

Volume 4/2025, December 2025

Malaysian Bird Report



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Malaysian Bird Report Editorial team

Dato' Dr Amar-Singh HSS (Editor), Kim-Chye Lim, Swee-Yian Lim, Wai-Mun Choy, Jia-En Ho

Advisors

Dave Bakewell, Allen Jeyarajasingam

Please address all correspondence to: malaysianbirdreport@gmail.com

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The Wild Bird Club Malaysia is a registered non-profit and membership-based organization that strives to conserve Malaysia's unique birds and their habitats through promoting best practices for bird-watching and encouraging people to enjoy birds and value nature. They plan birdwatching outings and have a very active Facebook page. WBCM supports eBird Malaysia as a collaborative project.

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The Sabah Bird Watchers Association (SBWA) was established with the primary objective to promote birdwatching in Sabah and Malaysia. SBWA aims to improve birding ethics, provide young individuals exposure to birdwatching and a platform to pursue their interest. They have over 30 experienced bird guides and 200 bird watcher & photographer enthusiasts.

Editorial

The Impact of AI Generated & Edited Images on Birdwatching

Amar-Singh HSS & Mohd Rafi Kudus*

*Chair, MNS-BCC Records Committee

Introduction

Artificial intelligence (AI) has 'overrun' the world in recent years. Much of society now relies on AI - whether it be to summarise a document, write an article, do school homework assignments, crunch data or generate an image. AI has not left the birding world unscathed. Many individuals use AI applications for image processing. Image editing has always been a subject of controversy, from the days of Photoshop. Now with AI applications it has become increasingly easy to edit an image of a bird, at times unethically. AI is also revolutionising wildlife conservation by enhancing species monitoring and protection, aiding habitat preservation and management thereof. We discuss here some of the benefits and challenges of using artificial intelligence and its impact on birdwatching, bird photography and citizen science (data) for birds

Positive applications of AI for Birdwatching and Conservation

AI technology can be a valuable tool for legitimate ornithology and birdwatching (Plate 1) (Quantzig 2025; Chisom *et al.* 2024).

AI technology enables the analysis of large datasets, like eBird, and this can aid conservation by mapping trends in species numbers in different regions. It can also predict the impacts of climate change or human activity on bird populations. Threat Assessment Matrix using AI technology allows analysis of data on human activities such as agriculture and urbanisation to assess potential threats to habitats which guides conservation strategies to mitigate these threats. This enables more efficient advocacy for and the allocation of resources to protect threatened species and habitats.

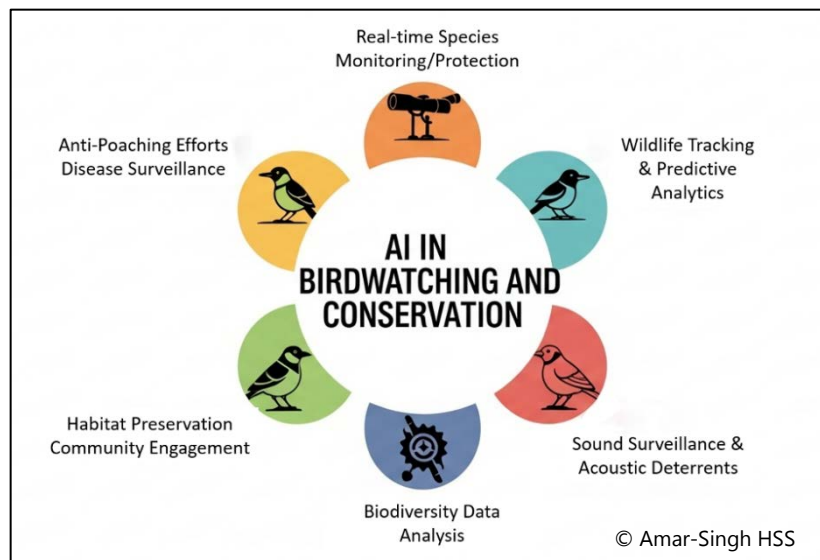


Plate 1: Some uses of AI for Birdwatching and Conservation

Researchers can use AI-controlled cameras and acoustic recorders for the automated monitoring of birds 24/7 (Plate 2). The systems can process thousands of hours of audio and visual data to identify species, track population trends including population estimation and detect changes in behaviour. AI can also potentially assist the average birder to sort vast image datasets that many have (using techniques like unsupervised learning and zero-shot retrieval), to identify specific images and group bird images into species folders.

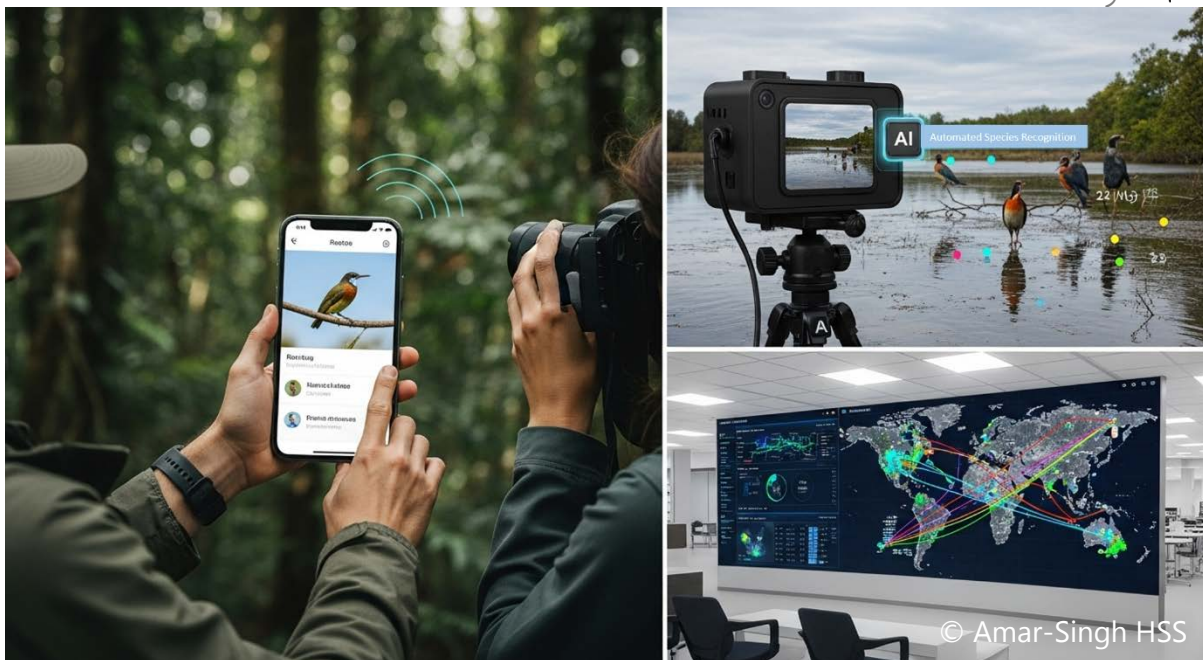


Plate 2: AI in the use of monitoring bird species.

AI can be a valuable tool for anti-poaching efforts. Drones equipped with AI can patrol large areas and detect unusual human activity especially for protected areas and saving endangered bird species. AI driven predictive analysis can thus forecast potential poaching hotspots.

AI bird applications also offer identification tools based on an image or sound recording that can help even experienced birdwatchers identify species. AI technology incorporating cameras and software into binoculars provides birders with instant taking of photographs while simultaneously watching the bird and its behaviour as well as an aid to ID birds in real time.

Threats of AI Generated and Edited Images to Birdwatching

AI generated and edited images can pose a significant threat to birdwatching, primarily by introducing misinformation that corrupts reliable data as well as creating unrealistic wildlife depictions that can distort public perception and foster a detachment from nature.

AI developers and users might infringe copyright if generative AI produces outputs that are substantially similar to original works. While AI images can be visually compelling they may lack the personal narrative, lack emotional depth, and unique artistic vision of photographers as well as authenticity that human generated images often possess.

The rapid expansion of AI and its associated resource demands can put a strain on natural ecosystems potentially jeopardising birdlife habitats.

Some birdwatchers and photographers are now using AI to manipulate photos to a degree far beyond traditional editing, for example, removing objects, adding details that were never there or bringing birds together or in greater numbers (Narayanswamy 2025). This has always been possible with traditional image editors but it took a lot of effort. Now it has become much easier and more realistic, making discerning what is real harder.

Plate 3 illustrates an example. An AI image application was trained with prompts to use two images of the Bornean Peacock-Pheasant *Polyplectron schleiermacheri* to create a new image with the birds facing each to suggest courtship. Note the seamless background and ground environment of the image. This may easily fool many of us. Note however, that the bird sizes are not accurate, the Bornean Peacock-Pheasant male (50cm) is much larger than the female (35cm). In addition, subtle changes have occurred, for example the male bird has lost the leg spurs. But it does illustrate how far AI image editors have come. In the very near future AI applications will generate images that the best of us will not be able to distinguish from the real ones.



Plate 3: Two real images (left) of the Bornean Peacock-Pheasant manipulated with AI image editing to suggest courtship (right).

Platforms like eBird rely on user-submitted photos for species distribution and population monitoring. There is concern that birds not present in a region might be AI generated or edited to look like they were seen in that part of the country. If these fake AI images are included, they can degrade the credibility of citizen science and undermine conservation efforts. In addition, it increases tourist pressure on natural areas with undesirable effects. Consequently, posting these fake images on locations where a particular species do not exist can exacerbate overtourism and its detrimental effects on ecosystems. Plate 4 illustrates an example. Random, real images of the Asian Green Bee-eater *Merops orientalis* were taken and the AI image application was trained with prompts to generate a species authentic image. This can then be posted as observed in Malaysian as the observation of a rare bird.

In bird groups, images are at times posted with an incorrect species identity (ID) that was possibly obtained using AI detection - suggesting a bird ID not found in Malaysia because of inexperience. Using AI to determine the ID of a bird can be useful for beginners but in the long run it can deteriorate your bird watching skill. It is better to consider the more long-term, rewarding method of reading up on a bird to determine its identification. This will grow your skills on other birds while you're searching the ID of this bird (Pankiv & Kloetze 2024).



Plate 4: A new image of an Asian Green Bee-eater generated with an AI image model.

We have all seen the outlandish images of videos of birds circulating on social media that we as birdwatchers know do not exist in our world. But the general public is less aware and often send them to us to say something like "*have you seen these wonderful birds in Malaysia?*". Many are viraled on social media and are shared by users who believe they are real. AI fabricated, fantasy species images can distort the public's perception of nature. Plate 5 is an example of a fictitious bird generated with an AI image application using a simple prompt of "*generate an image of a tropical Asian flycatcher bird feeding juveniles in a nest*". Note the near photorealism of the image. Those who are not birdwatchers and photographers will easily accept this as a real image with the '*oohs and aahs*' of admiration and social media thumbs up approval that many seek. Critics worry that the 'more real than real' quality of AI images could lead to desensitization and decreased interest in seeing actual birds in real life (Guerrero-Casado *et al.* 2025).

Some Suggestions, Safeguards and Ethical Best Practices in an AI World

1. When you use AI to generate a bird, state explicitly that the work was created with AI and even place a watermark on the image indicating such. This will change the perceptions of the viewer.
2. Avoid over-editing birds with AI applications. We may use AI applications for noise reduction and some sharpening of images but avoid filling in missing parts, rearranging birds or adding any birds. If you do use AI for significant modifications, be transparent and disclose the editing process and AI tools used.

3. For images submitted for bird photography competitions and especially in order to verify rare and new birds (e.g. submission to the MNS-BCC Records Committee) it should be mandatory to submit the original RAW or JPEG files in addition to the processed ones. This allows for an examination of the exchangeable image file format (EXIF) metadata to determine the authenticity of the image. This requirement is getting serious attention by most established birds rarities and record committee worldwide



Plate 5: A fictitious paradise-flycatcher-like bird at nest generated with an AI image model.

Summary

The core tension is between AI's capacity to harm wildlife appreciation through misinformation and its potential to revolutionise conservation using the AI tools. It's not the tools, it's how we use them that matters. We need to be judicious in how we use AI to edit images and routinely state their use when we share images. It is important that we collectively reflect on the use of AI in birdwatching and photography.

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Field Notes

Identification of Javan Plover *Anarhynchus javanicus* Revisited

Dave Bakewell & Stanley T Shao

Introduction

Before the discovery of Javan Plovers in Tawau, Sabah, Malaysia (Shao 2025b), both authors spent time studying literature and photographs to familiarize ourselves with the diagnostic characteristics of Javan Plover and engaged in discussion on the subject with other observers familiar with the small *Anarhynchus* plovers of the region (Kentish Plover *A. alexandrinus*, White-faced Plover *A. dealbatus* and Malaysian Plover *A. peronii*).

The most recent publication focusing on the field identification of Javan Plover was published over a decade ago (Iqbal *et al.* 2013), and the characteristics described therein have been used as source material for subsequent publications (e.g. Wiersma *et al.* 2023), including the citation of "*lone lateral breast patches*" (*sic*) which is, presumably, a misspelling of "*long lateral breast patches*". Eaton *et al.* (2021) has the most helpful summary description of salient points to look for, but it is not widely available to Malaysian birders.

Previously published descriptions of Javan Plover have focused on areas where the species is known or expected to be present. In view of recent discoveries of Javan Plovers outside their known range, indicating possible range expansion, we felt that it would be useful to revisit the identification of this cryptic taxon.

Distribution

Crossland *et al.* (2025) summarizes the known distribution of Javan Plover as follows: "*endemic to the central region of the Indonesian Archipelago, with its distribution now known to extend from southern Sumatra in the west to Timor in the east and northwards to Sulawesi and northern Borneo*". The reference to northern Borneo refers to the recent records in Tawau, Sabah (A. Crossland, *in litt.*).

eBird records show a northward expansion of observations from traditionally known areas to north Sulawesi from 2016 and the first Southeast Asia records were from Singapore in 2021 (eBird 2021). Examination of old photographs unearthed a Javan Plover in Tawau, Sabah, in July 2017 (<https://www.flickr.com/photos/shaost/35828899251/in/album-72157651229416611/>). The first record in Sarawak was in May 2025 (eBird 2021) and there was a subsequent record from the Lawas district in August 2025.

Whether the apparent range expansion is the result of habitat change (conversion of mangroves to aquaculture farms), increased observer coverage and awareness or greater volume of photographs now available for scrutiny on databases such as eBird is perhaps moot – all these factors are probably partly responsible. Nevertheless, the recent arrival of Javan Plovers at well-watched and photographed sites such as in northern Sulawesi and northeast Borneo seems genuine, bearing in mind that earlier photographic evidence from these sites does not reveal their presence. The chronology of first sightings also suggests recent expansion into new areas.

Habitat Preference

Iqbal *et al.* 2013 indicate that Javan Plover occurs on sandy beaches, saline lagoons, dry aquaculture ponds and other dry saline environments as well as in dry cleared rice-fields. Although sometimes foraging on intertidal flats in Indonesia, they appear to prefer beaches or dry land above the shoreline in coastal habitats. Our observations in Malaysia support this. Javan Plovers have been observed feeding at low tide on intertidal mudflats and roosting on a sandbar, but the highest incidence of observations has been on dried aquaculture ponds, which is also the only habitat type where they have been recorded breeding to date. In Singapore, breeding occurred on reclaimed land forming part of an offshore island (Pulau Tekong) (Bird Society of Singapore 2024).

In both Tawau, Sabah and Miri, Sarawak, Javan Plovers exhibit a strong preference for mostly or partially drained prawn ponds. In the case of the Miri observations, the lone bird appeared when a large pond was drained. It remained at the site as long as the pond was dry (15-22 May 2025) but, once the pond was refilled, it was not seen again until the pond was drained once more, on 10 July 2025. After the pond was filled again, the bird was not seen. This series of observations suggests that dispersing Javan Plovers may range widely, looking for suitable habitat.



Plate 1: Male Javan Plover in typical habitat, a drained aquaculture pond, Tawau, Sabah, Malaysia, 20 Apr 2025.

Behavioural clues

Javan Plovers moving into new areas may exhibit behavioural clues to their identity, such as males and females being obviously paired up, aggressively defending territory, engaging in courtship, etc. While silent at other times, birds can be rather vocal around and during the

breeding period, uttering '*quip*' notes very similar to Malaysian Plover (and Kentish on the breeding grounds). Males often adopt an aggressive posture in which they fluff out the breast, retract the head and stand tall, reminiscent of a drill sergeant standing to attention, when facing a competitor (Plate 2). We have seen male Malaysian Plovers adopt a similar 'drill sergeant' posture during the breeding season, but not Kentish Plovers in Malaysia, so we assume that this is a characteristic of the breeding event. Observations of this nature may be one of the easiest ways to identify Javan Plovers in new areas. Any 'Kentish-type' plover repeatedly behaving aggressively toward other plovers should be scrutinized. However, pioneer vagrants do not always arrive in pairs or when sexually mature, in which case, they may behave very similarly to migrant Kentish Plovers.



Plate 2: Male Javan Plover adopting aggressive 'drill sergeant' posture, with breast feathers fluffed out, head withdrawn, crown feathers depressed and legs extended to their fullest height, Tawau, Sabah, Malaysia, 30 Mar 2025.

Timing

Kentish Plovers are late-arriving southward migrants to Malaysia, with most birds arriving after mid-September. Most Kentish Plovers have left Malaysian shores to go north to the breeding grounds by the end of April. Any Kentish-type Plover observed between May and August should therefore be scrutinized, especially if there are multiple birds present. While Kentish Plovers are only likely to be seen in the northern non-breeding period, Javan Plovers can turn up in any month.

Field Characters

Literature cites several distinctions from Kentish Plover, which is widely recognized as Javan Plover's closest congener (e.g. Iqbal *et al.* 2011, 2013; Eaton *et al.* 2021). We found earlier descriptions tended to overstate differences between the two taxa (Appendix 3). With the benefit of a much larger body of photographs now available on eBird, we have found that variability within both species is greater than was realized, thus making certain identification of out-of-range individuals more challenging.

1. Size and structure

If Kentish and Javan Plovers are seen side by side, Javan looks smaller and 'skinny' than Kentish, with noticeably less body bulk. The head is also smaller and narrower than Kentish (Plates 3-5). Comparatively, Kentish can appear larger headed and to have a less obvious neck (Rheindt *et al.* 2011) although this may be partly dependent on posture.

We found other features mentioned in literature, such as oval head shape, blunter and longer bill and longer tibia length (Iqbal 2013) to be less useful distinguishing criteria.



Plate 3: Adult female Kentish Plover (left) with Javan Plover (uncertain age) (right), Tinagat Beach, Tawau, Sabah, Malaysia, 1 April 2025. The smaller overall size, more slender build and smaller head of the Javan Plover compared to Kentish Plover are evident.

2. Leg colour

While Javan Plover legs are usually pinkish and pale-looking, Kentish Plovers from East Asia populations share this characteristic more commonly than is widely realized. It is also possible that Javan Plover leg colour varies with age and breeding condition, with sexually inactive birds having greyer legs. Thus, leg colour alone is not a diagnostic field character for Javan.



Plate 4: Three Kentish Plovers (two adult females and an adult male) (left) with a Javan Plover (right), Tinagat Beach, Tawau, Sabah, Malaysia, 1 April 2025. This photograph illustrates the difference in posture between Kentish (appearing neckless and hunched) and Javan Plover (more neck and more upright) as noted by Rheindt *et al.* 2011.



Plate 5: Male Kentish Plover (back left) with female Javan Plover (front left) and male Javan Plover (right) at an evening roost on a bund between prawn ponds, Tawau, Sabah, Malaysia, 30 March 2025. The Kentish is markedly larger and bulkier than both Javan Plovers. There is also a marked difference in plumage state. The Kentish Plover is in fresh alternate plumage, while the Javan Plovers both show much more worn alternate plumage. Composite of two images.

3. Plumage

Adult Male:

From examination of photographs, it appears that male Javan Plovers can exhibit breeding plumage aspect (appearance) in all months (like Malaysian Plover and some Kentish Plovers). Both basic and alternate plumages can show a blackish frontal bar, blackish lores and ear coverts, and long blackish lateral breast patches. Even the brightest males (Plate 7) look browner and duller than male Kentish in full breeding aspect. The crown behind the dark frontal bar is brown rather than evenly bright orange, though the rear edge may be peach or rufous. This peach colouration often 'bleeds' into the supercilium behind the eye and the

nuchal collar (Plates 8 - 9), whereas, on male Kentish Plover, these areas are largely white. *An extensive peach wash on the collar is a strong indication of Javan Plover.* On average, both the white forehead and supercilium appear narrower on male Javan than on breeding aspect male Kentish Plover. There is considerable variation in the colouration and shape of the lateral breast patches, from solidly black (Plate 9) to dark brown or peach (Plate 8). *Often the lateral breast patches show hints of peach at the edges*, particularly toward the breast centre (Plate 7); these are absent on breeding aspect male Kentish Plovers but may be present on some breeding aspect females. Breast patches on Javan Plover are long and normally appear narrow, and on some individuals, they meet, forming a narrow breast band.

The colour of Javan Plover upperparts is frequently dark brown, occasionally appearing sandy brown. *Fresh scapulars and coverts can show narrow rufous or chestnut fringes* not shown by Kentish Plovers (Plate 7).

Some birds lack peach tones on the nuchal collar, rear supercilium and lateral breast patches, appearing white in these areas (Plate 6). Such birds normally have dark brown upperparts and may or may not show a black frontal bar, ear coverts and lateral breast patches, and are much more difficult to differentiate from Kentish Plovers.



Plate 6: Male Javan Plover, Tawau, Sabah, Malaysia, 20 Jan 2020. This bird lacked peach tones almost completely. The lateral breast patch appears long & narrow, and the white on the forehead & supercilium appears less extensive than on male Kentish Plover. Structurally, the bird appears small-headed & slim.



Plate 7: Male Javan Plover, Tawau, Sabah, Malaysia, 29 Mar 2025. Scapulars show chestnut fringes, and the lateral breast patch shows peach smudging around the edges. The bird appears small-headed and slim.

Adult female:

We assume that adult female Javan Plovers differ from males in lacking black colouration on the head and lateral breast patches, though this hypothesis should be checked in breeding pairs, since some female Malaysian Plovers show black in the frontal band and lateral breast patches (Bakewell *et al.* 2023).



Plate 8: Male Javan Plover (left) with female and eggs, Tawau, Sabah, Malaysia, 9 June 2025. The male of this pair never developed black colouration in the frontal bar, ear coverts, lores or lateral breast patches. It could be distinguished from the female by longer lateral breast patches and a more distinct head pattern. It had a prominent peach wash to the nuchal collar.



Plate 9: Male Javan Plover, Tawau, Sabah, Malaysia, 21 Oct 2025. This bird appears to be in fresh definitive basic plumage. It lacks obvious chestnut fringes to the scapulars but has a peach wash to the rear supercilium and nuchal collar.



Plate 10: Female Javan Plover, Miri, Sarawak, Malaysia, 10 Jul 2025. The nuchal collar is peach-coloured rather than white in Kentish.



Plate 11: Female Javan Plover, Tawau, Sabah, Malaysia, 30 Mar 2025. The peach wash on the rear ear coverts, crown and lateral breast patches give many Javan Plovers a slightly 'orange-headed' look.

Other differences from males include, on average, less extensive white on the forehead and supercilium and a higher percentage of birds having a complete or near complete breast band (Plate 10). *A peach wash on the rear of the nuchal collar and on the breast patches or breast band, coupled with less extensive white on the forehead and a thinner supercilium differentiate*

most female *Javan Plovers* from Kentish Plovers (Plates 10-12). When individuals lack the peach wash (Plate 13), identification is much more difficult, though structural features should help.



Plate 12: Female Javan Plover, Tawau, Sabah, Malaysia, 22 Aug 2025. Like this bird, many Javan Plovers appear small and slight compared to Kentish Plovers.



Plate 13: Female Javan Plover, Tawau, Sabah, Malaysia, 25 Mar 2022. This bird appears sandy or grey-brown and lacks any obvious peach wash. Such birds are similar to female Kentish Plovers, and may not be safely distinguishable in the field based on plumage characters alone.

Immature

Individuals have been observed which differ from adult males and females in lacking peach tones and having a white on the forehead which grades gradually into the brown of the crown (Plates 14 -15). Such birds also show small, neatly arranged wing coverts, so we assume that these are immature birds in formative plumage.

Juvenile

The progression of plumage development from chick to juvenile is covered in Shao 2025a. Fully fledged juveniles are characterized by upperpart feathers which have slightly darker feather shafts, thin subterminal fringes and buff or chestnut fringes (Plates 16 & 17). The white on the forehead grades into the darker colouration of the crown and may be bifurcated by a darker central line leading to the top of the bill.

Presumably, the patterns on most coverts, tertials and scapulars quickly wear off, whereupon juveniles will appear plainer dark brown above, though they may retain traces of buff fringes to some upperpart feathers, especially the coverts, even after the completion of preformative moult. The white forehead may become more clearly demarcated in formative plumage, and it is possible that some gender-specific features, such as a blackish frontal bar, may appear in some males.



Plate 14: Javan Plover, possibly in formative plumage, Serangan Sakenan Bridge, Bali, Indonesia, 24 Sep 2023. The wing coverts are small and neat, appearing of uniform age, and there is no trace of peach in the dark brown plumage. The white on the forehead grades into the brown of the crown.



Plate 15: Javan Plover, possibly in formative plumage, Serangan Sakenan Bridge, Bali, Indonesia, 24 Sep 2023. The forehead pattern differs from that of adults.



Plate 16: Juvenile Javan Plover, Tawau, Sabah, Malaysia, 5 Jul 2025. This bird from a well-watched nest was aged at 60 days.



Plate 17: Juvenile Javan Plover, Tawau, Sabah, Malaysia, 1 Sep 2025.

Moult

Iqbal *et al.* (2013) suggested that *"the timing of Javan Plover plumage and moult is similar to that of many ... migratory waders"*. However, unlike the more northerly-breeding Kentish Plover, Javan Plover is not constrained by the need to migrate at certain times of year. Photographic evidence gleaned from eBird and other websites (see Appendices 1 & 2), casts doubt on Iqbal's statement. Throughout its range, Javan Plover has been observed in active descendent primary moult in every month except August and December – February (Figure 1 and Appendix 1). This fact, coupled with evidence of a protracted breeding season, with dependent juveniles being photographed in every month except February, November and December (Appendix 2) suggests that prebasic moult commences after the primary breeding

event, at whatever time of year this may occur. At Tawau, Sabah, a pair which successfully reared one juvenile initiated primary moult prior to the laying of the second clutch of eggs in early June (see Plate 18).

Another possibility is that adults may suspend moult as soon as breeding activity starts, as has been noted in Oriental Pratincoles, another shorebird with an opportunistic breeding strategy (Bakewell 2025) and complete it after breeding is completed. This could explain the suspended primary moult of the male in Plate 19.

By contrast, a survey of photographs on eBird found that Kentish Plovers in East Asia undergo prebasic moult during a narrow window between mid-June and early September, while near or on the breeding grounds (Figure 2). Since the bulk of Kentish Plovers arrive in Malaysia from mid-September, a Kentish Plover in active primary moult would be a rare occurrence (no photographs of such currently exist on eBird). Occasional first cycle birds may oversummer in Malaysia, and such birds would complete primary moult while on our shores, but at very least, any Kentish-type Plover in active wing moult should be examined carefully. On current knowledge, there seems to be only a narrow overlap between timing of primary moult in the two taxa (Figure 3), so this may be a useful diagnostic feature.

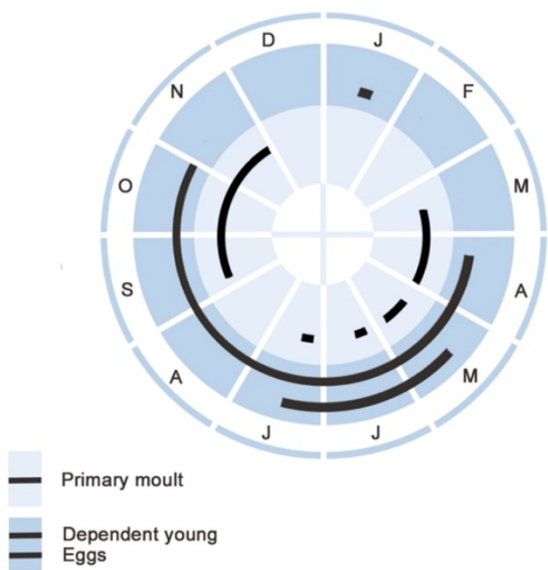


Figure 1: Annual cycle of breeding and moult for Javan Plover, based on photographic evidence (see Appendix 1 & 2).

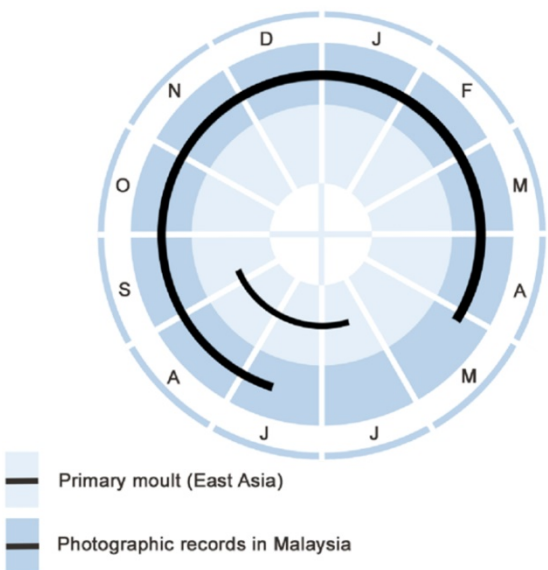


Figure 2: Timing of active primary moult in East Asia and occurrence in Malaysia for Kentish Plover, based on photographic evidence (eBird 2021).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Javan												
Kentish												

Figure 3: Active primary moult (grey shaded areas) in Javan Plover and Kentish Plover based on photographic evidence on eBird (eBird 2021).



