

Khao Dinsor - Thailand Raptor Migration Summary 2010



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This interim report summarizes the southbound migration of raptors and other birds - from 6 September through 5 November 2010. Daily observations were made from **Khao Dinsor**, also known as Pencil Hill, approximately 350 meters elevation at its highest point. Khao Dinsor is north of the city of Chumphon on Thailand's east coast (Route 3201) along the South China Sea. Coordinates are **10° 37' 882' North and 99° 16' 49" East**. Driving directions to the site are provided on p. 10.

Season's totals of the species seen and total number counted for each are provided on the next page. We also provide a brief summary of migration highlights and trends for different raptor groups such as Eagles, Falcons, Harriers, Sparrowhawks, etc.

Briefly, highlights this year include the discovery of three new raptor species that migrate through South-east Asia: Besra, Brahminy Kite and Black Eagle. We noted four subspecies of Peregrine Falcon at Khao Dinsor. The Chinese Sparrowhawk was the most common raptor species observed (83,000+), while the Japanese Sparrowhawk had the longest migration time frame (early September through early November). We also completed the first season of a multi-year southbound migration study of three Bee-eater species (Blue-tailed; Blue-throated and Chestnut-headed), as well as three Needletail Swift species (White-throated; Brown-backed and Silver-backed). *We strongly recommend a trapping/banding (ringing) program be initiated to (a) show the public raptors, bee-eaters and other birds up close; and (b) for scientific purposes to determine how many different subspecies of each taxon (particularly the Sparrowhawks) migrate through this area of Thailand and South-east Asia.*

In all, an international team of observers identified (and photographed) at least 26 raptor species and more than 210,000 individuals heading south towards Malaysia, Singapore, Indonesia, Sulawesi and even the Philippines. On the ground, the first steps were completed in building the Chumphon Raptor Study and Education Center that will be located at the foot of Khao Dinsor.



View looking north from Khao Dinsor toward Pathiu, with the South China Sea (Gulf of Thailand) on the right (rdc).

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	2772	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	14 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	214,678	5 Oct – 28 Oct

Table 1. Raptor species identified and number counted at Khao Dinsor, 6 September through 5 November 2010 including unidentified raptors. Number in parentheses (xxx) is the highest daily count. 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 some species such as Besra, Eurasian Sparrowhawk and Short-toed Snake Eagle, we believe our count numbers are low, and many more pass Khao Dinsor than we recorded in 2010. We also estimate the peak time of passage for these three species.

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. West winds usually prevail from early May through early November. In 2010, the winds shifted to the east (via the “northeast” monsoon centered over the South China Sea near Taiwan) earlier than usual – by late October. This is the beginning of winter in Thailand, with strong winds (steady 10-30km/hr) from the northeast and heavy rains along the east coast. 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 early November – and we expect that the larger eagles, including Steppe and Imperial, to appear later in November as well.



Oriental Honey-buzzard (adult male); October 2010 – Martti Siponen

Eagles, Kites and Buzzards (Oriental Honey; Grey-faced)

Five eagle species were observed in southbound migration in 2010, including the continent's first Black Eagle identified and photographed by Deborah Allen on 18 October. Our results for Oriental Honey-buzzard (32,000) and Grey-faced Buzzard (14,000) show that more individuals of these two species are seen in spring during northbound migration than at Khao Dinsor during autumn – suggesting that satellite telemetry tracking of several individuals might reveal that these two species utilize significantly different routes during the different seasons. The 18 Brahminy Kites (both juveniles and adults) counted are the first suggestion that this species is partially migratory in South-east Asia.



