great hornbill," she calls out, but it is some time before I detect the bird camouflaged in dense foliage. The hornbill sports an upturned, angular golden casque above a scimitar bill. Poonswad and her research team climb out of the truck and soon point out the red-eyed mate of the female hornbill. The giant birds hop about and meticulously preen their striped black, white and yellow plumage with banana beaks.

From this angle, the petal-shaped casques, which protrude above their eyes and beaks, look like horns. Craning from below, it is hard to imagine that each Great hornbill measures around 1.3 metres from bill tip to tail.

"They are amazing, fantastic birds," says Poonswad, whose dedication to conserving threatened species of hornbills in Thailand have won her global awards and the affectionate title "great mother of the hornbills".

As a professor in the department of microbiology at Bangkok's Mahidol University, Poonswad conducted pioneering research into the biology and ecology of the birds, and then started an innovative community initiative to save endangered hornbills and their rapidly shrinking forest habitat in southern Thailand. She says that of the 13 species of hornbill in Thailand, seven are considered endangered, domestically.

Founder of the Hornbill Research Foundation, this doughty scientist has faced down cobras, tigers, elephants, poachers and potential paralysis in her battle to preserve the feathered knights of the forest. During one field trip, a curious tiger got uncomfortably close. "I jumped one way and the tiger the other," Poonswad hastens to add.

At Budo Sungai-Padi National Park in the south of the country, she has managed to convert former poachers of Rhinoceros hornbills and other threatened species into part-time research assistants and protectors of the birds. More than 150 foreigners and Thais subscribe to her hornbill "adoption scheme", which raises funds for hornbill research and conservation at Budo.

After becoming a Laureate of the 2006 Rolex Award for Enterprise, the indomitable Poonswad started a hornbill programme for school children, and funded teams to repair around 80 natural nest holes and construct 40 new nest sites in suitable natural hollows.

At Khao Yai, a national park two hours from Bangkok

where she has done decades of research, Poonswad points out a nest hole in the trunk below the Great hornbill pair. She explains it has been renovated by members of her team, some of whom have been trained in rope climbing.

They have nailed a piece of carved wood with a slit hole in it over the natural nest hole that had decayed. Hornbills have used the repaired cavity for the past four years to successfully raise chicks.

The mother is sealed in the nesting cavity with the chick for around three months and has to rely on her mate to feed her and her offspring. The birds use dung and food to close the narrow nest opening, leaving only a small aperture for feeding.

Because of illegal logging and habitat loss at Budo, where there are six hornbill species, there are not enough suitable nesting trees left. So Poonswad commissioned an interior designer to create a fibreglass nesting box, with a bark exterior. She is "very delighted" that five pairs of hornbills to date have used these nest boxes to raise chicks.

Poonswad maintains that the hornbill is an excellent symbol of family life; they are monogamous and the male takes responsibility for caring for the family. Mainly fruit eaters, they play a key role in regenerating forests by

regurgitating and dispersing large seeds. They will also, however, eat other birds, reptiles, frogs, insects, crabs and small mammals, like squirrels or bats.

Earlier, at Mahidol University's Hornbill Garden, Poonswad enthusiastically showed me life-size models of all 13 species of hornbill that occur in Thailand. About 1,000 schoolchildren come each year to this outdoor educational facility to learn about hornbills.

Trained as an educator, nuclear technologist and

Opposite page: Wings like striped fans, a Great hornbill flies from its perch; Poonswad's latest research involves satellite tracking of these birds

Right: Poonswad stands in the Hornbill Garden at Mahidol University



PHOTOS BY: GREENASIA PRODUCTION CO LTD (LEFT); LINDA VERGNANI (RIGHT)