Plate 18: Male Javan Plover mounting female at Tawau, Sabah, Malaysia on 9 June 2025. This pair had previously raised one juvenile and went on to make two more breeding attempts (which failed). The male had already begun primary moult prior to beginning the second breeding attempt.



Plate 19: Male Javan Plover (right) with primary moult suspended at p2, at Tawau, Sabah, Malaysia, on 24 Apr 2025.

Regardless of unresolved questions over moult timing, it seems likely that Javan Plover follows a Complex Alternate Strategy (CAS), similar to many other *Anarhynchus* plovers, which includes a partial-incomplete preformative moult in the first cycle, and thereafter, a complete prebasic moult followed by a partial prealternate moult each cycle. A possible example of incomplete preformative moult is provided by a photograph of a presumed first cycle male showing two active moult loci in the primaries (Plate 20). If so, the outer primaries are being replaced (p8-9 growing) in eccentric preformative moult while the second prebasic moult has already begun (p1 new, p2-4 growing).



Plate 20: Presumed first cycle male Javan Plover at Muara Angke NR, Jakarta Raya, Jawa, Indonesia on 5 Sep 2019., showing evidence of preformative eccentric primary replacement and simultaneous descendent second prebasic primary moult.

Similar Species

In the Malaysian context, there are only three other small *Anarhynchus* plovers to be considered; the resident Malaysian Plover and the migratory Kentish Plover and White-faced Plover.

Malaysian Plover shares some features associated with Javan Plover, such as pale pink legs and peach or orange colouration on the lateral breast patches or breast band. Malaysian Plover is the only other species in the area likely to show behaviours associated with breeding. However, it is the least similar of the three in appearance to Javan, being smaller, less attenuated and shorter-billed. In flight, it has more rounded wings and the toes project beyond the tail. The upperparts are typically paler sandy brown and paler edges to the upperpart feathers create a

blotchy, variegated appearance which is never as marked on Javan Plovers (Plate 21 cf Plate 22). Male Malaysian Plover shows a complete black collar at the base of the mantle. Older females may also show a hint of this (Plate 21).



Plate 21: Adult female Malaysian Plover, Miri, Sarawak, Malaysia, 6 April 2024. Malaysian Plovers are smaller and more rounded than Javan Plovers in all plumages, with a shorter bill and more rounded wings in flight. The upperparts always show a variegated, 'blotchy' appearance.



Plate 22: Male Javan Plover, Tawau, Sabah, Malaysia, 30 Mar 2025. Compared to Malaysian Plover, Javan Plover appears larger, longer-bodied and longer-billed. The upperparts are plainer and darker brown and any peach wash on the nape is diagnostic.



Plate 23: Adult female White-faced Plover, Miri, Sarawak, Malaysia, 7 Sep 2020. The upperparts are pale grey-brown, the lateral breast patches are much shorter than on Javan.



Plate 24: Adult female Javan Plover, Miri, Sarawak, Malaysia, 10 Jul 2025. Javan Plovers are darker brown above and have a thick loral line. They lack the whitish fringed coverts shown by many White-faced Plovers.

White-faced Plover is similar in size to Javan Plover and typically has pale pinkish legs. However, the upperparts are much paler than on Javan and the lores are frequently white. The lateral breast patches are much shorter than on Javan, and the nuchal collar is white (Plate 23 cf. Plate 24).

Kentish Plovers in Southeast Asia (subspecies *alexandrinus* and *nihonensis*) are extremely variable, particularly in early spring when birds are in alternate plumage. When considering the possibility of Javan Plover beyond the known range of the species, it is important to be aware of the variation of Kentish Plover plumages (Plates 25-28). Kentish Plovers from eastern populations tend to show a complete or near complete breast band (Plate 26) and often have pale pinkish legs (Plate 27). Some females may show pronounced orange or peach in their plumage (Plate 26). Some males, perhaps second calendar year males, appear dull in comparison with others (Plate 28), and might be confused with male Javan Plovers.



Plate 25: Female Kentish Plover, Miri, Sarawak, Malaysia, 9 Mar 2021. This is a fairly typical 'textbook' individual, with grey legs, mid-brown upperparts and mid-length lateral breast patches.



Plate 26: Adult female Kentish Plover, Miri, Sarawak, Malaysia, 18 Mar 2022. The extensive peach colouration on the lores, ear covert, rear crown and long lateral breast patches might suggest Javan Plover. However, the upperparts are too pale and the nuchal collar is almost fully white. Structurally, the bird appears deep-chested and large-headed.



Plate 27: Female Kentish Plover, age uncertain, Miri, Sarawak, Malaysia, 22 Jan 2024. The legs are pale pink and the bill looks long. The head looks small and the body slim, but this could be due to the very worn state of the plumage. Based on this photograph alone, it is difficult to identify this bird, but there is nothing which discounts Kentish Plover.



Plate 28: Male Kentish Plover in fresh alternate plumage, Miri, Sarawak, Malaysia, 22 Jan 2024. This poorly marked individual may be a second calendar year bird. The general dullness of the plumage is reminiscent of male Javan Plover. However, the white on the forehead and supercilium is extensive and there are no peach tones in the nuchal collar or lateral breast patch, nor chestnut fringes to the upperpart feathers.

Looking for extralimital Javan Plovers

With multiple occurrences of Javan Plover in Bornean Malaysia and Singapore, it seems inevitable that Javan Plover will eventually become a more frequent visitor and more widespread resident in Malaysia. Indeed, it is quite likely that small populations of the species have already taken up residence and are awaiting discovery by birders with a discerning eye and willingness to pay attention to detail, as well as a willingness to visit suitable habitat outside the migratory season. Establishing the identity of a lone extralimital Javan Plover will require attention to the full suite of features outlined in this article; in particular, the presence of peach tones in the nuchal colour, extent of white on the forehead and supercilium, size and structure and aggressive or courtship behaviour.

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Appendix 1: Photographic Evidence for Moulting in Javan Plovers

Date	Location	Wing moult	Tail moult	URL
14 Feb 2013	Jalan Taman Marina--mudflats Jakarta Raya, Jawa	No	?	https://macaulaylibrary.org/asset/378388871
5 Mar 2024	Salt Pans (Banyu Wedang) Bali	No. All look quite fresh	?	https://macaulaylibrary.org/asset/616895627
14 Mar 2025	Sankina Aquaculture Sabah, Malaysia	Yes. ?p1-4	?	https://www.flickr.com/photos/shaost/5438774999/in/album-72177720324423742/
14 Mar 2025	Sankina Aquaculture Sabah, Malaysia	Yes. P1-5 new. P6 dropped.p7-10 old	Yes. T1-2 dropped	https://www.flickr.com/photos/shaost/54386681392/in/album-72177720324423742/
29 Mar 2025	Sankina Aquaculture Sabah, Malaysia	P & S All fresh	Yes. T1-5 fresh	https://macaulaylibrary.org/asset/633205710
30 Mar 2025	Sankina Aquaculture Sabah, Malaysia	P1-6/7 new	?	https://www.flickr.com/photos/shaost/54429988139/in/album-72177720324423742/
31 Mar 2025	Sankina Aquaculture Sabah, Malaysia	P all fresh; S1 new, s3 or 4 dropped	?	https://macaulaylibrary.org/asset/633381346
24 Apr 2025	Sankina Aquaculture Sabah, Malaysia	P1-2 newer, Moulting appears to have been suspended	?	https://www.flickr.com/photos/shaost/54474928003/in/album-72177720324423742/
24 Apr 2025	Sankina Aquaculture Sabah, Malaysia	P1-6 new,active S moult	T1-2 new, T3 dropped, T4-5 old	https://www.flickr.com/photos/shaost/54476244327/in/album-72177720324423742/ https://www.flickr.com/photos/shaost/54500982528/in/album-72177720324423742/
11 May 2025	Muara Angke NR--northern section Jakarta Raya, Jawa	No. Appears to be HY	?	https://macaulaylibrary.org/asset/635534679
13 May 2023	Namsana fishponds, Manatuto, Manatuto, Timor-Leste	No	No	https://macaulaylibrary.org/asset/577025231
24 May 2025	Earthworks Platform, Next To Freeport Smelter Jawa Timur, Jawa	? Maybe recently completed	Yes. T1-T4 new	https://macaulaylibrary.org/asset/636397170
24 May 2023	Metinaro ponds Dili, Timor-Leste	?No	?	https://macaulaylibrary.org/asset/579135311 https://macaulaylibrary.org/asset/579135321
26 May 2025	Tawau Sabah	No moult	copulating	https://www.flickr.com/photos/shaost/54546237429/in/album-72177720325226522/
8 Jun 2023	Pekalongan Timur Jawa Tengah, Jawa	P&S all fresh (2 birds)	?	https://macaulaylibrary.org/asset/619981393



Date	Location	Wing moult	Tail moult	URL
9 Jun 2025	Tawau Sabah	P1-3 growing	copulating	https://www.flickr.com/photos/shaost/54578188072/in/album-72177720326737605
9 Jul 2025	Salt Pans (Banyu Wedang), Bali	No?	?	https://macaulaylibrary.org/asset/639477712
10 Jul 2025	Kuala Baram Wetlands, Sarawak	Yes. P1-2 new	?	https://macaulaylibrary.org/asset/638894408
27 Jul 2013	Bozem Wonorejo, Jawa Timur, Jawa	No. Copulating	?	https://macaulaylibrary.org/asset/205714601
2 Aug 2003	Muara Angke NR Jakarta Raya, Jawa	No	?	https://macaulaylibrary.org/asset/45869681
5 Sep 20-19	Muara Angke NR Jakarta Raya, Jawa	Yes. Two waves. P1-3 new, 4 growing, 5-7 old, 8-9 growing, 10 old	?	https://macaulaylibrary.org/asset/182763021
19 Sep 2022	Muara Gembong Jawa Barat, Jawa	Yes. P1-2 new, 3 dropped, 4-10 old	?	https://macaulaylibrary.org/asset/491799541
24 Sep 2023	Serangan Sakenan Bridge Bali	Complete or p1-9 new	Yes. T1 new. T2 dropped. T3-6 old	https://macaulaylibrary.org/asset/609494480 https://macaulaylibrary.org/asset/609494470
24 Sep 2023	Serangan Sakenan Bridge Bali	P1-6 new, p7 growing, p8-10 old	Yes	https://macaulaylibrary.org/asset/609494476
24 Sep 2023	Serangan Sakenan Bridge Bali	No. All fresh	?No	https://macaulaylibrary.org/asset/609494487
24 Sep 2023	Kecamatan Denpasar Selatan, Bali	P1-6 new, p7 growing, p8-10 old	?	https://macaulaylibrary.org/asset/609496062
29 Oct 2023	Jakarta Raya, Jawa	Yes. P9 growing, p10 old	?	https://macaulaylibrary.org/asset/611349685
30 Nov 2022	Banyuwedan salt pan, Bali	P10 growing	?	https://macaulaylibrary.org/asset/616172980

Appendix 2: Photographic Evidence for Breeding in Javan Plovers

Date	Location	Stage	URL
16 Jan 2018	Empang Panggoosi Sulawesi Tenggara	Very young chick	https://macaulaylibrary.org/asset/639357893
30 Mar 2025	Sankina, Tawau, Sabah	NEST 1: First egg laid	https://www.flickr.com/photos/shaost/54465143189/in/album-72177720325226522
3 Apr 2025	Jalan Tanpa Nama, Kecamatan Komodo, Nusa Tenggara Timur, ID (-8.555, 119.855) Nusa Tenggara Timur	2 eggs in nest	https://macaulaylibrary.org/asset/633624604
8 Apr 2024	Salt Pans (Banyu Wedang) Bali	Very young downy chick	https://macaulaylibrary.org/asset/617414723
12 Apr 2019	Salt Pans (Banyu Wedang) Bali	Adult at nest 2 eggs	https://macaulaylibrary.org/asset/208410911
24 Apr 2025	Wakuba, Tawau, Sabah	Full-grown juvenile (moulting some coverts)	https://macaulaylibrary.org/asset/634337508
4 May 2025	Wakuba, Tawau, Sabah	2 fledged juvs	Photo sent in WA
20 May 2025	Lake Laga salt lake, Masin Fatuk, Nunira Baucau, Timor-Leste	Full-grown juvenile	https://macaulaylibrary.org/asset/636388361
3 Jun 2025	Sankina, Tawau, Sabah	NEST 2: 3 eggs	Shao 2025a
9 Jun 2025	Sankina, Tawau, Sabah	NEST 3: 2 eggs	Shao 2025a
12 Jun 2025	Sankina, Tawau, Sabah	NEST 4: 1 egg	Shao 2025a
15 Jun 2025	Salt Pans (Banyu Wedang), Bali	2 eggs in nest	https://macaulaylibrary.org/asset/638622014
3 Jul 2017	Bali Barat NP, Bali	Newly hatched chick	https://macaulaylibrary.org/asset/639583675
7 Jul 2024	Salt pans near Mimp Resort Menjangan Bali	2 Newly hatched chicks	https://macaulaylibrary.org/asset/621619165
15 Jul 2025	Sankina, Tawau, Sabah	NEST 5: 3 eggs	https://www.flickr.com/photos/shaost/54663410580/in/album-72177720327626992
5 Aug 2025	Sankina, Tawau, Sabah	NEST 5: 1 chick hatched	https://www.flickr.com/photos/shaost/54702067314/in/album-72177720327626992/
5 Aug 2018	Jakarta Bay, Jakarta Raya, Jawa	1-2 week old downy chick	https://macaulaylibrary.org/asset/377752141
12 Aug 2025	Salt Pans (Banyu Wedang), Bali	Newly fledged juv	https://macaulaylibrary.org/asset/640603791
17 Aug 2016	Pulau Serangan-- general area (please consider using more precise location), Bali	2-3 eggs	https://macaulaylibrary.org/asset/32765011
20 Aug 2009	Halim Perdanakusuma Airport (Jakarta) Jakarta Raya, Jawa	Newly hatched chick	https://macaulaylibrary.org/asset/206209141



Date	Location	Stage	URL
20 Aug 2009	Ancol Lagoon Jakarta Raya, Jawa	Very young downy chick	https://macaulaylibrary.org/asset/378058821
24 Aug 2024	Earthworks Platform, Next To Freeport Smelter, Jawa Timur, Jawa	1-2 week old downy chick	https://macaulaylibrary.org/asset/623970626
3 Sep 2025	Banyuwedang, Kecamatan Gerokgak, Bali	Newly fledged juv	https://macaulaylibrary.org/asset/642877015
9 Sep 2018	Salt Pans (Banyu Wedang), Bali	Fledged juv	https://macaulaylibrary.org/asset/116550601
29 Sep 2017	Pulau Serangan-- general area (please consider using more precise location), Bali	Young downy chick	https://macaulaylibrary.org/asset/70678671
8 Oct 2011	Pulau Serangan-- general area (please consider using more precise location), Bali	Very young downy chick	https://macaulaylibrary.org/asset/63459391
18 Oct 2016	Tukad Unda Bali	Very young downy chick	https://macaulaylibrary.org/asset/37652771
20 Oct 2015	Pulau Serangan-- general area (please consider using more precise location), Bali	Very young downy chick	https://macaulaylibrary.org/asset/20463311
22 Oct 2024	Salt Pans (Banyu Wedang), Bali	2 full-grown juveniles	https://macaulaylibrary.org/asset/630722795



Appendix 3. Comparison of published identification criteria with our own observations.

Feature	Published Identification Criteria	Our comments
Bill	<i>Javan's bill is blunter-tipped and thicker-based and usually proportionately longer and thicker than that of Kentish, although there is overlap. Considered a supportive field character (Iqbal et al. 2011).</i>	Most Javan look large-billed compared to most Kentish. We agree that this feature is at best supportive due to the wide variability in bill shape and size in both taxa.
Legs	<i>Javan legs are usually pale, olive-grey, rarely dark, while Kentish legs are usually dark but occasionally pinkish, pale or olive. The tibia length is proportionately longer than Kentish Plover, but tarsus lengths can overlap. Both tibia length and leg colour are considered important field characters (Iqbal et al. 2011).</i>	Javan legs commonly appear pale and pinkish. However, eastern populations of Kentish commonly show pale, pinkish legs. Visible tibia length depends upon posture and other factors and is not constant (cf. tarsus length). We therefore consider that both features are at best supportive.
Male head	<i>Javan males in breeding plumage have a clear white forehead and short white supercilium (only occasionally extending behind the eye); while breeding, the male usually shows a black or dark brown frontal bar, lores and ear-coverts but not as dark as those of breeding male Kentish Plovers. (Iqbal et al. 2011).</i> <i>Buff ear-coverts to hindcrown; blackish frontal bar and lores; narrow white nuchal collar often washed buff (Eaton et al. 2021).</i>	Adult male Javan in all plumages (see section on Moulting) shows a less distinct head pattern than adult male Kentish in alternate (breeding) plumage, with the white on the forehead and supercilium appearing narrower than on Kentish. Orange-buff tinge to the lower edge of the ear coverts, nape and nuchal collar, when present, is a strong field character of Javan absent from equivalent-plumaged Kentish.
Female head	<i>Javan supercilium white in front of eye with obvious pale buff extension behind eye. Kentish supercilium usually dusky-brown and very indistinct behind eye.</i> <i>Javan shows well-marked russet-toned loreal lines. While breeding, female usually has grey-brown on crown or somewhat browner cap, with drab brown on fore-crown, lores and eye-stripe. Kentish crown, lores and entire ear-coverts cold, dark brown. Some individuals show rich rufous or orange wash to brown areas (Iqbal et al. 2011).</i> <i>Javan has brown lores; often buff ear-coverts; white supercilium extending behind eye (Eaton et al. 2021).</i>	There is complete overlap in this character, so it is not useful for identification. While this is true, it is not particularly helpful in differentiating one from the other.
Collar	<i>Javan: White hind-collar always incomplete. Kentish: White collar split at rear by brown line coming down from</i>	This is a confusing description because the nuchal collar is rarely complete in either species. However, the presence of a peach



	<i>hind-crown, though usually looks complete in most birds (Iqbal et al. 2011).</i> <i>Javan: narrow white nuchal collar often washed buff (Eaton et al. 2021).</i>	(or buff?) wash on the nuchal collar is perhaps the single most useful characteristic of Javan Plover, although it is not always present.
Breast or lateral breast-patches	<i>Javan: Breast whiter and breast band is sometimes complete. Lateral breast-patches yellowish-brown or earth-brown, and dark brown while breeding. Kentish: Shorter than Javan Plover, often more rounded at lower edge. Viewed head-on, white area between breast-patches narrower than length of breast-patches. On male, black; on female dark brown. Lateral breast-patches on Kentish Plover rarely meet to form a complete band (Iqbal et al. 2011).</i> <i>Javan: Warm buff lateral breast patches separate males and bright females from Kentish and White-faced, but many non-descript females and immatures which have not yet developed warm head colouration will be nearly identical to Kentish (Eaton et al. 2021).</i>	This is an oversimplification. Breast patches can be long or short in Kentish Plover, and can even form a complete band across the breast. Some Kentish Plovers can show orange or warm-buff lateral breast patches in Mar-Apr.
Scapulars and mantle	<i>Javan: Uniform mid sandy brown or dark brown and sometimes very pale-buff. Kentish: Cold, dark brown (Iqbal et al. 2011).</i> <i>Javan: mid-brown upperparts and crown (Eaton et al. 2021).</i>	On average, Javan Plovers appear to have darker brown upperparts than Kentish Plovers, although there is overlap.
Size and shape	Javan looks "sturdier than Kentish Plover" (Tebb et al. 2008, Iqbal et al. 2011). Javan is "slender" (Eaton et al. 2021). <i>The head-shape of Javan Plover is generally oval, unlike the rounded head of Kentish Plover (Iqbal et al. 2011).</i>	Javan invariably look smaller and 'skinnier' than Kentish, with noticeably less body bulk (Plates 2 - 4). We agree. Javan Plover head usually looks smaller than Kentish Plover head and seldom appears domed, as Kentish often can.
Behavioural characters	<i>Javan: Upright stance, neck visible. Kentish: Horizontal stance, head held "hunched" into shoulders (Iqbal et al. 2011).</i>	Sometimes this is true and it can be a useful supporting feature.

Malaysian Peregrine Falcon Survey Report 2024: A Summary of Findings and Conservation Concerns Marc Kéry, Zaharil Dzulkafly, Robert Percival, Zan-Hui Lee & Sein-Chiong Chiu

The **Malaysian Peregrine Falcon Survey Report 2024** details the fourth survey of West Malaysia undertaken by the MNS Perak Branch Peregrine Survey Team in West Malaysia. The team comprised Marc Kéry, Zaharil Dzulkafly, Robert Percival, Zan-Hui Lee and Sein-Chiong Chiu. Conducted over 12 days from January 15-26, 2024, the survey focused on the local nesting subspecies, *Falco peregrinus ernesti* (Plate 1). This extensive effort, following previous surveys in 2017, 2018, and 2019, aimed to revisit known nesting territories and discover new ones, providing crucial insights into the population status of this rare raptor in one of Malaysia's most unique, and endangered, habitats: karst hills.



Plate 1: The tiercel, or male, of the pair at Bukit Keplu, Kedah, Malaysia. The Malaysian subspecies of the Peregrine Falcon *ernesti* is probably the darkest of all the peregrines in the world.

Introduction: The Rare Peregrine in a Rare Habitat

The peregrine falcon, despite its global distribution, is inherently rare, particularly in tropical regions like Southeast Asia. While many European populations boast high densities (e.g., 2 pairs per 100 km²), West Malaysia's estimated breeding population, initially thought to be around 70-80 pairs, translates to a far lower density of approximately 0.06 breeding pairs per 100 km². This makes the peregrine falcon potentially one of Malaysia's rarest breeding bird species, with recent surveys suggesting even this estimate might be optimistic.

A major threat to these falcons is the widespread destruction of their primary nesting habitat: **limestone (karst) hills** (Plate 2 & 3). These unique geological formations, which offer the

open, vertical cliff faces peregrines prefer, constitute only a minute percentage of West Malaysia's land surface.



Plate 2: The nesting cliff on the karst of Jebak Puyuh, Pahang. This is a major karst hill of more than 1 km across, standing in a vast plain with the biggest cliff facing north, but with many other cliffs all around.



Plate 3: The nesting cliff on the karst of Gua Bama, Pahang. This is a moderate karst hill that stands totally isolated in another vast plain.

They are home to a large number of specialist plants and animals that occur only on karst hills (Plate 4). Quarrying, driven by the demand for construction materials, poses a significant and

immediate danger, capable of eradicating entire karst hills within years. Consequently, the peregrine falcon is considered an **umbrella species**, its conservation intrinsically linked to the preservation of the entire karst ecosystem in Malaysia.



Plate 4: Wonderful hanging gardens with herbaceous members of the plant family of the Gesneriaceae on the karst of Gua Bama, Pahang, as seen through the telescope. Karst hills are home to certain unique communities of plants and animals that occur nowhere else in the country.

Despite the species' wide distribution, there's a significant knowledge gap regarding its biology and ecology in tropical latitudes. Most studies originate from temperate and colder regions, highlighting the urgent need for more research on tropical peregrine populations, both breeding and wintering. The MNS Perak Branch Peregrine Survey Team initiated these surveys in 2017 to address this gap, with the 2024 survey marking the continuation of this vital long-term population study after a hiatus due to the COVID-19 pandemic and other commitments. All surveys have been strategically timed for January, coinciding with the peak of courtship and egg-laying, when breeding pairs are most detectable. While peregrines are known to occasionally nest on tall buildings elsewhere, the surveys exclusively focused on natural cliff habitats, as building-nesting is currently considered rare in West Malaysia.

The 2024 survey introduced two key innovations: the integration of the comprehensive inventory of Malaysian karst hills by Liew et al. (2021) for standardized site naming and geographical referencing, and the use of drones for photographic documentation of surveyed karst hills, providing unprecedented aerial perspectives. The continued support from the Tan Kean Cheong Bird Conservation Memorial Fund (TKCBCMF) of the Perak Branch of the

Malaysian Nature Society (MNS) has been instrumental in funding these important ornithological explorations.

Methods: A Comprehensive and Innovative Approach

The 2024 survey spanned 12 days (January 15-26) and covered approximately **3,000 km by road**, forming a broad triangle between Kuala Lumpur/Temerloh in the south and east and Perlis (at the Thai border) in the north, encompassing states like Selangor, Pahang, Kelantan, Perak, Kedah, and Perlis. The team undertook three separate trips (north, south-southeast, and east), with additional surveys around their Ipoh "HQ."

Prior to fieldwork, known peregrine sites were identified using Google Earth and Google Maps. During the survey, GPS and aerial photographs (Plate 2) aided navigation to cliff vicinities. The 2024 survey marked the first time the inventory by Liew et al. (2021) was used, with karst polygons incorporated into Google Earth for enhanced mapping.

Field methods remained consistent with previous surveys. Visits occurred between 8:00 AM and 7:30 PM, lasting from 15 minutes to over 2 hours, with an average of 45-60 minutes per site. The team searched for perched or flying peregrines from distances ranging from 100m to 1000m, and also looked for **whitewash** (fecal droppings) indicating roosting or nesting sites.

A crucial and highly successful method employed was the **playback of the 'eee-chup' call** of peregrines using a portable FoxPro game call amplifier. This technique, mimicking an intruding pair, typically provoked a reaction from resident peregrines (becoming airborne and/or calling), significantly increasing detection rates. To minimize disturbance, playback sessions were brief (1-6 repetitions of a 26-second recording, max 3 minutes total) and ceased as soon as birds were detected. The report emphasizes that such brief, single-time playback for scientific and conservation purposes is justifiable, but strongly discourages its recreational use, e.g., for photography.

The report provides detailed records for all 65 surveyed sites, presented in a south-to-north order (Plate 5). For historical context and comparison, it maintains a database of over 100 cliff objects in West Malaysia, drawing on information from Molard (2005), Molard et al. (2007), and all four surveys. This 2024 report notably incorporates the standardized naming and numbering system from Liew et al. (2021) for site identification, a significant improvement over previous subjective naming conventions. Additionally, **coordinates read from Google Earth** were used for precise site localization, typically marking the observation point of peregrines or the tallest part of the cliff. The report includes numerous aerial photographs taken by drones, offering unique new perspectives on many sites in their fascinating karst environment.

Results: A Snapshot of the 2024 Survey

The 2024 survey encompassed **65 cliffs** (one in Thailand), with 28 (43%) previously identified as peregrine territories. Of these 28 known peregrine sites, **19 (72%) were confirmed to be occupied** (15 by pairs, 4 by single birds). The survey also yielded two new discoveries: a single bird at a previously unsurveyed cliff near Kuala Betis, Kelantan, and the rediscovery of an adult pair at a site in Perlis State Park first noted in 2002 but unvisited since. Furthermore, one pair

was rediscovered at a new cliff within an existing territory. In total, the 2024 survey found **21 occupied sites**: 16 with adult pairs and 5 with single birds.

A breakdown of occupied cliffs by state (excluding the Thai site) reveals varying occupancy percentages (Plate 5):

- Selangor: 2 (100%)
- Pahang: 11 (36%)
- Perak: 26 (19%)
- Kelantan: 10 (30%)
- Kedah: 6 (33%)
- Perlis: 9 (55%)

Overall, only 34% of the 64 checked cliffs in West Malaysia were occupied.

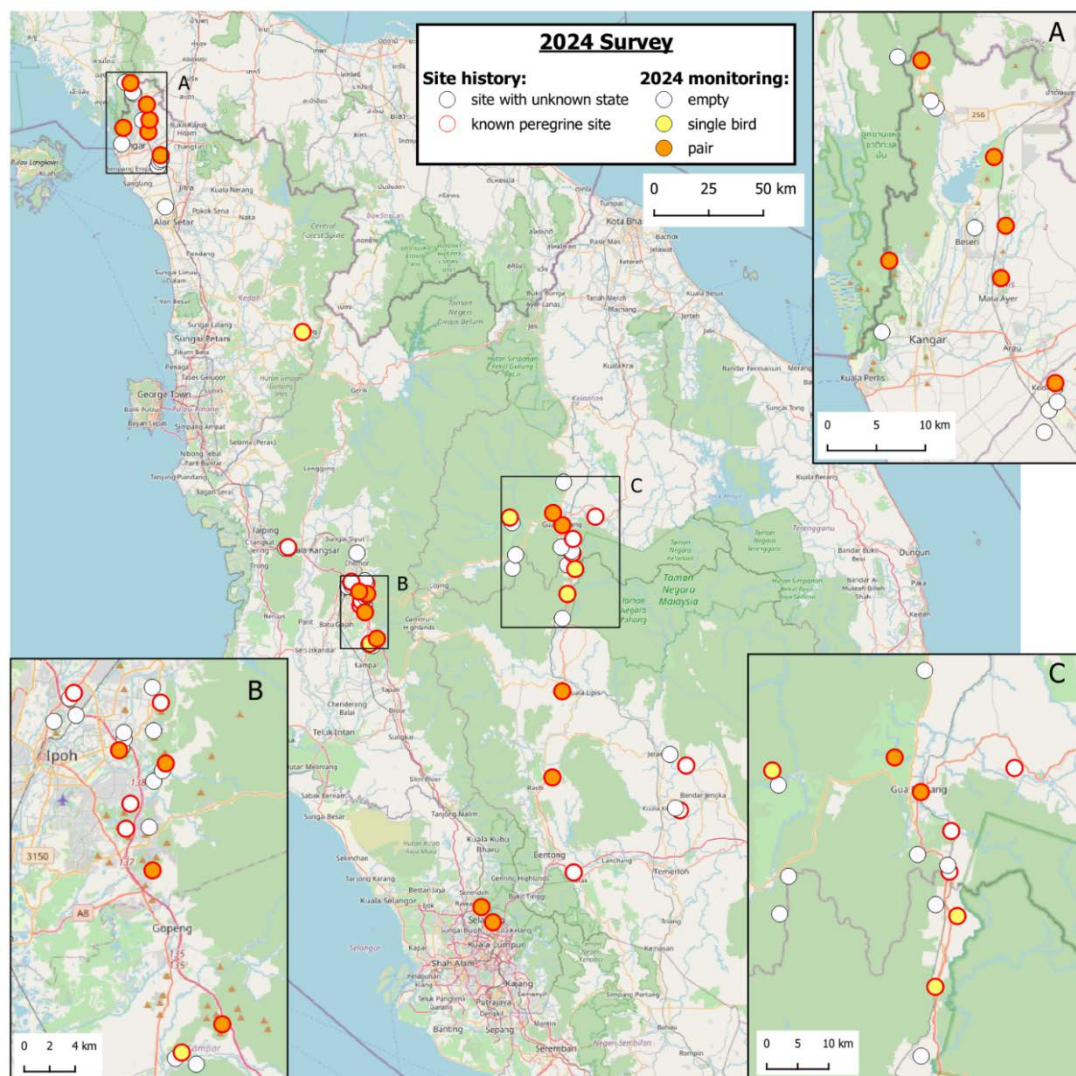


Plate 5: Map showing the surveyed sites with their previous history, i.e., whether they are known peregrine sites or not, along with the results during the 2024 survey, i.e., whether no peregrine, a single bird, or a pair was detected. Map created by David Pinaud from CEBC, Chizé, France.

