

Khao Dinsor - Thailand Raptor Migration Summary 2011 Year II



Compiled By:

Matti Pajunen (Finland)	Chukiat Nualsri (Thailand)
Martti Siponen (Finland)	Philip Round (England)
Henk J. Smit (Holland)	Deborah Allen (Canada)
Kaset Sutasha DVM (Thailand)	Robert DeCandido PhD (USA)

Report Issued: June 2012

This report briefly summarizes our findings on raptor and other bird migration for autumn 2011 for the period 24 August through 5 November – a total of 74 continuous days of observation, averaging more than 10 hours per day. For comparison, we also include totals of what we saw and counted during autumn 2010 migration – see page 20. Driving directions to Khao Dinsor (Pencil Hill) are provided on p. 18.

2011 Season’s totals of the species seen and total number counted are provided in Table 1 (p. 3). We also provide a brief summary of migration highlights and trends for different raptor groups such as Eagles, Falcons, Harriers, Sparrowhawks, etc. along with photos (pages 5-16). In all, we identified 24 migrant raptor species, six resident (non-migratory) raptors and counted more than 290,000 individuals heading south towards Malaysia, Singapore, Indonesia, Sulawesi and even the Philippines. We also counted 27,000 bee-eaters (three species); 20,000 Pacific Swifts; 1,100 Needletail Swifts (three species); as well as more than 80,000 Barn Swallows – the first such southbound migration studies of these birds. Our goal is to determine what bird species migrate by day in South-east Asia; how many individuals of each pass this way (and how that number varies year-to-year); as well as the timing of migration: beginning, peak time frame and last stragglers. For several species, we have also made some observations on behavior during migration.

On the ground, with Phil Round as the lead scientist, we began the first season of trapping and banding migrants under the auspices of the Department of National Parks, Wildlife and Plant Conservation, Wildlife Conservation Office, the Forestry Department of Thailand. Dr. Kaset Sutasha took blood samples of raptor migrants for disease testing (eg. Avian Flu) back in his lab. Behind the scenes, Chukiat Nualsri, the head of this project, secured an approximate \$160,000 USD grant to build a state of the art Raptor Study Center – the first of its kind in South-east Asia. (See CN’s photos of the Chumphon Raptor Center being constructed – page 19.) Finally, in Bangkok, Nurak Israsena and Edmund Pease worked tirelessly to ensure that everyone at Khao Dinsor and nearby Khao Radar was on the same page – working towards a common goal.



Above and cover photo: adult female Chinese Sparrowhawk trapped (26 September) as part of a long-term trapping and banding program at Khao Dinsor - Robert DeCandido PhD

Species	Total Counted	Peak Time Frame
1. Oriental Honey-buzzard	36,399	3 Oct – 9 Oct / (7,347)
2. Grey-faced Buzzard	9,646	20 Oct – 24 Oct / (1,732)
3. Chinese Sparrowhawk	124,006	26 Sep – 8 Oct / (15,045)
4. Japanese Sparrowhawk	13,174	13 Sep – 6 Oct / (1,359)
5. Shikra	3,739	28 Oct – 5 Nov / (512)
6. Besra	3	Late Oct – Early Nov?
7. Eurasian Sparrowhawk	0	Late October?
8. Black Baza	102,889	22 Oct – 29 Oct / (33,445)
9. Jerdon's Baza	78	23 Oct – 1 Nov (30)
10. Osprey	50	9 Oct – 17 Oct (7)
11. Black Kite	173	5 Oct – 16 Oct / (21)
12. Brahminy Kite	13	11 Sep – 26 Sep / (2)
13. Eastern Marsh Harrier	171	1 Oct – 17 Oct / (19)
14. Pied Harrier	53	12 Oct – 17 Oct / (9)
15. Crested Serpent Eagle	127	24 Oct – 29 Oct / (39)
16. Short-toed Snake Eagle	1	Early November?
17. Greater Spotted Eagle	20	22 Oct – 31 Oct / (4)
18. Booted Eagle	70	15 Oct – 24 Oct / (14)
19. Rufous-winged Buzzard	4	29 Oct – 4 Nov (2)
20. Steppe Buzzard	20	14 Oct – 28 Oct / (2)
21. Common Buzzard	27	15 Oct – 24 Oct / (4)
22. Oriental Hobby	0	Unknown
23. Eurasian Hobby	4	Mid to Late Oct? / (2)
24. Peregrine Falcon	44	30 Sep – 16 Oct / (4)
25. Amur Falcon	4	24 Oct – 5 Nov (1)
26. Eurasian Kestrel	11	Mid to Late October / (2)
Unidentified Raptors	1,266	xxxxx
Total 2011	291,992	30 Sep. – 31 Oct.