ศ.ดร. พิไล พูลสวัสดิ์ ถือกล้องส่องทางไกลอยู่ในมือ ขณะสอดส่องหากเงือกจากหลังรถกระบะในอุทยานแห่งชาติเขาใหญ่ ไม่นาน เธอก็ร้องบอกให้รู้ว่าพบนกกกก หนึ่งในพันธุ์ของนกเงือก ก่อนจะลงจากหลังรถแล้วชี้ให้เห็นนกเงือกตัวเมียตาสีแดงตัวโตกำลังใช้แถบขนสีดำ สลับขาวและเหลืองด้วยจงอยปากรูปทรงเหมือนกล้วยสีเหลืองอันโต ศ.ดร. พิไล เป็นศาสตราจารย์ประจำ ภาควิชาจุลชีววิทยา มหาวิทยาลัยมหิดล และเริ่มการศึกษาวิจัยปรสิตในนกก่อนจะริเริ่มโครงการอนุรักษ์นกเงือกที่กำลังสูญหายไปจากป่าเมืองไทยด้วยการจัดตั้งมูลนิธิศึกษาวิจัยนกเงือก ทำให้ได้รับรางวัลจากนานาชาติมากมาย รวมทั้งฉายามารดาแห่งนกเงือกจากความรักและทุ่มเทให้กับโครงการ

หนึ่งในผลงานของอาจารย์พิไลคือการชักชวนอดีตพรานล่านกเงือกหัวเรดและสัตว์เสี่ยงต่อการสูญพันธุ์อื่นๆให้มาเป็นผู้ช่วยงานวิจัยและนักอนุรักษ์นกเงือก อุทยานแห่งชาติบูโด-สุไหงปาตี ทางตอนใต้ของไทย อาจารย์พิไลยังได้ก่อตั้งกองทุนเพื่อการสร้างโพรงเทียมและซ่อมแซมโพรงรังให้นกเงือกอีกด้วย

This doughty scientist has faced down cobras, tigers, elephants, poachers and potential paralysis in her battle to preserve the feathered knights of the forest



microbiologist, Poonswad began working with birds in 1978 when she came to Khao Yai to collect avian blood samples as part of a larger migratory animal pathological survey. Walking alone in the forest, she heard a sound like a large animal panting and ran away in terror. “I thought it was some beast.” Years later, she discovered it was the characteristic sound of a Great hornbill flying overhead.

She became entranced by hornbills while acting as a guide for a BBC crew working on the documentary *Fig Feast in Khao Yai*. For her master’s thesis, Poonswad compared the ecology of the four species of hornbill that occur at Khao Yai.

In the early days of her research, she and colleague

Boonmar Saengtong spent months trekking through the mountainous terrain of the park. In 1984, Poonswad damaged her back and was nearly paralysed as a result of carrying a 50kg backpack loaded with a tent, camera, lenses and other equipment. One of her legs atrophied and it took months to recover. “That’s why my team won’t allow me to carry things,” she laughs.

While doing her doctorate in Japan in 1993, Poonswad heard disturbing news; Rhinoceros hornbill chicks were being poached in Budo and sold to animal traders or as pets. At one stage this species was thought to be extinct in Thailand but a remnant population had been discovered in the park.

She got her inside information from a young Muslim resident of Budo, so went to investigate on her return to Thailand in 1994. With the man acting as an interpreter, she discussed the situation with poachers. “I said, ‘If you keep selling chicks you’ll have no hornbills left. If that happens your children will dig your bones up and curse you because you did not leave anything for them.’ I think they were more scared of me than I was of them.”

The solution she eventually developed was to offer the poachers and other villagers work as research assistants during the breeding season.

“I first had to compensate the poachers,” says Poonswad, “because I could not say, ‘Please quit because I want to conserve this for your children.’ You can’t expect them to dedicate themselves [to conservation] when their children are hungry. So we needed to find money to pay those ex-poachers, ex-illegal loggers, to watch at the nests and collect data for us.”