The playback method proved highly effective, often prompting peregrines to become airborne and vocalize within 36-52 seconds of playback, even at distances up to 1000 meters. This greatly enhanced survey efficiency and confirmation of occupied sites.

The results section provides detailed, site-specific observations, complete with Google Earth maps showing observation posts and marked cliff locations, and incorporates the new site naming conventions from Liew et al. (2021) and drone-captured aerial photographs.

Summary and Conclusions: Key Findings and Conservation Implications

What Was Achieved

The 2024 survey, the fourth of its kind, involved 12 days of fieldwork, covering approximately 3,000 km, and inspecting 65 potential cliff sites. The report documents these sites and the peregrine observations made during their visits, contributing significantly to one of the very few population studies of peregrines in any tropical country. This effort provides crucial baseline information on nesting density and population size in West Malaysia, filling a notable knowledge gap of this species with a worldwide distribution.

What Was Found

Out of 64 surveyed cliffs in Malaysia, 28 were known peregrine territories (Plate 6). Of these, **19 were confirmed occupied**, while 9 showed no peregrine activity. One new site was discovered, and one previously recorded but unvisited site from 2002 was rediscovered. Additionally, a pair was found to have moved to an alternative cliff within their territory. In total, **21 occupied sites were found in 2024**, with 16 hosting adult pairs & 5 with single birds.



Plate 6: The mighty cliffs on the karst of Gunung Biol, near Kuala Betis, Kelantan. Along with the Ipoh region and the state of Perlis, the Kelantan/Pahang border in the wider Gua Musang region is one of the strongholds of the peregrine falcon in West Malaysia.

Regarding the national **population size and density**, the total number of **confirmed or suspected breeding sites in West Malaysia** currently stands at **39**. Only two new sites have been added since the 2019 survey: one found during the 2024 survey and another, a new pair on a building in Subang, discovered outside the survey. This total is still significantly lower than the 70-80 pairs estimated by Molard et al. (2007) for Peninsular Malaysia, suggesting that the earlier estimate might have been overly optimistic, with the true population size likely closer to the lower bound.

A key uncertainty is the population nesting on buildings. While two pairs have been confirmed on buildings in the Kuala Lumpur area during the last 20 years, and some sightings in Penang and Genting Highlands exist, the overall impression is that **building-nesting peregrines are currently very rare in Malaysia and constitute a negligible proportion of the national total**. However, this could change in the future, as observed in other parts of the world where peregrines have colonized man-made structures in areas lacking natural nesting sites. If this trend were to emerge in Malaysia, it would likely occur in major cities, distinct from the current strongholds in Perak, Kelantan, and Perlis.

Compared to high-density European populations, the peregrine in Malaysia appears to be very rare and widely dispersed. Nearest-neighbour distances are typically many kilometres, in stark contrast to the 1-2 km common in areas like the Jura Mountains in France. Furthermore, during four extensive surveys, only one or two instances of intruding peregrines were observed, and no immature birds were ever seen—a significant difference from high-density populations where such observations are frequent, especially during peak courtship. This suggests that the **peregrine is a widely distributed, yet very rare breeding bird in West Malaysia, and almost entirely confined to tall limestone cliffs. Conservation of this unique and very rare habitat type is therefore a key to conservation of the peregrine (see end of report)**.

When Do Peregrines in Malaysia Lay Eggs?

Previous knowledge suggested egg-laying from late January to early February. However, a crucial observation in March 2024 (outside the survey period) of 30-35 day old nestlings at the Gunung Panjang karst site in Ipoh, Perak, indicated an egg-laying date **as early as January 2**. This significantly earlier date has implications for future survey planning and interpretation of results, as incubating birds are far less visible and responsive to playback.

Has the Peregrine Population Declined Since 2019?

The 2024 survey detected fewer occupied sites and pairs compared to the 2019 survey. In 2019 (10 days, 68 sites checked), 28 occupied sites were found (25 pairs, 3 single birds), including 9 new discoveries. In 2024 (12 days, 65 sites checked), **only 21 occupied sites were found** (16 pairs, 5 single birds), with only one truly new discovery. Additionally, peregrines were not confirmed at 9 previously known sites. This suggests a potential decline in the West Malaysian peregrine population over the last five years.

Several factors could explain this reduction in the observed numbers:

- **Methodological Challenges/Bad Weather:** Heavy rain and fog during monsoon season, particularly in Kelantan (a peregrine stronghold), significantly hindered survey efficiency. This led to missed survey opportunities at remote cliffs, inability to see cliffs, or forced early

departures, potentially preventing the confirmation of known pairs or discovery of new ones.

- **Natural Variability and Site Shifts:** Populations exhibit natural fluctuations in site occupancy, with pairs sometimes moving to alternative, unvisited cliffs within the same territory. This might have occurred at several sites, making them appear abandoned. Additionally, 2024 might have been an "early year" for breeding, with more pairs already on eggs during the survey period, leading to fewer visible or responsive birds.
- **Genuine Population Decline:** However, a true population decline remains a plausible explanation. One potential cause might be **Highly Pathogenic Avian Influenza** (HPAI), which has affected peregrine populations in Europe and, originating in Asia, could be impacting Malaysian populations.

Conserving a Rare Bird in a Rare Habitat

Since the first confirmed breeding in West Malaysia at the turn of the century, fewer than 40 distinct nesting territories have been identified, and not all are occupied annually. While some undiscovered territories likely exist, their number is probably less than the currently known sites. Based on these findings, the report tentatively revises the national **population size estimate of *Falco peregrinus ernesti* in West Malaysia down to 60-70 pairs** (from the previous 70-80).

With such a small breeding population, the peregrine falcon stands as one of Malaysia's rarest breeding bird species, warranting **strong conservation measures**. The extreme rarity of this species in its equally rare and unique karst hill habitat (Plate 7) underscores the urgent need for dedicated conservation efforts.



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Plate 7: The vast karst of Gua Belong, Kelantan, stands as an isolated refuge for the remnant natural vegetation and is home to another pair of peregrines.

Full report of the survey and citation

A full report on the survey is available for download. The recommended citation for the report is this: Kéry, M., Dzulkafly, Z., R. Percival, Zan Hui, L. & Sein Chiong, Ch. 2024. *Malaysian Peregrine Falcon Survey Report 2024*. Technical Report. Sempach/Switzerland and Ipoh/Malaysia. 177 pages. Download link:

https://malaysianbird.report/wp-content/uploads/Malaysian-Peregrine-Falcon-Survey-Report-2024_SemiPublic.pdf

Acknowledgements

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Citation: Kéry, M., Dzulkafly, Z., R. Percival, Zan-Hui Lee & Sein-Chiong Chiu. (2025). Malaysian Peregrine Falcon Survey Report 2024: A Summary of Findings and Conservation Concerns. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 33-41.

First Breeding Record of the Javan Plover in Malaysia

Stanley T Shao

Introduction

I recently reported the first sighting of the Javan Plover *Anarhynchus javanicus* in Malaysia at Tawau, Sabah (Stanley T Shao 2025). Prior to this the species was thought to be restricted to the Indonesian Archipelago from southern Sumatra to Timor and in Sulawesi (Wiersma & Kirwan 2023), with one report from Singapore (Bird Society of Singapore 2025).

My observations of the Javan Plover at Tawau, Sabah coincided with the birds breeding season and I took the opportunity to observe and record their mating and breeding behaviour. Little information is available on breeding (Wiersma & Kirwan 2023) and I hope my observations will add to the better understanding of the behaviour of the Javan Plover.

Observations

On the coast of Tawau, Sabah, Malaysia, I observed 18 Javan Plovers and managed to track 5 nests from March to August 2025 with a total of 11 eggs laid. All of the nests were located in shrimp farms adjacent to the coast. I was able to monitor some nests on a daily basis.

Courtship and Mating

I stumbled upon the first breeding pair at a shrimp farm in March 2025 and was able to observe the pair in courtship and mating. Courtship was usually brief with the two birds circling each other before the male mounted to copulate (Plate 1 & video). Courtship may also include nest building by the male (see below).



© Stanley T Shao

Plate 1: Javan Plovers copulating, Tawau, Sabah, Malaysia, 26 May 2025.

Copulation was prolonged (130 sec in the video) and frequent - I noted they copulated every evening, for many days in a row. A video of Javan Plover courtship and mating can be seen here (courtship occurred at 4 min 20 sec into the video):

<https://www.youtube.com/watch?v=LXGLUVqGUb8>.

Second video of the pair showing nest construction, courtship and mating:
<https://www.youtube.com/watch?v=f4iX214ivSY>.

Nest Site, Appearance and Eggs

All the nests were located in the dried out aquaculture (shrimp) ponds in the shrimp farm. Occasionally these ponds gets flooded by heavy rain. Javan Plovers are documented to have a preference to breed at dry sites like aquafarms (Iqbal *et al.* 2013; Crossland & Crutchley 2025); proximity of these aquaculture ponds to the coast meant that flooding of nesting sites is a risk. In my observations, all the flooding were due to heavy rain flooding the ponds.

A small scrape was made to accommodate the eggs). The scrape was a very shallow depression surrounded by whitish stones and shells, giving it a brighter or whiter appearance than the surrounding environment (Plate 2 & 3) (Crossland & Crutchley 2025). It appeared that the male prepared several scrapes for the female to inspect (see video) and this may form part of their courtship behaviour. The female also worked on the nest site and used her body to shape the nest scrape.



Plate 2: Male (left) and female Javan Plover at nest scrape with egg, Tawau, Sabah, Malaysia, 12 June 2025

One to three eggs are laid, at times many days apart (Table 1). Eggs are pale cream-brown (isabelline) with numerous, irregular, lighter and darker markings (Plate 3) (Iqbal *et al.* 2013).



Plate 3: Eggs of Javan Plovers, Tawau, Sabah, Malaysia, March-August 2025.

Nesting Dates and Outcomes

A summary of nest outcomes is in Table 1. Egg laying was observed in March, June and August. The breeding season is said to be from May to August (Iqbal et al. 2013) but I observed an early nesting in March. Note that another group of Javan Plovers were discovered 7 km east of the first site, at another shrimp farm, with two adults and two successfully fledged juveniles in April 2025.

Eggs laid were often lost to floods (Plate 4) and some hatchlings did not survive due to predation and harsh conditions. One hatchling was observed struggling to cross over the very difficult terrain of deep ruts, drains and trenches to good feeding grounds; under the scorching hot sun (see video: <https://www.youtube.com/watch?v=8JGdshrCe0I>). I had to block the road for any incoming cars to protect them.

Table 1: Nest Outcomes of Javan Plovers, Tawau, Sabah, Malaysia, March-August 2025.

Nest	Location	Details	
#1	Large & open dried out reservoir pond in the shrimp farm	30 March 10 April 10 April 29 April 1801hrs 30 April 0719hrs	First egg laid. Second egg laid. Incubation began after the 2nd egg was laid. Saw hatchling. 1 st egg hatched earlier in the day. 2 nd egg hatched.
#2	Open & dried out shrimp pond	03 June 11 June	Found 3 eggs in a nest. Failed in the 2nd week due to flooding.
#3	Open & dried out shrimp pond	10 June 11 June	2 eggs laid. Lost to floods a day after 2nd egg laid.
#4	Open & dried out shrimp pond	13 June 20 June	1 egg laid. Lost to floods 7 days later. It was not incubated.
#5	Open and dried out shrimp pond	15 July 5 Aug	Found 3 eggs in nest. Only one hatchling. Predated by Great Egret on its 2nd day. 2 eggs missing, unknown reason.



Plate 4: Female Javan Plover at nest #2 with 3 eggs, Tawau, Sabah, Malaysia, 03 June 2025. Lost to floods a week later.

Parental Responsibilities, Incubation and Fledging Periods

Both adults incubated eggs and tended to juveniles but the behaviour was variable. In the case of the nest #1, the female incubated most of the time with the male being nearby. In the other pairs, incubation and hatchling care was evenly shared between both adults.

The incubation posture has been described as *"...adults crouched over the clutch to provide shading and promote cooling..."* *"consistent with thermoregulatory nesting strategies: rather than settling fully onto the eggs in a typical incubation posture..."* (Crossland & Crutchley 2025). However, I did not see this – I observed that adults crouched over and immediately settled onto eggs – the more 'classical' incubation posture (Plate 5).

I observed that incubation took 20 days and fledging 33 days (fledging period from a single surviving hatchling from nest #1).



Plate 5: Female Javan Plover showing 'classical' incubation posture at nest, Tawau, Sabah, Malaysia, 07 June, 2025.



Plate 6: Male Javan Plover with hatchling, Tawau, Sabah, Malaysia, 05 August 2025.

Appearance of Juveniles

Newly hatched young are similar to those of other small *Charadrius* plovers (Wiersma & Kirwan 2023). There is white on the underside and the back and head are speckled with various shades of orange, brown and black (plate 6 & 7). This allows them to blend in with their sandy and pebbly surroundings.

Downy chicks are extremely similar to those of Malaysian Plover *A. peronii*. They differ in having a pale buff rather than white forehead, forecrown and nape. The crown is light sandy buff with variable blackish flecking. The lores, ear coverts, and nape are pale buff, and there is a dark brown line running from the anterior edge of the eye to the top rear edge of the ear coverts. The back and rump are covered with sandy buff down, flecked with black. The tail region is covered with blackish down. A black or dark brown stripe runs anteriorly along the upper flanks and scapular region. The rest of the wings, chin, throat and underparts are white. Legs are blue-grey at hatching but soon take on a yellowish or pinkish hue, probably due to blood vessels beneath the skin. As juvenile feathers emerge, the upperparts appear darker and more chestnut. Larger scapulars and coverts have a dark shaft streak and subterminal crescent and a buff fringe, and crown feathers appear scaly due to dark centres and paler fringes. Independent juveniles may be distinguished from adults by the pattern of the upperpart feathers described above, as well as by a white rather than peach-washed nuchal collar, and by the white of the forehead merging gradually into the brown crown (Plate 7).



Plate 7: Progression of juvenile Javan Plovers from hatchling to a fledged bird, Tawau, Sabah, Malaysia, April to June 2025. Dates and ages of birds: Top row from left 30 April (Day 1), 12 May (Day 13) & 17 May (Day 18); Bottom row from left 26 May (Day 27), 14 June (Day 46), 29 June (Day 61).



Discussion

The observations presented here confirm that the Javan Plover is a resident breeding shorebird on the east coast of Sabah. To my knowledge, this represents the first documented evidence of breeding in Malaysia. The number of birds and nests observed suggest that the population of Javan Plovers may be larger. A systematic survey of suitable habitats, particularly coastal aquaculture ponds is warranted to determine the abundance, distribution and breeding status of Javan Plovers.

Acknowledgment

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Citation: Stanley T Shao (2025). First Breeding Record of the Javan Plover in Malaysia. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 42-48.

Daytime Behaviour of the Large-tailed Nightjar

Amar-Singh HSS & Swee-Im Lim

Introduction and Context

The Large-tailed Nightjar *Caprimulgus macrurus* is a common nightjar both in Peninsular and Bornean Malaysia. At our home in Ipoh, we have had both the Large-tailed Nightjars and Savanna Nightjars *Caprimulgus affinis* for many years. Most evenings and early mornings, we hear their calls. As we have cultivated a wild urban garden, the Large-tailed Nightjar often hawks for prey from our trees and electrical wires. Occasionally, they fly past under our patio roof or are seen very low as they take insect prey.

We first observed a Large-tailed Nightjar roosting on the ground in our garden in June 2017 (Plate 1). Our garden is rather dense with vegetation, so the Large-tailed Nightjar used an old stump as a perch. From observation, this bird was male, having broad white ties to the outermost tail feathers, and we suspected it was a young, first year male. He came to our garden and filled the 'void' created by the suspected demise of the previous Large-tailed Nightjar that occupied this territory.



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Plate 1: A close up view of the Large-tailed Nightjar a.k.a. Clockwork, Ipoh, Perak, Malaysia, June 2017.

This bird roosted in our garden for 2 years and 10 months, from June 2017 to April 2020. It stopped roosting when it probably found a permanent mate but continued to live around our garden and the surrounding neighbourhood. During the time it roosted in the garden, it was seen many times every day and developed a relationship with us and others. It was very regular in arriving at its roosting site (0630-7000 hrs) and leaving to feed in the evening (1900-1930

hrs) depending on the 'season' of the year. Due to this regularity and his fixed routines, we affectionately called him 'Clockwork'.

This article outlines the daytime behaviour and exploits of Clockwork. It is a summary of close to 3 years of observations, images and videos.

Selected Observations

Perches Used in the Garden

Clockwork initially used an old stump as a perch at the base of a small *Murraya paniculata* (Orange Jasmine) shrub. At times, he would use the base of a *Callistemon* (Bottle Brush) tree or a flat garden stone (Plate 2). Clockwork pretended that he could not be seen, even against a green background. However, he preferred roosting on leftover grass and vegetation cuttings that had turned brown on the ground.



Plate 2: Some choices of perches/roosting sites of the Large-tailed Nightjar, Ipoh, Perak, Malaysia, June 2017.

As time went on, we had become concerned with the entry of a Common Treeshrew *Tupaia glis* into our garden. The Common Treeshrew had disrupted the nesting of many birds and we were anxious for Clockwork's safety on the ground. In addition, when it rained heavily,, the Large-tailed Nightjar would seek a higher perch – one of the dead branches of a tree in our garden. We made the decision to cut an Orange Jasmine shrub in 'Clockwork's domain' and leave a taller stump for him to perch. He was very quick to use it the next day and it became his choice location to roost (Plate 3). This was surprising as this new roosting site left him exposed, brought him physically much closer to us and looked rather uncomfortable.



Plate 3: New preferred roosting site of the Large-tailed Nightjar, Ipoh, Perak, Malaysia, August 2018.

Since our urban garden was intentionally kept wild, it attracted many other animals and more than 70 species of birds. Of note were some species of venomous tree snakes, the occasional Asian Water Monitor *Varanus salvator* and the now permanent resident Common Tree shrew, which had brought a partner along. In addition, neighbourhood cats had started using our garden as a walkway, as our adopted stray dog had been aging and had become less alert. We noticed that this made the Large-tailed Nightjar more careful when on the ground.

The cats eventually became a major threat to our Large-tailed Nightjar, who had to vacate our garden intermittently. We decided to net off some of the access points to the garden used by the cats. We then worked with our local hardware shop to build a custom-made, cat-proof nightjar-platform (Plate 4) for the bird to use for its daytime roost, as well as offer a safe perch when it rained. Clockwork seemed to know that the platform was built for him and used it immediately when it was installed. No other bird or creature was allowed on his platform for the remainder of the duration of his time in our garden. It served him well, even when it rained.

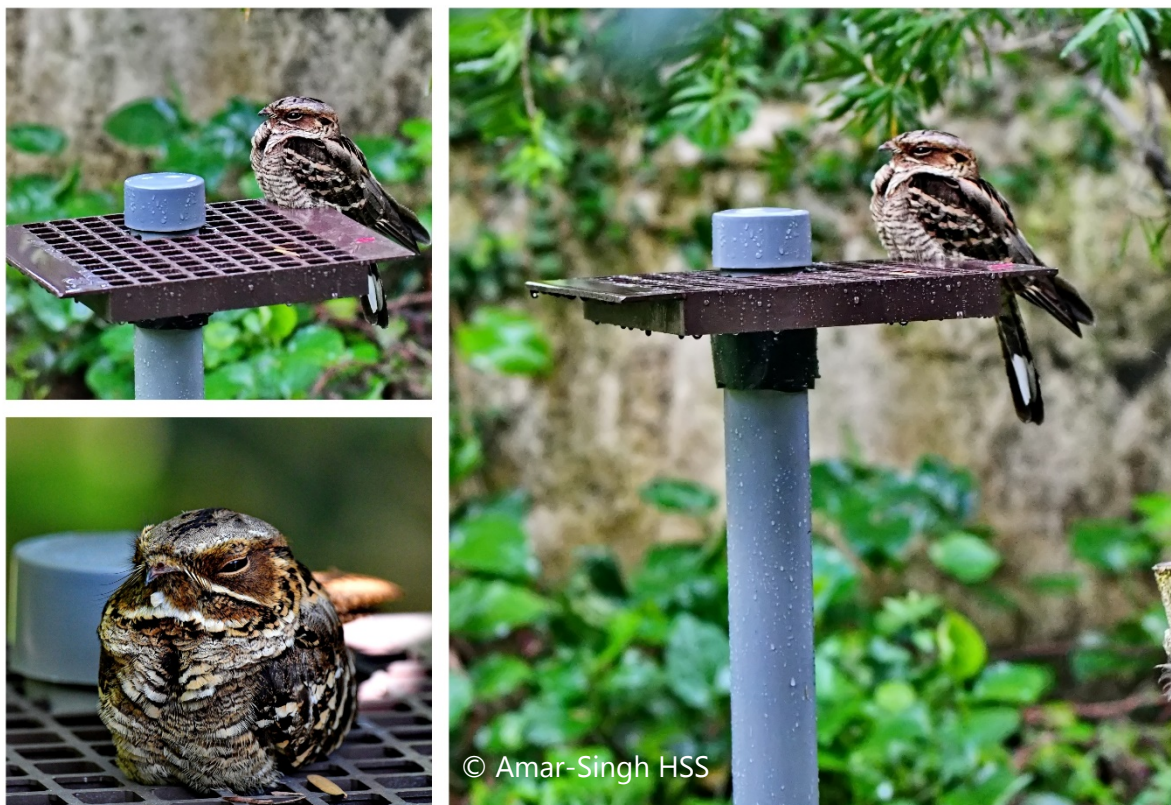


Plate 4: Clockwork on his custom-made roosting platform, Ipoh, Perak, Malaysia, April 2019.

Over the next 13 months our Large-tailed Nightjar used the purpose built platform every day, but there was the unexplained rare use of other sites, like the large leaf of a *Spathiphyllum* (Peace Lily) species growing wild in our garden or the clothesline.

Preening

Clockwork would routinely preen when first arriving at the platform or perch in the morning and before leaving in the evening. But he might occasionally preen at midmorning or in the afternoon. He liked to rock from side to side while preening. Wide open-mouth views are not uncommon and are a part of the preening process (Plate 5). The gaping or yawning is seen

among nightjars (Cleere 2010). The small beak 'hides' a capacity to open the mouth into a big 'scoop' that can collect insect prey when sallying out. The rictal bristles are thought to either protect the eyes or help trap insects. A brief video of the gaping can be seen here: <https://youtu.be/O5OYMTwUafg>.



Plate 5: Open-mouth gape or yawn of the Large-tailed Nightjar, Ipoh, Perak, Malaysia, July 2017.

Dealing with Ectoparasites & Temperature Regulation

Clockwork, at times, moved around the garden according to the heat and temperature of the day. He might drop down from the tree stump or the artificial perch to find a shady spot. At other times, he actively looked for a sunny spot to sunbathe with feathers splayed, possibly to help with parasite control; we observed this behaviour often (Plate 6). While sunning feathers, on particularly hot days, the Large-tailed Nightjar would employ a gular flutter to regulate body temperature. The beak was kept slightly open and the gular flutter reached rates of 745 per minute (video software tools were used to play the video in slow motion and determine the flutter rate). A video of a gular fluttering episode can be seen here: https://youtu.be/J4ELP_WwHU.

Gular fluttering by nightjars, as a means to regulate temperature, is well known. The gular area is rapidly vibrated and there is increased blood flow to the buccal area. Maclean (2013) describes respiratory rates of 200 movements/min when panting but gular fluttering may

occur at excess of 400-600 movements/min. When gular fluttering is independent of the rate of respiratory movements, then it can occur in excess of 900 times/min.



Plate 6: Clockwork sunning feathers to remove parasites, Ipoh, Perak, Malaysia, May-Nov 2019.

Daytime Feeding

Although the Large-tailed Nightjar predominantly feeds at night, we have observed Clockwork feeding and snapping up insects while walking about on the ground in the daytime. We also observed the Large-tailed Nightjar involved in mixed-species foraging when there was a termite swarm in the garden (Plate 7).

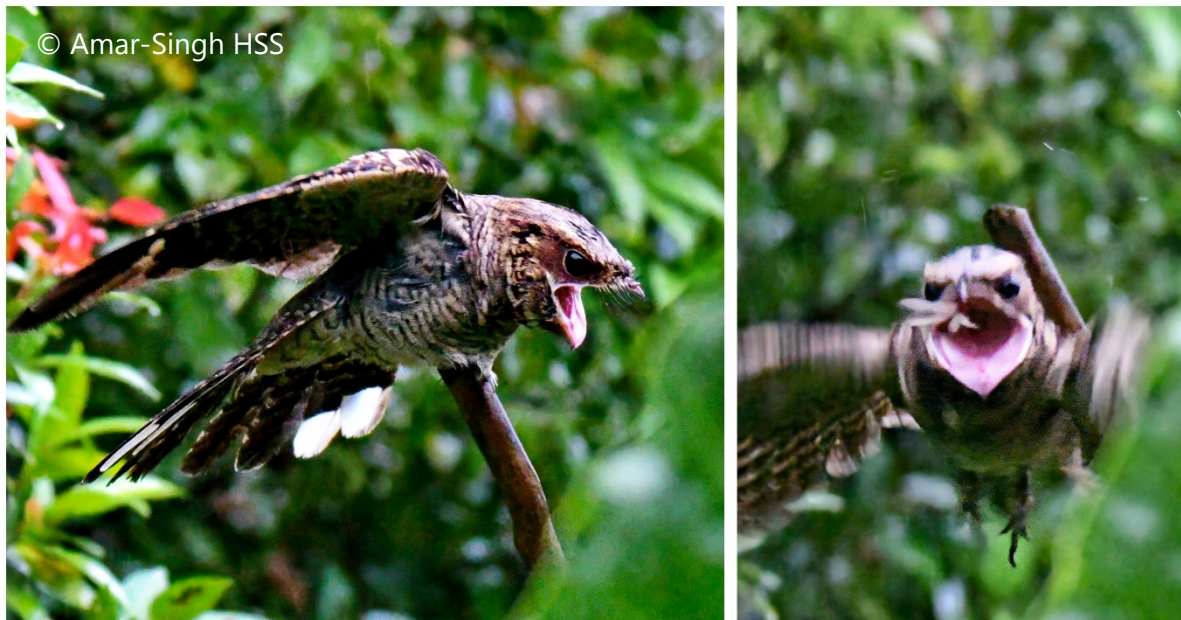


Plate 7: Large-tailed Nightjar feeding on termite swarm in the garden, Ipoh, Perak, Malaysia, Aug 2017.

Feeding on flying termites occurred late in the evening at 1855 hrs and continued for 20 minutes. It occurred after a particularly hot day followed by rain. When the rain was settling,

swarms of termites emerged and many birds in the garden fed on them. This included the Yellow-vented Bulbuls *Pycnonotus goiavier*, Asian Glossy Starlings *Aplonis panayensis*, Oriental Magpie-Robins *Copsychus saularis*, Black-naped Orioles *Oriolus chinensis*, Common Mynas *Acridotheres tristis*, Malaysian Pied-Fantails *Rhipidura javanica*, White-throated Kingfishers *Halcyon smyrnensis* and the Large-tailed Nightjar. There was no competitive feeding observed. The Large-tailed Nightjar perched on a high, dead branch in the garden, sallied out to catch termites and returned to the same perch. The termites were swallowed without any processing. We observed more than 30 feeding episodes. A video of the activity can be seen here: <https://youtu.be/6idQDi-LUm4>. Note that as the bird was very close to me, I was not able to zoom out any further.

Behaviour when it Rained

When it rained heavily, the nightjar would choose a higher vantage point, like a dead branch. Once the artificial platform was installed and used, the bird would remain on the platform in the rain. At a higher vantage location, the nightjar would hang down his wings to prevent them from getting waterlogged and consequently limiting his ability for a quick exit/flight. He would also rotate round and round, and lift up the wings to shake off excess water (Plate 8).



Plate 8: Large-tailed Nightjar behaviour in heavy rain, Ipoh, Perak, Malaysia, Aug 2018. Images taken in dark conditions with high ISO.