2010 totals are provided in Table 2, page 20.

Table 1 (above). Raptor species identified and number counted at Khao Dinsor (Thailand), 24 August through 5 November 2011 including unidentified raptors. Number in parentheses in “Peak Time Frame” is the highest **daily** count within the peak migration period. The 2011 total is derived from combining daily observations made on the east side of the ridge of migrants heading SE by Robert DeCandido, Henk Smit and others (24 August through 5 November), with those made by Martti Siponen and Matti Pajunen (1 October through 5 November), who counted from the west side of the same ridge, of migrants heading WSW.

Overall, the best time to see the most species in one day is mid-October – but different species peak at different times during the autumn migration. For example, in 2011 the Chinese Sparrowhawk and Japanese Sparrowhawk peaked from approx. 10 September through 10 October. By comparison another *Accipiter*, the Shikra was most often seen in late October in 2011. *Note Bene:* the peak time frame for many species in 2011 varied by up to 10 days compared to 2010 (see Table 2, page 20) – compare especially 2010-11 data for Oriental Honey-buzzard, Black Kite, Japanese Sparrowhawk and Chinese Sparrowhawk.

Best flights at Khao Dinsor occur when winds are westerly – the time of the southwest monsoon that brings rain to Thailand's west coast and places such as Kaeng Krachan National Park. Strong west winds prevail until about 15-20

October each year (winds are stronger earlier in the season and then weaken as the calendar advances toward mid-October). Overall, in this part of Thailand, west winds prevail from (approx.) early May through mid-October. This is the “southwest” monsoon season – a high pressure system over the Andaman Sea to the west that is advancing north and will bring the cooling monsoon rain to Nepal and India. In 2010, the winds shifted to the east (via the “northeast” monsoon centered over the South China Sea near Taiwan) in late October. In 2011, the winds significantly weakened by mid-October, and season totals for several species (eg., Steppe/Common Buzzard) were less than expected.

Beginning in the latter half of October, the winds switch to the northeast – in other words the winds come at us from the nearby South China Sea. This is the beginning of winter in this part of Thailand, with strong winds (often 10-30km/hr) and occasional heavy rains (late October) to frequent downpours (mid-November) along the east coast. Some of these rains can last all day – for several days in a row. In November, raptor flights are often good in the morning at Khao Dinsor, but patience is needed to wait out the rain for clear skies and thermals. Rare species such as Jerdon’s Baza have been seen in flocks of up to 10 birds in late October and early November – and we expect that the larger eagles, including Short-toed, Steppe and Imperial, to appear later in November as well. It is dealing with the weather that becomes the most difficult part of hawk watching at Khao Dinsor at this time.

Some species show definite peaks before mid-October: the smaller sparrowhawks (Japanese and Chinese); Oriental Honey-buzzard and the harriers. On the other hand, as the winds pick up from the northeast, we begin to see larger numbers of Shikra (a large Sparrowhawk), Black Baza and the eagles. Interestingly, Grey-faced Buzzard seems to arrive just as the NE winds are intensifying – perhaps they are like surfers on the leading edge of a wave?

Smaller migrants such as the Bee-eaters, Pacific Swifts and Barn Swallows have mostly passed Khao Dinsor by the time the winds are switching to the northeast by (approx.) 20 October. Needletail Swifts require more study: they may be the equivalent of Grey-faced Buzzards – migrating in greatest number when winds are most active (mid to late October), and weather most turbulent.



