

CONSERVATION REPORT

In search of the Javanese Lapwing *Vanellus macropterus* 2001–2012

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The Javanese Lapwing *Vanellus macropterus* has not been recorded since 1940, and any remaining population is likely to be tiny, and for these reasons it is treated as Critically Endangered (BirdLife International 2012). It is known with certainty only from Java where historically it inhabited marshes and river deltas in two discrete areas—in the west on the north coast and in the east on the south coast (van Balen & Nijman 2007). Here we summarise a series of surveys for Javanese Lapwing carried out between 2001 and 2012 at localities where specimens have been collected historically in Java; mostly the fieldwork has been carried out by Indonesian birdwatchers and ornithologists.

The locations were:

- various wetland habitats in **Bekasi, West Java province**—mainly focused on Muara Gembong; 16–18 November 2006 (van Balen *et al.* 2006), April 2010 (Purnama 2010, 2012) and our survey in November 2012 discussed below.
- south coast **Lumajang, East Java province**—from Watu Godek in the west to Meleman in the east—in October and November 2001 (Nurwatha & Rahman 2002); between June 2005 and January 2006 (Febrianto *et al.* 2006, Noni & Londo 2006); in October 2009 (Dana 2010) and our survey in December 2012 discussed below.
- south coast **Jember, East Java province**—from Paseban in the west to Rawa Pulo in the east—in October to November 2001 and February 2002 (Nurwatha & Rahman 2002), between June 2005 and January 2006 (Febrianto *et al.* 2006, Noni & Londo 2006) and our survey in December 2012 discussed below.

Other potential localities have been visited to search for Javanese Lapwing: Cimanuk river mudflats, West Java, in March–April 2002 and in November 2010 (Nurwatha & Rahman 2002, Jamaksari & Iqbal 2012); Segara Anakan lagoon and Rawa Bendungan swamp, Cilacap, West Java in April 2003 (Sutrisno 2003); south coast area near Yogyakarta in March–April 2003, Cilacap, Central Java in April 2003 and Rawa Danau Serang, Central Java south coast in May 2003 (Sutrisno 2003); Progo river mudflats, Yogyakarta in October–November 2001, various wetland habitats, Malang, East Java and various wetland habitats,

Banyuwangi, Alas Purwo in October–November 2001 and February 2002 (Nurwatha & Rahman 2002).

No evidence for the occurrence of Javanese Lapwing was found in any of the above areas, either from fieldwork or from interviews with local people. In addition, recent parallel work to compile population estimates of Javan Plover *Charadrius javanicus* by various birdwatchers from at least 57 wetland sites in Java (Iqbal *et al.* 2013) also produced no information about occurrence of Javanese Lapwing.

Our overview of work since 2001 to search for Javanese Lapwing in Java is summarised as follows:

Bekasi

Bekasi district in West Java holds various large wetlands. There are historical records of specimens of Javanese Lapwings collected at: Kali Tempayan, Muara Bungin, Citarum Delta, Cabang Bungin, Kali Bungin and Karawang (BirdLife International 2001).

Muara Gembong subdistrict or Hutan Ujung Karawang (5.56°S 107.01°E) is possibly the most visited survey location in West Java in the last decade. The area has various wetland habitats, including open fishponds (locally called ‘tambaks’), vegetated fishponds, waste areas, marshlands, grassy swamps and rice fields (Tamrin *et al.* 2003, Zainudin *et al.* 2005, van Balen *et al.* 2006). Other areas in Bekasi where local birdwatchers have claimed to have seen Javanese Lapwing are Tanjung Air and Pondok Dua, in Babelan subdistrict (Tamrin *et al.* 2003, Zainudin *et al.* 2005).

There are unconfirmed reports of Javanese Lapwing in 2002–2003 at Tanjung Air grasslands, Pondok Dua and Muara Gembong wetlands—based on interviews with 25 local people in Tanjung Air and Pondok Dua, and 40 local people in Muara Gembong (Tamrin *et al.* 2003, Zainudin *et al.* 2005). However, a bird survey in Muara Gembong in November 2006 failed to find the species in this area (van Balen *et al.* 2006). In April 2010, 10 people from a birdwatchers group at Universitas Nasional Negeri, Yogyakarta, spent 27 days surveying various habitats for Javanese Lapwing at Muara Gembong, but again failed to rediscover it (Purnama 2010). During this survey, many local people claimed to have seen Javanese

Lapwing and a local resident claimed to have seen a Javanese Lapwing at Muara Pecah on 18 April 2010. Unfortunately, a two-day survey to follow up this report, failed to find the bird (Purnama 2010).