Black Kite (left) and Booted Eagle (right) – Martti Siponen

Falcons

We observed and photographed four subspecies of Peregrine Falcon in migration: subspecies *ernesti* (the resident Peregrine of southern Thailand and Malaysia); ssp. *peregrinator* (the resident Peregrine of Thailand); ssp. *calidis* (the pale migratory ssp. from the Russian artic); and ssp. *japonensis* (the migratory ssp. from northeastern Siberia, Japan and Korea). On 31 October, Phil Round identified (and Tom Backlund photographed) an Amur Falcon on migration. Finally, we did not see an Oriental Hobby in migration this autumn – though we have photographed them during northbound migration in the Chumphon area. This indicates that distinguishing Oriental vs. Eurasian Hobby in flight will require more attention in 2011.



Peregrine Falcons: ssp. *ernesti* (left; rdc) and ssp. *japonensis* (right; Taweeporn Kitt (Pui))

Harriers

Two harrier species, the Eastern Marsh Harrier and the Pied Harrier were regular migrants at Khao Dinsor, particularly from 8 October through 25 October. We saw all ages of both sexes – trying to get photos of each age class (and sex) will require much effort in 2011.



Pied Harrier, adult male (left; Deborah Allen) and Eastern Marsh Harrier, juvenile (right; rdc)

Bazas

The 2010 Black Baza total (74,000) was lower than expected for one reason: the weather. Winter winds from the northeast arrived earlier this year than expected – and about 10 days earlier than 2009. Northeast winds push the flight inland away from Khao Dinsor by late morning. Also, it was unusually rainy this year – and when one or two hour “windows” of sunshine appeared in the afternoon of rainy days (sometimes every third day or fourth day), there was no official count taking place. The late October through early November raptor migrants (such as Black Baza and Jerdon’s Baza) were counted in lower numbers than in previous years. It may well be that the Black Baza is the most common raptor migrant in South-east Asia, but we will have to wait for additional year(s) of data to make that determination. As an aside, the Black Baza is the emblem of the Raptor Study and Education Center.



Jerdon's Baza, adult male (left) and Black Bazas (right), male showing extensive white on back (both - rdc)

Sparrowhawks (*Accipiters*)

Six species of *Accipiters* can be seen at Khao Dinsor, and in mid-October it is possible to see them all in one day. No other watch site in the world records this many Sparrowhawk species. One of the great experiences at Khao Dinsor is watching Sparrowhawks dashing through the woods and shrubs below eye-level in search of prey (birds). Sometimes these small hawks even flew right through the shelter while we were counting raptors. Overall, Chinese Sparrowhawk is the most commonly seen *Accipiter*, with the first individuals appearing by early September, and the first small flocks by 20 September. By comparison, Japanese Sparrowhawks gather in “loose associations” - up to 25 individuals can be seen in the same thermal in early September. We often saw Japanese Sparrowhawks (as well as Shikras) with full crops – but never Chinese Sparrowhawks. The Besra is a difficult species to identify in flight – both the adult male and female Besra are easily confused with the adult female Japanese Sparrowhawk (see comparison photos on the following page).

Body size differences among the Sparrowhawks influence the daily pattern of migration. In Figure 1 on the following page, our data show how Chinese Sparrowhawks, because they are slimmer and have a higher wing to body ratio, migrate one to two hours earlier in the day, on average, than the larger Shikras.