The Pectinate Claw

Many nightjar species are known to have a pectinate claw, an unusual serrated middle claw (Gill 2007; Cleere 2010) that is thought to be used in grooming or removal of parasites. Clayton (2010) states "*The efficiency of scratching for ectoparasite control may be enhanced by the presence of a comb-like pectinate claw on the middle toes of some birds*". "*The removal of ectoparasites is most widely believed to be the function of pectinate claws, but alternative hypotheses include roles in feeding, removing powder down, or straightening rectal bristles of the face*".

The function of pectinate claws is as yet uncertain and may have little to do with ectoparasite control. The Large-tailed Nightjar has a pectinate claw on the middle digit. It was generally not easy to see when resting on the ground or a low perch. We had seen it a number of times, especially when there was rain and the bird in our garden perched on a higher vantage point

(Plate 9). Even then views were limited as the feet might be hidden in the plumage and light levels were usually low. The pectinate claws were longer than the others and tended to 'stick out' occasionally.



Plate 9: Pectinate claw in the Large-tailed Nightjar, Ipoh, Perak, Malaysia, Aug 2017.

We had attempted numerous videos to document the bird preening to determine if the pectinate claw was used in this way. The many preening events observed had yet to reveal any use of this specialised claw. The claw was used to scratch the face, but we find nothing unusual about that, having seen similar activity in birds without a pectinate claw.

Relationships with other Creatures in the Garden

We have many birds in the garden but most appeared to keep their distance from the nightjar, apart from the termite feeding episode mentioned above. The Common Treeshrew had startled the bird while roosting on the ground but not when perched on the platform we had provided. Our adopted stray dog was aware of the bird but chose not to disturb it; possibly as he was aware of our care for the nightjar. Neighbourhood cats had been the main threat.

Relationships with Humans

Clockwork was well aware of our presence and over time our relationship matured. Clockwork tolerated the presence of four individuals at very close range – the two of us and the two parttime helpers who came regularly to work in our home and garden. We could sit one meter away and have a 'chat' with the bird. Our two part-time helpers often had conversations with him. We of course limited any work in the part of the garden he had chosen as home, except for the essential. He was very aware of our routine and activities. For example, when we watered the garden with a hose, he was very confident that no water would splash on him, even though the garden all around and under him was watered. Unlike previous Large-tailed Nightjars that lived in our neighbourhood, who would wake us up in the middle of the night with calls, Clockwork appeared to be aware of our sleep routine and would only call before we went to bed (2000 hrs) and after we were up (0400 hrs).

Visitors to the home were allowed to watch at approximately three meters distance; any closer and the bird would get flushed. It has been wonderful to show this bird to non-birdwatching visitors who visited our home. All have been amazed that such birds exist and some have grown an interest in birdwatching.

Postscript

After 2 years and 10 months, Clockwork stopped roosting in our garden. We suspected he found a permanent mate. We continued to see him at night or in the early hours of the morning perched on wires around the home. And he continued to maintain the respectful calling times.

Sometime in the middle of 2023 we noticed his absence and believed he must have died. Soon after we had a competitive 'struggle' between three Large-tailed Nightjars for many nights, to claim the insect-rich environment of our garden. Sadly, they did not respect any time calling boundaries. One eventually won our garden space.

We estimate that Clockwork's lifespan was at least six years. In literature, the survival of the Large-tailed Nightjar has been documented at 40 months (Wells 1999).

Clockwork brought much joy and fascination to us. He enriched our lives, became part of the family and appeared to trust us to some degree. Swee-Im often remarked that he was probably the most imaged bird in the world but Amar thinks of him as the bird that we have had the longest friendship with. We miss him and like to think that he lives on in the progeny that visit our garden. His purpose-made platform remains in the garden and we can only hope that another nightjar may choose to take up residence.

Acknowledgment

We would like to thank Jia-En Ho for kindly reviewing the manuscript.

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Birds Feeding on Common Fruit: Papaya

Amar-Singh HSS, Zhi-Gang Wong, Wei-Qing Lim, Wee-Yee Lee, Matthew Albanus, Sein-Chiong Chiu, Daisy O'Neill, John Yap & Belinda Wong ML.

Introduction

A ripe Papaya *Carica papaya* is a magnet for a wide range of bird species to feed on. This article documents the birds that have been observed to feed on the papaya fruit and nectar of the flowers. Some of these are not as yet documented in literature. For this article we focused on birds feeding on papaya 'in the wild', i.e. not captive feeding and not those seen at feeding stations like bird hides.

Observations

Asian Koel *Eudynamys scolopaceus*

Amar-Singh HSS and Belinda Wong ML have often observed the Asian Koel feeding on papaya (Plate 1). In January 2018, at his home at Ipoh, Perak, Malaysia, he saw a pair feeding on a ripe papaya in the rain (Amar-Singh HS 2018). Papaya is a recognised item in the diet of the Asian Koel (Wells 2007; Limparungpatthanakij 2024).

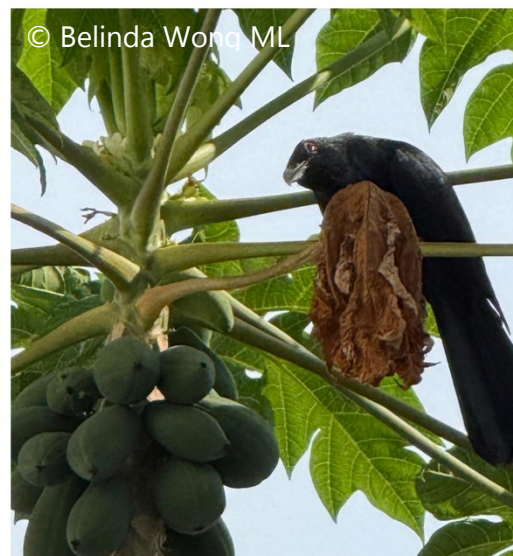


Plate 1: Male Asian Koel feeding on papaya fruit, Ipoh, Perak, (left) & Johor Bahru, Johor, Malaysia.

Oriental Pied-Hornbill *Anthracoceros albirostris*

In September 2025 at Tanjong Karang, Selangor, Malaysia, Zhi-Gang Wong and Wei-Qing Lim observed a pair of Oriental Pied-Hornbills sharing a papaya meal together (Plate 2). The female appeared to prefer feeding by the male, as she was seen constantly begging for the male to feed her, even though she had her own fruit to feed on. They both appeared to be adults so this is not feeding of a juvenile. Breeding is known to occur from September to May in Malaysia (Kemp & Boesman 2020), hence this is most likely courtship feeding which strengthens the bond between a mating pair. A video recording of the feeding by Wei-Qing Lim can be seen here: https://www.youtube.com/shorts/GspEFcdc_HA.



© Zhi-Gang Wong



Plate 2: Adult Oriental Pied-Hornbill male feeding an adult female papaya fruit, Tanjong Karang, Selangor, Malaysia, Sept 2025.

Sein-Chiong Chiu also observed two Oriental Pied-Hornbills feeding on papaya in his neighbour's garden in Ipoh, Perak, Malaysia in July 2020. A video recording of the feeding can be seen here: <https://youtu.be/7EKHYcMXv0Y>. The Oriental Pied-Hornbill is not documented in literature to feed on papaya fruit (Wells 1999).

Gold-whiskered Barbet *Psilopogon chrysopogon*

In June 2023, at Kamunting, Taiping, Malaysia, Wee-Yee Lee saw an adult Gold-whiskered Barbet feeding on papaya fruit (Plate 3). The papaya tree was located in a durian farm. The Gold-whiskered Barbet had an active nest near the papaya tree. In a two hour observation of the nest in the morning, the birds fed nestlings with papaya once (Plate 4). On other occasions the food items brought to nestlings were *Ficus* fruit.

Daisy O'Neill (2008) has also observed the Gold-whiskered Barbet feeding on papaya fruit (Plate 5). The Gold-whiskered Barbet is not documented in literature to feed on papaya fruit or to feed nestlings papaya fruit (Wells 1999).



Plate 3: Adult Gold-whiskered Barbet feeding on papaya fruit, Kamunting, Taiping, Malaysia, June 2023.



Plate 4: Adult Gold-whiskered Barbet feeding papaya fruit to nestling, Taiping, Malaysia, June 2023.

Red-throated Barbet *Psilopogon mystacophanos*

Daisy O'Neill (2008) has observed the Red-throated Barbet feeding on papaya fruit in June-July 2008; sharing it with a Gold-whiskered Barbet (Plate 5). The Red-throated Barbet is not documented in literature to feed on papaya fruit (Wells 1999).

© Daisy O'Neill



Plate 5: Red-throated Barbet (left) and Gold-whiskered Barbet feeding on papaya fruit, June-July 2008.

Lineated Barbet *Psilopogon lineatus*

Papaya is a common food source for Lineated Barbets. Amar-Singh HSS has often seen them feeding on the fruit in his neighbourhood. At the outskirts of Ipoh, Perak, Malaysia in November 2019, he saw Lineated Barbets feeding on a ripe papaya (Plate 6) that was also feasted on by Black-naped Orioles, Yellow-vented Bulbuls and Javan Mynas (Plate 7). Although a common food item, papaya fruit is not documented in literature for the Lineated Barbet (Krishnan 2023).

© Amar-Singh HSS



Plate 6: Lineated Barbet feeding on papaya fruit, Ipoh, Perak, Malaysia, Nov 2019.

Black-naped Oriole *Oriolus chinensis*, Yellow-vented Bulbul *Pycnonotus goiavier*, Javan Myna *Acridotheres javanicus*

Papaya is a common food source for the Black-naped Orioles and Yellow-vented Bulbuls and Amar-Singh HSS has often seen them feed on the fruit in his neighbourhood. At the outskirts of Ipoh, Perak, Malaysia in November 2019, he saw Black-naped Orioles, Yellow-vented Bulbuls and Javan Mynas feeding on a ripe papaya with Lineated Barbets (Plate 7) (Amar-Singh HSS 2021). Papaya fruit is well documented in the diet of the Black-naped Oriole, Yellow-vented Bulbul (Wells 2007) and Javan Myna (Craig & Feare 2020). Yellow-vented Bulbuls and Javan Mynas may also feed on papaya seeds (Wee 2013). A video of a Black-naped Oriole feeding on papaya fruit, June 2017 at Ipoh, Perak, Malaysia, can be seen here: <https://youtu.be/8EkpgnIVIg0>. Note how the bird, like many other bird species observed, will eat the fruit with great relish and try to get every last morsel.



Plate 7: Black-naped Oriole, Yellow-vented Bulbul and Javan Myna feeding on papaya fruit, Ipoh, Perak, Malaysia, Nov 2019.

The Yellow-vented Bulbul will also take papaya fruit to feed nestlings (Plate 8) (Amar-Singh HSS (2023) and this is not documented in literature (Wells 2007).



Plate 8: Adult Yellow-vented Bulbuls with papaya fruit for nestlings, Ipoh, Perak, Malaysia, May 2023.

Red-whiskered Bulbul *Pycnonotus jocosus*

Although there is no image documentation, John Yap has observed Red-whiskered Bulbuls (possibly escapees), more than 40 years ago (possibly 1979), feeding on papaya at his parents' home in Kuala Lumpur, Malaysia. This is a recognised item in their diet (Islam & Williams 2020).

Jungle Myna *Acridotheres fuscus*

Mynas will often take the opportunity to feed on a ripe papaya once it is opened by another bird. Plate 9 shows Jungle Mynas feeding on papaya fruit at Ipoh, Perak, Malaysia in July 2017 (Amar-Singh HSS 2017), an item not documented in their diet (Wells 2007).



Plate 9: Jungle Myna feeding on papaya fruit, Ipoh, Perak, Malaysia, July 2017. Note the individual shown in the images is a rare pale mutation seen in some Peninsular Malaysia birds.

Asian Glossy Starling *Aplonis panayensis*

Asian Glossy Starlings are common papaya fruit feeders (Plate 10 & 11) and often seen at ripe, open fruit. There is often competitive feeding at these sites and these smaller birds have to wait for large birds to finish. Asian Glossy Starlings will strip a papaya fruit down to the last morsel. Surprisingly, papaya fruit in their diet is not documented in literature (Wells 2007).



Plate 10: Asian Glossy Starlings feeding on papaya fruit, Ipoh, Perak, Malaysia. Left Oct 2008, middle July 2017 & right May 2017.



Plate 11: Asian Glossy Starlings adults and juveniles feeding on papaya fruit, Ipoh, Perak, Malaysia, April 2020.

Siamese Pied Starling *Gracupica floweri*

Amar-Singh HSS was up in Perlis, Malaysia, in October 2025 and observed a flock of Siamese Pied Starlings and Javan Mynas feeding on a ripe papaya (Plate 12).



Plate 12: Flock of Siamese Pied Starlings & Javan Mynas feeding on papaya fruit, Perlis, Malaysia, Oct 2025.

Orange-bellied Flowerpecker *Dicaeum trigonostigma*

Matthew Albanus observed a male Orange-bellied Flowerpecker feeding on papaya fruit at Penampang, Sabah, Malaysia in January 2020 (Plate 12). The papaya had already fallen off the tree on the ground so Matthew placed the papaya on the bench nearby in the hopes that the flowerpecker would return to feed, which it did!



Plate 12: Orange-bellied Flowerpecker feeding on papaya fruit, Penampang, Sabah, Malaysia, Jan 2020.

Little Spiderhunter *Arachnothera longirostra*

Some birds feed on the nectar of the papaya flowers. In September 2014 at the fringe of the Ulu Kinta Forest Reserve, Ipoh, Perak, Malaysia, Amar-Singh HSS observed the Little Spiderhunter feeding on the flower nectar of a papaya tree (Plate 13) (Amar-Singh HSS 2014).



Plate 13: Little Spiderhunter feeding on nectar of papaya flowers, Ulu Kinta Forest Reserve, Ipoh, Perak, Malaysia, Sept 2014.

Other Sunbirds and Spiderhunters known to feed on the **nectar** of the flowers include (Wells 2007; Cheke & Mann 2025):

- | | |
|---|--|
| 1. Streaked Spiderhunter <i>Arachnothera magna</i> | 7. Scarlet-chested Sunbird <i>Chalcomitra senegalensis</i> |
| 2. Mouse-brown Sunbird <i>Anthreptes gabonicus</i> | 8. Ornate Sunbird <i>Cinnyris ornatus</i> |
| 3. Nile Valley Sunbird <i>Hedydipna metallica</i> | 9. Pemba Sunbird <i>Cinnyris pembae</i> |
| 4. Green-headed Sunbird <i>Cyanomitra verticalis</i> | 10. Splendid Sunbird <i>Cinnyris coccinigastrus</i> |
| 5. Olive Sunbird <i>Cyanomitra olivacea</i> | 11. Superb Sunbird <i>Cinnyris superbus</i> |
| 6. Buff-throated Sunbird <i>Chalcomitra adelberti</i> | 12. Olive-backed Sunbird <i>Cinnyris jugularis</i> |
| | 13. Mayotte Sunbird <i>Cinnyris coquerellii</i> |
| | 14. Seychelles Sunbird <i>Cinnyris cussumieri</i> |

Other Birds Observed to feed on Papaya Fruit (Wells 2007; Wee 2013; Chowdhury 2020; Amar-Singh HSS 2020; Wikimedia Commons 2025; Google Image Online Ssearch).

It is not possible to be exhaustive in any search for birds that feed on such a common fruit as the papaya. From data and images posted online, some birds noted to feed on papaya fruit include:

1. Spotted Dove *Spilopelia chinensis* (feed on seeds)
2. Tanimbar Corella *Cacatua goffiniana* (feed on unripe fruit)
3. Yellow-crested Cockatoo *Cacatua sulphurea*
4. Ouvea Parakeet *Eunymphicus uvaeensis* (feed on unripe fruit)
5. White-cheeked Barbet *Psilopogon viridis*
6. Brown-headed Barbet *Psilopogon zeylanicus*
7. Blue-throated Barbet *Psilopogon asiaticus*
8. Toco Toucan *Ramphastos toco*
9. Collared Aracari *Pteroglossus torquatus*
10. Saffron Toucanet *Pteroglossus bailloni*
11. Black-rumped Flameback *Dinopium benghalense*
12. Rufous Treepie *Dendrocitta vagabunda*
13. Yucatan Jay *Cyanocorax yucatanicus*
14. Red-vented Bulbul *Pycnonotus cafer*
15. Common Myna *Acridotheres tristis*
16. Common Hill Myna *Gracula religiosa*
17. Streaked Spiderhunter *Arachnothera magna*
18. Purple Sunbird *Cinnyris asiaticus* (possibly nectar)
19. Yellow-rumped Cacique *Cacicus cela*
20. Russet-backed Oropendola *Psarocolius angustifrons*
21. Violaceous Euphonia *Euphonia violacea*
22. Palm Tanager *Thraupis palmarum*
23. White-lined Tanager *Tachyphonus rufus*
24. Silver-beaked Tanager *Ramphocelus carbo*
25. Seven-colored Tanager *Tangara fastuosa*
26. Opal-rumped Tanager *Tangara velia*
27. Green-headed Tanager *Tangara seledon*
28. Red-legged Honeycreeper *Cyanerpes cyaneus*

It is not unexpected that many birds in South America feed on the papaya fruit as the *Carica papaya* is native to southern Mexico and Central America, from where it spread to other tropical regions.

Discussion

There are many other bird species imaged feeding on papaya. They are not listed here as the majority are observed feeding on the fruit at staged events or at bird feeding stations. Many birds will feed on papaya fruit when cut and offered but not all will feed on papaya fruit while on a tree. The list provided in this article is not exhaustive and we encourage colleagues to continue documenting birds that feed on the papaya, fruit or seeds.

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Rain or Shine: A Case of Hornbill Fidelity and Survival

Winnie Ooi & Li-Li Wong

This report documents the extraordinary resilience and fidelity of a male Oriental Pied Hornbill *Anthracoceros albirostris* following the collapse of its nesting tree during a severe storm at Taiping Lake Gardens on 14 February 2025.

Introduction

Hornbills are known to pair for life and have a unique nesting strategy of raising their young in tree cavities. As secondary tree cavity nesters, they rely on natural holes created by other birds/wildlife or cavities formed by broken branches or abandoned by other species. Once a suitable cavity is identified and the pair is ready to nest, the female seals herself inside the tree cavity using a mixture of fruits, mud, and her own faeces, reducing the entrance to a narrow vertical opening just big enough for the male hornbill to pass food through (Kemp, 1969; Ng *et al.* 2011). The seal serves to protect her and the chick from predators.

Depending on the species, Hornbills typically remain sealed in the nest cavity for 2–5 months. The Oriental Pied Hornbill has a breeding cycle of 74–82 days, from the moment the female seals the nest to the time the chicks fledge (Kemp & Boesman 2020). For a female hornbill to stay in a confined space for such a long period - from incubating the eggs to raising the chick until it is ready to feed itself - is extraordinary in the avian world. Yet despite the precariousness of this nesting strategy, the female places complete trust to her partner to provide food and continuous protection throughout the nesting period. This report highlights a remarkable incident that vividly demonstrates this trust.

Observations

A pair of Oriental Pied Hornbills had been nesting for several weeks, in a sealed tree cavity of a 140-year-old *Samanea saman* Rain Tree at Taiping Lake Gardens, Taiping, Perak, Malaysia, and the male had been actively feeding his partner and chick. However, on Valentine's Day, 14 February 2025, as if testing the commitment of the pair's bond, a sudden thunderstorm struck late in the evening, bringing strong winds and torrential rain. The nesting tree was mercilessly uprooted (Plate 1).



Plate1: Crisis on Valentine's Day - the uprooted Rain Tree, Taiping, Perak, Malaysia, 14 Feb 2025.

When we arrived at the scene, the male hornbill was seen anxiously and frantically flying around the fallen tree, desperately trying to reach the now-horizontal cavity lying at the water's edge. Concerns quickly arose that the female and chick might not survive the fall and that the male might abandon the nest if he could not access them. Winnie immediately made several calls and reached out to Sanjitpaal Singh who works with Gaia, a hornbill conservation organisation. He quickly contacted the relevant authorities for help. As the day drew to a close, the situation appeared dire, but nothing could be done except to wait for help to arrive.

Late in the evening, just as hope was fading, the male hornbill was seen perching beside the fallen nest entrance slit and successfully feeding his family – an effort captured on video by Choy-Loi Ng at 1919 hrs (link to video: <https://youtu.be/qxUrtrvIE-o>). This demonstrated not only the survival of the female & chick, but also the male's unwavering commitment (Plate 2).



Plate 2: The male Oriental Pied Hornbill's sole objective was to provide for its family, rain or shine (left). The female Oriental Pied Hornbill and its chick (butt facing out) in the nest cavity of the fallen Rain Tree (Right). Taiping, Perak, Malaysia, 0835 hrs, 15 Feb 2025.

The following morning, as widely reported in the news (Manjit Kaur 2025), Taiping Zoo Management together with Majlis Perbandaran Taiping (MPT) moved swiftly into action (Plate 3) to install a sturdy wooden plank to facilitate easier access for the male to reach for its family. MPT later announced that the fallen Rain Tree would remain undisturbed until the nesting period had concluded, ensuring no further disturbance to the vulnerable mother and chick.

Against all odds, the nesting continued seamlessly. Day after day the male returned with unwavering commitment, delivering food through the narrow opening as though nothing had changed (Plate 4). A video of the male at fallen nest after the support plank installed is available here:

<https://www.youtube.com/watch?v=mVVJAxmoImU>.



Plate 3: Majlis Perbandaran Taiping and Zoo Taiping present to install a plank for the nesting Oriental Pied Hornbills, Taiping, Perak, Malaysia, 0848 hrs, 15 Feb 2025.



Plate 4: The male Oriental Pied Hornbill got full support from the community of Taiping. Feeding using the wooden plank installed – fruit (left, 26 Feb 2025) and a protein supplement (a small bird) fed to the chick (right, 24 Feb 2025), Taiping, Perak, Malaysia.

A month later, the dramatic chapter reached a heart-lifting finale - the chick successfully fledged. Yet even its first flight carried a twist of fate – the young bird plunged straight into the lake below. In an unexpected turn, visiting Hong Kong Birders, Chien-Pui Sum & Woo-Sau Chan spotted the struggling fledgling. Without hesitation, Woo-Sau Chan reached down to pull it from the water and gently placed it on the bank, giving the little hornbill the precious second chance it needed (Plate 5). Plate 6 shows the fledgling Oriental Pied Hornbill enjoying the lake gardens.

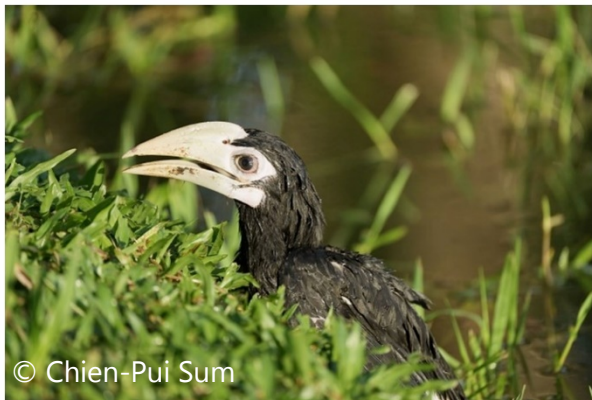


Plate 5: The fledgling Oriental Pied Hornbill fell into the lake on its maiden flight, all drenched (left) and parent coaxing the young fledgling away from the open (right), Taiping, Perak, Malaysia, 15 Mar 2025.



Plate 6: The fledgling Oriental Pied Hornbill growing up, Taiping, Perak, Malaysia, 25 Mar 2025.

Discussion

No observer would have imagined that the female/chick could survive the fall of a large Rain Tree while sealed inside the cavity, nor that the male would remain such a steadfast and devoted partner in such extreme circumstances. We are convinced that, even if there was no help from the authorities, the male hornbill would have found a way to overcome challenges. This incident provides compelling observational evidence of hornbill pair commitment & their behavioural adaptability during nest crises - a bond that remains unbroken, rain or shine.

Epilogue

The Rain Tree has since been rehabilitated with the nest hole still intact (Plate 7). The presumed same pair of Oriental Pied Hornbill have been seen checking it out (Plate 8) (video link of activity: <https://www.youtube.com/watch?v=kIzgUFQB73I>). We can hope they will use it again.



Plate 7: Rain Tree rehabilitated, Taiping, Perak, Malaysia, 21 Nov 2025.

Acknowledgement

We would like to thank Choy-Loi Ng, Chien-Pui Sum and Woo-Sau Chan for the kind use of their images and support. We thank Amar-Singh HSS for reviewing the manuscript.



Plate 8: Oriental Pied Hornbill checking the nesting hole, Taiping, Perak, Malaysia, 21 Nov 2025.

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Citation: Winnie Ooi & Li-Li Wong. (2025). Rain or Shine: A Case of Hornbill Fidelity and Survival. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 68-72.

Photo-Shorts

Snakes in the Diet of Hornbills

Kwang-Ming Teh & Mei-Yin Chen

Introduction

To the uninitiated, it may seem that hornbills are frugivores as we frequently see them at fruiting trees. Our belief was challenged after seeing a White-crowned Hornbill *Berenicornis comatus* gobble up a snake. We have come to realise their diet is more varied than we thought.

Observation

We were birding in a relatively well-known area in Frasers Hill, Pahang, Malaysia, when we chanced upon this event in late July 2025. We were along a road, at an elevation of about 1200m. Imagine the adrenaline rush we felt when we saw a long, green snake fall from the trees near where we were standing, onto the road. We were lucky it did not fall onto us! Shortly after, a pair of White-crowned Hornbills came to the ground for the kill. The snake, which was identified as a Siamese Peninsular Pit Viper *Trimeresurus sabahi frucatus*, managed to slither its way rapidly to a grassy area next to the road. It stayed silent and motionless, seemingly to avoid detection.

The pair of White-crowned Hornbills (Plate 1) flew up to regroup, with the male perched on a telephone wire, while the female found a low hanging branch. Both were on high alert, almost constantly calling with their strange hoots while keeping the snake in direct vision.



Plate 1: Male (left) and female White-crowned Hornbills, Frasers Hill, Pahang, Malaysia, July 2025.

After a few minutes, the female again descended for the kill, but it was successfully repelled by the snake which had now realised that its efforts to be camouflaged were futile. Interestingly enough the female seemed to make only one attempt to go for the head before flying away with a whimper. Link to a video recording of the female's attempt:

<https://www.youtube.com/watch?v=DhodXSHozvg>

One would have expected the male to go in for the kill immediately after the female, but he was patient. We believe they were more calculated in their efforts because, throughout our observation period, there were a few passing cars. Ten minutes had elapsed since the female's attempt. In a flash, the male swooped down and went for the kill (Plate 2). He first landed barely a meter away from the snake, and in one smooth motion hopped once and went for the head. Link to a video recording of the male in action:

<https://www.youtube.com/watch?v=qUfSeZf0WBw>



Plate 2: Male White-crowned Hornbill in confrontation with Siamese Peninsular Pit Viper, Frasers Hill, Pahang, Malaysia, July 2025.

This time, it was decisive. There was no escape as the snake got held by its neck. The bird proceeded to take its time in ensuring the snake was lifeless before carefully manipulating it and swallowing it whole (Plate 3). This was truly a sight to behold! Links to video recordings of the male feeding:

<https://youtu.be/P8GzoGJI7iI>

<https://youtu.be/LHoN83SCN-s>

<https://youtu.be/G7AJpkeu7UM>.

Unexpectedly, we even saw, what we think to be, tantrum throwing behaviour by the female hornbill. It did sound annoyed and started biting a branch in frustration; it could have been quite hungry (Plate 4). Link to a video recording of the female's behaviour:

<https://www.youtube.com/watch?v=gc-Np4DUioM>



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Plate 3: Male White-crowned Hornbill with Siamese Peninsular Pit Viper prey, Frasers Hill, Pahang, Malaysia, July 2025.



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Plate 4: Female White-crowned Hornbill showing possible dissatisfaction at not acquiring prey, Frasers Hill, Pahang, Malaysia, July 2025.

Discussion

In literature the White-crowned Hornbill is stated to have a varied diet with a large proportion of animal prey which includes insects, snakes, lizards, flying squirrel, small bird's chicks, eggs and mice (Wells 1999, Kemp & Boesman 2020, IUCN Hornbill Specialist Group 2025).

Other hornbill species are also known to take snakes as prey and those mentioned on the IUCN Hornbill Specialist Group website include:

1. Tickell's Brown Hornbill *Anorrhinus tickelli*
2. Narcondam Hornbill *Rhyticeros narcondami*
3. Southern Ground Hornbill *Bucorvus leadbeateri*
4. White-crowned Hornbill *Berenicornis comatus*
5. Austen's Brown hornbill *Anorrhinus austeni*
6. Rufous-necked hornbill *Aceros nipalensis*

Acknowledgement

We would like to thank Nick Baker from Ecology Asia for his help in identifying the snake, Amar-Singh HSS for support in writing this article and Kim-Chye Lim for reviewing the manuscript.

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Citation: Kwang-Ming Teh & Mei-Yin Chen (2025). Snakes in the Diet of Hornbills. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 73-76.

Possible Courtship Display of the Chestnut-rumped Babbler

Priya Paramanathan

Introduction

Chestnut-rumped Babbler *Stachyris maculata* is a common babbler (Wells 2007) but, like many babbler species, little is known about their breeding behaviour with very few nests observed. Their social behaviour is poorly documented and hardly anything is known about their courtship. The population of Chestnut-rumped Babblers is in decline and it is listed as Near Threatened in the IUCN Red List (BirdLife International 2021).

I had an opportunity to observe a possible courtship behaviour which is described here.

Observation

During an early morning birding session at Sungai Lembing, Pahang, Malaysia in October 2024, Sungai Lembing two Chestnut-rumped Babblers were observed emerging from the dense understorey. They then moved onto open ground in a grassy clearing. I was positioned approximately five metres away and documented the observation using a 600 mm long lens. This species is commonly heard but seldom seen so clearly, making the sighting unusual.

