Observation on Nests of *Ictianetus m. malayensis* found in Jawa

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INTRODUCTION

Distribution and Identification: Indian (Asian) Black Eagle *Ictinaetus malayensis* is a peculier species belongs to family Accipitridae. So far two subspecies' are known to occur: *I. m. perniger* (Hodgson, 1836) found in India, Nepal, and Srilangka, and the smaller subspecies *I. m. malayensis* (Temminck, 1822) found in Burma, southeast China, southeast Asia further into Indonesia (del Hoyo *et al*., 1994). In Indonesia they are recorded in most part of the country except Lesser Sunda (Balen, 1998).

Adult of this large raptor (70-80 cm in length) has all-black plumage with yellow base and feet clearly seen, even when flying at relatively far distance. The wings are long and pinched at the base giving a distinctive shape. The tail is also long (longer than its primaries) and it shows faint barring. The wings are held in a shallow V characterised with 'long fingers' held open in flight. The wing shape helps to distinguish this species from the dark morph of *Spizaetus cirrhatus*, a relativelly common species of raptor in Jawa. Young birds have a buff head underparts and underwing coverts. Male and female are not so dimorphic and it is sexually often difficult to recognise in particularly being in flight. The eagle feeds mostly on mammals, birds and eggs.

Status, threat and ecological information: All accipitrids are protected in Indonesia that any private possesion with no enough legal documment is prohibited. Black eagle is also listed in Appendix II CITES. In the wild, the number of its population is still unknown whereas threats such habitat loss and illegal trade are continuously happening (Supriatna, pers. obs. 2005 and Hoyois, 2004, unpublished data).

In Jawa, information on its breeding, nests and other ecological aspects is not sufficiently available yet that it becomes difficult to recommend its conservation measures and future treatment of the sepecies. Therefore, this study on its nest was simply conducted to understand those aspects. Our focus was on a nest at mount Mandalawangi and several nests in western part of Java (see table 2) as well as nests found in other sites like mount Merapi (Central Jawa).

METHOD

The nest observed for breeding activities was first found in 1999. This nest was located at mount Mandalawangi, Gbodas, Gede-Pangrango National Park West Jawa (E 106^{0}59.423' S 06^{0}44.142'). A number of field observation was carried out on this nest using Nikon binocular: 9x32 and Kowa spoting-scope: 60x. Canon EOS with 400 mm lens was also used

to photograph the nest and bird's behaviours. Other locations were also surveyed to find nests by spotting/ noting the following clues: *hunting, undulating perching, soaring in pair, carrying prey, calling*, as well as physical and behavioural features like *moultings*. These were done from a vantage point with open and wide view that we were able to spot the eagle when flying higher up and showing characteristic flight type. Typical flying style like flying low over and through the canopy and slowly scanning for bird's nest (or young bird?) or small mammals was easily observed from this vantage point. As a whole, the vantage point was choosen to get noticeable field illustration of the bird activities and can be further clues for leading to the Black eagle's nest.

RESULT; NEST OBSERVED IN MOUNT MANDALAWANGI

Breeding acivities: In Java, *Ictinaetus malayensis* is a bird of mountain woodland which often build a nest by collecting sticks and built high up in a tall tree on a forested slope (placed in ca. ¾ total height of the tree) and lay one or possibly two eggs. An open view with striking nest tree is usually chosen. Physical features of the nest in mount Mandalawangi explained in Table 1 below:

Nest's variables	Notes
Nest tree species	*Schima walicii*
Height	ca. 45 m.
Nest height from the ground	ca. 40 m.
Elevation	1800 m abs.
Location	at a slope, open and provide an extensive view for the eagle.

Tabel 1. Nest information of the pair found at Mount Mandalawangi.