Right: A Great hornbill couple bring food to their nesting chick

Below: Members of the Hornbill Research Project team observe their subjects at Khao Yai National Park. From left are biologists Phitaya Chuailua, Siriwan Nakkuntod and Dr Boonmar Saengtong

PHOTOS BY: GREENASIA PRODUCTION CO LTD (MIDDLE); LINDA VERGNANI (BOTTOM)

อาจารย์พีไลเริ่มเข้าสู่การวิจัยนจากการศึกษาตัวอย่างเลือดนก เพื่อศึกษาเส้นทางการอพยพในอุทยานแห่งชาติเขาใหญ่ เธอกล่าวว่า ระหว่างที่เดินอยู่ในป่าเพียงลำพัง ก็ได้ยินเสียงดังสนั่นเหมือนสัตว์ใหญ่ กำลังวิ่งฝ่าป่าด้วยความกลัว ภายหลังเธอจึงได้รู้ว่า นั่นคือเสียง อันเป็นเอกลักษณ์ของนกเงือกขณะบินอยู่บนฟ้า เมื่อกองถ่ายทำ สารคดีของบีบีซีเข้ามาถ่ายทำเรื่องนกเงือกที่เขาใหญ่ อาจารย์ พีไลจึงอาสาเป็นผู้นำทางเดินป่า และเข้าสู่โลกของนกเงือก



The research assistants were paid 50% of a fee if they found a new nest and another 50% when a chick fledged. The following season, she offered them daily wages to monitor the nests and collect data on the birds.

The project expanded to involve nine villages. In 1997, Poonswad launched a hornbill adoption scheme to raise additional funds for the project, inviting wealthy Thais and foreigners to become virtual caretakers of hornbill chicks and their parents.

People from as far afield as Canada, France, the UK and Japan adopted hornbill families. In 2008, 89 people adopted 171 nesting families – paying US\$150 each. Each adopter gets an annual report on their family, including details of the nest location, whether the chick fledged successfully and the food delivered to the nest.

Since 1994, more than 500 hornbill chicks have been fledged in the protected nests. Poonswad says poaching has now completely stopped. The villagers are “delighted” when hornbills feed in their orchards.

But, the scheme has been hit by the insurgency in the south of Thailand, with military operations preventing researchers from checking on nests. There has also been a decline in adopters due to the financial crisis. “We need nearly 500,000 baht [US\$15,000] a year to pay for the Budo project,” says Poonswad.

Poonswad fears that at Budo, at least two species – the critically endangered Wrinkled hornbill and Black hornbill – may be “extirpated” because of habitat loss from the growing population and illegal logging. In Khao Yai, the numbers of hornbills have held steady, partly due to the nest restoration.

Back at their Khao Yai base, Poonswad’s colleagues and postgrad students prepare a delicious meal which includes various curries. “With my team, the relationship is that of a family. I’m the mother and grandma, and they are like my children. They call me ‘great mother of the hornbills.’ I feel very honoured, because I am not the mother of anyone. Mother’s always do the best for their kids, and that’s what I try to do for the hornbills and my staff.” ♦

**To adopt a hornbill family, contact the Hornbill Research Foundation, <http://en.thaihornbill.org> (English version), or email [scpps@mahidol.ac.th](mailto:scpps@mahidol.ac.th)**

## WHOOPING HIGH ON KHAO YAI

Birding guide Oye Swangsri walks down an elephant trail at Khao Yai National Park



**GREAT HORNBILLS ARE AMONG THE DRAWCARDS OF KHAO YAI NATIONAL PARK, A WORLD HERITAGE-LISTED SITE, REPORTS LINDA VERGNANI**

Even a Great hornbill with its dramatic black, white and gold plumage and 1.5m wingspan is camouflaged in the Khao Yai canopy. So I booked a wildlife tour of the park with Wild Watch Thailand, a wilderness tours specialist.

The first evening I set off with birding guide Oye Swangsri for a night game drive in the 2,168 sq km park. Having lived here for five years, the guide can exactly mimic the cries of the reserve’s four hornbill species.

The park contains around 350 bird species and 70 mammal species, including rarely seen tigers. The big prize on night drives is seeing elephants – who can be cantankerous if they have young calves.

