

Javan Lapwing surveys at Muara Gembong, Bekasi,
West Java, Indonesia

An expedition to find Java's 'extinct' bird



Surya Purnama

Javan Lapwing surveys at Muara Gembong, Bekasi, West Java, Indonesia

An expedition to find Java's 'extinct' bird

A. Snapshot from Muara Gembong, Bekasi, West Java

It has been a long time since the 2002 unconfirmed sighting of a Javan Lapwing (*Vanellus macropterus*) at Muara Gembong. In April 2010 BIONIC (Biology Universitas Negeri Yogyakarta Ornithology Club) decided to continue the search and try again to find this mysterious critically endangered bird. In collaboration with Yayasan Kutilang Indonesia, and with support from the Oriental Bird Club, we spent almost a month searching the Muara Gembong area.

Muara Gembong is a vast tidal lowland area to the north-east of Jakarta in West Java (S 6°02'07" E 107°04'45"). Here there is a large area of relatively undisturbed mangrove and freshwater swamp, mixed with low-intensity rain-fed rice fields and fish ponds. The principal vegetation is *Rhizophora* sp., *Avicennia* sp., *Sonneratia* sp., *Bruguiera* sp. and *Nypa fruticans*. Administratively the area lies within Muara Gembong subdistrict, part of Bekasi District. The human population is around 36,000, mostly living from fishing (60%).

The last confirmed record of Javan Lapwing from this area was in 1942. In 2003 a sighting of was then reported by a local birdwatcher, with a very convincing description of the bird. The habitat at Muara Gembong remains very similar to the preferred habitat of Javan Lapwing from historical records. In particular the area is so low lying that irrigated rice agriculture is not possible, so the intensification in farming seen in many places around Java has not taken place here.

B. Field work methods

Survey work was conducted by 10 members of BIONIC present in Muara Gembong for 27 days. We aimed to cover as much area as possible, seeking to visit almost all areas of Muara Gembong using two separate teams each led by an experienced field coordinator. Survey routes were recorded using GPS and habitat type was recorded together with photographs. Interviews with local people were also used extensively to seek information about the presence of Javan Lapwing. During the field survey we searched specifically for Javan Lapwing, but recorded all bird species observed. During the survey we also made presentations at local schools to promote bird conservation in the area.

One survey team worked in the southern area of Muara Gembong, dominated by paddyfield and scrubland, while the other team focused on the northern area, dominated by fishponds and mangrove. Two other team members stayed at the basecamp. Field surveys began at 5.30 am and

continued until 5.30 pm. Each team had a GPS, two cameras, four pairs of binoculars, a telescope and data forms. Field surveys were conducted on every day.

After 18 days of survey we had visited all initial target areas, and spent the remaining time visiting areas that been under-visited. We also spend a number of day-long observations at several key locations. Despite all of our efforts we were unfortunately unable to confirm the presence of Javan Lapwing in Muara Gembong.

C. Interview results

During interviews we found many people who believed that they had seen Javan Lapwing before. Interviewees were initially not given a picture or field guide for reference but still provided a good description of the bird, including characteristics like yellow or white wattles; black head, belly-patch, flight feathers, carpal joint and curved black spurs; dark brown upperparts, breast and upper belly; white uppertail-coverts and vent and orange or yellow legs. When such interviewees were given a field guide they typically pointed to the illustration of Javan Lapwing..

Interviewees also provided ecological and behavioural description that they claimed were of Javan Lapwing, saying that birds usually came out from hiding after White-breasted Waterhen (*Amaurornis phoenicurus*) or Lesser Coucal (*Centropus bengalensis*). They also claimed that during the dry season birds used the delta or small island near the shoreline as roosting areas. On the 18 April one interviewee reported seeing a Javan Lapwing four days earlier in the Muara Pecah area. The survey team then spent two days searching the area but no bird was seen.

While these interview results are encouraging, without confirmation they should be treated with caution. Follow-up work should seek to build on such interviews and try again to confirm the reports.

D. Bird of Muara Gembong

While the survey did not record Javan Lapwing, it did record the presence of 131 species of the birds, including eight IUCN red data book threatened species (see Table 1), and 17 species new to the Muara Gembong area.

Table 1. List of threatened bird species recorded during Muara Gembong survey, April 2010.