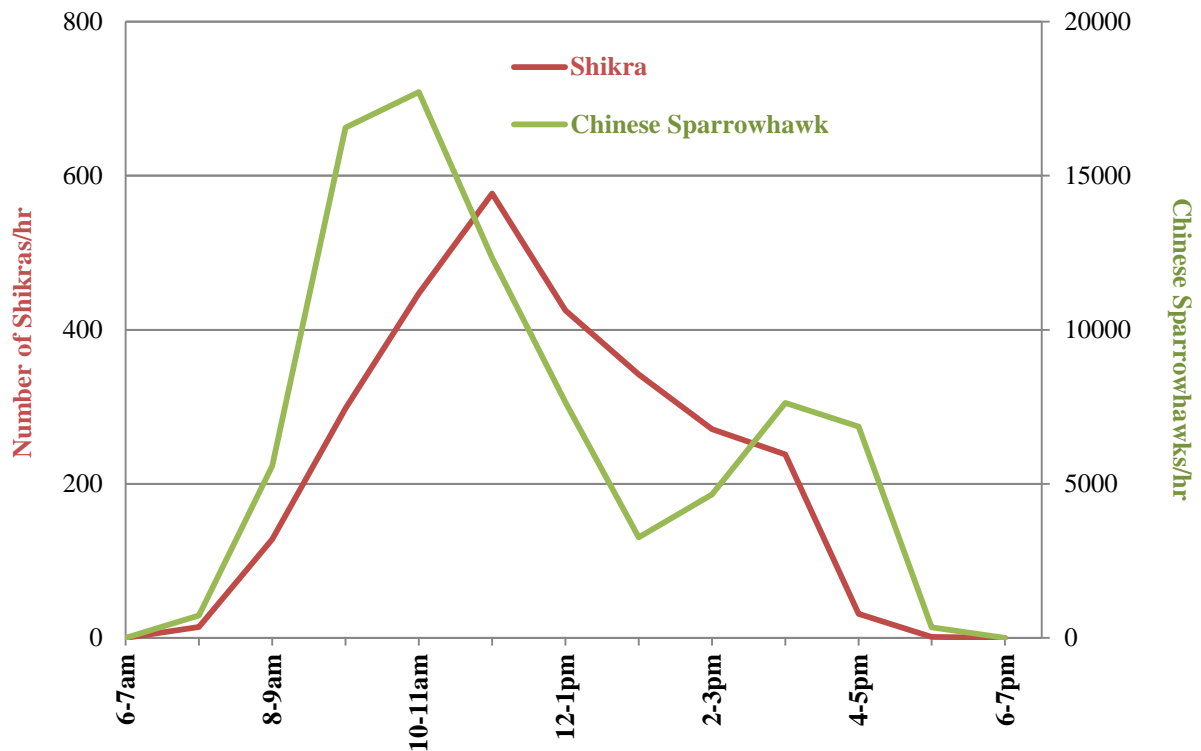


Figure 1. Daily pattern of Shikra vs. Chinese Sparrowhawk migration at Khao Dinsor, Sep-Oct 2010.



Adult Besra (left) - Chukiat Nualsri and adult female Japanese Sparrowhawk (right) – rdc.

In flight, distinguishing adult Besras (both sexes) from adult female Japanese Sparrowhawks is difficult. Note that the Besra has a thicker mesial throat stripe. The Besra also has a number of thick streaks on the upper breast (throat) that the Japanese Sparrowhawk lacks. Finally, the barring is finer (thinner) on the breast and abdomen of the Japanese Sparrowhawk. However, in flight, seeing such details is difficult for any observer. The great advantage of Khao Dinsor compared to other watch sites in the Oriental region, is how close the migrants come to the ridge - and observers – making such identifications possible.



Shikra (left) and Chinese Sparrowhawk (right); both adult females – rdc.



Juvenile Shikra (left) - Chukiat Nualsri and juvenile female Crested Goshawk (right) – rdc.



Adult Crested Goshawk (left) – Con Foley; Eurasian Sparrowhawk (right) – Col. Nattapol Kirdchuchuen



Black Eagle (left) – Jimmy Chew and adult male Pied Harrier (right) – Martti Siponen.



Blue-tailed Bee-eater catching dragonfly on migration, 8 Oct 2010 - rdc



Chestnut-tailed Starling (*Sturnus malabaricus*) in Chumphon (“City of Starlings”)



View looking north from Khao Dinsor.

Directions 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. You may park here or drive for another 150 m until the road ends - it is possible to park here as well. 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. Bring water (we recommend 2-3 liters per person) and sunscreen. Please take away all your garbage, since there are no receptacles (and no restroom facilities) along the trail. If using a GPS in your car, set it for: **10° 37' 882' North and 99° 16' 49' East.**

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