On December – January 2003 copulations held by this pair was seen four times; once caried out in the nest and the rests were near the nest. This time was believed that the nest was still empty (no egg). During this period, the female also looked bigger and was actively calling. Then, on 30 February an egg was seen laid. The egg was whitish spotted black and being incubated mainly by female. Male seen incubating the egg only when the female was eating prey brought into the nest tree by the male. During incubation time the male usually brought prey two times (morning at 09.00 and afternoon at 15.00). Preys' species brought into the nest were forest rat, small bird, snake and squirell. Two days before hatching the female showed a strange behaviour: 'lethargically looking stressed', actively calling, stood up and looked very often at the egg being incubated. After those such strange behaviours the following day the egg found to have hatched. The total incubation time was ca. 43 days. Previous records on nests and breeding of *I. malayensis* in Indonesia have been reported in Jawa (April-August), Sumatra (August, reported by Novarino 2005) and Sulawesi (July, a young bird in the nest).

Noticeable dry trunks collected to rebuild the nest were mainly from local trees: Riung anak and Pasang tree species (*Quercus sp.*). Nest materials were collected by breaking dry trunks and carried into the nest by the bill. The materials were taken from the higher position of its

nest. Purnomo & Sholeha (in Kabar Burung, June edition 2005) reported other tree species collected by the eagle to build the nest including Pine (*Pinus* sp.), Dadap (*Erithrina rariegata*), Pasang (*Querqus suber*), Akasia (*Acacia decurens*), Ki kepas (*Engelhardia spicata*), and Sarangan (*Castanopsis javanica*). In mount Merapi Central Jawa, Lim (2004) also reported Pine *Pinus merkusii* used by the eagle to build nest and was reported that the pair had been succesfully breeding. The breeding succsees was indicated by the presence of fledglings (see Table 2). A very recent nest we found in 2005 located in Cikoneng near Telaga Warna Nature Reserve, Puncak West Jawa and placed on Pasang *Quercus sp.* (Supriatna *et al.* pers. obs. 2005)

Tabel 2. Data and and information of all found nests in some sites.

No.	Location Name	Elevation (M asl.)	Tree species	Nest height (Meter)	Found (year)
01	Pasir Sumbul*	1800	*Schima walicii*	ca.40	2002
02	Sarongge*	1750	*Schima walicii*	ca.40	2002
03	Maleber*	1750	*Schima walicii*	ca.40	2002
04	Legok Baba*	1700	*Schima walicii*	ca.35	2002
05	Mandalawangi**	1800	*Schima walicii*	ca.40	1999
06	Mount Merapi**	?	*Pinus merkusii*		?
07	Kinahrejo**	?	*Erithrina rariegata*	25	2005
08	Cikoneng**		Querqus sp.		?

* No pledgling in the nest, and were cluster of nests we found and all located near the one placed in mount Mandalawangi.
** Pledgling were still in or around the nest.

The nests we found near mount Mandalawangi were altitudionaly shown by Fig. 1 below:

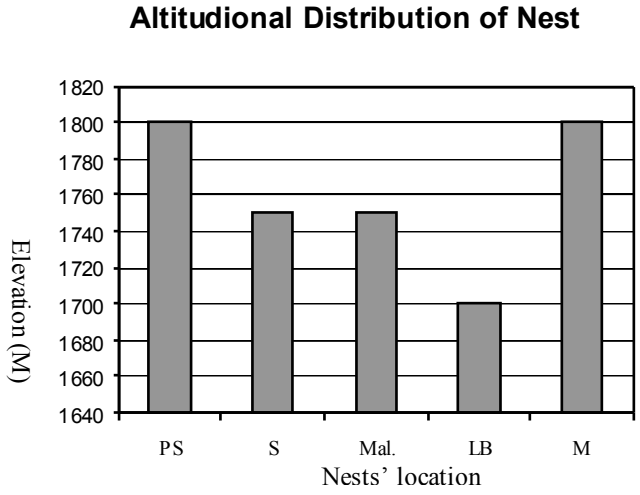

Figure 1. Altitudional distribution of nests found in mount Mandalawangi and nearby areas as shown by the following acronims: **PS**=Pasir Sumbul, **S**=Sarongge, **Mal**.=Maleber, and **LB**=Legok Baba.

Fig. 2. Above: young bird and female of *I. m. malayensis* with a chick by Adi Mustika). Below: a young of *I. m. malayensis* being on the nest by Lim Wen Sin, and a fledgling on the nest by Neville Kemp.

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