No	Scientific Name	Local Name	Common Name	IUCN status
1	<i>Fregata andrewsi</i>	Cikalang christmas	Christmas Frigatebird	CR
2	<i>Anhinga melanogaster</i>	Pecuk-ular asia	Oriental Darter	NT
3	<i>Mycteria cinerea</i>	Bangau bluwok	Milky Stork	VU
4	<i>Charadrius javanicus</i>	Cerek jawa	Javan Plover	NT
5	<i>Centropus nigrorufus</i>	Bubut jawa	Javan Coucal	VU
6	<i>Zosterops flavus</i>	Kacamata jawa	Javan White-eye	NT
7	<i>Padda oryzivora</i>	Gelatik jawa	Java Sparrow	VU
8	<i>Ploceus hypoxanthus</i>	Manyar emas	Asian Golden Weaver	NT

Several records are of particular note. On 17 April, we observed 64 Milky Stork *Mycteria cinerea*; a new population record for Muara Gembong. A roosting location for Milky Stork, shared with Oriental Darter *Anhinga melanogaster*, was also discovered (106°56'43" E 5°56'11" S). We also recorded Java Sparrow *Padda oryzivora* (2 individuals; 106°56'43" E 5°56'11" S) and Asian Golden Weaver *Ploceus hypoxanthus* (eight individuals; 107°01'48" E 5°58'48" S); both local rarities. In addition to the threatened birds found, we recorded 17 species new to the Muara Gembong area, shown in Table 2.

Table 2. New species recorded for the Muara Gembong area

No	Scientific Name	Local Name	Common Name
1	<i>Pernis ptilorhynchus</i>	Sikepmadu Asia	Oriental Honey Buzzard
2	<i>Accipiter trivirgatus</i>	Elangalap Jambul	Crested Goshawk
3	<i>Butastur liventer</i>	Elangsayap Coklat	Rufous Winged Buzzard
4	<i>Accipiter virgatus</i>	Elangalap Besra	Besra
5	<i>Accipiter gularis</i>	Elangalap Nipon	Japanese Sparrowhawk
6	<i>Pandion haliaetus</i>	Elang Tiram	Osprey
7	<i>Falco severus</i>	Alapalap Macan	Oriental Hoby
8	<i>Falco peregrinus</i>	Alapalap Kawah	Peregrine Falcon
9	<i>Falco cenchroides</i>	Alapalap Layang	Australian Kestrel
10	<i>Charadrius leschenaultii</i>	Cerekpasir Besar	Greater Sand-Plover
11	<i>Otus lempiji</i>	Celepuk Reban	Collared Scopsowl
12	<i>Pycnonotus bimaculatus</i>	Cucak Gunung	Orange-Spotted Bulbul
13	<i>Pycnonotus plumosus</i>	Merbah Belukar	Olive-Winged Bulbul
14	<i>Macronous gularis</i>	Ciungair Coreng	Striped Tit-Babbler
15	<i>Acridotheres tristis</i>	Kerak Ungu	Common Myna
16	<i>Nectarinia calcostetha</i>	Burungmadu Bakau	Copper-Throated Sunbird
17	<i>Ptilinopus jambu</i>	Walik Jambu	Jambu Fruit-Dove

E. Building conservation awareness

The original local inhabitants of Muara Gembong are not the the main people responsible for the conversion of habitat to aquaculture and agricultural land. Nor are they the main group responsible for bird hunting. Since the 1950s, many people have come to the Muara Gembong area and brought with them the practices of converting mangrove forest into fishponds, burning scrubland and bird trapping. Most of the current population in the area lies along the main river courses, with the river providing the main means of transportation..

At the weekend, hundreds of people from Jakarta and Bekasi come to Muara Gembong for fishing, hunting and recreation. Hunting is not limited to only birds, but also includes primates like *Macaca fascicularis*, reptiles like *Varanus salvator* and other animals. Even if people are just visiting for recreation, their activity still causes disturbance.

Beacuase of this situation we need to built community conservation awareness immediately. Starting with educating children, we visited Junior and Senior High Schools in the Muara Gembong area to give them information about birds and other wildllife and their important value within the ecosystem. Class meetings and focus group discussions were used to give information. Before our visits students had little interest in nature conservation, but following our campaign they now have the presence of mind to keep and protect their natural capital. With more such collaboration between local people, government and the birdwatching community we believe we can save our birds and their habitat for our future.

F. Acknowledgments

The study at Muara Gembong was done under the partnership of Biology UNY Ornithology Club (BIONIC) and Yayasan Kutilang Indonesia with full funding support from the Oriental Bird Club Small Grant Fund. We acknowledge the support of a large team of people (Imam Taufiqurrahman, Anis Utomo, Helmy, Zulfikar A, Zulqornain A, Mutia, Han P, Dwi Aji S, and Harun S). The local people, particularly Udin and family, are thanked for their kind hospitality, indigenous knowledge and expert assistance in expedition. Last, we would like to thanks to Pak Ige Kristianto M, S.Hut and Dr. Nick Brickle for great comment and support during study.

