

# Status of Javan Plovers *Charadrius javanicus* on the Indralaya floodplains of South Sumatra, Indonesia

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## Status of Javan Plovers *Charadrius javanicus* on the Indralaya floodplains of South Sumatra, Indonesia

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The Javan Plover *Charadrius javanicus* is a small wader formerly known as endemic to the coastal lowlands of Java and Bali (MacKinnon & Phillipps 1993). Chasen (1938), however, suggested that it occurred outside this area, and it has since been recorded as breeding on the islands of Sumbawa and Sumba, and more recently in Sumatra, Sulawesi, Meno Island (off Lombok), Semau Island (off West Timor), Flores and Timor-Leste (Iqbal *et al.* 2011, 2013a, Trainor 2011). The taxonomic status of the Javan Plover is unclear. It is closely related to Kentish Plover *Charadrius alexandrinus*, White-faced Plover *C. dealbatus*, White-fronted Plover *C. marginatus*, Snowy Plover *C. nivosus*, and Red-capped Plover *C. ruficapillus*, and on occasion all have been treated as conspecific. Recently, however, it has been tentatively regarded as a distinct species (del Hoyo & Collar 2014).

Javan Plover was not recorded in Sumatra prior to 2007, when it was reported as breeding in Lampung province, southern Sumatra (Kennerley *et al.* 2008, Iqbal *et al.* 2011). It has since been recorded elsewhere in Sumatra on the islands of Bangka and Belitung and on the Indralaya floodplain (Iqbal *et al.* 2013b, Iqbal 2015, Setiawan *et al.* 2016). The recent spate of records outside Java is probably at least partly due to increased survey effort, but another possible factor is that birds have dispersed from Java to find suitable habitat, as many coastal areas of Java have come under heavy development pressure (Iqbal *et al.* 2013c).

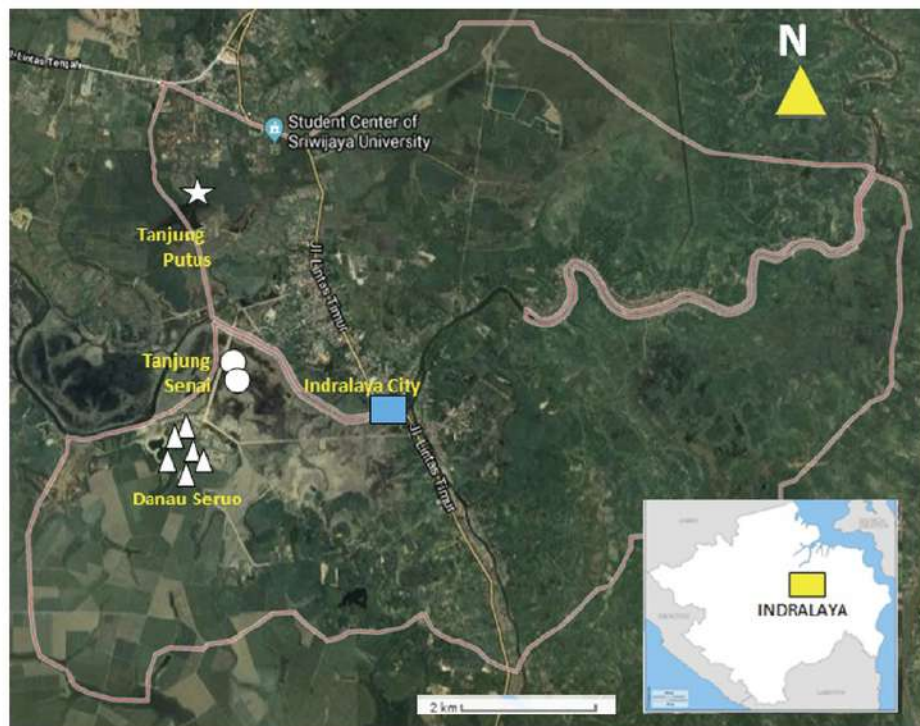
Since Javan Plovers were first found on the Indralaya floodplain in the Ogan Ilir district of South Sumatra province, Sumatra (3°14'S, 104°38'E) in 2013, we have closely monitored their occurrence in this area, as part of waterbird monitoring activities of the Community of Conservation of Sriwijaya University (a student organization of the Dept. of Biology, Faculty of Science, Sriwijaya University). Careful attention is paid to correct identification using appropriate references (e.g. MacKinnon & Phillipps 1993, Iqbal *et al.* 2013b). Two similar species to Javan Plover potentially found on Indralaya floodplain are Malaysian Plover *C. peronii* and Kentish Plover. Malaysian

Plover can easily be distinguished by its variegated upper-parts when compared to the uniform upper-parts of Javan Plover and Kentish Plover. Javan Plovers usually have a white supercilium in front of the eye with an obvious pale buff extension behind the eye and a white hind-collar that is invariably incomplete; this contrasts with Kentish Plover which usually has a dusky brown supercilium that is very indistinct behind the eye and a white collar that is split dorsally by a brown line extending from the hind-crown, though it appears complete in most birds.