Eastern Marsh Harrier (juvenile); 4 Oct 2011 – Robert DeCandido PhD (rdc)



Crested Serpent Eagle (adult); 24 Oct 2011 – rdc

Eagles

Six eagle species were observed in autumn 2011. Four are migrants through the area and are listed in Table 1. Two others (Black Eagle and White-bellied Sea Eagle) are local residents and wander widely – sometimes headed north (or south) past the watch site. Most eagle migration occurs in the latter half of October through November with the onset of strong(er) northeast winds. We have yet to see a migrant Steppe Eagle at Khao Dinsor, but we do know that they spend the winter in parts of Thailand, and rarely as far south as Malaysia.



Crested Serpent Eagle (juvenile), 31 Oct (left); and Booted Eagle (light morph adult) 16 Oct (right) – rdc



Oriental Honey-buzzard (adult female); 5 October 2011 – rdc

Kites and Buzzards (Oriental Honey; Grey-faced)

We saw roughly the same number of Oriental Honey-buzzards (*Pernis ptilorhynchus orientalis*) in 2011 (36,399) as we did in autumn 2010 (32,870). In both years, a significant number (> 50%) took a migration route along the west side of the Khao Dinsor ridge. This pattern is true of most of the larger migrants (eagles, bazas), while most smaller migrants including sparrowhawks, bee-eaters, swifts and swallows are counted moving along the east side of the ridge. In late August and early September, several local Crested Honey-buzzards (*Pernis p. ptilorhynchus*) were seen at the watch site leading us to believe that this subspecies breeds locally. Adult males of both subspecies have different eye color: dark red to brown in the OHB, and yellow in the CHB – see accompanying photos. Very often we have observed honey-buzzards migrating with a full crop suggesting that these raptors do well hunting in the many oil palm plantations in central and southern Thailand – probably in the morning from dawn until the first strong thermals develop. On at least two occasions, we observed an OHB carrying parts of a honey comb on migration – see accompanying photo by Martti Siponen. Honey-buzzards eat the bee/wasp larvae in these combs.

Grey-faced Buzzards continue to be a puzzle for us. We counted approx. 5,000 fewer (33%) less than 2010. By comparison, in our spring (northbound) migration studies we counted almost 20,000 per year in 2007-08.

Our Black Kite (*Milvus migrans lineatus*) numbers were the same this year (173) compared to 2010 (168). The great mystery is to determine the degree that the SE Asian breeding subspecies (*Milvus migrans govinda*), also called the Pariah Kite (India), might wander into our area as part of a short migration from breeding grounds in Cambodia, Vietnam, Myanmar or Laos. On 6 October and again on 16 October, Martti Siponen and Matti Pajunen sighted distant Black-shouldered Kites that breed in this part of Thailand. This raptor is seen much more often by our friends at the inland watch site, Radar Hill, to our northwest.



Oriental Honey Buzzard (adult male) carrying a honey comb on 4 October – Martti Siponen



Crested Honey Buzzard (adult male; local resident), 13 September – Chukiatt Nualsri

Falcons

We observed four falcon species in 2011, and missed on another (Oriental Hobby) that is likely a rare migrant in the region. By far and away, the most exciting falcons are the Peregrines – there are two migrant ssp's we see: the pale *calidus* from the arctic of Russia, as well as the more southerly, and much darker, *japonensis*. Two other Peregrine ssp's are resident in the area: *ernesti* (southern Thailand and Malaysia) and ssp. *peregrinator* (of central/northern Thailand) – and on windy days they sometimes come to hunt the migrating flocks of Blue-tailed Bee-eaters. Martti Siponen and Matti Pajunen counted four Amur Falcons in migration (all different dates) in late October and early November (photo next page). Susan Wong Chor Mun photographed a Eurasian Hobby on 22 October (see next page) – but Hobby migrants remain rare (four counted in 2011) – probably most migrate south over the nearby South China Sea. Finally, we did well with the Eurasian Kestrel this year (11 total; 12 in 2010) – several came quite close to us – see below.



Eurasian Kestrel (juvenile male), 24 October – rdc



Eurasian Hobby (left; 22 October) – Susan Wong Chor Mun; and juvenile Amur Falcon (24 October) – Martti Siponen

Harriers

Two harrier species, the Eastern Marsh Harrier and the Pied Harrier were regular migrants at Khao Dinsor, particularly from 1 October through 17 October (in 2010, peak time frame: 8 October through 25 October).