The presumed male (sexes are similar) then performed a striking courtship display in close proximity to the presumed female, about 1.5 metres away. It stood upright, puffed its breast feathers, spread its wings wide, and fanned its tail while making short, deliberate steps on the ground, almost like a dance (Plate 1 & 2). This lasted only about 10–15 seconds.



Plate 1: Presumed male Chestnut-rumped Babbler in courtship display, Pahang, Malaysia, Oct 2024.



Plate 2: Presumed male Chestnut-rumped Babbler in courtship display, Pahang, Malaysia, Oct 2024.

The performance was strongly reminiscent of the elaborate mating displays of peacock species, though on a much smaller scale. The exaggerated posturing and intense eye expression suggest a mating-related act. Unfortunately, I was unable to capture the female's response, as I was momentarily carried away by the male's performance. The sequence ended abruptly when the female flew off after noticing movement from another birder, with the male departing shortly thereafter. I also could not recall whether any vocalisations accompanied the display, which may have been a key behavioural cue but was missed in the moment.

Discussion

The observation is best interpreted as courtship behaviour, although Wells (2007) noted that such displays in babblers could also serve as distraction displays, potentially to divert attention from a nest, though without obvious injury-feigning. Note that breeding is thought to occur from March to September (Wells 2007; Collar & Robson 2020).

Acknowledgment

I would like to thank Amar-Singh HSS for support in preparing the manuscript and Dave Bakewell for reviewing the manuscript.

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Anting Behaviour by the Blue Whistling-Thrush

Amar-Singh HSS

Introduction

Anting behaviour is not uncommon among birds, and a wide range of species employ this technique (Amar-Singh HSS *et al*, 2024). The function of anting remains the subject of controversy and debate with many reasons and hypotheses proposed for the activity (Morozov 2015; Hendricks 2016).

There are no reports in literature (Wells 2007; Collar 2020) or from an online search for the Blue Whistling-Thrush *Myophonus caeruleus* having anting behaviour. I report here what may well be the first observation of this behaviour in the species.

Observations

The Blue Whistling-Thrush can be observed at many of the limestone outcropping around Ipoh city, Perak, Malaysia. Often they are very confiding at cave temples situated at these limestone hills, being habituated to humans.

On 20 October 2025 I observed a pair of Blue Whistling-Thrush searching in the dark sections, under one of the temple foundations. They found some millipedes and proceeded to rub them on the body and under their wings (anting) (Plate1). The entire activity lasted about 2 minutes. The millipedes were not eaten.

Millipedes secrete hydrogen cyanide from glands in body segments as a defence and may be useful for anting purposes.



Plate 1: Anting by a Blue Whistling-Thrush using a millipede, Ipoh, Perak, Malaysia, 20 October 2025.

Discussion

There are no reports prior to this of any species of Whistling-Thrush involved in anting behaviour. There are reports of other thrush species observed having anting behaviour, including:

1. Wood Thrush *Hylocichla mustelina* – anting with ants and a snail (Evans *et al*, 2020).
2. Japanese Thrush *Turdus cardis* – anting with ants (Ohkawara *et al*, 2022).
3. Austral Thrush *Turdus falcklandii* – anting with ants (Bird Buddy Inc. 2025).
4. White-crested Laughingthrush *Garrulax leucolophus* – anting with Weaver Ants *Oecophylla smaragdina* (Tzi-Ming Leong 2015).

Acknowledgement

We would like to thank Swee-Yian Lim for reviewing the manuscript.

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Common Kingfisher Conflict

Boon-Tong Teo & Chris Ang

Introduction

The Common Kingfisher *Alcedo atthis* is a not uncommon, non-breeding visitor and passage migrant to Singapore and Peninsular Malaysia (Wells 1999; Woodall 2020). While juveniles might stay together, wintering adult birds are well known to establish territories (Wells 1999; Woodall 2020). At times, in establishing territories, the territorial conflict can be fierce and prolonged (Peaker 2024).

We were recently privileged to observe a territorial conflict and describe it here.

Observation

A Common Kingfisher (Bird 1) had settled at the various ponds at the Bayfront Plaza, Singapore. It remained 'stable' (unchallenged) for a few weeks from late August to early September 2025. Then another bird arrived (Bird 2) in early September 2025, who also seemed to have settled in the similar ponds (Plate 1). The original Common Kingfisher (Bird 1) was no longer seen in the area, based on limited observations over a few days. Both these Common Kingfishers appeared to be adult females from the orange present on the lower half of their beaks (more prominent in Bird 1); although we believed that the second bird to arrive (Bird 2) was a younger bird and could be differentiated by the 'flat-top' to the head plumage.



Plate 1: Older Common Kingfisher (left) & newcomer (right), Bayfront Plaza, Singapore, Sept 2025.

Then came 12 September 2025. We had anticipated a regular day, with attempts to sight either of these two birds. What was sighted instead were two Common Kingfishers, perched in the same area (Plate 2) – Bird 2 ('flat-top') and a third bird (Bird 3). The three birds had unique enough plumage differences to distinguish them (Plate 1). Bird 3 appeared to be an older bird. What seems to be an ordinary sharing of a perch, felt 'wrong'. Both birds did not budge apart from 'jitters', nor was there any diving for prey. The prolonged wait seemed to be a standoff of sorts. This was the scene from around 0900 and continued for the next 2-3 hours, with no

major movement. Through the hours of standoff, they both watched each other's movements. Bird 3 seemed to be more watchful and sensitive to any movement of Bird 2.



Plate 2: Common Kingfisher standoff – Bird 2 (left) & newcomer (Bird 3, right), Bayfront Plaza, Singapore, Sept 2025.

The prolonged standoff continued. The young bird (Bird 2) could be seen constantly looking down at the fish below, perhaps it was getting hungry and there was prey within reach, but no dives were observed. Instead, any significant movement by Bird 2 brought a response from the older one (Bird 3), for example a wing display.

What happened next was too fast for us to react to. Bird 2 perhaps took courage to dive or to move to another perch. However, it was attacked by Bird 3, who went for the head (Plate 3). A fight began and we felt the panic in the air. Both birds fell from their perch into the pond below.

With an intent to show who is in power, Bird 3 did a move that took all of us by surprise – it appeared to attempt to drown Bird 2, dunking it into the water, leveraging on its body weight (Plate 4). The dunk and tussle went on for a few seconds with both birds ending up submerged (Plate 5). A video of part of the conflict can be seen here:

https://www.instagram.com/reel/DOhhLbxD7gD/?utm_source=ig_web_copy_link&igsh=MzRIODBiNWFIZA==. Everything was happening too fast for us to discern what was going on. From our images, there were at least three or four drowning attempts before Bird 2 managed to get out of the water, but not without the grip of Bird 3 still held strongly. They eventually broke free of each other, Bird 3 retreated back to the original perch, while Bird 2 to a new perch. However, the conflict did not end there. There was continued conflict with chasing as they flew quickly, randomly weaving about the trees and foliage. The dispute continued for most of the

afternoon; one crashed into a wall but was unhurt. It appeared to end when a third kingfisher (possibly Bird 1) flew into the conflict (no images to confirm).

On who won the turf? It was the newcomer (Bird 3) - based on visual confirmation over multiple days since the conflict; no other Common Kingfisher was sighted in nearby ponds.



Plate 3: Conflict between the two Common Kingfishers, Bayfront Plaza, Singapore, Sept 2025.

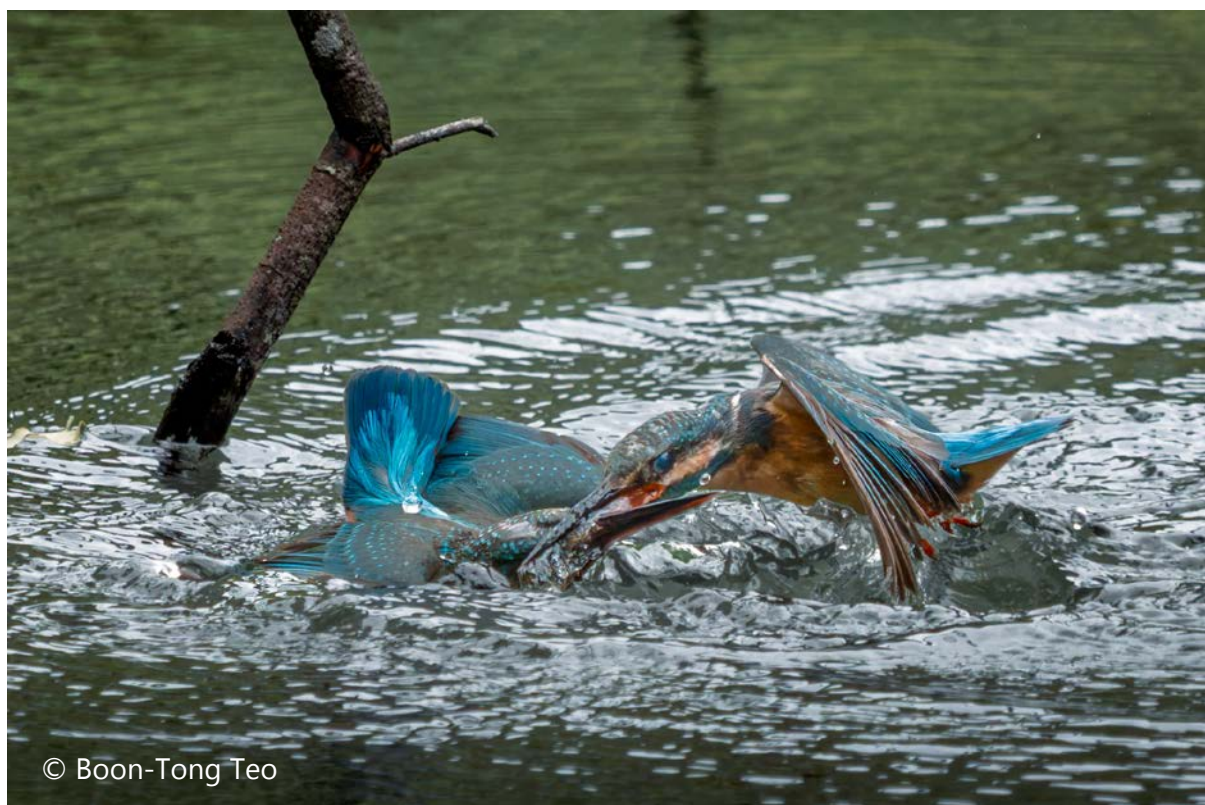


Plate 4: Common Kingfisher conflict – Bird 3 (right) appeared to be trying to drown Bird 2, Bayfront Plaza, Singapore, Sept 2025.



© Chris Ang

Plate 5: Common Kingfisher conflict, Bayfront Plaza, Singapore, Sept 2025.

Discussion

Our observation confirms the territorial behaviour of wintering Common Kingfishers. Territorial conflicts put severe strain on these migratory kingfishers. They are said to consume 50 to 100% of their body mass daily (Wells 1999; Woodall 2020; Peaker 2024). Hence, the conflict is a test of endurance.

Acknowledgement

We would like to thank Amar-Singh HSS for support in developing the manuscript and Swee-Yian Lim for reviewing it.

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A Sighting of the Brown Bullfinch from Cameron Highlands, Pahang, Malaysia

Kum-Hoi Yong

Introduction

Globally the Brown Bullfinch *Pyrrhula nipalensis* (Hodgson 1836) ranges from the Himalayas through southern China and northern continental South East Asia, east to Taiwan and discontinuously south to Peninsular Malaysia; with five subspecies within this range. The IUCN threat classification for this species is Least Concern. The subspecies in Peninsular Malaysia, *P. n. waterstradti* (Hartert EJO 1902), far isolated from the main cline, is a rare and localised resident, occurring above 1,500 metres in the Titiwangsa Range from Gunung Batu Brinchang (the Cameron Highlands), south to Gunung Mengkuang Lebah, on the Pahang-Selangor divide in the Hulu Langat district and at Fraser's Hill. It also occurs on Gunung Tahan and Gunung Benom, both in Pahang (Wells, 2007). This endemic subspecies, because of its restricted range, is classified as Vulnerable by the IUCN.

Observations

On the morning of 16 August 2025, I had taken a trip to the mossy forest in the Brinchang district of the Cameron Highlands. Being a photographer, I was hoping to get pictures of some of the unique upper montane flora and fauna which were found only at this altitude, which was between 1,800 – 2,000 metres above sea level. It was a passion that I always had in being able to photographically record and document these treasures of the natural world.

The only access to the mossy forest is from Kea farm, a sub-district of Brinchang. A 30 minute drive along a metalled road gets you there. Written permission has to be first obtained from the Pahang State Forest Department in order to gain access to the mossy forest.

Walking through the damp mossy forest, I came across two dull greyish sparrow-like birds, which suddenly appeared in front of me. They went on to perch on a tree branch about 10 metres away. It was about 1100 hrs and the sky was overcast but the light was still sufficient to see the birds. While perched I observed they had rather short and swollen black bills, broad white cheek patches, and black wings and tail. They were quiet and were not making any sound. There were no discernible features to indicate the respective sexes. I managed to get a few images of them with my camera (Plate 1). The pair remained for about 10 to 15 seconds before flying off into denser vegetation beyond. They did not re-emerge. Not being a birder, I sent the images to my friend Henry Goh who promptly identified the species as the Brown Bullfinch.



© Kum-Hoi Yong

Plate 1: Brown Bullfinch, Cameron Highlands, Pahang, Malaysia, 16 August 2025.

Discussion

This much sought after bird is very rarely seen, even in its favoured habitat. In the Cameron Highlands, the Brown Bullfinch has only been recorded in the upper montane forest at Gunung Batu Brinchang (2,032 metres), the highest point in the Cameron Highlands, and on the Gunung Irau trail on the Pahang/Perak divide. Other sightings this century (Table 1) (eBird; Kai-Soon Chan 2007) include single birds or more on 20 Feb 2002 (eBird), 12 Mar 2007 along the Gunung Irau trail (eBird), 27 Apr 2007 (SE Vol 15 No 2), and 12 Mar 2018 (eBird, Alan Koh)

Table 1: eBird Reports of the Brown Bullfinch in Malaysia (as of 06 November 2025)

State	Locality	Date	Comments
Pahang	Fraser's Hill	Mar 1975	
Pahang	Fraser's Hill	Mar 1983	
Pahang	Fraser's Hill	Mar 1987	Heard only.
Pahang	Fraser's Hill	Jul 1988	A pair seen nest building in a pine tree.
Pahang	Fraser's Hill	Oct 1990	
Pahang	Fraser's Hill	Mar 1992	
Selangor	Fraser's Hill	Apr 1992	High Pines Bungalow compound.
Pahang	Fraser's Hill	May 1992	
Pahang	Fraser's Hill	May 1994	
Pahang	Fraser's Hill	Jun 1997	A pair in the pine trees at High Pines Bungalow compound.
Pahang	Fraser's Hill	Jun 1997	
Pahang	Fraser's Hill	Mar 1998	A single bird foraging among pine trees at High Pines Bungalow.
Pahang	Gunung Brinchang, Cameron Highlands	Feb 2002	Five individuals, initially a pair & later a small flock of three birds.
Pahang	Gunung Brinchang, Cameron Highlands	Mar 2007	Two birds seen near the entrance of mossy forest of Gunung Brinchang. In April 2007 four other birders saw a pair not far from the Irau trail.
Pahang	Gunung Brinchang, Cameron Highlands	Mar 2018	Near mossy forest.
Perak	Mount Korbu Trail	Oct 2024	One bird heard at 1900m, double notes call.

Acknowledgement

We would like to thank Henry Goh, Allen Jeyarajasingam and Amar-Singh HSS for their support in developing and reviewing the manuscript.

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Mixed Species of Hornbills Feeding on Bats

Eddy Wong, James Lee, Simon Bong, Song-Wei Tan, Jenny Kam & Boon Leng

Hornbill predation of bats is now well established with recent reports (Amar-Singh HSS 2025; Tella et al., 2025). Of the local species we have observations of hornbills feeding on bats for the Oriental Pied-Hornbill *Anthracoceros albirostris* (Amar-Singh HSS 2025), Bushy-crested Hornbill *Anorrhinus galeritus* (Tella et al., 2025) and Black Hornbill *Anthracoceros malayanus* (Hall 1996; IUCN Hornbill Specialist Group 2025). For the Rhinoceros Hornbill *Buceros rhinoceros* we have a single image observation by Ahmad Amir Isqandar (Malaysian Bird Report 2023) and details are lacking.

The Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia is well known as a site to observe raptor and hornbill species feeding on bats. There are two locations where birders can view the action of hornbills and raptors catching bats at Gomantong Caves. One is at the Simud Putih view point platform. The other is at the Simud Hitam (the black cave) (Plate 1). The commonest species of bats reported at Gomantong Caves is Wrinkle-lipped Free-tailed Bat *Mops plicatus* (Tella et al., 2025) which has a body mass of 10.5–18 g.



Plate 1: Over view of Simud Hitam (black cave) where some Hornbills perch to feed on bats, Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia, 02 Nov 2025.

We were at Gomantong Caves for two days, 01-02 November 2025. On 02 November 2025 at 1715 hrs we positioned ourselves at Simud Hitam to watch this phenomenon. Looking up we saw the bats fly close to the trees, nearer to the top of the limestone outcroppings. We observed five hornbill species hiding in the trees, waiting for the bats to fly close. These included a pair of Rhinoceros Hornbills, six Bushy-crested Hornbills, three Oriental Pied-

Hornbills, a pair of Wreathed Hornbills *Rhyticeros undulatus* and one Wrinkled Hornbill *Rhabdotorrhinus corrugatus* (Plate 2).

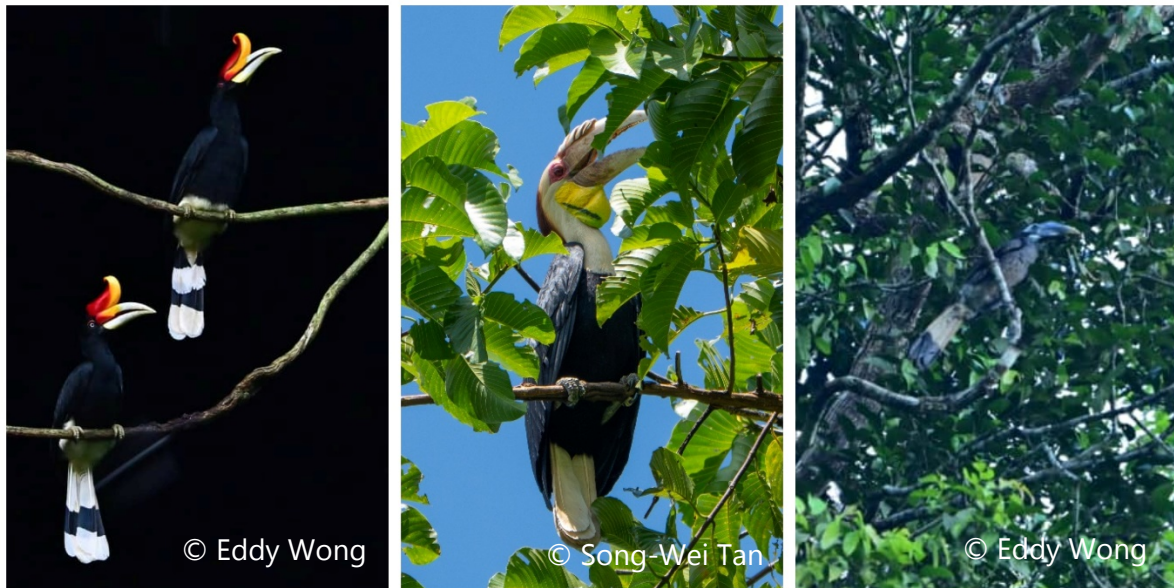


Plate 2: Hornbill species (Rhinoceros, Wreathed & Bushy-crested) waiting to feed on bats, Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia, 02 Nov 2025.

At 1730 hrs we observed a Crested Serpent-Eagle *Spilornis cheela* fly in and perch on a liana (a long-stemmed woody climbing vine) near the cave. The Crested Serpent-Eagle flew into the bats streaming from the cave and used its wings to block the bats flight path. It caught a bat with the claws and dropped to the ground to feed. When it saw us approaching to take images it flew to a nearby tree to enjoy the meal (Plate 3). Crested Serpent-Eagles have not been documented to take bats as prey (Wells 1999) and this was an important observation.



Plate 3: Crested Serpent-Eagle catching & feeding on bats, Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia, 02 Nov 2025.

At 1745 hrs five Bushy-crested Hornbills flew in to perch on a liana nearer to the edge of the cave (Plate 4) to hunt for bats. We did not observe them catching any bats. They also have nighttime roost on the lianas.



Plate 4: Bushy-crested Hornbills waiting to feed on bats (left) and night time roost on a liana, Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia, 02 Nov 2025.

At 1750 hrs a pair of Rhinoceros Hornbills flew in and perched on a liana – they stationed themselves at the middle of the cave entrance (Plate 5). Imaging activity at this time is challenging due to low light conditions with slow shutter speeds. Hence we used video recordings to document the action. A video of the Rhinoceros Hornbills feeding can be seen here: <https://www.youtube.com/watch?v=bEa0Cgp7vAg>. Hornbills are not able to hunt for bats like raptors in flight and hence, as seen, they situate themselves in the path of the streaming bats and snag a bat with the beak. The male Rhinoceros Hornbill was feeding the female – this may have been courtship feeding activity. When we watched on 02 November 2025 the Hornbills came late at 1800 hrs and we only observed five minutes of feeding.



Plate 5: Rhinoceros Hornbills perched on a liana at cave entrance waiting to feed on bats as they exit, Gomantong Caves, Sandakan, Sabah, Borneo, Malaysia, 02 Nov 2025.

We also observed the Wreathed and Wrinkled Hornbill hunting from the trees near top of the limestone outcropping. On this trip there was no hornbill action observed from the Simud Putih platform, only from Simud Hitam cave.

Although we did not see every species of hornbill feeding on bats, their presence and behaviour suggest that all these five species come to Gomantong Caves in the evening to hunt for bats. Note one observation from Cambodia (Plate 6). There is no prior documentation in literature of bats in the diet of the Rhinoceros Hornbill (one prior picture record), Wreathed Hornbill and Wrinkled Hornbill (Wells 1999; IUCN Hornbill Specialist Group 2025).

Plate 6: Male Wreathed Hornbill observed



feeding on a bat, Cambodia, March 2023.

Acknowledgement

We would like to thank Amar-Singh HSS for assistance in writing up the observation and Henry Goh for reviewing the manuscript.

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Citation: Eddy Wong, James Lee, Simon Bong, Song-Wei Tan, Jenny Kam & Boon Leng (2025). Mixed Species of Hornbills Feeding on Bats. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 87-90.

Iris Colour Change of the Crested Goshawk with Maturity

Tim Looi & Guan-Chiam Soo

Introduction

Iris colour change with age, from juvenile to adult, is a common characteristic among many *Accipitridae* species and may indicate the bird's age (Newton & Marquiss 1982; Liguori 2015). We describe here the iris colour change in Crested Goshawks in Malaysia.

Observations

We monitored two juvenile Crested Goshawk *Lophospiza trivirgata* iris changes as they matured into adulthood over two months, from August to September 2025 at Taman Zaaba Park, Kuala Lumpur, Malaysia. In August, we noticed the juvenile Crested Goshawk had a very pale yellow iris. By September we noticed their eye colour had transformed into light yellow-orange, as they matured into adulthood. (Plate 1). Plate 2 compares the iris of a juvenile with an adult. The adults have a deep orange-yellow iris (Wells 1999; Clark & Marks 2024).



Plate 1: Juvenile Crested Goshawks, Taman Zaaba Park, Kuala Lumpur, Malaysia. Left 12 Aug 2025; Right 16 Sept 2025.

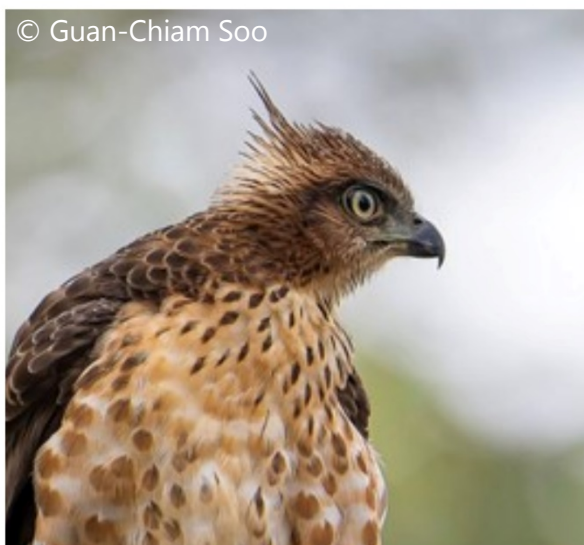


Plate 2: Iris colour of a juvenile (left) vs adult Crested Goshawk.

Discussion

The iris colour in Crested Goshawks, other than plumage, can be helpful in distinguishing juveniles from adults in the field. Note that juveniles are said to have "*eyes brown or more usually paler yellow*" (Clark & Marks 2024). Plate 3 shows a 26 day of life chick with a daker iris (backlit image) and a recently fledged juvenile with a brownish iris. It is uncertain how long it takes for the iris colour in juveniles to change to the adult colour.



Plate 3: 26 day of life chick (left, 22 March 2021) & a recently fledged juvenile Crested Goshawk (right, 15 Nov 2012), Ipoh, Perak, Malaysia,.

It is possible that iris colour varies among adults. In *Birds of the World* the iris colour of adults is stated as "*yellow to reddish orange or orange-yellow*" (Clark & Marks 2024). It is uncertain if this variability is a feature of subspecies. It would be good to have local image data of many adults in good light to check for any variability in iris colour. It is uncertain why iris colour changes with age in many *Accipiters*. It may serve as a visual cue to signal an individual's maturity to other raptors, particularly potential mates.

Acknowledgement

We would like to thank Amar-Singh HSS for support in writing the manuscript and allowing us to use one image. We would like to thank Kim-Chye Lim and Sein-Chiong Chiu for reviewing the manuscript and sharing one image with us.

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Citation: Tim Looi & Guan-Chiam Soo (2025). Iris Colour Change of the Crested Goshawk with Maturity. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 91-92.

Rarity Finders in the Field

The Sighting of Javan Plovers at Tawau, Borneo

Stanley T Shao

It all started off when Dave Bakewell alerted me in October 2023 about the possibility of Javan Plover *Anarhynchus javanicus* in Tawau, Sabah, Malaysia, after stumbling upon several photos of mine in my 'unknown ID' photo album on Flickr. The earliest of these was from July 2017, and, with the benefit of hindsight, clearly shows a Javan Plover.



Plate 1: Javan Plover, Tawau, Sabah, Malaysia, Sept 2025.

Prior to this, the known distribution of Javan Plovers was limited to Java, the Kangean Islands, Bali, west and central Lesser Sundas east to Timor, with recent discoveries in southern Sumatra and southwestern Sulawesi (Eaton *et al* 2016; Wiersma & Kirwan 2023). There is one report of a sighting, with breeding, from Singapore in June 2021 (Bird Society of Singapore 2025).

So, for the next 2 years, I kept looking but I was probably looking in all the wrong places. Come early March 2025, I got the opportunity to search for them at a privately owned shrimp farm, whose owner kindly gave me permission to access their property to observe the thousands of shorebirds roosting there. March is also the month when numerous shorebirds converge here in large numbers, displaying their splendid breeding plumage. And as a result, picking out a Javan Plover became a much harder task, especially when there are 64 ponds here to look through. I was struggling at first - I had to familiarise myself with the diagnostic features of Javan Plover which separate them from the very similar Kentish Plover *A. alexandrinus* (Iqbal *et al* 2013) - and then faced the arduous task of picking a Javan Plover out amongst the thousands of shorebirds gathering there at the time.

Finally, when I spotted one, my eyes grew wide open in awe, I was filled with excitement and jubilation (Plate 1). The find gave me revitalising energy and confidence to look for more.

As the migrant shorebirds started their northbound journey, by the end of the season, it got easier to spot Javan Plovers and I managed to confidently identify 13 at this one location alone. Another group of Javan Plovers were discovered 7 km east of the first site, at another shrimp farm, with two adults and two successfully fledged juveniles (Plate 2).



Plate 2: Two fledged juvenile Javan Plovers, Tawau, Sabah, Malaysia, April 2025.

At a third site, on the beach, 7 km west of the first site, a single Javan Plover was observed mixing with the Kentish Plover (Plate 3). In total 18 Javan Plovers have been sighted for this season.

The record was submitted to the MNS BCC Records Committee and was accepted unanimously. I strongly suspect that there are more Javan Plovers out there and I have continued to observe their presence on the coast of Tawau (Plate 4).



Plate 3: Javan Plover (right) on the beach with Kentish Plovers, Tawau, Sabah, Malaysia, May 2025.



Plate 4: Javan Plover, Tawau, Sabah, Malaysia, July 2025.

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Citation: Stanley T Shao (2025). The Sighting of Javan Plovers at Tawau, Borneo. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 93-96.

Australian Tern *Gelochelidon macrotarsa*, Kuala Baram Wetlands, Miri, Sarawak

Dave Bakewell

To use a cooking analogy appropriate to my name, this record was definitely more of a slow cooked goulash than instant noodles!

Ever since learning that Australian Tern *Gelochelidon macrotarsa* had been split from Gull-billed Tern *G. nilotica*, and that there were small numbers of birds reaching Indonesia, my interest was piqued in the possibility of one making it to Malaysia one day. I read up what I could on them, and, on a visit to New South Wales in December 2023, I made it a priority to try to see and study them, which I did on two occasions (Plate 1).