We soon spot whirring nightjars and then a Sambar deer and its fawn, frolicking in the short grass of a former golf course. Over the next few minutes, we’ve added to the list a striped Indian civet and a procession of Malayan porcupines with their black and white quills rustling as they follow each other into the bush.

At dawn the next day, we put on leech socks and drive through dense forest to the mountaintop. Then we hear the haunting “Whoop, whoopee, whooah” chorus of gibbons somewhere deep in the woods.

“Those are white-handed gibbons,” pronounces Swangsri and gives an exact rendering of their call. There is a rustling in the treetops and she takes out her telescope so we can get a closer view of the gibbon family, some with black fur and others with blonde, which is now swinging overhead.

Later we stop to view birds like the puff-throated bulbul and one of the 14 species of flycatchers that dart around in clearings after insects. A pig-tailed macaque family cavorts alongside the road, the male sitting solemnly with red “eyeliner” stripes extending from the corners of its eyes.

After lunch, we hike on an unmarked trail amid lianas, rattans and strangler figs. Swangsri began emitting blue

pitta calls, hoping to attract this glamorous bird. But a party of hikers strides by, putting an end to that plan.

As we walk, she hones in on various birds with her powerful telescope, identifying each species without pause. Swangsri says that when she takes twitchers (birdwatchers) on the tour, the spotting speeds up to a trot, with one birder logging 101 birds in a day.

Zigzagging down a slope, we follow old elephant tracks. Swangsri frequently encounters elephants, sometimes chewing quietly, metres away. Despite her advice to tourists to stay back and move away quietly unless the elephants charge, “some clients scream and run”.

She points out dark bear claw marks gouged into a tree at shoulder height. In the wet clay are deep hoof prints of guar – a species of wild cattle.

Suddenly Swangsri holds her finger to her lips and there is a distant whoosh-pant sound. “That’s a Great hornbill,” she says softly. It flies off before I can spot it.

Our quest is rewarded at dawn the next day, when we encounter several oriental pied hornbills preening in a fig tree. But my most memorable bird sighting is a scarlet minivet hunting insects: it looks like a fiery exclamation mark punctuating the intense blue sky.

**A one-day birding tour from Bangkok to Khao Yai is 8,112 baht per person, or 6,610 baht per person for a wildlife tour. [www.wildwatchthailand.com](http://www.wildwatchthailand.com)**



A white handed gibbon examines a choice morsel while feeding in the tree tops

We hear the haunting “Whooh, whooee, whooaah” chorus of gibbons somewhere deep in the woods

วันหนึ่ง อาจารย์ไพไลได้รับข่าวจากเด็กหนุ่มท้องถิ่นในบูโดว่า นกเงือกหัวแตร ถูกนายพรานในบูโดล่าเพื่อขายเป็นสัตว์เลี้ยง อาจารย์ไพไลจึงเดินทางสู่บูโด และเสนอทางออกแก่พรานและคนลอบตัดต้นไม้ให้ช่วยงานวิจัยของโครงการในฐานะผู้ช่วยวิจัยเพื่อทดแทนรายได้ที่หายไป ค่าใช้จ่ายในการจ้างทำงานดูแล นกเงือกได้รับบริจาคจากทั้งชาวไทยและต่างชาติ ที่เป็นเสมือนผู้อุปถัมภ์ ครอบครัวนกเงือก โดยผู้บริจาคจะได้รับรายงานประจำปีเกี่ยวกับครอบครัว นกเงือกที่อุปถัมภ์ และผู้ช่วยวิจัยที่คอยดูแลครอบครัวนกตลอดสี่เดือน

ตั้งแต่ปีพ.ศ.2537 เป็นต้นมามีลูกนกกว่าห้าร้อยตัวเติบโตในรังที่ดูแลโดย มูลนิธิ ทว่า เหตุการณ์ไม่สงบในแถบพื้นที่ภาคใต้ทำให้ผู้ช่วยวิจัยไม่สามารถ เข้าไปดูแลรังนกได้อย่างทั่วถึง ประกอบกับเศรษฐกิจที่ย่ำแย่ก็ทำให้ยอดเงิน บริจาคลดลง อาจารย์ไพไลแสดงความวิตกกังวลว่า นกเงือกในแถบบูโด โดยเฉพาะนกเงือกปากย่นและนกเงือกดำอาจจะต้องสูญพันธุ์ไปอย่างสิ้นเชิง