In November 2012, MI and TL visited Muara Gembong and met a local birdwatcher who claimed to have seen Javanese Lapwing in 2002 and 2003 at Tanjung Air. The birdwatcher still kept his field notes—he claimed to have seen single birds three times in Muara Gembong—at Muara Pecah wetlands (5.59°S 107.02°E) on 13 December 2002 and at Tanjung Air (6.02°S 107.03°E) on 4 March 2002 and 19 April 2003; all in freshwater grassland habitat (Zainudin Tamrin pers. comm.). However, several days of intensive surveying at Tanjung Air in November 2012 by MI and TL failed to detect the species in this area, and in interviews, none of 11 local farmers and fishermen said they had seen it. Additional interviews with eight local waterbird hunters and traders in Bekasi also resulted in no information about Javanese Lapwing.

Lumajang

On the south coast, Lumajang district, East Java province, also has historical records of Javanese Lapwing (BirdLife International 2001). In recent years, the area has been visited in October and November 2001 and February 2002. During this work two local people, out of a total of 25 interviewed, reported that they had seen Javanese Lapwing in wetlands near Watu Pecak village, Lumajang (Nurwatha & Rahman 2002). One of them claimed to have caught two (possible pair) in Watu Pecak wetlands after a big earthquake or tsunami in 1994. Watu Pecak wetlands are located in Selok Awar-awar village, Pasirian subdistrict, Lumajang district (8.16°S 113.10°E). He gave a good description of a bird resembling Javanese Lapwing, and it has been confirmed that a tsunami hit the south coast of Java on 3 June 1994 (Yudhicara 2011).

Meleman is another part of Lumajang where local people make claims about Javanese Lapwing and one man said that he shot a bird he referred to as a Javanese Lapwing in 2004, and that he saw one bird on 15 May 2005 in wetlands near Meleman village (8.17°S 113.18°E), Yosowilangun subdistrict, Lumajang.

In contrast, a survey carried out on the south coast, Lumajang district, on 23–26 April 2003 resulted in no local people claiming to have ever seen Javanese Lapwing, and the field survey also failed to find the species in this area (Sutrisno 2003). Additional surveys between June 2005 and January 2006 and October 2009 on the south coast of Lumajang district also failed to rediscover it

(Febrianto *et al.* 2006, Noni & Londo 2006, Dana 2010).

In December 2012, all the authors (except TL) visited the south coast of Lumajang, again without success. Twenty local people were interviewed, but only one person, Samian by name and about 80 years old, claimed to have ever seen Javanese Lapwing in Watu Pecak in the 1950s and 1960s.

Jember

Jember district, East Java, borders Lumajang and the coastal areas are similar in character to Lumajang. In Jember, the first recent survey was made by Nurwatha & Rahman (2002), covering Paseban, Rawa Pulo, Rawa Plumpung, Rawa Kuro, Rawa Jeni and Rawa Cangak. There is an unconfirmed report from the birdwatching group of Jember University in 1999 of Javanese Lapwing at Rawa Pulo (8.19°S 113.22°E). One local person, about 70 years old from Rawa Jeni, said that the last sighting of Javanese Lapwing was in about 1956–1957 and included a nest on the ground with two eggs. Rawa Jeni is about 800 m from Rawa Pulo. The species reportedly had a distinctive *plirik*, *plirik*, *plirik* call, and as a result the local name of the bird is 'plirik'. Residents from Rawa Kuro (Kuro swamp), approximately 4 km from Jeni swamp, also reported a Javanese Lapwing-like bird they referred to as the 'plirik'. The bird was last seen in Rawa Kuro in the 1980s (Nurwatha & Rahman 2002). The area was visited again between June 2005 and January 2006, but Javanese Lapwing was not found there (Febrianto *et al.* 2006, Noni & Londo 2006).

Our recent survey in December 2012 was also negative and no local people currently reported seeing this species.

Plate 1. Grass and marsh wetland habitat, Tanjung Air, Babelan subdistrict, Bekasi, West Java, 17 November 2012.





Plate 2. Grass and marsh wetland habitat, Watu Pecak, south coast of Lumajang, East Java, 14 December 2012.



Plate 3. Villager shooting birds for fun or food, Rawa Pulo, south coast Jember, East Java, 14 December 2012.