Eastern Marsh Harrier, juvenile female (left; 25 September); and female Pied Harrier (15 October) – rdc



Eastern Marsh Harrier, second-year male (5 October) – rdc

Bazas

The 2011 Black Baza total (102,889) was significantly higher than the 2010 total (74,000) for two reasons: (a) the weather was less rainy in late October during the BB migration time frame making raptor counting easier; and (b) observers on the west side of the ridge, namely Matti Pajunen and Martti Siponen, made a strong effort to find and count distant baza flocks. At Khao Dinsor, our counts of Black Baza will range between 70,000 and 150,000 each year – and the longer we can count into November, the higher that total will be. Most Black Bazas were observed migrating along the west side of Khao Dinsor. Jerdon's Bazas were also more frequently seen in 2011 (78) vs 2010 (20) – again weather related. Jerdon's Bazas often come right overhead at Khao Dinsor, and on a good day, flocks of 5 to 12 can be seen.



Black Baza (left; 31 October) and Jerdon's Baza (right; 24 October) – Robert DeCandido PhD

Sparrowhawks (*Accipiters*)

Six species of Accipiters can be seen at Khao Dinsor – more than at any other site in the world. In mid-October it is possible to see them all in one day. Five are migratory (see Table 1), and another (Crested Goshawk) is resident in the region. At Khao Dinsor, Chinese Sparrowhawk is the most commonly seen Accipiter (124,000 in 2011; 83,000 in 2010) – and raptor species. We counted more Japanese Sparrowhawks in 2011 (13,174) than 2010 (5,452). Much of the banding we will do in the coming years will focus on the Accipiters, and we are especially interested in satellite telemetry tracking Chinese and Japanese Sparrowhawks in order to determine routes taken; migration timing – and where they return to each spring. Local weather conditions (strong southerly headwinds at the Khao Dinsor ridge until about 15 October each year) keep the Sparrowhawks migrating low – especially the smaller males (females are larger and stronger fliers so can migrate higher). We are able to trap males easily with mist nets strung along the ridge-line.



Japanese Sparrowhawk, adult male (above in flight, 10 September; below, 22 September) – rdc

Under the auspices of the Department of National Parks, Wildlife and Plant Conservation, Wildlife Conservation Office, we have established a long-term trapping and banding program at Khao Dinsor.



Japanese Sparrowhawk, adult female (30 September) – rdc



Chinese Sparrowhawk, first-fall juvenile (2 October) – Chukiat Nualsri



Chinese Sparrowhawk, adult male during banding procedure (23 September) – rdc

Under the auspices of the Department of National Parks, Wildlife and Plant Conservation, Wildlife Conservation Office, we have established a long-term trapping and banding program at Khao Dinsor.



Shikra, adult male (left: 25 September; right: 15 October) – Robert DeCandido PhD



Shikra, juvenile female (13 October) – Martti Siponen



Adult female Shikra (left: 5 October 2011); and juvenile Shikra (right: 10 October 2011) – Robert DeCandido PhD



First-year Crested Goshawk (5 September 2011) - rdc

Other Birds

Khao Dinsor is also a world-class migration watch site for other birds including three species of bee-eaters (27,000); Black Drongos (1,500); Pacific Swifts (22,000); three species of Needletail Swifts (1,100); Ashy Minivets (3,000); Dollarbirds (30); Herons (1,100); Barn Swallows (84,000); and occasionally even Hornbills. For all we know, it may be the best place on earth to study the migration of these species.



Chestnut-headed Bee-eater (5 November). The least commonly observed bee-eater (<75 counted) at Khao Dinsor – rdc



Blue-tailed Bee-eater (left: 27 September), the most common bee-eater migrant (24,500+) and Blue-throated Bee-eater (10 September), not as common (2,200+). Both photos – rdc



White-throated Needletail Swift, (left: 31 October) and Pacific Swift (right: 15 October) – Robert DeCandido PhD



Brown-backed Shrike (left: 26 September - rdc) and Crimson Sunbird (right: 24 October – Ms. Punjapa (Games) Phetsri



Paradise Flycatcher (light morph male) being banded – 24 September – rdc

Chumphon: City of Starlings! (12 species have been seen here)



Rosy Starling (Sturnus roseus) left; and White-vented (Great) Myna (Acridotheres javanicus); both - Chukiat Nualsri



Asian Pied Starling (Gracupica contra ssp. floweri) in celebration of Chumphon ("City of Starlings") – Deborah Allen

Helpful Links (click): (a) Getting to Chumphon from Bangkok: fly [Solar Air](#)
(b) Where to stay in Chumphon?: [the Morakot Hotel](#)
(c) Need a [birding guide for Southern Thailand?](#)
(d) The Best Birding Lodge in Thailand: [Baan Maka](#)



View looking northeast from Khao Dinsor.

