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**Acknowledgment**

The observations were financially supported by the Netherlands Organisation for Scientific Research (NOW) through the Netherlands Foundation for Tropical Research (WOTRO) and the Netherlands Institute for Sea Research (NIOZ), under the umbrella of the Indonesia-Netherlands cooperation on Teluk Banten Research.

**Address:** Teluk Banten Programme Waterbird Research, c/o Wetlands International Indonesia Programme.

**LESSER ADJUTANT BREEDING IN ALAS PURWO NATIONAL PARK, EASTJAVA**

by

M.J. Gratham

(Final draft received 25 March 2000)

**Ringkasan**

Antara bulan Mei sampai bulan September 1999, sembilan sarang Bangau Tongtong *Leptoptilos javanicus* ditemukan di pinggir padang penggembalaan Sadengan di Taman Nasional Alas Purwo, Jawa Timur. Sarang ini berhasil 13 anak, termasuk tiga anak dari satu sarang.

The Lesser Adjutant *Leptoptilos javanicus* is found from India through SE Asia to China and the Greater Sunda Islands and is listed as Vulnerable by Collar *et al.* (1994). Its range in Indonesia is discussed by Silvius & Verheugt (1989). There have been rather few breeding records in Indonesia, summarized as follows:

Hoogerwerf (1948, 1949, 1969) reports breeding in West Java during March to October.

Hoogerwerf & Siccama (1938): six pairs breeding in two adjacent trees in the Jakarta region, with young offered for sale in the coastal region in late June-early July.

Hellebrekers & Hoogerwerf (1967): nine clutches of one egg each in the Bartels collection from Langgen Gadung, near Sedari, West Java (the comment is made that the eggs seemed larger than normal, and the consistent single egg clutch size is also unusual).

Sody (1930) mentions breeding in February-March for East Java.

Sody (1953) mentions three nests reported by F.J. Appelman in natural forest in which teak had been planted near Pampang Bay; this could have been Teluk Panggang in Alas Purwo, which Appelman is known to have visited.

Becking & van Balen (in prep.) refer to Kooiman being offered young birds obtained from the Brantas Delta in East Java.

June 1989 South Sumatra, Way Kambas National Park (Parrot & Andrew 1996). Up to 25 birds in a colony with 200+ Milky Stork *Mycteria cinerea*, though breeding was never proved

Galdikas & King (1989) describe the first breeding record for Kalimantan from close to Tanjung Puting in Central Kalimantan.

Gonner (2000) reports evidence of large numbers breeding in the Mahakam. Lakes area of East Kalimantan.

Elsewhere in Borneo, there are the following records:

Breeding colony on the Sadong river in SW Sarawak, and former colonies near Lawas (E. Sarawak) and Tutong (Brunei), while T. Harrison quoted local reports of breeding in the Samarahan delta (Smythies, 1981).

Gore (1968) reported a nesting colony near Semporna (Sabah), and possibly also at Karindingen Island.

### **Birds in Alas Purwo**

The Lesser Adjutant is a common resident in Alas Purwo National Park in the south east corner of Java. Birds are most often seen at the Sadengan grazing ground (8°39'S, 114°22'E), though the population appears to have been declining in recent years. In October 1993, 51 birds were seen (Indrawan *et al.* 1997), though over 1997-98, a maximum of only 28 birds was observed (Grantham 2000). In June 1998, several birds were seen carrying sticks and other nest building material, though a possible nest site was never found and no further signs of breeding were noted.

In May 1999, several nests appeared in the crown of a Kepuh *Sterculia foetida* tree along the northern boundary of the savanna at Sadengan. These were difficult to observe until the autumn loss of its leaves in early June, when it became apparent that there were nine nests. These nests were all in the crown of the tree, which was at least 25-30m tall. It was not known how many of these birds had laid or how many eggs were present, as putting the birds off their nests left them open to predation by White bellied Sea eagles *Haliaeetus leucogaster*, and on one occasion by Javan Hawk eagle *Spizaetus bartelsi*. By 15 June, several chicks had hatched, and it was possible to gauge approximate numbers, though by 16 July the tree was again closed with new leaf growth, making observation difficult.

Table 1 shows approximate dates of first noted breeding behaviour, with the date of first hatching or chick sighting, the maximum number of chicks hatched, and the presumed outcome of the nesting. The data for nest 2 are split, as it is thought that the first chick was lost, with a subsequent replacement clutch being laid.

Table 1 Breeding data for nine Lesser Adjutant meft in Alas Purwo National Park.