Plate 1: Australian Terns, Shoalhaven Heads, New South Wales, Australia, 18 Dec 2023. In Basic plumage, the head pattern of Australian Terns is distinctively different from that of Gull-billed Terns. Note also the heavy bill, with strongly decurved culmen and weak gonys.

Although Australian Terns breed on ephemeral inland lakes in Australia at any time of year, my hypothesis was that the best chance of finding one in Malaysia might be in the northern spring, as Gull-billed Terns, some of which winter in Australia, head north, perhaps picking up a stray Australian as they do so.

The plot thickened, however, when a putative Australian Tern was picked out with Gull-billed Terns in the Inner Gulf of Thailand in September 2024, hardly a spring overshoot. A couple of months later, I painstakingly checked through the roosting flock of 2000+ Gull-billed Terns at Sejingkat Power Station, Kuching, but to no avail. I also pored over eBird photos of Gull-billed Terns in Malaysia to see if I could find a likely candidate, but again drew a blank.

On 17 April, 2025, despite my hypothesis that spring would be the time to find one in Malaysia, I was not thinking at all about the possibility of Australian Tern when I visited my local patch, as I do on a weekly basis. During the morning, I did spot a lone *Gelochelidon* tern as it flew

away from me, but gave it no more than a cursory glance, assuming it was a late migrant Gull-billed Tern. And there the trail would have ended, were it not for my habit of checking Facebook and a conscientious neighbour!

My neighbour, CY Tan, also visits Kuala Baram Wetlands regularly and takes photos of what he sees, posting them to his FB account. As I was browsing his pictures the following day, I came across two photos of a tern, somewhat backlit, with an enormous bill! My first thought was that this could be an Australian Tern, followed quickly by a second thought that this was the bird I had dismissed as a Gull-billed the previous day! I immediately shot off a message to Jeff Davies, co-author of the *Australian Bird Guide*, who, equally promptly, replied that he was confident that the photos did indeed show an Australian Tern.

Although the following day I had a busy schedule, this was enough to spur me to make a short space in my diary around midday and skip lunch. I arrived at a spot overlooking the wetlands in the stifling midday heat. I waited for half an hour or so but saw no terns. I tried a couple of other spots with the same result. Then a longer drive to an area overlooking the beach, but I drew another blank. I decided to drive back to the original spot for a final cursory look before heading home. On my final scan with the binoculars, I picked up a distant large tern in flight. Switching to the camera I fired off some shots and then checked the back of the camera. The bill proportions looked promising, but I needed to get closer.

I managed to get to roughly the area where I had last seen it and waited. After a short wait the bird reappeared (Plate 2). It was quartering the prawn ponds, and at times came too close to get it all in the frame. The bird was evidently doing a large circuit of the whole area. After spending about 10 minutes quartering the pond where I was, it flew off to the further end of the ponds from me. Because I had to rush off to another appointment, and as I felt I had enough photos to 'nail' the identification, I did not wait for it to come around on its next lap. As I was travelling the following few days, I did not get chance to visit the area again until 8th May, by which time the bird had evidently moved on.

Although Australian Tern in Basic (non-breeding) plumage has a distinctive head pattern which sets it apart from Gull-billed Terns, according to published literature, Australian Tern in Alternate (breeding) plumage can only be differentiated from Gull-billed Tern by their overall larger size, thicker, longer bill with a more strongly curved culmen, paler grey upperparts, whiter upper tail and longer legs.

My first impressions of the bird as being large-billed were confirmed by my views on 19 April, but since it was the only tern at the location, making comparisons with Gull-billed Terns was difficult, especially as I viewed the bird in very strong overhead sunlight, and I only ever saw it in flight.



Plate 2: Australian Tern, Kuala Baram Wetlands, 19 April 2025. Note the heavy bill, strongly decurved culmen and weak gonys. The tail appears white and the wings pale grey, though this is difficult to judge due to the strong midday sunlight.

Even though I was confident that the bird was an Australian Tern, being certain enough that I had enough evidence to submit the sighting as a potential first national record required some additional research. I was thankful that I had obtained a series of good photos, and using these, was able to make extensive comparisons with photos of Australian and Gull-billed Terns available on eBird. In addition to the features mentioned above, I felt that the bird differed structurally from Gull-billed Tern in being longer-necked and broader-winged than that species (Plate 3). After concluding my research, I felt confident enough to submit the record and it was accepted unanimously by the MNS BCC Records Committee. My photos of the bird can be seen at <https://ebird.org/checklist/S227190380>.

If anything can be learned from this experience, I suppose it is that

- a. It is worth preparing oneself ahead of time by learning about potential rarities which might turn up.
- b. Regularly watching a 'local patch' gives the best chance of coming across an unusual visitor.
- c. Always look carefully – don't dismiss a familiar-looking bird too quickly!

Adult Australian Tern, 19 Apr 2025



Appears
broader-winged
and longer-necked
than Gull-billed

Adult Gull-billed Tern, 5 Jun 2023



© Dave Bakewell

Plate 3: Comparison between the Australian Tern at Kuala Baram Wetlands and a Gull-billed Tern seen at the same locality in 2023.

Citation: Bakewell, D. (2025). Rarity Finders in the Field: Australian Tern *Gelochelidon macrotarsa*, Kuala Baram Wetlands, Miri, Sarawak. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 97-100.

Reporting Rare Birds

MNS - Bird Conservation Council - Records Committee

All birdwatchers are encouraged to report new birds seen. See details at the Records Committee Website: <https://sites.google.com/site/mnsbccrecordscommittee/>

The species that are assessed by the Records Committee (species that you should submit) include:

1. All claims of potentially new species for Malaysia.
2. All claims of potentially new species for Bornean Malaysia.
3. All claims of potentially new species for Peninsular Malaysia.
4. All claims of wild species which are currently only in Category B, C or D (for either Bornean or Peninsular Malaysia)

B: Species recorded at least once in a wild state, but not since before 1963.

C: Species believed to occur only as a result of human introduction. The population is considered self-sustaining.

D: Species believed to occur (or to have occurred) only as a result of human introduction. Continued existence in the wild is considered dependent upon repeat introductions.

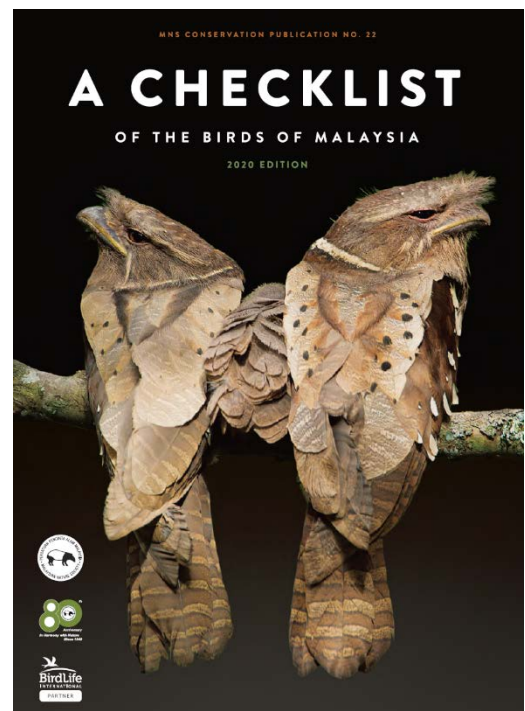
You can download the latest (2020) Malaysia Checklist of birds in pdf format at this link:

https://malaysianbird.report/wp-content/uploads/Checklist_Birds-of-Msia-2020.pdf

1. Rare & New Records submission form
2. Rare & New Records submission form (shortened version for submissions with photos attached)

<https://sites.google.com/site/mnsbccrecordscommittee/home/rare-and-new-record-submission-form?authuser=0>

The Records Committee encourages observers to submit all observations of wild birds in Malaysia to eBird. Claims of rare and scarce species will be assessed by a team of eBird reviewers on that site.



Special Reports

Malaysian Nature Society Participates in the Chinese Crested Tern Conference in Ningbo, China

Ashwin Kalai Chelvan

Acknowledgement

This article written by Ashwin first appeared in Vol 79 Part 1, the Sept-Nov 2025 issue of the Malaysian Naturalist magazine, Malaysian Nature Society. It is reproduced here with the kind permission of the editor of the Malaysian Naturalist and Ashwin, with minor edits/changes.

Introduction

From 16 to 18 July 2025, I had the privilege of representing the Malaysian Nature Society (MNS) at the Chinese Crested Tern Conservation Volunteer Service Program and International Volunteer Service Ningbo Exchange Conference. Held in Xiangshan County, Ningbo, China, the event was organized by the China Volunteer Service Federation and brought together NGOs and volunteer organizations from across the region to collaborate on the conservation of the critically endangered Chinese Crested Tern *Thalasseus bernsteini*.

About the Chinese Crested Tern

Once thought to be extinct by the late 1990s, the Chinese Crested Tern (CCT) was dramatically rediscovered in 2000, earning it the nickname 'Mythical Bird'. At the time, the global population was estimated at only 50 individuals. Through sustained conservation efforts, that number has now increased to approximately 200, with seven identified breeding sites. The commitment shown by Chinese authorities and conservationists has turned this once-forgotten species into a symbol of hope. Continued international cooperation aims to ensure that the CCT becomes a more common sight in the future.



Plate 1: Participants in attendance at the Chinese Crested Tern Conservation Conference, Xiangshan County, Ningbo, China, July 2025.

MNS Participation

The invitation to participate in this conference was initially extended to the Malaysian Nature Society Kuching Branch (MNSKB), who made history by recording Malaysia's first sighting of the Chinese Crested Tern in 112 years. Unfortunately, MNSKB was unable to send representatives. As a result, two representatives from the MNS Selangor Branch - Lim Ying Hien and myself were selected to attend on behalf of MNS. Special thanks to the MNS Selangor Branch Committee and Anna Wong, President of MNS, for supporting our participation.

Preparing for the Conference

In preparation for the event, I collaborated closely with MNSKB to ensure accurate and impactful information sharing. My heartfelt thanks go to Rose Au, Ng Jia Jie, and Olivia Wilbrode for generously providing insights into the Sarawak sighting.

Additionally, we worked with the event organizers for a month leading up to the conference to coordinate logistics and share relevant materials. We also received support from MNS Headquarters, who provided resources and materials for display at the conference. Their assistance was invaluable, and we are sincerely grateful.

On the Ground in Xiangshan

Upon arriving in Xiangshan County, Lim and I were warmly welcomed by the organizers. Known for its scenic beaches and thriving watersport culture, Xiangshan is also deeply invested in the conservation of the Chinese Crested Tern, so much so that the bird is now the county's official mascot. Its image is prominently featured on signage and billboards across the town, reflecting widespread public awareness and pride in the species' conservation.

On the evening of July 16th, we participated in a media interview and a networking session with representatives from NGOs across Asia, including Thailand, Taiwan, Indonesia, the Philippines, and South Korea. We shared MNS's ongoing conservation work, particularly our efforts to protect key migratory flyway sites.



Plate 2: The Participants from Malaysia - the author (left) with Lim Ying Hien, July 2025.

Field Visit to Jiushan Islands

A highlight of the conference was our field visit to the Jiushan Islands, one of the primary breeding sites for the CCT. After traveling by bus to the Xiangshan Sailing Centre, we embarked on a one-hour boat ride to the research station. Although we couldn't land directly on the breeding islet due to rough seas, we reached a nearby island housing a well-equipped volunteer monitoring station. There, we spoke with two dedicated volunteers who have been stationed for several months, collecting vital observational data. State-of-the-art cameras installed on the islet allowed us to confirm the presence of Chinese Crested Terns in real time. Later, we took a closer boat tour of the breeding site. Despite the challenging conditions, Lim

and I managed to spot and photograph the CCT, a rare and unforgettable encounter with one of the world's most elusive birds.



Plate 3: Chinese Crested Tern in flight, Jiushan Islands, Ningbo, China, July 2025.

S

MOU Signing and Exchange Session

In the afternoon, we participated in the conference's main event: the signing of a Memorandum of Understanding (MOU) and an exchange session among attending delegates. The organizers thoughtfully conducted the proceedings in both English and Mandarin, ensuring inclusivity for all participants. I was honoured to sign the MOU on behalf of MNS.

During the exchange session, each delegate was given a 3-5-minute slot to share their organization's work. Representing Malaysia, I spoke about the recent CCT sighting at Bako-Buntal Bay by MNSKB, as well as MNS's ongoing efforts at three major flyway sites:

1. Bako-Buntal Bay
2. North-Central Selangor Coast (NCSC)
3. Teluk Air Tawar

I emphasized the presence of healthy Great Crested Tern *Thalasseus bergii* populations at all three sites, a promising sign for potential future CCT sightings. MNS remains committed to conserving key flyway habitats along the East Asian-Australasian Flyway Partnership (EAAFP), which serve as crucial wintering grounds for numerous migratory shorebirds and seabirds, including the CCT.



Plate 4: Signing the MOU for the Chinese Crested Tern Conservation Conference, Xiangshan County, Ningbo, China, July 2025.

Looking Ahead

The conference concluded with informal networking among participants, fostering the spirit of collaboration that defined the event. We left inspired by the shared commitment to protecting this endangered species and optimistic about future international partnerships.

On behalf of MNS, I extend sincere thanks to the organisers, fellow participants, and all supporters who made this experience possible. With continued collaboration and dedication, we hope to witness the return of the Chinese Crested Tern to Malaysian shores not just as a rarity, but as a beacon of successful global conservation.

Citation: Chelvan, A.K. (2025). Malaysian Nature Society Participates in the Chinese Crested Tern Conference in Ningbo, China. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 102-105.

Articles

Bird Identification Series: Hume's in the Hills, Swinhoe's on the Shore?

Identification and distribution of *Zosterops* white-eye in Peninsular Malaysia

Thomas N. E. Gray

Introduction

Zosterops is one of the most speciose passerine genera with more than 100 'white-eye' species occurring across tropical Africa and Asia (Winkler *et al.*, 2020). Asian white-eyes are generally remarkably similar in appearance and behaviour and are instantly recognisable in the field. They are sensibly and eponymously named for their distinctive white eye rings (*zosterops* means 'eye-girdle') and often occur in active and rapidly moving flocks. The genus is a notable speciator with numerous island endemics, particularly in the Pacific and Indian oceans, many of which are globally threatened including some of the rarest passerines globally (Winkler *et al.*, 2020).

The taxonomy of white-eyes in mainland Asia is confusing and underwent significant revision in the 2010s as genetic studies demonstrated that the widespread 'Oriental White-eye' was paraphyletic i.e. containing forms that were not each other's closest relatives (Lim *et al.*, 2019). At the same time a re-assessment of some of the type specimens for *Zosterops*, which were collected across Asia in the 19th century, revealed some species were incorrectly named (Wells 2017). This research resulted in major changes in species limits and names for *Zosterops* in the region. Under current taxonomy four *Zosterops* species occur in mainland South-east Asia (Table 1), two of which are found in Peninsular Malaysia.

Table 1: *Zosterops* white-eye taxa in mainland South-east Asia.
Forms occurring in Peninsular Malaysia are highlighted.

Species	Sub-species	Distribution
Chestnut-flanked White-eye	<i>Zosterops erythropleurus</i>	Breeds NE China and Russian Far East; winters N South-east Asia south to C Thailand & Cambodia
Swinhoe's White-eye	<i>Zosterops simplex simplex</i>	Breeds E China/Taiwan with some moving in winter into N SE Asia
	<i>Zosterops simplex williamsoni</i>	Resident coastal forest in Gulf of Thailand (Thailand & Cambodia)
	<i>Zosterops simplex erwini</i>	Resident coastal forests of Thai-Malaysia peninsula and Sumatra
Indian White-eye	<i>Zosterops palpebrosus palpebrosus</i>	Central and eastern Himalayas east to southern China (Sichuan, Yunnan)
	<i>Zosterops palpebrosus siamensis</i>	Mountainous regions from S Myanmar north over much of mainland Southeast Asia east through to Vietnam
Hume's White-eye	<i>Zosterops auriventer auriventer</i>	Poorly known; type specimen from S Myanmar
	<i>Zosterops auriventer wetmorei</i>	Hilly areas of SW and E Thailand and W Cambodia
	<i>Zosterops auriventer tahanensis</i>	Extreme S Thailand and Peninsular Malaysia

Whilst it has long been recognised that two species of *Zosterops* white-eye occur on Peninsular Malaysia their names and relationship with other *Zosterops* taxa were revised



during the recent re-assessments. Swinhoe's White-eye in Peninsular Malaysia were formerly part of Oriental White-eye (now Indian White-eye). Hume's White-eye in Peninsular Malaysia were previously considered a subspecies of Everett's White-eye *Z. everetti*; a species which, under the new taxonomy, became a southern Philippine near-endemic (van Balen & Limparungpatthanakij, 2020).

Identification in Peninsular Malaysia (see images in the Appendix)

Field identification of Swinhoe's and Hume's White-eye is difficult (Table 2). Swinhoe's is generally a **brighter, yellower bird** with more **contrasting whiter underparts**, a **thinner and more diffuse yellow-breast band**, and a **thicker eye-ring**. However, these features are subjective and variable. The most consistent and reliable plumage feature seems to be the **colour of the sublores**: the area immediately above the black lores (Figure 1). In Swinhoe's this area is **bright yellow presenting a contrast with the greener forehead**. In Hume's the **sublores are the same colour as the rest of the head**. In good light, and with some luck, this feature can be observed in the field. Eaton *et al.*, (2021) also described consistent differences in the voices between the two species. In Hume's "*the call is like a chicken chick, continually calling. This is a lovely, cheery song, usually sang at dawn. Swinhoe's in contrast is a lower-pitched, buzzy call, that lacks a real song-type away from this*".

Table 2: Summary of identification features for Swinhoe's and Hume's White-eye in Peninsular Malaysia. Derived from Eaton 2021 *et al.*, ¹, Wells 2007² and personnel examination of Macaulay Library photographs.

Feature	Swinhoe's White-eye <i>Z. s. erwini</i>	Hume's White-eye <i>Z. a. tahanensis</i>	Notes
Sublores (area above the black lores)	Bright yellow forming a distinct patch above the black lores which contrasts with the greener forehead.	Olive – the same colour as the forehead with no contrast.	Consistent and reliable feature. Can be visible in the field but not obvious. Usually visible in good photographs.
Eye-ring	Thicker; <i>roughly equal width to eye's diameter</i> ¹	Thinner; <i>width of lower portion roughly 50-70% of eye's diameter</i> ¹	Difficult to see in field; best with photos
Lores	Black and generally straight and narrow meeting upper mandible. Some black extending below eye-ring.	Black and generally thicker and more diffuse than in Swinhoe's. The black can extend below the eye.	Feature appears variable and light dependent. Best observed in photos.
Underparts	White-grey	Grey-white	Darker in Hume's
Overall colouration and contrast	Olive-Yellow	Olive-green	Swinhoe's is a brighter bird with greater contrast between white undersides and yellower tones above
Belly pattern	Yellow mid-ventral band running ' <i>almost to but not quite joining</i> ² yellow upper breast and ' <i>often interrupted towards the vent</i> '.	Broader yellow mid-ventral band ' <i>pinched off by grey, never quite meeting</i> ² the yellow upper breast	The broadness of ventral band appears variable within species but is <i>generally</i> narrower and more diffuse in Swinhoe's
Rump pattern	Same olive-yellow colour as the back	Yellow contrasting with olive back	Feature is light dependant and can be difficult to discern in field or on photos.

Voice	<i>Only known to produce series of call-like notes reminiscent of a chicken check.:</i> <i>(i) downslurred, sharp, slightly buzzy “tzeep”, 3-6 kHz;</i> <i>(ii) hard, slightly ascending rattle “p’r’r’r’t’t”, lasting <0.5 s Chips like a chicken chick¹ // a metallic dza-dza, repeated several times, and a shriller, twittering dzi-da-da²</i>	<i>Song: clear, pleasant, sweet but rather weak series of twittering notes.</i> <i>Call: (i) “tsee-tsee” or metallic “spreet” or “peet” while perched and in flight; (ii) high-pitched buzzing “dzee”;</i> <i>(iii) more musical, inflected “dzee-ap”, mainly in flight¹ a high-pitched, buzzing dzee and an inflected¹ rather more musical dzee-ap²</i>	Voice is highlighted as a consistent feature for species identification and for those with a good ear, and attention, one of the most reliable identification features (J. Eaton, pers. com.).
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Note that the forms of both species in Borneo are subtly different from birds on Peninsular Malaysia and the features described above may not be accurate in Sabah or Sarawak.

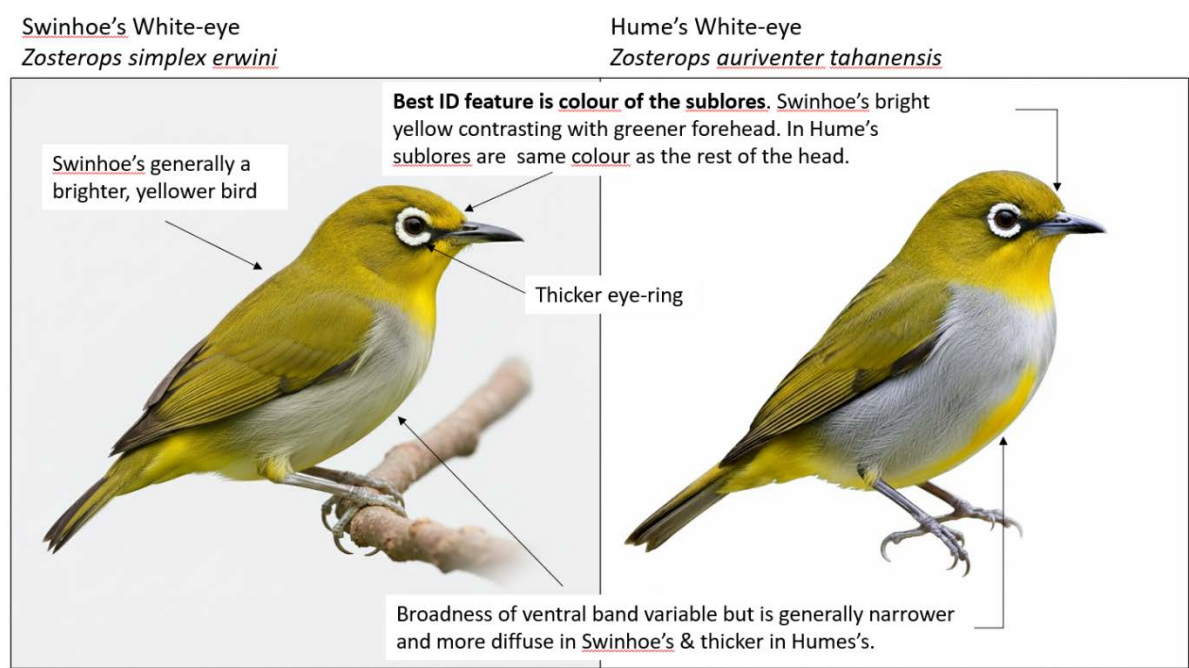


Figure 1: AI generated image to illustrate the key differences between Swinhoe’s and Hume’s White-eye. Graphic created by Amar-Singh HSS.

Distribution & Status of *Zosterops* in Peninsular Malaysia

Swinhoe’s and Hume’s White-eyes have different, and fairly consistently defined, habitat preferences within Peninsular Malaysia (Table 3). However, partly as a result of the taxonomic changes described earlier, combined with identification difficulties in the field, numerous records within citizen science platforms such as eBird are misassigned and eBird distribution maps of the two forms in Peninsular Malaysia are fairly inaccurate (Figure 2).

I reviewed photographs of *Zosterops* from Peninsular Malaysia published in Macaulay Library and the location of confirmed Hume’s and Swinhoe’s records largely matched the previously published knowledge of their distribution and habitat preferences.

Table 3. Status and habitat preference of Hume's and Swinhoe's white-eye in Peninsular Malaysia from publications on Malaysian birds.

Source	Swinhoe's white-eye	Hume's white-eye
Wells 2007	Resident, regular in core coastal vegetation and, on coasts, more or less common from Kedah to Pahang. Core habitat is described as mangrove forest, mature & regenerating open strand woodland especially with stands of casuarinas, and coastal and sub-coastal scrub. Foraging parties, sometimes large, also wander inland	Throughout occurring south to Pantl and Pulau peaks. Lowland dry-land forests, descending into the top of forest-edge growth, at all elevations but more numerous, or at least more visible, above the steep-land boundary up to 2000m in the Main Range
Jeyarajasingam & Pearson (2012)	Fairly common resident at low elevations along the coastal plain south to Johor in mangroves, casuarinas, beach scrub, forest edge, and wooded areas.	Locally common resident principally in hilly country up to 2000m south to Negeri Sembilan in forests and forest edge
Puan <i>et al.</i> , (2020)	Locally common resident throughout lowlands especially mangroves and other coastal vegetation	Locally common resident occurring at all elevations but commoner in montane and submontane forests

Confirmed Swinhoe's White-eye records were almost exclusively from coastal mangrove and peri-urban coastal habitat particularly on the west coast (Selangor to Melaka), around Johor Bahru, and in areas on the Pahang coast (particularly Kuantan and Cherating). The furthest record from the coast was ~30 km in the Klang Valley (Putrajaya Wetland Park & Taman Tun Dr Ismail) and 12 to 20 km from the coast in urban Seremban and Melaka. Wells (2007) documented Swinhoe's occurrence '*an extreme 80km from the sea*' suggesting such records were inconsistent due to itinerant parties of birds. The maximum confirmed elevation from eBird photographs was at 95 m with a number of records around 50 m.

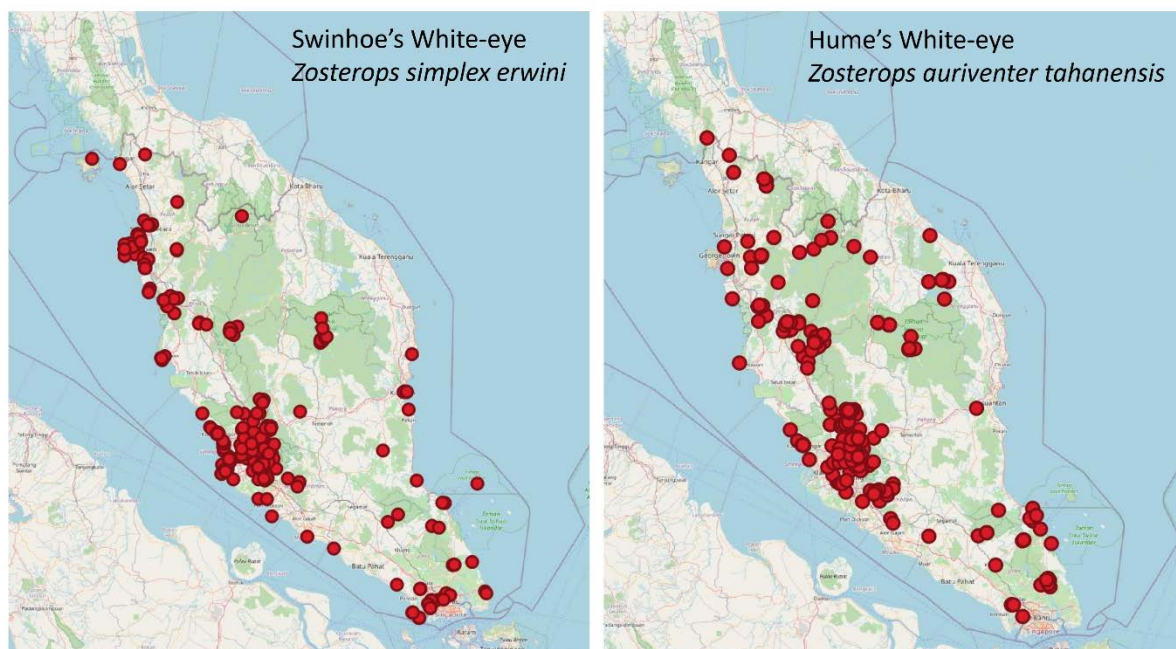


Figure 2: Records of Swinhoe's and Hume's White-eye from Peninsular Malaysia (1975 to Aug 2025) submitted to the citizen science platform eBird. Non-coastal records of Swinhoe's, particularly outside the Klang Valley, are likely erroneous as are coastal records of Hume's. Subsequently an assessment of Swinhoe's records away from coastal areas has been conducted by an eBird Reviewer which will have removed a number of the incorrect records (J Eaton, pers. com.). Graphic created by Amar-Singh HSS.

Hume's White-eye was widely recorded from forested areas throughout the Peninsular. Records were from ~20 km from the east coast in Johor and from >30 km from the coast in Selangor. The species showed elevational overlap with Swinhoe's White-eye with occurrences as low as ~30 m in Johor and ~40 m in Selangor.

In urban Kuala Lumpur and Selangor/Petaling Jaya Swinhoe's and Hume's White-eye occur in close sympatry. Hume's White-eye has definitively been photographed within Bukit Kiara (~50 m) and further east in Selangor at popular birding spots such as Sungai Congkak and the Old Gombok Road. Swinhoe's White-eye have been photographed in the Taman Tun Dr Ismail area (< 2 km from Bukit Kiara), around urban Kepong, and Kota Damasara. It seems likely that Swinhoe's occur along waterways and urbanised areas, including small city parks, whilst Hume's is likely restricted to larger forest blocks within the Klang Valley.

Who were Swinhoe & Hume?

A significant proportion of Southeast Asian birds are named, in English, after dead white men. The 'new' names for *Zosterops* in Peninsular Malaysia match this trend. Robert Swinhoe and Allan Hume were amongst the most active and influential ornithologists in East Asia and the Indian subcontinent respectively during the 2nd half of the 20th century.