# WHERE TO PARK YOURSELF

**KHAO YAI NATIONAL PARK HAS CAMPSITES, BUT IF YOU'RE AFTER COMFORT, STAY AT KIRIMAYA GOLF RESORT AND SPA**

Staff at the luxurious Kirimaya, which borders Khao Yai National Park, have helped set up salt licks as part of their contribution to conservation. The resort's name means "illusion of a mountain", but the views allowed of the surrounding forested peaks are very real. Many Bangkok visitors are drawn here by the cooler climate, nearby wildlife and the resort's 18-hole, 72-par magnificent Jack Nicklaus golf course.

Promote Hongsakul is a concierge here and says elephants sometimes come to the boundary of the property. Guests might occasionally hear or see them, but the pachyderms cannot enter the perimeter because of a high fence. The beasts would probably enjoy raiding the resort's organic vegetable and herb garden that supplies asparagus, arugula, basil and other fresh produce to its two restaurants.

Spectacular tropical butterflies and feathered visitors, like fairy bluebirds, fly in from the park. Hongsakul says until late autumn a flock of oriental pied hornbills regularly roosted in one of the trees in the hotel grounds.

The buildings are widely spaced between lotus and lily ponds. Open-air dining room The Mist, centred around a great adobe-style central hearth, has animal prints and game-lodge décor. Here guests can get free afternoon tea and tempting cakes before setting off on nighttime spotlighting trips into the reserve. ♦

**Kirimaya Golf Resort and Spa, Thanarat Road,**

**Pakchong, tel: +66 (0)44 426000, [www.kirimaya.com](http://www.kirimaya.com)**

**Prices start from 9,000 baht a night.**



นกเงือก ต้นกั้วร์และช้างเป็นสิ่งดึงดูดให้นักท่องเที่ยวมาเยี่ยมชมอุทยานแห่งชาติเขาใหญ่ ทว่าด้วยขนาดป่าที่ใหญ่และหนาทึบ ทำให้การส่องชมนกเงือกเป็นไปได้ยากนัก นกกก หนึ่งในพันธุ์ของนกเงือกมีสีดำลึกลับสลับลายสีขาวและเหลืองทอง ปีกมีขนาดกว่าเมตรครึ่งเมื่อแผ่ขยาย ถึงเช่นนั้น นกกกก็ยังกลืนหายไปกับพืนป่า คุณลินดา เวอร์กานาห์ ได้รับความช่วยเหลือจากบริษัทนำเที่ยวที่เชี่ยวชาญด้านการท่องเที่ยวอย่าง ไวลด์ วอร์ช ไทยแลนด์ คุณธัญภรณ์จากบริษัทนำเที่ยวชี้ให้เห็นชะนีมือขาว ก่อนจะหยุดชมนกปรอดโองเมืองเหนือและนกกินแมลงพันธุ์อื่นๆ เราเดินทางข้ามที่ที่คุณธัญภรณ์เล่าว่าเธอมักเจอช้างบ่อยๆ แม้ว่าเธอจะแนะนำลูกทัวร์ของเธอให้เดินถอยหนีไปเงียบๆเมื่อเจอช้าง ลูกทัวร์บางคนอตรึงเสียงดังแล้ววิ่งหนีไปไม่ได้ ไม่นาน คุณธัญภรณ์ก็ทำสัญญาณให้เงียบแล้วชี้ให้เห็นนกกกที่บินหนีไปก่อนที่จะได้เห็นตัวชัดๆ เธอล่าว่า ช่วงเวลาที่เหมาะแก่การชมนกเงือกคือช่วงเดือนธันวาคมถึงมีนาคม ซึ่งเป็นฤดูวางไข่ของนกเงือก