#	First breeding sign	First chick	No. chicks	Outcome
1	25 May; possible egg	15 Jun	2	2 fledged mid August
2a	1 June; mating	21 Jun	1	Predated
2b	30 June; egg turning			Failed
3	30 June; egg turning		1	1 large chick late August
4	1 June, nest lining	15 Jun	3	3 fledged late August
5		15 Jun	1	1 large chick late August
6		15 Jun	2	2 large chicks late August
7		15 Jun	2	1 large chick late August
8	15 June; displaying		1(?)	1 small chick late August
9		30 Jun	2	2 large chicks late August

Of interest is the clutch size of these nests. Previous reports from Indonesia have only recorded single on clutches (see for example the reference above to Hellebrekers & Hoogerwerf 1967), whereas at Sadengan, most of the nest held; two eggs, many of which successfully fledged. Indeed one nest apparently fledged three chicks; one of these was presumed to be a runt, as usually only two birds were seen to receive food from returning adult though by mid August all three birds were observed nearly full grown and begging for food.

### Behaviour

It would appear that Lesser Adjutant is a very sociable species when breeding. Birds from different pairings were often seen to preen and display to birds from adjacent nests. Only occasionally was direct aggression noted, when an arriving bird landed too close to a nearby nest. Aggression was shown as a loud clapping of the bill, with the head thrown backwards. Interestingly, the same behaviour is more usually observed as a pair bonding display. As well as bill clapping, various quiet whistles, grunts and coos were also heard from the colony. Birds were often seen sunning, presumably to clean themselves of parasites. This behaviour was always very co-ordinated, with up to seven birds simultaneously sunning. When one bird closed its wings, so did all of the others.

It is not known exactly where these birds were feeding. Birds were often seen departing to, or arriving from, the north and less often to and from the south. Birds heading north are thought to feed in the extensive wet ricefields surrounding the Park. Birds are occasionally seen here in large numbers, though it is thought that these have arrived from elsewhere and do not include locally breeding birds. The maximum numbers seen feeding here was 20 (24 June), though there was a report of 63 birds on fields further west on 20 July. A large group of 42 birds was also seen heading south from the eastern fields, along with a single Woolly necked Stork *Ciconia episcopus* on 20 July. On one occasion, a bird was seen to take a dead rat from these fields, presumably killed by local farmers. Birds are also occasionally seen along the Segoro Anak tidal river, with four birds seen heading towards Sadengan from that area (1 June) and five birds there at dusk with an egret roost (6 August).

Birds are also thought to occasionally feed in mangroves along Segoro Anak and at Sunglon Ombo, though there were no direct sightings in either of these areas.

### Conclusion

It is clear that Alas Purwo and the surrounding area are vitally important for substantial numbers of Lesser Adjutants. Considering this species' status in Java, and in Indonesia generally, it is imperative that everything possible is done to protect these birds and their habitat. A full survey is required to locate further possible local breeding sites and assess their protection status. A secondary aim should be a local education campaign to negate any future human impacts on these birds, whether through hunting, disturbance or egg collecting. Work is already being carried out in Alas Purwo to protect the known colony along with a simple monitoring programme.

**Acknowledgement.** The author gives grateful thanks to Bas van Balen and Derek Holmes for their assistance with literature searches.

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**A NOTE ON THE PASSAGE OF *VARIEGATUS* AND *PRAEOPUS* TYPE WHIMBRELS THROUGH ALAS PURWO NATIONAL PARK, EAST JAVA**

by

**M.J. Grantham**

(Final draft received 7 March 2000)

**Summary**

Over autumn mid spring passage (1997-99), Alas Purwo National Park hosted good numbers of birds resembling Western Palearctic type Whimbrels *Numenius phaeopus phaeopus*. Of 264 passage birds racially identified, only 4.5% were of the more expected Eastern Palearctic race *Numenius phaeopus variegatus*. The remainder all showed characteristics of the nominate *phaeopus*, which usually winters only as far east as India and the Malagasy region.

**Ringkasan**

Selama musim bermigrasi (1997-1999), Taman Nasional Alas Purwo ditempati burung Gajahan *Numenius phaeopus* dalam jumlah yang cukup besar. Gajahan ini mirip tipe Whimbrels dari 'Western Palearctic.' Dari 264 Gajahan yang ras diidentifikasi, hanya 4.5% jelas dari ras *Numenius phaeopstv variegates* yang paling dimungkinkan di Jawa. Semua burung yang lain punya ciri-ciri mirip *Numenius phaeopus phaeopus* yang bermusim dingin (*winters*) sejauh India dan daerah Malagasy.

**Introduction**

Alas Purwo National Park lies in the far southeast corner of Java. The west of the Park consists of riverine mangroves (Segoro Anak) and a small estuary leading into Grajagan Bay, at Cungur (8°31'S 110°15'E). During peak passage periods (September-November and March-April), these areas hold small numbers of 21 species of migrant shorebirds. Autumn passage is dominated by Sanderling *Calidris alba*, Rufous-naked Stint *Calidris ruficollis* and Whimbrel, with only the latter present in any numbers: on spring passage. Other interesting migrant records include Oriental Plover *Charadrius veredus*, Kentish Plover *Charadrius alexandrinus* and Red-capped Plover *Charadrius ruficollis* (for details, see Grantham, in prep.).