Robert Swinhoe (1836-1877) was a professional British diplomat, born in colonial Kolkata, and who served as a British envoy, consul, and governor in China and Taiwan between ~1855 and 1873. He died at the age of 41, of syphilis. Robert was a passionate and detail-oriented naturalist and extensively collected and surveyed areas of China and Taiwan documenting 93 new species of birds and 17 mammals. Alfred Wallace, co-originator of the theory of evolution, wrote following Swinhoe's death "*due to Mr. Swinhoe's own exertions...there is probably no part of the world (if we except Europe, North America, and British India) of whose warm-blooded vertebrates we possess fuller or more accurate knowledge than we do of the coast districts of China and its islands.*" Robert's brother, Charles Swinhoe (1838-1923) was also a colonial-era naturalist, and soldier, and largely served in India. Hall (1987) provided a detailed bibliographic article on the biological achievement of Robert Swinhoe.

Allan Hume (1829-1912) was one of the most prominent and significant political figures in British India in the second half of the 19th century and a champion, within the constraints of his time and class, for Indian independence and self-determination. Hume was also one of the most active and best regarded naturalists across British India and is viewed as the 'father of Indian ornithology'. A detailed and excellent biography was published in *Birding Asia* in 2012 (Collar & Prys-Jones 2012) which details his life and work from a 'birders' perspective and highlights the approximately 40 bird species which Hume described. These include some of Malaysia's familiar species, such as spectacled bulbul *Pycnonotus erythrophthalmus* as well some of Asia's most threatened birds including White-shouldered Ibis *Pseudibis davisoni*, White-bellied Heron *Ardea insignis*, and Gurney's Pitta *Pitta gurneyi*.

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Appendix: Image Gallery of the Swinhoe's & Hume's White-eyes

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Swinhoe's white-eye showing distinct, but narrow, yellow subloral area above the black lores and contrasting with the rest of the head, a thick eye-ring, and an overall yellow-green colour without a significant rump patch.

Cheow-Lim Lee, Lotus Pond,
Bukit Kepayang
26 Oct 2021.

Macaulay Library ML639286346



© Kwang-Ming Teh

Swinhoe's White-eye showing thin yellow subloral stripe, thick eye-ring and general yellowish colour.

Kwang-Ming Teh, Mangrove
Point, Port Klang, Selangor,
Malaysia
18, Jan 2025



© Kwang-Ming Teh

Swinhoe's White-eye showing yellow sublores and white underparts with a faint and diffuse ventral stripe.

Kwang-Ming Teh, Mangrove
Point, Port Klang, Selangor,
Malaysia
18, Jan 2025



© Amar-Singh HSS

Hume's White-eye showing the typical grey underparts and broad well-defined mid-ventral stripe.

Amar-Singh HSS, Kledang-Saiong Forest Reserve, Ipoh, Perak, Malaysia, 03 Dec 2018.

Macaulay Library ML645581424



© Cheow-Lim Lee

Hume's White-eye showing green sublores with no contrast with the rest of the head, a thin eye-ring, and overall greenish-olive upperparts and grey-white underparts.

Cheow-Lim Lee, Talang Birdwatching Trail, Talang-Langkap Road, Negeri Sembilan, Malaysia, 10 Jul 2022.

Macaulay Library ML468221451



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Hume's White-eye showing olive-green sublores, a thin eye-ring, grey underparts, and a strongly defined, albeit relatively narrow, yellow mid-ventral stripe.

Amar-Singh HSS, Kledang-Saiong Forest Reserve, Ipoh, Perak, Malaysia, 21 Oct 2021.

Macaulay Library ML384580871



© Kwang-Ming Teh

Hume's white-eye showing an all olive-green head lacking any yellow on the sublores, a thin eye-ring, and grey underparts. Note the fairly diffuse and pale mid-ventral stripe highlighting the variation in this feature.

Kwang-Ming Teh, Bukit Tinggi,
Pahang, Malaysia, 17 Mar 2024

Macaulay Library
ML616157168

Bird Trees Series:

Sterculia sp – Fruit Trees for Hornbills and other Big Birds

Amar-Singh HSS, Qayyum Shah & Ganesan Siba Siba

Introduction

Sterculia is a genus of 182 flowering plants in the family, Malvaceae: subfamily Sterculioideae; colloquially known as 'tropical chestnuts'. Of these at least 28 species are found in Malaysia (MyBIS 2025) with some planted as ornamental trees along the roadside (Tropical Plants Database 2025). A few bear fruits attractive to birds; these include *Sterculia parviflora*, *S. lanceolata* and *S. coccinea* (Hails & Kavanagh 2013, MyBIS 2025) (note that *S. coccinea* is considered by some to be a variant of *S. lanceolata*). *S. parviflora* and *S. lanceolata* are locally known as 'Kelumpang Burung' "because the birds love to eat its fruit" (MyBIS 2025). Another older name given to these and other trees with yellow or red fruit that have large pulpy seeds is 'Tangisong Burong' (crying birds) (Corner 1952). Despite their attractiveness to birds, these native trees are poorly known to birdwatchers and inadequately used as trees to attract birds in urban settings.

S. parviflora is a tall tree and can grow up to 30 m, while *S. lanceolata* is smaller at 4m. The hallmark of these trees is the bright red or orange fruit that splits open like petals to reveal shiny black seeds. Birds feed on the flesh of the fruit, on the seed and some on the nectar of the flowers. Table 1 outlines selected *Sterculia* species and their distribution.

Table 1: Selected *Sterculia* species and their distribution

Species	Synonym	Malay Name	IUCN Global Status	Forest type	Distribution
<i>Sterculia parviflora</i>	<i>Sterculia maingayi</i>	Kelumpang Burung	LC	LDF, HDF	PM, Borneo
<i>Sterculia lanceolata</i>	<i>Sterculia coccinea</i>	Kelumpang Burung	LC	LDF, UR	PM, Borneo
<i>Sterculia foetida</i>	<i>Sterculia polyphylla</i>	Kelumpang Jari	NE	CF, UR	PM, Borneo
<i>Sterculia rubiginosa</i>	<i>Sterculia angustifolia</i>	Kelumpang Bukit	NE	LDF, HDF	PM, Borneo
<i>Firmiana colorata</i>	<i>Sterculia colorata</i>	Kelumpang	NE	CF, UR	PM

Key: LC = Least Concern; NE = Not Evaluated; LDF = Lowland dipterocarp forest; HDF = Hill dipterocarp forest; CF = Coastal forest; SF = Secondary forest; UR = Urban Landscape; PM = Peninsular Malaysia.

Observations

On 27 July 2025, Qayyum joined several members in a flora identification workshop held at the recreational forest of Kampung Bukit Jana, Taiping, Malaysia. The programme, organised by Diribumi and Rimba Bukit Jana with support from the Taiping Heritage Society, in collaboration with Sustainable Tourism Malaysia and funded by the Ministry of Finance Malaysia, was designed to strengthen community skills in recognising forest plants and trees.

At around 1200 hours, while examining a stand of forest trees, Qayyum's attention shifted from plants to birds. An adult Green-billed Malkoha *Phaenicophaeus tristis* appeared among the branches of a *S. parviflora* (Common Sterculia), which was fruiting at the time. The malkoha

was deliberately moving from one branch to another, plucking exposed seeds from the fruit open pods and feeding actively (Plate 1).

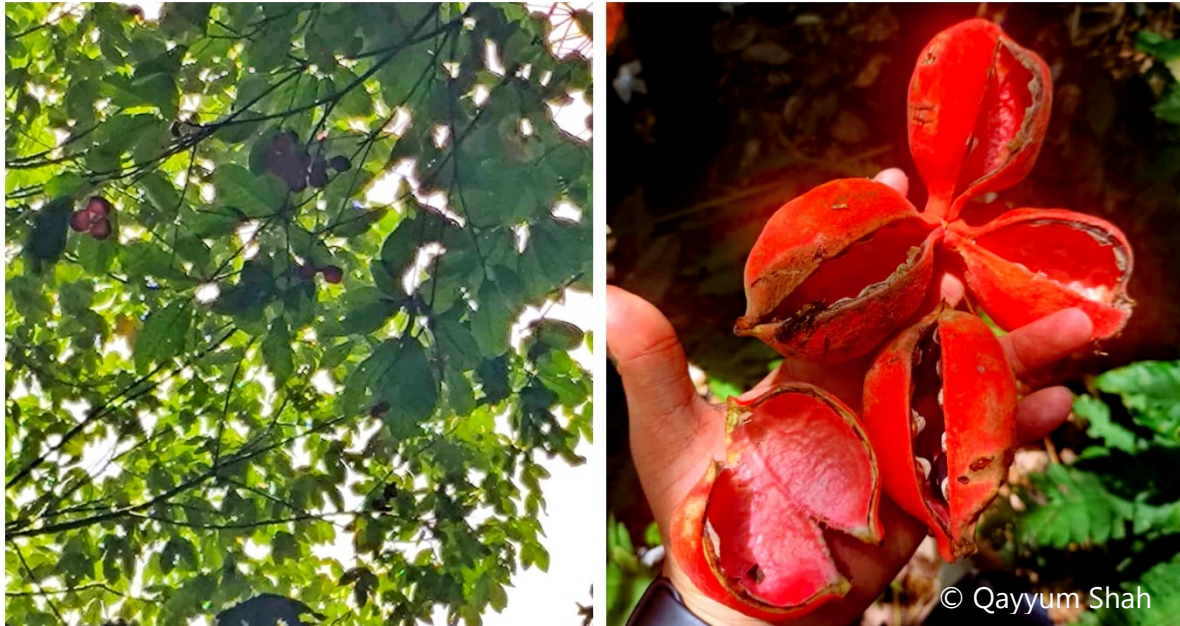


Plate 1: Hanging *S. parviflora* (Common Sterculia) fruits pods that are still hanging (left) and fruits pods that had dropped on the ground (right).

On further research, *S. parviflora* often attracts frugivorous birds during the fruiting season. In lowland dipterocarp forests, the flowering pattern occurs from January to March, followed by fruiting from March to July (e-Flora of Thailand 2001). This may vary by location, as some observations have reported *S. parviflora* fruiting during November–December in urban landscapes (Teo 2019) (Figure1).

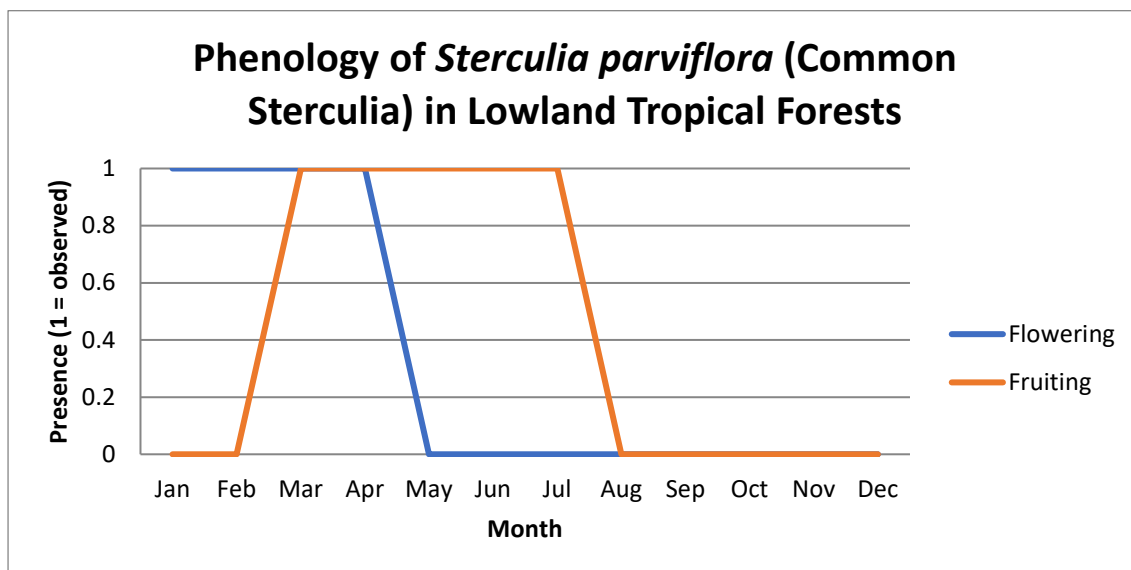


Figure 1: Phenology of *S. parviflora* (Common Sterculia) in Lowland Dipterocarp Forests.

Such interactions highlight the ecological role of *S. parviflora* as a seasonal food source for birds. Beyond a single observation, *Sterculia* species have long been recognised as vital food plants for wildlife in Peninsular Malaysia (Norsham Suhaina Yaakob 2005), including *S. foetida*, *S. parviflora*, and several others. Watching the Green-billed Malkoha feed among the fruiting pods was not just a fleeting moment in the forest, but a reminder of how these trees sustain life and weave connections between plants and animals across the forest.

Ganesan Siba Siba has observed large birds feeding on *S. lanceolate* fruit in his neighbourhood in Singapore. In July 2021 he observed a pair of Oriental Pied-Hornbill *Anthracoseros albirostris* (Plate 2) and three Tanimbar Corella *Cacatua goffiniana* (Plate 2) feed on the fruit and flowers. He has a *S. lanceolate* tree located below his apartment and, as he says, "it was a sight to behold to see the cockatoos and hornbills amidst the blazing red fruit". All these birds have big strong beaks to bite and split the tough fruits and seeds of the *Sterculia* trees.



Plate 2: Oriental Pied-Hornbill (left) and Tanimbar Corella feeding on *S. lanceolate* fruit, Singapore, July 2021.

Birds have also been noted to feed on the nectar of some *Sterculia* sp. The *S. colorata* (Bonfire Tree, native to the forests of the Western Ghats and the Deccan in India) has been planted in Ipoh, Perak, Malaysia since the 1960s. It flowers once a year and sheds all its leaves at the same time. Brilliant orange flowers, hanging downwards, are produced in dense panicles at the ends of branches. Amar observed a number of birds feeding which included the Black-naped Oriole *Oriolus chinensis*, Brown-throated Sunbird *Anthreptes malacensis* and Yellow-vented Bulbul *Pycnonotus goiavier* (Amar-Singh HSS 2019) (Plate 3).



Plate 3: Black-naped Oriole (left) and Brown-throated Sunbird feeding on the nectar of *S. colorata*, Ipoh, Perak, Malaysia, April 2019.

Other Birds Identified to Feed on *Sterculia* sp Fruit

An online search of images and key words identified more birds that feed on the fruit of *Sterculia* sp. They include:

1. Oriental Pied-Hornbill *Anthracoceros albirostris* feed on *S. parviflora* or *macrophylla* fruit and *S. lanceolata* fruit (Singapore) (Marcus Ng 2012).
2. Malabar Gray Hornbill *Ocyrceros griseus* feed on *S. guttata* pods (Mudappa & Raman 2023).
3. White-crowned Hornbill *Berenicornis comatus* feed on *Sterculia* sp fruit (IUCN Hornbill Specialist Group 2025).
4. Narcondam Hornbill *Rhyticeros narcondami* feed on *S. rubiginosa* fruit (Naniwadekar 2020).
5. Bradfield's Hornbill *Lophoceros bradfieldi*, feed on *S. quinqueloba* fruit (Kemp & Kirwan 2020).
6. Asian Glossy Starling *Aplonis panayensis* feed on the seeds of *S. lanceolata*. https://www.instagram.com/p/CRA47_Sg_dg/ & <https://identify.plantnet.org/k-world-flora/species/Sterculia%20parviflora%20Roxb.%20ex%20G.Don/data>
7. Asian Koel *Eudynamys scolopaceus* feed on the fruit and possibly the seeds of the *S. foetida* (Limparungpatthanakij 2024).

The Black Hornbill *A. malayanus* is said to feed on *S. cordata* fruit and the Yellow-vented Bulbul *Pycnonotus goiavier* on the seeds of *Sterculia* sp fruit but we are not able to find references.

Note that many of the birds that feed on *Sterculia* sp. fruit are large birds; smaller birds feed on the seeds or nectar. The fruit of *Sterculia* sp. is especially well documented in the diet of hornbill species (Lum & Poonswad 2005). We require additional observations to determine what local hornbill and malkoha species feed on the fruit and if barbets and other large forest birds do so as well.

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We would like to thank Swee-Yian Lim for reviewing the manuscript.

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**Tips & Tools to Aid Birdwatching & Bird Photography Series:
Birdcall Mnemonics in Malaysia**

Jia-En Ho

When it comes to learning about the birds around us, it can seem like a daunting task, especially for new birdwatchers. There's a variety of body shapes and colours to become familiar with, as well as all sorts of different calls. The latter can get even more overwhelming in the depths of the Malaysian jungle, where you can barely see anything but hear a cacophony of birdsong. Sorting through the layers of sound and knowing which bird is calling can be incredibly rewarding, and means that you don't have to necessarily see the bird to confirm your ID.

Mnemonics can be a useful way to memorise birdcalls. This is when words are assigned to the rhythm of the call, like lyrics to a song. Some notable examples include the Barred Owl's *Strix varia* "Who cooks for you? Who cooks for you all?" and the Yellowhammer's *Emberiza citrinella* "a little bit of bread and no cheese". Similarly, some birds are named after the sound of their calls, like the Asian Koel *Eudynamys scolopaceus*, whose drawn-out vocalisation sounds just like "ko-el", and the Coppersmith Barbet *Psilopogon haemacephalus*, whose monotonous call sounds like a coppersmith hammering on metal. Below are some illustrated mnemonics for birds that can be found in Malaysia. Links to their calls are also provided, so you can compare the mnemonic to the actual sound. These mnemonics are widely used among the birdwatching community, but there are many different mnemonics unique to individual birdwatchers. Feel free to invent your own; the creativity of coming up with mnemonics is one of the joys of birdwatching.



White-necked Babbler
Stachyris leucotis

<https://xeno-canto.org/827282>



Indian Cuckoo
Cuculus micropterus

<https://xeno-canto.org/982884>



Malaysian Eared-Nightjar
Lyncornis temminckii
<https://xeno-canto.org/503213>



Bold-striped Tit-Babbler
Mixornis bornensis
<https://xeno-canto.org/422388>



Red-wattled Lapwing
Vanellus indicus
<https://xeno-canto.org/1030950>



Brown-throated Sunbird
Anthreptes malacensis
<https://xeno-canto.org/956219>

Abbott's Babbler
Malacocincla abbotti
<https://xeno-canto.org/877854>



Lesser Coucal
Centropus bengalensis
<https://xeno-canto.org/956692>

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How to Become a Good Bird Guide? How do you Select a Good Bird Guide?

Amar-Singh HSS, Liew WK, John Bakar, Jason Bugay Reyes, Shafeeq Wilson, Mizun Tan, Kuan-Yaow Poon & Teik-Hoong Teoh

Summary: Key Points on Successful Bird Guiding

Bird Welfare and Ethics are Paramount: The single most important aspect of a good bird guide is having genuine respect for bird welfare and their habitat, prioritising this above all else, including client expectations or financial gain. Guides must practice proper birding ethics to avoid negative impacts on the environment.

Client-Centric Service and People Skills: A successful guide focuses on meeting the diverse needs and expectations of their guests, who may be seeking rare birds, easy sightings, photographs, or just a great experience. This requires being observant, tactful, sociable, and demonstrating a genuine interest in making sure guests go home happy. Excellent communication skills and a pleasant personality are crucial.

Expert Knowledge and Field Skills: A guide must be an expert on the local birds, possessing intimate knowledge of their descriptions, behaviour, habitat, and calls/songs to efficiently find target species. Being an overall naturalist with knowledge of local ecology, other wildlife, and even culture enhances the guest experience.

Training and Development are Necessary: While experience, self-learning through field observation and books, and mentorship are common ways to develop skills, there is a call for a formal training course or certification for bird guides. This is seen as useful for ensuring a consistent standard, promoting ethical practices, and fostering a better understanding of science and natural history.

Professionalism and Logistics: A good guide demonstrates professionalism and attention to logistics, including efficiently handling the hassle of arranging accommodation, transportation, and meals. They should also be prepared to manage challenging situations like varying client expectations and, in some cases, communication barriers. Personal recommendation and strong reviews are the primary criteria for a guest choosing a competent guide.

Bird guides are very helpful to birdwatchers and photographers, especially when travelling outside of their usual bird 'patch'. A good bird guide will have the ability to locate hard to find birds, have much knowledge about bird ecology, good communication abilities, birding ethics and the ability to manage group dynamics.

In this article we explore what it takes to become a good bird guide and also offer tips on how to select a good bird guide. We asked a number of bird guides and birders a series of questions on these two subjects and their opinions are summarised below. Three experienced bird guides and four birdwatchers were kind enough to respond.

The opinion here may help those hoping to become bird guides as well as those trying to decide how to choose a guide.



Plate 1: AI generated image to depict a bird guide in action.

Questions posed to Bird Guides on “How to Become a Good Bird Guide?”

What do you consider the most important aspects/skills of being a good & successful bird guide?

- Liew A good bird guide doesn't just find birds. They ensure they meet the needs of their guests. What may seem rare to us may just be a bird addition to a guest's bird list.
- John Top priority is genuinely/sincerely respect birds (welfare) as important as human beings (ethics). Then followed by professionalism; skills, knowledge, communication, career development, etc.
- Jason Be observant of your client's needs and tactful whilst balancing your skills in bird identification through sight and sound. It is good to have quality sport optics.

How did you develop your bird guide skills? Did you require any training? Should there be a formal training course for bird guides?

- Liew This is purely based on birding experience and some basic training provided by the company.
- John Mentored by knowledgeable visiting experts and self-learned (field observation & books). With informal/on-the-job training by a few retired



birders on multiple disciplines. A training course is required; some form of certification of standard or better understanding (science & natural history) and ethics is needed, so as not to cause a negative impact or unwanted practices.

Jason I started with a borrowed binocular and the Blue-throated Bee-eater was the 'spark bird', shown by a good friend of mine, Jollence in Tuaran in 2003. I am self-taught from bird books and the Internet. It's good to have a formal training course locally for future bird guides with the assistance from the government.

What are the major challenges of working as a bird guide?

Liew One of the biggest challenges as a bird guide is not just finding the birds, but how to manage different guest expectations - some want rare birds, some prefer easy ones, some are photographers, others are listers. We always try to plan ahead, adjust along the way, and make sure everyone goes home happy with good sightings, good photos, and a great experience.

John Handling various clients' perspectives and expectations that may go against birds' welfare.

Jason Uncertainty in future bookings for those working as freelancers.

Any tips for those aspiring to become a bird guide?

Liew Birding is more than just spotting birds - it's about sharpening your skills, learning the how, what, and where of each bird. Along the way, we also build patience... and improve how we connect with people too!

John Please respect birds' welfare and their habitat.

Jason Be yourself and respect the people and nature around us.

Any other comments?

Liew One of the biggest challenges in bird guiding is finding the right balance - meeting customer expectations while still respecting nature and wildlife ethics. It's not just about the perfect photo, but also about protecting the birds and their habitat for the future.

John Client's money never tops the birds' welfare.

It is interesting to note that all three bird guides have stressed the need for bird ethics while managing the client's expectations. Being knowledgeable about nature and culture, not just about the birds, is as important as finding the 'target' birds (Dragan 2014). Good birdwatchers know there are no guarantees and this is not always appreciated by those trying to photograph a bird. I (Amar) once joined a bird guide in a foreign country who, prior to me, had a client who insisted on him 'producing' 20 good birds everyday that he could photograph well; a major stress and not definitely not a repeat client.



© Amar-Singh HSS

Plate 2: It is highly unlikely that this Sunda Scops-Owl *Otus lempiji* could be seen & imaged at night without the help of a local bird guide. Sungai Kapur FR, Lahad Datu, Sabah, Malaysia, March 2025.

As bird guides have grown in number, it would be useful, as suggested, for some organised training and perhaps even some certification. However, this should not hinder the growth of self-grown bird guides with in-depth local experience. There are a number of bird guide certification courses offered in industrialised nations. The National Audubon Society in collaboration with the Inter-American Development Bank have produced both a basic and advanced level bird guide training curriculum (Sterling *et al.* 2015a, 2015b). These are very comprehensive and could be used as good references for the development of local training guides. Another training guide available online is one for use in rural communities. It is interesting to note that these bird guide training curricula not only cover bird identification and tools of the trade but also guiding skills, ethics, group management and business skills.

It is important to get end-user perspectives on bird guides. Their opinions are outlined below.

Questions posed to Birders on "How do you Select a Good Bird Guide?"

How do you choose a good bird guide? What are your criteria? What should we look for in a bird guide?

Shafeeq & Mizun The first line of enquiry would be through birders in the area, Facebook being a good place to start in finding an appropriate Group. Personal recommendation would definitely be the thing to look for, and we have found



that the community of birders is always very willing to give time and effort to newcomers. When asking of a birding group, multiple recommendations for the same person would be a very good indicator that this is the guide to go to. This sort of approach will also often lead to direct offers of personal company on a birding visit, rather than simply giving contact details for a professional guide. This is certainly how we have responded on various occasions. It is fun showing visitors around the areas that we are so familiar with, especially those from overseas. We have done this for people from India and UK, taking them to Panty and Fraser's Hill. Being there with someone new to the place makes you appreciate it more yourself.

Kuan Yaow The guide must be the expert on the birds in the area with intimate knowledge of descriptions of birds, their behaviour, habitat and range, songs and calls. So that he/she can find the targets whilst practising proper birding ethics. Able to show images of birds on the wish-list on his phone. An overall naturalist with knowledge of the ecology of the area, the vegetation and other wildlife like snakes, mammals, insects. etc. Also able to explain a bit about the local culture of the area. Of course, arrange for decent accommodation, transportation and meals. Personality of bird guide: Must show passion and enthusiasm in his chosen field. A people person who has a genuine interest in making sure the guests get whatever they are hoping for. Be helpful and encouraging when the going gets tough especially when dealing with older guests. Does not charge astronomical eye watering fees. Bird guides are chosen based on reviews and the recommendation of friends.

Teoh The choice of a bird guide really depends on many criteria for me. Since we are investing time and resources for a trip, it is just as important to get a competent bird guide to add the icing to the cake. Often, I play the guide for my group of birdwatchers. Knowing their needs (for accommodation, food and travel modes) comes first and it is then followed by what they expect of the trip – bird count and lifers. As such, choosing a suitable bird guide is very personal. There has to be chemistry between the bird guide and our group. The guide must be knowledgeable in the area we are heading for. As for chemistry, I supposed we look for a sociable guide; but not too quiet nor too chatty. His local knowledge is important and his connections to the people on the ground is just as crucial. When all of the above is satisfactorily met, then comes the question of costing/pricing. This is important so as not to burst our budgets but at the same time not be too unfair to the guide. From a personal perspective, I prefer a bird guide who also takes photographs. This is important. This will give us the assurance that we won't just be hearing the bird; seeing the bird from afar and that we will get to photograph a bird in the right place and the best composition.

How have you benefited by using a bird guide?

Shafeeq & Mizun We have only employed professional guides on two occasions, both on a visit to Sabah. Going to Danum Valley was a high-cost trip and we felt it important to make the most of the opportunity. Also, we were aware that outside the main trails, it was required to have a guide in any case. On that occasion the



Rainforest Lodge provided a guide (plus a trainee guide as well) for the 5 days. They were excellent, and found all the birds that we had hoped to see – and more – becoming real friends by the end of the trip. The other place on the same trip was Mount Kinabalu. Again, we were aware that there were many species there that we had not seen and, more importantly, would not easily recognise if we did. On this occasion, the birding group recommendations all pointed to the same man, and he not only spotted and identified a large number of species, but also knew the locals and arranged transport to the top of the road, so that we only had to walk down! With a few hours of his full day employment left, and the mountain birds going quiet after mid-day, he was also willing to add on an unexpected visit to a paddy field area.

Kuan Yaow Able to photograph many more birds during a birding trip since a bird guide will bring guests to the exact spots at the best time birds are active. Less time and energy wasted trying to seek out targets. Bird guides are able to get up-to-date info from his contacts in the area. Hassle of arranging accommodation, transport and meals are handled efficiently by guides so guests can just concentrate on enjoying the birding experience.

Teoh Using the criteria above, I have engaged several bird guides over the years, some locally and some in neighbouring countries. I remember a trip to the northern border. We had engaged a Thai bird guide who picked us up after the border crossing before heading off to our destination for a day-trip. He was friendly and cheerful as well as thoughtful – stopping to get provisions and meals for us before heading into the port for the day. He made our journey experiential – sharing local stories and what to expect at the port. Throughout the day, he was with us taking great pains that we got what we came to get. Local guides are quite similar for me. I found our guide for a day-trip to Taman Negara eye-opening as he was very friendly from the start; resourceful; patient and able to improvise. Since the target birds appeared earlier than expected, we had time on our hands. Our guide took us on a ride into the park and shared his insights on the area and was more than happy to oblige our occasional holler to stop the vehicle for a quick shot of a bird. Overall, yes, we have benefitted from having a bird guide with us.

What challenges have you encountered with bird guides?

Shafeeq & Mizun The main thing that we found, when using a guide, is that, with everything being identified for us, and sometimes in quick succession, we did not really look carefully at the birds that were pointed out. So, although we had technically recorded seeing a lifer, we did not have photos and didn't have a clear idea of what the bird looked like. Overload of information, and pressure to move on and find the next target!

Kuan Yaow Communication difficulties due to language barriers when bird guides are less competent in English. After booking with a particular birding company, a random bird guide is assigned to the birders; and his performance is well below expectations.

Teoh Thus far, my experience with bird guides I have engaged has been pleasant. But this is not so with other bird guides who happen to be at a location with



their clients. Some are obnoxious, arrogant and very unfriendly. They would try to take control of a port just for the benefit of their clients without consideration for others who are there. Some guides even chop off tree branches, remove shrubs and destroy the natural environment just to ensure their clients get a clean clear shot of the target bird.

Any other comments?