Summary and conclusions

Prime target areas recommended for Javanese Lapwing surveys have been the estuaries of Muara Gembong, grassy wetlands of Tanjung Air (Plate 1) and the south coast of Lumajang (Plate 2), East Java (BirdLife International 2001, van Balen & Nijman 2007). Unfortunately, after surveys lasting 27 days, involving 10 birdwatchers in April 2010 in Muara Gembong (Purnama 2010), our recent survey at Tanjung Air in November 2012, and a few repeat surveys on the south coast of Lumajang, Javanese Lapwing was not rediscovered there.

Based on MI's experience searching for Silvery Pigeon *Columba argentina* and rediscovering Milky Stork *Mycteria cinerea* in Sumatra using knowledge obtained from the local population (Iqbal *et al.* 2008, Iqbal 2010), the chances of finding a surviving population of Javanese Lapwing in the areas where it was collected historically are regarded as very unlikely. Unsuccessful past surveys and our unsuccessful recent survey, especially after negative results in November–December 2012 from interviews with about 50 local farmers, fishermen and waterbird hunters in Bekasi district (Muara Gembong, Tanjung Air and Pondok Dua), Lumajang and Jember, all support this conclusion—only one local person claimed to have ever seen Javanese Lapwing, but that was only in the 1950s and 1960s.

If Javanese Lapwing is present at a site, it should be easy to locate; one of our interviewees from Watu Pecak reported that it was easy to find in the 1950s and 1960s—it was usually found in pairs and birds flew around human intruders making a distinctive *krek, krek, krek*, call. These characteristics are quite similar to previous

descriptions of the species, Bartels (1915–1931), cited in BirdLife International (2001), stated: 'It was apparently never encountered in flocks, only in scattered pairs, and if present its distinctive call (from which its native name 'beberäk' derived) was always to be heard, so that it was impossible to overlook it at a known site'. A report in November 1936 stated 'whilst approaching the exit of the area, several lapwings screaming loudly, showed us out' (van Balen & Nijman 2007). This very strongly suggests that it has vanished from all sites studied in recent decades by ornithologists.

We believe that the wetlands in Muara Gembong, Tanjung Air, Lumajang district and Jember district are still good habitat for Javanese Lapwing. We suspect that the main cause of the loss of the species is over-hunting of waterbirds for food or shooting for fun. For example, a study in coastal areas of Indramayu and Cirebon, West Java, in 1985 revealed that annually over 300,000 birds of 56 species were caught (including 100,000 shorebirds), and similar hunting occurred in the rice fields around Bandung, West Java and Semarang, Central Java (Milton & Marhadi 1985). In Bekasi, especially in Muara Gembong and Tanjung Air, our discussions with local waterbird hunters and traders in November 2012 indicated that waterbirds have been hunted every month of the year for a long time in both areas. In East Java, local people from Lumajang and Jember confirm that waterbird hunting is also common there. In Rawa Pulo, we found a local man shooting waterbirds in wetlands for fun and food, and he told us that many people in his village did the same. During our visit in December 2012, small-scale bird traders were easy to find in Lumajang and Jember. We believe that



Plate 4. Waterbirds, including Common Moorhen *Gallinula chloropus*, on sale for food, in Bekasi, West Java, 18 November 2012.

the combination of the species's handsome, distinctive appearance, its habit of persistently circling human intruders on its territory, together with the long tradition of waterbird hunting in Java are major factors in the demise of the Javanese Lapwing, rather than loss of habitat.

If there are any remaining populations, they must be in isolated areas inaccessible to local people or where there is no interest in hunting waterbirds for food or shooting birds for fun. Unfortunately, there are few locations like this in Java, where the human population has expanded into almost every corner. Although chances of success are small, potential for further surveys exist in the remaining wet grasslands and wetlands in 'Hutan Lindung Sawangan', Pekalongan, Central Java, 'Kacip' in Baluran National Park and 'Nanggelan' in Meru Betiri National Park. In addition, as proposed by BirdLife International (2001), it would be worthwhile determining whether there are unexplored areas of wet-grass savannah in coastal areas of Sumatra, Bangka, Belitung and southern Borneo—to parts of which the West Java sites are closer than to its two known sites in East Java—that should be investigated accordingly. We suggest that wet grassland habitat on Belitung island should be given priority for further surveys in future.

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Plate 5. Bird hunter-traders are common on the south coast of Lumajang, East Java, 15 December 2012.

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