We focussed on the Ogan River of Indralaya subdistrict (a tributary of the Musi River) which flows through the floodplain, on which lakes, extending to about 400 ha, form during the rainy season. This area is a part of Dataran Banjir Ogan Komering, a site listed as an Important Bird Area by Birdlife International (2018). The Indralaya floodplain covers 4 km<sup>2</sup>, which is 0.08% of the Dataran Banjir Ogan Komering area. During the rainy season (October–March), water levels are 4–5 m higher than during the dry season (April–September), and the area covered by water increases from 50 km<sup>2</sup> in August to 5,000 km<sup>2</sup> in February.

During 2013–2018, our waterbird monitoring on the floodplain found that Javan Plovers occur there in small numbers at three localities: Tanjung Putus, Tanjung Senai and Danau Seruo (Figs. 1–3, Table 1). All sites have similar characteristics: flooding during October and March, and dry during April to September. During the dry season, the area provides many small grassy areas, which are suitable habitat for foraging and breeding (Fig. 4). When water level is increased, the suitable habitat is limited, but it still contains foraging area. When the area is mostly flooded (less than ca. 15% dry area; see Table 1), the habitat becomes largely unsuitable for Javan Plovers.

Since Javan Plovers were first encountered on the Indralaya floodplain in 2013, they have been recorded in small numbers in all survey years, although none were carried out in 2014 or 2015 (Table 1). Their consistent presence, in both wet and dry seasons, suggests the species is now established as a resident. There has also been a trend for



**Fig. 1.** Map of the Indralaya floodplain (Indralaya subdistrict), Ogan Ilir district, South Sumatra province, Sumatra, Indonesia. The area surveyed for Javan Plovers is indicated by the yellow box (inset). The pink line shows the boundaries of Indralaya subdistrict. The area covers 0.08% of Dataran Banjir Ogan Komerang Lebak. The white star shows the location of Javan Plovers at Tanjung Putus, the white dots show records at Tanjung Senai, and the white triangles show records at Danau Seruo.

numbers to increase: from two in 2013, four in 2016, three to seven in 2017, and eight to eleven in 2018 (Table 1). Numbers observed at Tanjung Senai and Danau Seruo in 2018 suggest that these birds are the same individuals, because the two sites are only 2 km apart and within the range of expected local movements.

We consider it likely that Javan Plovers have bred in our study area or adjacent areas with similar wetland characteristics, including Indralaya Utara, Indralaya Selatan, Pemulutan Barat, and Tanjung Batu subdistricts (all of these subdistricts are administratively located in Ogan Ilir district). This is suggested by their occurrence in all



**Fig. 2.** Javan Plover on 11 May 2016 at Danau Seruo, Indralaya floodplain, Sumatra, Indonesia (photo: Rizky Hidayat).



**Fig. 3.** Two Javan Plovers on 19 January 2017 at Danau Seruo, Indralaya floodplains, Sumatra, Indonesia (photo: Yopi Mainanda).



months from January to May and in September, and also by the apparently increasing numbers (Table 1). On Java, breeding has been reported in May and June (Piersma & Wiersma 1996, Iwan Londo pers. comm.), and an adult with two chicks was observed in July in Sumatra (Iqbal *et al.* 2011). Breeding probably occurs at Indralaya during May to July, which is the early part of the dry season when water levels recede, providing areas of suitable breeding habitat, an extensive dry wet shortgrass habitat surrounded by fragmented pools of deeper area.

Globally, Javan Plover is thought to have a small population (*ca.* 2,000–6,000 individuals; Iqbal *et al.* 2013) and to be declining; it is consequently classified as Near Threatened (Birdlife International 2017), although more information is needed for a strong conclusion. This series of observations of Javan Plovers on the Indralaya floodplains represents the first monitoring of the species in Sumatra. Further monitoring should be conducted to learn about population trends and seasonal movements.



Fig. 4. Tanjung Senai on 1 October 2018, Indralaya floodplain, Sumatra, Indonesia (photo: Muhammad Iqbal).

Table 1. Waterbird surveys of the Indralaya floodplains, South Sumatra during 2012–2018, and the number of Javan Plovers recorded.

Date	Number recorded	Sites visited	Effort (observers)	Habitat status
12 May 2012	0	Tanjung Putus	1 km walked in 1.5 hrs (DS, MI)	Area <i>ca.</i> 35% dry
11 May 2013	0	Tanjung Putus	1 km walked in 1.5 hrs (DS, MI)	Area <i>ca.</i> 30% dry
24 September 2013	2	Tanjung Putus	1 km walked in 1.5 hrs (DS, RH)	Area <i>ca.</i> 35% dry
11 May 2016	0 0 4	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 40% dry
20 September 2016	0 0 4	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 40% dry
19 January 2017	0 0 3	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 20% dry
23 January 2017	0	Tanjung Senai	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 10% dry
8 April 2017	0 0 3	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 30% dry
13 May 2017	0 0 7	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 40% dry
27 January 2018	0 0 8	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 10% dry
25 February 2018	0 11 0	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 20% dry
11 March 2018	0 8 0	Tanjung Putus Tanjung Senai Danau Seruo	3 km walked in 2.5 hrs (YM, RH)	Area <i>ca.</i> 25% dry
1 October 2018	0 0	Tanjung Putus Tanjung Senai	2.5 km walked in 2 hrs: most observation in Tanjung Senai (MI, YM, RH, AS, IY)	Area mostly dry

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