Directions via Car to Khao Dinsor from Highway 4

Khao Dinsor is near the town of Pathiu, approximately 25 km north-east of **Chumphon**. To get to Khao Dinsor from Highway 4 (also known as Petchkasem Highway and the King's Highway), whether travelling from the north or the south, find the Tha Sae junction, north of Chumphon. At this junction, turn onto the well-marked road 3180. Travel towards the coast along the 3180 for 15 km until a sign indicating “Pathiu, Chumphon Airport” appears, and turn left off the 3180 onto the 3201. Take the 3201 for 4 km. A large wat (temple) on the left is the signal point for the Dinsor Hill about 1 km beyond. The Khao Dinsor sign (note Pencils!) is on the left with an access road which twists and turns up the hill for roughly 1 km until a large car park appears on the left. Nearby, a narrow concrete trail leads into the forest. It is a 45 minute walk up-hill until you reach the top, though there are a number of observation points along the trail, some of which have wooden shelters that provide protection from sun and rain. Please take away all your garbage, since there are no receptacles along the trail. There will be restrooms in the car park near the new environmental center beginning approx. August 2012. If using a GPS in your car, set it for:

10° 38" 000' North and 99° 17' 193" East

Acknowledgements

There are many people who have worked together toward making Khao Dinsor a globally significant watch site for raptor and bird migration study. We wish to thank Pathiu District Sheriff, Somsak Chareonpaitoon; village headman Jareak Kosin and his assistant, Chonggod Boonyapijit; and Community Chairman Wichai Skulthatanit. Former Governor Karan Supakitvilekarn and his wife, Mrs. Panit Supakitvilekarn, have played a leadership role in getting the Chumphon Raptor Center established. Director of Nakorn si thammarat Provincial Public Health Office, Dr. Utumporn Kambhu na Ayudthaya, has been a tireless supporter of the new environmental center as well. Our thanks also to Colonel Nattapol Kirdchuchuen and Taweeporn Kirdchuchuen – now married and photographing birds together. Thank You to our friends Penny Bundhurat, Tom Backlund (+ Nid and Kevin), Sariddej L., Vises Chansrichawla, Lynn Bantley, Damian Smith, Gerald Brett, Wakako Matsushita, Jack and Jane Rothman, Lim Aun Tiah and the Malaysian Nature Society, Wiroj Onganunkun MD, Thanakom Laisakul, Kasem Sanitwong Na Ayutthaya, Chairatna Nilnond PhD, Susan Wong Chor Mun, Ben Goloff, Punjapa Phetsri (Games) and Ian Dugdale, Dr. Rungrit Kanjanavanit MD, Nurak Isarasena and Edmund Pease, Alice Tan MD, Wanna Pathara-atikom MD, Neil and Eunice Parker, K. F. Chan, Alan OwYong, Jutima Busayajaru (Mighty), Ike Suriwong and Dr. Toru Yamazaki, President ARRCN. For permission to trap and band migrant birds, we thank the Department of National Parks, Wildlife and Plant Conservation, Wildlife Conservation Office. Chukiat Nualsri wishes to thank his wife Aree (Muay) Nualsri and son, Naratip (Poom), for their love & support.