G. Literature cited

Anon. 2010. Burung Trulek Jawa Terancam Punah. Downloaded from http://www.mediaindonesia.com/webtorial/tanahair/?bar_id=MTc1Mjc3 on 01/10/2010

Bibby, C., M. Jones and S. Marsden. (2000). *Teknik-teknik Ekspedisi Lapangan Survei Burung*. BirdLife International Indonesia Programme, Bogor. Indonesia

BirdLife International (2010) IUCN Red List for birds. Downloaded from <http://www.birdlife.org> on 01/10/2010

MacKinnon, J., K. Phillipps and B. van Ballen. (1998). *Seri Panduan Lapangan Burung-burung di Sumatera, Jawa, Bali dan Kalimantan*. LIPI, Bogor. Indonesia

Sutherland, Wiliam J., Ian Newton, and Rhys E. Green. (2004). *Bird Ecology and Conservation; A Handbook of Techniques*. Oxford University Press, New York

Teguh Lestiyanto, Zainudin and Nova Fajaryanti. 2005. *Kepentingan Pelestarian Lahan Basah Bekasi*. BIODESA, Bekasi. Indonesia

Tim Penyusun. 2005. *Laporan Pengkajian Lapangan Tim Terpadu Penyelesaian Permasalahan Kawasan Hutan Lindung Ujung Krawang (Muara Gembong) Kabupaten Bekasi Provinsi Jawa Barat*. Departemen Kehutanan, Jakarta. Indonesia

Figure 1. Map of Muara Gembong area

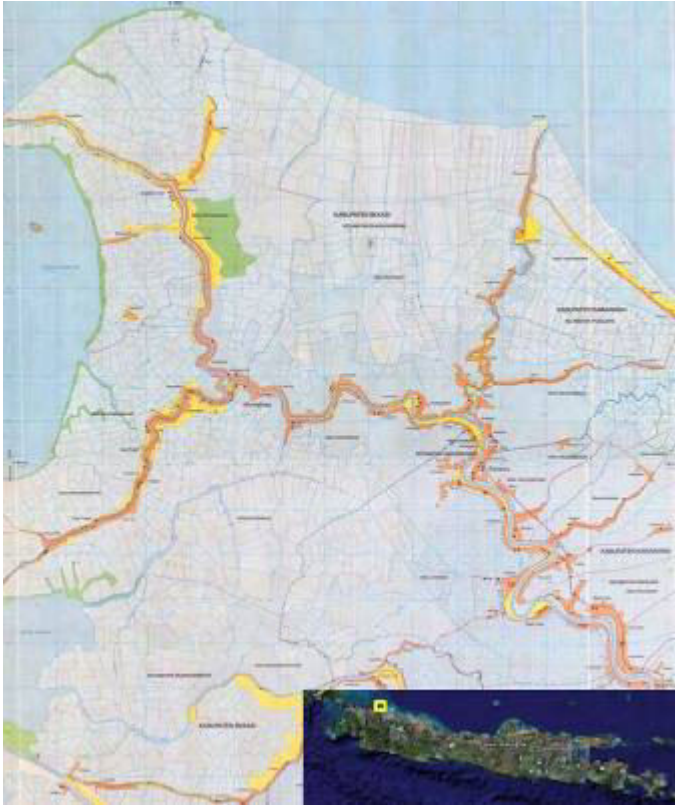


Figure 2. Geographic figure of Muara Gembong



Figure 3. Team members (photo by Udin Gembong)



Figure 4. The journey (photo by Jarot)



Figure 5. Interviews with local people (Photo by Surya)



Figure 6. Christmas Frigatebird (photo by Imam)



Figure 7. Oriental Darter and Milky Stork (photo by Surya)



Picture 8. Javan Plover (photo by Juki)



Picture 9. Javan White-eye with nest (Photo by Imam)



Picture 10. Peregrine Falcon fighting with Black-winged Kite (photo by Imam)



Figure 11. Crested Goshawk (photo by Juki)



Figure 12. Japanese Sparrowhawk (photo by Imam)



Figure 13. Oriental Hobby (photo by Han)



Figure 14. Birds shot by a hunter (photo by Surya)



Figure 15. Campaign in school (photo by Han)