Robert DeCandido PhD
New York, USA

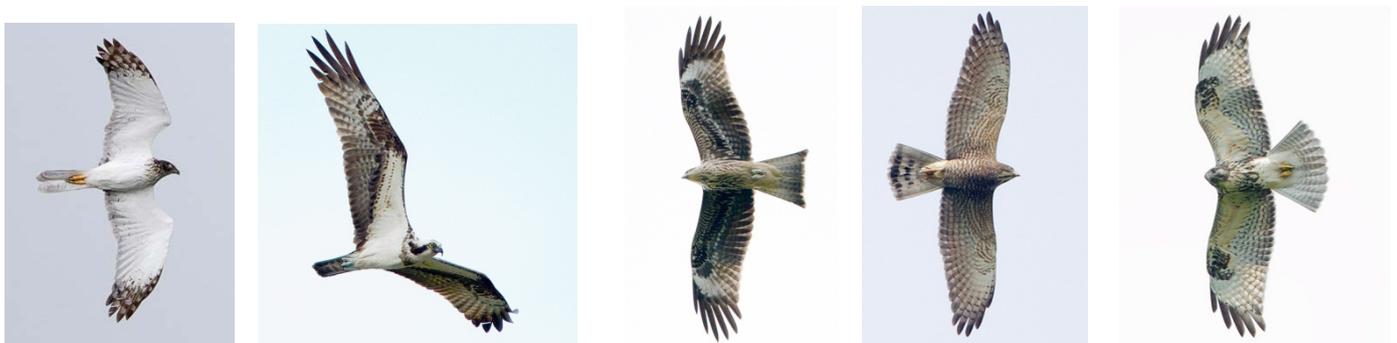
rdcny@earthlink.net



The Chumphon Raptor Center under construction, May 2012 – expected completion date is July 2012. Top photo shows main building (two floors), while bottom photo shows location at Khao Dinsor with the view looking southeast towards the South China Sea, approx. 5 km distant. Both photos – Chukiatt Nualsri.

Species	Total Counted	Peak Time Frame
1. Oriental Honey-buzzard	32,870	9 Oct – 17 Oct / (9,330)
2. Grey-faced Buzzard	14,434	22 Oct – 26 Oct / (4,558)
3. Chinese Sparrowhawk	83,308	8 Oct – 22 Oct / (11,256)
4. Japanese Sparrowhawk	5,452	6 Sep – 15 Sep / (411)
5. Shikra	2,772	20 Oct – 30 Oct / (257)
6. Besra	< 15	Mid-October?
7. Eurasian Sparrowhawk	<10	Late October?
8. Black Baza	74,033	28 Oct – 4 Nov / (10,595)
9. Jerdon's Baza	20	29 Oct – 4 Nov (10)
10. Osprey	57	19 Oct – 24 Oct (10)
11. Black Kite	168	14 Oct – 24 Oct / (30)
12. Brahminy Kite	18	3 Oct – 9 Oct / (3)
13. Eastern Marsh Harrier	173	8 Oct – 15 Oct / (52)
14. Pied Harrier	65	20 Oct – 26 Oct / (21)
15. Crested Serpent Eagle	126	21 Oct – 25 Oct / (25)
16. Short-toed Snake Eagle	<10	Early November?
17. Black Eagle	1	18 October (1)
18. Greater Spotted Eagle	21	22 Oct – 31 Oct / (7)
19. Booted Eagle	71	21 Oct – 30 Oct / (13)
20. Rufous-winged Buzzard	1	9 October (1)
21. Steppe Buzzard	37	15 Oct – 22 Oct / (9)
22. Common Buzzard	46	22 Oct – 24 Oct / (21)
23. Eurasian Hobby	7	17 Oct – 21 Oct / (2)
24. Peregrine Falcon	30	8 Oct – 18 Oct / (3)
25. Amur Falcon	1	30 October (1)
26. Eurasian Kestrel	12	20 Oct – 26 Oct / (4)
Total 2010	214,678	5 Oct – 28 Oct

Appendix A: Table 2. Raptor species identified and number counted at Khao Dinsor, 6 September through 5 November 2010 including unidentified raptors. Number in parentheses in “Peak Time Frame” is the highest **daily** count within that period. The 2010 total is derived from combining daily observations made on the east side of the ridge by Robert DeCandido, Henk Smit and others (24 August through 5 November), with those made by Martti Siponen and others (1 October through 31 October), who counted from the west side of the same ridge.



Five different raptor species – what are they? If you cannot ID them (and they ain't moving right now) – you need to join us in 2012 for some raptor watching at the new Chumphon Raptor Center: *Eastern Marsh Harrier* (adult male); *Osprey* (adult female); *Black Kite* (juvenile); *Grey-faced Buzzard* (adult) and *Japanese Buzzard* – all Robert DeCandido PhD (rdc).