- Shafeeq & Mizun I should say that our direct experience with using bird guides is very limited. However, on the few occasions when we have elected to make the (sometimes considerable) investment, we have had good experiences. I think the decision to use a guide is a very personal thing. Mostly we are happy to explore new areas on our own, at our own pace, enjoying the little thrills of seeing and identifying new birds. Using a guide will certainly increase your chances of recording a longer list of sightings, but may also mean that you do not fully enjoy the simple pleasure of being in a new birding location, with the hope of an exciting lifer!
- Kuan Yaow To secure the services of a competent, reliable and helpful guide, always choose based on the recommendations of birder friends who have used the person before.
- Teoh Bird guides are important. But I have observed that the Department of Wildlife and National Parks has stopped organising courses to recruit more bird guides. I once enquired about the course several years back and only got a reply – we will get back to you when we organise one. It's been several years and there was no further word. I believe we should continue to grow the number of bird guides in the country. Competent bird guides can be nurtured to further protect our natural environment while they play the role of nature ambassadors with the right ethics and practices.

As can be seen from the opinions, different birdwatchers have different expectations and needs – something that a good bird guide should clarify before even taking up the task. Birders often rely on colleagues to give recommendations of bird guides to use – emphasising that the 'word-of-mouth' portal is a powerful one. An enjoyable experience with a guide, results in that guide getting more and repeat business. It is interesting to note that birders also act as informal, unpaid bird guides, and often enjoy the experience.

The growth of bird hides to enable bird photography has, to some extent, degraded the richness of the bird guide experience. But not every bird species will use a feeding station and guides are still in demand to find uncommonly seen birds.

We hope this dialogue serves as sounding-board for those thinking of embarking on a part-time or full-time career as a bird guide, as well as those deciding how to choose a guide.

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Birds in Art and Culture Series:

The Use of Birds in the Civil Service of Ancient China & Other Nations

Amar-Singh HSS

Note: Much of this article was first written for and appeared in the Bird Ecology Study Group website in October 2011. Link: <https://besgroup.org/2012/10/25/the-use-of-birds-in-the-civil-service-of-ancient-china/>. I have updated the article and references.

Introduction

During a trip to China, I was impressed by the frequent use of birds in the history of China. The classical example is the cloisonné enamel (porcelain/ceramic pottery) crane figurines that adorn the throne of the emperor in the Forbidden City (Plate 1). The crane symbolises longevity (the long neck representing a long lifespan) and auspiciousness which the emperor valued. The Crane also represents a soaring spirit, health and happiness. There are many references to birds in ancient drawings and artwork and contemporary artists continue to mimic these ancient craftsmen.



Plate 1: Red-crowned Crane adorning the Emperor's throne at the Forbidden City (left) and a cloisonné enamel bowl with bird images.

One day, while having lunch (a Peking duck!), our excellent guide Peter Bo, knowing my interest in birds, was kind enough to point out and explain the historical use of birds on the uniforms of civil servants. Birds were used as a 'ranking of seniority' system and this was elaborately displayed on the walls of the restaurant we were at, allowing me to get some images.

Historical Background on the use of Rank Badges in the Chinese Civil Service

Rank badges have been worn in China since before the 14th century, initially worn by the emperor and then extended to the royal family and officers of the court. The emperor wore a five-clawed dragon and the empress a phoenix (Plate 2), both mythical creatures symbolising strength, beauty and divine rule. From the Ming dynasty (1368-1644), the emperor awarded

badges with creatures to court officials as signs of imperial favour. This was continued in the Qing dynasty (1644-1911), where there was further standardisation and increased bureaucracy with rigorous examinations introduced into the civil service. Birds then came to be used to denote various civil ranks, and predatory animals the military ranks. Rank badges continued to be used until the end of imperial rule.

The use of a "bird ranking system" is an imaginative and artistic scheme, better than the "pips" or "stars" given to today's officers. It showed the value placed on animals and the connection that people had with nature.



Plate 2: Phoenix-Dragon Motif in Empress Chambers at Forbidden City.

Design and Location of Rank Badges

The rank badges underwent some changes over time. Initially woven into the chest and back of silk robes during the Ming dynasty (Plate 3), they became small squares sewn on to the court robe in the Qing dynasty. By the mid-1700s, the emperor ruled that officials wear a dark, front-opening surcoat called 'bùfú' ('robe with a patch'). The drawing of the bird was placed on the breast plate and the back of the uniform. The front badge is divided into two pieces and sewed to the two sides of the front to accommodate the opening of the surcoat.



Plate 3: Unknown author, Ming Dynasty portrait of Chinese official Jiang Shunfu (1453–1504). The rank badge on his chest shows cranes indicating he was a civil official of the first rank. Original Image © Nanjing Museum. Public domain, via Wikimedia Commons.

Choice of Bird for Rank Badges in the Chinese Civil Service

There were nine civil ranks (an important number in Chinese culture), each represented by a different bird. I suspect that the choice of the bird to determine rank was heavily influenced by the cultural outlook of the time. See images and description in the table below. Images were taken with my long lens in a dark restaurant and I avoided flash so as not to disturb the other customers. This made images difficult to capture as I was too near. Flash would not be useful due to glass covering the cloth plates. The rendering here is also not the original for the Qing dynasty period and some artistic liberty must be given. The restaurant also had the order of the birds mixed up. Hence I had to do quite some research to identify the bird from the artwork and may have got it wrong. I value opinions if I have made a mistaken identity. Internet searches for the original rank badges (on sale as antiques) also show much variation and difficulty in bird identification.

In addition to artistic variation, problems with bird identification also result from attempts to 'fool' the common person by disguising a rank badge of a lower rank as that of a higher one. One common example is to make a 9th ranking Paradise Flycatcher look like a 5th rank Silver Pheasant. There were always enough identification marks to the discerning individual to see the real status.

There were 9 ranks based on the value placed on the bird. The lowest rank was a Paradise Flycatcher and the highest rank was, not unexpectedly, the Crane. In between, from lowest to highest, were the Quail, Duck, Egret, Pheasant, Goose, Peacock and Pheasant.

Image	Bird	Rank	Meaning
 © Amar-Singh HSS	Red-crowned Crane <i>Grus japonensis</i> also known as the Manchurian Crane.	1	Longevity Wisdom
 © Amar-Singh HSS	Golden Pheasant <i>Chrysolophus pictus</i> also known as the Chinese Pheasant.	2	Courage
 © Amar-Singh HSS	Peacock. Green Peafowl <i>Pavo muticus</i> .	3	Beauty Protection Holiness



Image	Bird	Rank	Meaning
© Amar-Singh HSS	Wild Goose. Uncertain about species as images come in white, shades of grey and brown. There are at least 12 geese in China. Could be the Swan Goose <i>Anser cygnoides</i>.	4	Loyalty
© Amar-Singh HSS	Silver Pheasant <i>Lophura nycthemera</i>.	5	Beauty Good fortune
© Amar-Singh HSS	Egret. Colours vary from white to grey in various images, so either the Little Egret <i>Egretta garzetta</i>, Medium Egret <i>Ardea intermedia</i> or Pacific Reef-Heron <i>Egretta sacra</i>.	6	Happiness
© Amar-Singh HSS	Mandarin Duck <i>Aix galericulata</i>.	7	Loyalty



Image	Bird	Rank	Meaning
	Quail. Unsure which one, possibly the Japanese Quail <i>Coturnix japonica</i> .	8	Courage
	Paradise Flycatcher. Possibly the Amur Paradise-Flycatcher <i>Terpsiphone incei</i> .	9	Longevity Good fortune

Impact of Rank Badges on Other Countries

The Chinese bird rank badges influenced neighbouring countries and trade partners. This included Hong Kong, Korea, Vietnam, Tibet and even Malaysia. To some they were pretty robes and gifts, but to others (e.g. Vietnam) they copied not just the robes but the entire system behind it. In historical Malaya, the Kapitan Cina (heads of the Chinese community) followed the Qing officials in dress and lifestyle. It is hard to find images, but here is an example of Kapitan China Chung Keng Kwee (1827-1901), the leader of the Hakka-speaking Hai San society in Malaya (Plate 4).



Plate 4: Original Image © Pinang Peranakan Mansion, Penang, Malaysia.
(also known as the Baba Nyonya Museum & the Kapitan Chung Keng Kwee Museum)

Use of Rank Badges in the Chinese Military Service

It is also meaningful to note that animals were used to denote ranks in the military service. Here they used nine animals, mainly predatory, starting with the Sea Horse (horse that travels over waves) and moving up in rank progressively to the Rhinoceros (2 levels), Panther, Bear, Tiger, Leopard, Lion and ending with the Qilin (mythical hooved Chinese chimerical creature).

Conclusion

The use of birds and other animals in the daily life of the civil and military service may have marked a healthy respect for animals at the time. It could also indicate that society valued

certain attributes in animals, be it beauty, strength or agility. In our time, in the magnificent city of Beijing, we noted that many of the locals appreciated their parks and nature. As we become more environmentally conscious and bird watching grows, I hope for a resurgence in the value of birds in many cultures.

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Citation: Amar-Singh HSS (2025). The Use of Birds in the Civil Service of Ancient China & Other Nations. *Malaysian Bird Report*. Volume 4/2025, Dec 2025: pg. 132-137.

Pioneers in Birdwatching (Ornithologists in History): B.E. Smythies (1912–1999)

Geoffrey W. H. Davison

This, our fourth in the series on Ornithologists in History, features Bertram Evelyn Smythies (known throughout his life as 'Bill'). For birdwatchers, he is renowned for his two books on *The Birds of Burma* (first edition, 1940) and *The Birds of Borneo* (first edition, 1960), but he had a strong professional and personal interest in botany. A biography of Bill Smythies was published as an appendix to the fourth edition of *The Birds of Borneo* (1999), and numerous obituaries appeared in journals and newspapers in various countries.

His grandfather and father had been in the Indian Forest Service, mostly in Uttar Pradesh, and his mother was a big game hunter and author. Among his ancestors there were links with many clerics, with the botanical artist Elizabeth Twining (of the tea family), and among his later family members were the internationally famous evolutionist and behavioural biologist Richard Dawkins and the novelists Graham Greene and Christopher Isherwood. His younger brother John was a well-regarded neuropsychiatrist, and a cousin, Yorick Smythies, was key to documenting the philosophy lectures of Wittgenstein that would otherwise have been lost (because Wittgenstein forbade most students from taking notes).

Bill Smythies was born in Naini Tal, India, in 1912. As his parents made tours through the magnificent countryside, for forestry and for adventure, their small child was fed on milk from a cow or goat taken along for the purpose. At the age of 8 in 1920, before his younger brother was born, he was sent to school in England, going on to Cambridge (Botany, Part I, 1932) and Oxford (Balliol: Botany and Forestry, 1934). Vacations were spent in camping, birdwatching and photography.

He joined the Colonial Forest Service in Burma (Myanmar) in late 1934, and was largely based in Rangoon (Yangon), Bago Yomas and Maymyo (Pyin Oo Lwin). The work entailed circuits of forest inspection, which gave him many opportunities for seeing a variety of birds, but few opportunities for prolonged and detailed systematic observations of particular species. Nevertheless, with encouragement from C.B. Ticehurst, H.C. Smith and P.F. Garthwaite (forest entomologist there, whose role has been underplayed), Bill was able to compile materials for a large, comprehensive and well-illustrated book, *The Birds of Burma*, in only five years. The text was written within nine months, in 1940, when he was only 28. It was published in Rangoon, though most copies were destroyed in the war and only the plates (the paintings and some of the printer's copper plates) were rescued, and shipped out to India. As the Japanese forces advanced, the defence forces retreated northwards, during which time Smythies was tasked with maintaining timber production for military use (Plate 1).



Plate 1: B. E. Smythies, aged about 30, in wartime Burma. Image restored with AI.

His diaries from the beginning months of the Japanese invasion in 1942 have recently been published (Smythies 2025). When forest work became impossible, he was forced to trek overland some 300 kilometres over the western border into India. From there, he joined his parents in Nepal, where his father had been appointed Director of Forestry. A new arena for trekking and birdwatching.

Later editions of *The Birds of Burma* were published in 1953, 1986 and 2001. The 1953 edition benefited from Bill's later wartime assignments with the Wingate 'Chindits' (Chinthe), to Fort Hertz (Putao), Myitkyina and Laukaing, areas of north and northeast Burma where his previous work had been scanty. Though a civilian, he and others were able to deploy their local staff to infiltrate Japanese camps for information-gathering to support Project 9, the re-taking of Burma (Fergusson 1955). He was then able to resume forestry work briefly in remote areas of Burma before Independence.

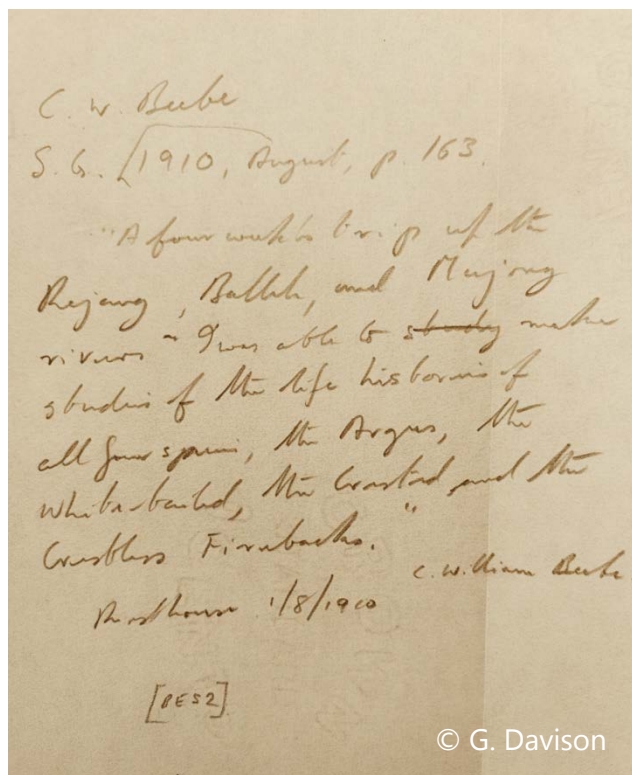
In 1948 he applied to join the forestry service in Sarawak, arriving in January 1949; he took up the post of section forest officer in Sibu, where extraction of *ramin* was already expanding very fast. He worked in his spare time on the text of the 1953 edition of *The Birds of Burma*, as well as compiling a checklist of the birds of Borneo, a task to which he was briefly assigned by the Forestry Department. The list appeared as one issue of the *Sarawak Museum Journal* in 1957 (by which time Bill had been seconded to Brunei as state forest officer, 1952–1959, with additional responsibility for Limbang and Lawas). He was lucky that the Sarawak Museum held an outstanding collection of older scientific literature, both British and Dutch, and the very books he consulted are still to be seen in the museum's library. The 1957 checklist provided the basis for the 1960 book. As before in Burma, forest inspection tours allowed plenty of opportunities for birdwatching and note-taking, with an emphasis on habitat and voice. Again, Bill was lucky in that the director of the museum, Tom Harrisson, had begun a major collecting programme with the American Museum of Natural History, which gave information on distribution and elevation limits, and notes on birds' diets from Harrisson and his field collectors. He was perhaps unlucky that Harrisson's pencilled notes were sometimes imprecise, hard to read, scattered across different school exercise books, and became increasingly erratic. Nonetheless, slotting all the information into position within the expanded format of the checklist resulted in a pioneering book. Notably, Bill's time in Sarawak coincided with work by Derek Freeman on Iban culture and Lord Medway on swiftlets, so that introductory chapters by Harrisson, Freeman and Medway turned the book into something unique (Plate 2). It was published in 1960, with later editions in 1968, 1981 and 1999.



Plate 2: In *The Birds of Borneo*, Derek Freeman's chapter on the Gawai Burung ceremony in Sarawak was illustrated by photographs of historical importance. Image colours restored with AI.



What was its impact on Malaysian birdwatching? For those who could afford it, the book provided better illustrations of more species than anything else available then. In quality they far outdid the pictures available in Glenister's book on the birds of Malaya, and the text was far more detailed than anything except Robinson's and Chasen's four-volume pre-war handbook on the Peninsula. The first comprehensive field guide was not to appear until 1975. The *Birds of Borneo* was a foundation for all subsequent birdwatchers in Malaysian Borneo, Brunei and Indonesia to build upon. It identified very clearly exactly where the information gaps were.



What were Smythies's abilities that enabled him to produce not one but two pioneering books? One was obviously his capacity for hard work, as the books were produced beyond his professional duties, and in a timely manner. Hard work was also reflected in "*his gaunt and sinewy physique ... shaped by his ceaseless fieldwork*" (Ashton 2019). Another feature was his meticulous skill in compilation, as he trawled through old and modern publications for snippets to include (Plate 3). Another, in spite of his reputation for solitariness and brevity of speech, was his ability to coax information politely out of interested amateur birdwatchers. He became renowned for using his typewriter, churning out letters and replying promptly to any he received.

Plate 3: Older publications were trawled for relevant material, in this case a note on William Beebe from an Aug 1910 issue of the Sarawak Gazette, for incorporation into the Historical Biographies of Birds of Borneo first edition.

His skills were not particularly in seeking out rarities, or in finding nests and eggs, but he was a master in describing bird sounds before the days of tape recording. Only look at his transliteration of the call of the Mountain Bush Warbler *Cettia fortipes* (now Aberrant Bush-warbler *Horornis flavolivaceus*) for an example of how he was able to capture on the page every hard-to-distinguish syllable. His descriptions of habitats were precise and clear. In navigating the forests and noting the birds seen during his career, his good relations with forestry staff were built on his ease with languages: he spoke Burmese, Jingpo (Jinghpaw/Kachin, a Tibeto-Burman language), Malay, and fluent accentless Iban.

Bill was certainly fortunate to work in areas (both Burma and Borneo) that lacked any modern or comprehensive bird book. Gaps needed to be filled. He was also lucky that in both places there were nuclei of interested people willing to help: Ticehurst, Smith and Garthwaite in Burma; Harrison, Medway and Freeman in Sarawak. He was lucky with illustrations, as the

artist Commander A.M. Hughes, already arranged by H.C. Smith, was on the spot in Rangoon and was also available for the Sarawak book.

When it came to revising the Borneo book for the second (1968) edition, the publishers prepared a special volume for him, in which sheets of blank ruled paper were inserted between every printed page of a copy of the first edition (Plate 4).



Plate 4: Smythies' own working copy of *The Birds of Borneo*, omitting the plates, for preparation of the second edition (below, left), and a copy of the third edition (above, right).

On these blank pages, Bill wrote additional notes facing the species text, mostly in pencil (Plate 5), but a few in red ink, and some longer notes typed on additional slips of paper and glued in (Plate 6). The big majority of these notes were observations by others, in Sarawak and in Sabah, such as Mary Norman and D.M. Batchelor. A few were taken from publications after 1960, a few from older records previously overlooked, and a few from his own observations. With time the pencil notes have become virtually illegible, but the typed notes have survived well.

If the first edition had been a triumph in securing from busy experts the chapters on Iban augury, swiftlets, and birds in relation to man, the second edition was also a triumph in rescuing many field observations from a range of interested amateurs. Without the book as an outlet and Bill to chivvy them, those observations would likely have been lost.

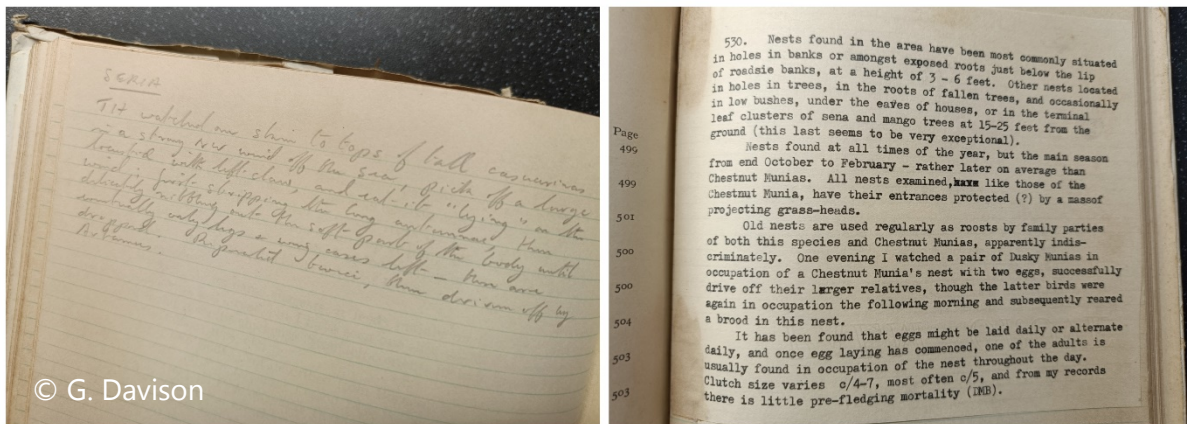


Plate 5: Left: Smythies wrote most of his notes in pencil, here about Brahminy Kites observed by "TH" (Tom Harrisson) at Seria, Brunei. Right: Notes from D.M. Batchelor were long enough to need retyping rather than rewriting in pencil, here concerning nesting by Dusky Munias.

To summarise his other activities, Bill wrote a 150-page guide to *Common Trees of Sarawak*, and later in life a checklist of the *Flora of Spain and the Balearic Islands* (1984–1988), and *Flowers of South-West Europe*, the latter with Oleg Polunin and carrying line illustrations by his wife Jill. He contributed Spanish material for the massive *Flora Europaea* project during the 1960s and 1970s. He endowed an award for botanical art under the Linnean Society of London, from 1988 onwards, to celebrate his wife's dedication to that field. She pre-deceased him, in 1994.

Bill lived to the age of 87 (Plate 7). When he passed away, most obituaries concentrated on his ornithological achievements. However, Bruenig (1999) reviewed Bill's forestry work, and Jury (2000) described his post-retirement botanical activities based in Spain. According to Bruenig, "the conceptual features of Bill's approach to forestry in the tropical rainforest were the traditional principles of multi-purpose social forestry and the combination of basic natural science and practical silviculture, utilization, management and conservation which is crucial for achieving sustainability. His aim was the prudent use and sustainable development of human and natural resources by integrating prudent conservation, rational management, and social development. Closest to his heart were botanical exploration, autecological observation of plant and animal species, and taxonomy of trees and non-tree plant species.



Plate 6: B. E. Smythies at his home in March 1999, about four months before his death.

Bill recognized the immense importance of scientific research for forest management, conservation, and development". Some of his activities were set out in quarterly reports in the *Borneo Territories Forest Bulletin*, 1959–1963. An example of his meticulous work given by Jury was his listing of the Spanish flora, in which he added more than 1,000 species to the *Flora Europaea* team's list – though a further 1,600 have been added since his 1988 publication.

Though he took a bleak view of life and was disillusioned by the rapid loss of tropical forests, he still took a keen interest in the efforts of young people. The Oriental Bird Club was one of his interests; he did not attend meetings but had good relations with several of the council members. At his death in 1999, Smythies bequeathed substantial funds to the Linnean Society and to the Oriental Bird Club, the latter bequest being used for the Smythies Fund research grants that are available today to young researchers in Asia, including Malaysia.

Acknowledgement

Datuk Chan Chew Lun kindly gave permission to use the photograph in Plate 7, previously used in the 2001 edition of *The Birds of Burma* by Natural History Publications (Borneo).

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Common Garden Birds Series:

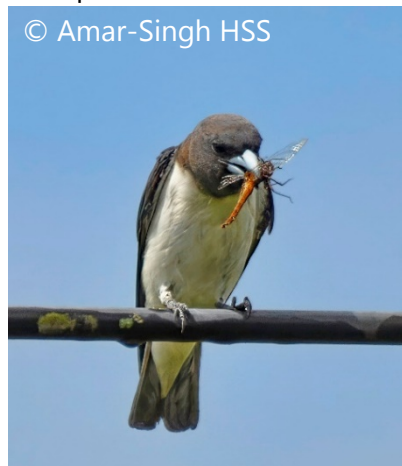
A series specially for the non-birdwatcher, children and families, to learn about our common Malaysian garden birds. And how to make our gardens and cities bird friendly to support them.

Common Garden Bird 11: White-breasted Woodswallow (Layang-Hujan Biasa) *Artamus leucorhynchus*

Amar-Singh HSS

The White-breasted Woodswallow is an uncommon bird in Peninsular Malaysia but is ubiquitous in the East Malaysian cities of Borneo. Look upwards and, in most cities and towns of Sabah and Sarawak, you might see a White-breasted Woodswallow circling in the air looking for prey or perched on a telephone wire. They are also common in the countryside.

They are smart looking birds with the head, throat and upperparts dark slate-grey. The underparts are white and the bill blue-grey.



They are superb fliers and make aerial sorties to take insect prey like dragonflies and butterflies. They are gregarious and often seen in noisy small groups sitting close together on a wire. They practise cooperative breeding behaviour and a small group will take collective responsibility for young from egg until they fledge.

Their small size belies the size of their courage. As a team they will attack and chase away much larger birds, even birds of prey, especially when nesting. You do not want to mess with these chaps.



Common Garden Bird 12: Rock Pigeon (Merpati Biasa) *Columba livia*
Amar-Singh HSS

The Rock Pigeon, formerly called the Rock Dove, is a common pigeon, often seen in large flocks in many cities. The original wild Rock Pigeon, domesticated thousands of years ago, has been introduced worldwide. Most of the birds we see are feral pigeons which came from escaped domesticated pigeons.

The original wild Rock Pigeon were uniformly pale grey with two black bars on each wing. They have a very beautiful purple-green iridescence along the neck.

The feral pigeons come in a variety of colours. Some are bred for selective colours. Some pet shops breed especially the pure white variety to be used for religious events. This practice of 'merit release' in Asia, of liberating animals from captivity, is seen as a way to earn spiritual merit. But it is a habit we should not encourage as it goes against the concept of peace and encourages the captivity of birds as a business.



In some countries, a variety of the Rock Dove bred for their strong homing ability, are trained for bird races – sadly may die in these illegal activities.

The Rock Pigeon often breed on the ledges of buildings in the city and are considered a nuisance by some due to their droppings. They are quite interesting to watch and have a lovely flight. The males love to sail steadily in the sky to impress the females. They make soft cooing sounds.

Recent Publications & Research

Research/Review Articles Relevant to Malaysia

Kim-Chye Lim

Frank Rheindt, Gabriel G. K. Teo, James Eaton & Elize Y. X. Ng. *A new and cryptic species of hawk-cuckoo (genus Hierococcyx) from Borneo*. *Forktail*, Sept 2025.

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Yuxuan Liu, Ruichang Sun, Bo Li & Zhijun Ma. *Detecting the distribution of and public attitudes to charismatic alien species based on media coverage*. *Avian Research* 15 (2024).

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George A. Gale, Rongrong Angkaew & Daphawan Khamcha. *Changes in breeding activity of Southeast Asian songbirds in response to the severity of the dry season*. *Front. Conserv. Sci., Sec. Animal Conservation*. Volume 5 – December 2024.

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<https://link.springer.com/article/10.1007/s10531-025-03120-y>

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Unni Krishnan Amal, Ramesh Roshnath. *Nesting Ecology of White-bellied Sea-Eagles (Haliaeetus leucogaster) in Kerala, India*. *J. of Raptor Research* 59 (2), 1-6, (18 March 2025).

<https://doi.org/10.3356/jrr2431>

Choon-Min See, Mohamed Zakaria, Marina Mohd Top, Chong Leong Puan. *Using Distance Sampling to Estimate Population Density of Eastern Great Egret (Ardea alba modesta) in North-Central Selangor Coast, Malaysia*. *Waterbirds* 48 (1), 1-10, (6 August 2025).

<https://doi.org/10.1675/063.048.0108>

Mohd Ros Effendi, Nur Munira Azman, Mohd Nasir Azizan, Wan Juliana Wan Ahmad, Mohammad Saiful Mansor. *Assessing Shorebirds Passage and Wintering on the West Coast of Peninsular Malaysia*. *Waterbirds* 47(3):1-10 (2024).

<https://doi.org/10.1675/063.047.0303>

Upcoming & Recent Bird Activities

Swée-Yian Lim

October Big Day 2025

Again, birders all over the world came together on 11 October 2025 to observe, record and celebrate avian diversity. In a 24-hour period, more than 870,000 birders were out somewhere in the world doing what they love best, watching birds, but the difference is, on 11 October, almost 900,000 recorded and uploaded their observations to eBird.

Global Big Day 2025 in brief:

- More than 870,000 people went birding with eBird and/or [Merlin!](#)
- 113,510 checklists submitted by 48,830 eBirders
- 7,834 species observed globally from 196 countries
- [75,022 photos](#) submitted to the Macaulay Library
- [2,781 recordings](#) submitted to the Macaulay Library

Top three countries for number of species seen are Colombia with 1,382 species, Peru with 1,340 species and Brazil with 1,263 species. Top three countries for number of checklists submitted are United States with 40,204 lists, Canada with 7,371 lists and Colombia with 6,858 lists. Countries which showed an increase in number of checklists submitted compared to 2024 are Israel 240%, Bolivia 110%, and Panama 89%.

In the Asian continent India led the way in both number of species seen and lists submitted with 776 species and 4,388 lists. Taiwan is second and Türkiye third on the checklist's leader board, each with 840 and 582 lists respectively. On the species leader board, Indonesia is second (457 species) and Malaysia third (432 species)

Table: Malaysian results by region (ranked by checklist number)

Rank	Region	Checklists	Species
1	Sabah	109	255
2	Selangor	34	120
3	Sarawak	27	140
4	Pahang	25	133
5	Perak	23	98
6	Johor	12	126
7	WP Kuala Lumpur	6	32
8	Negeri Sembilan	5	50
9	Kedah	4	76
10	Pulau Pinang	3	15
Total	Malaysia	247	432

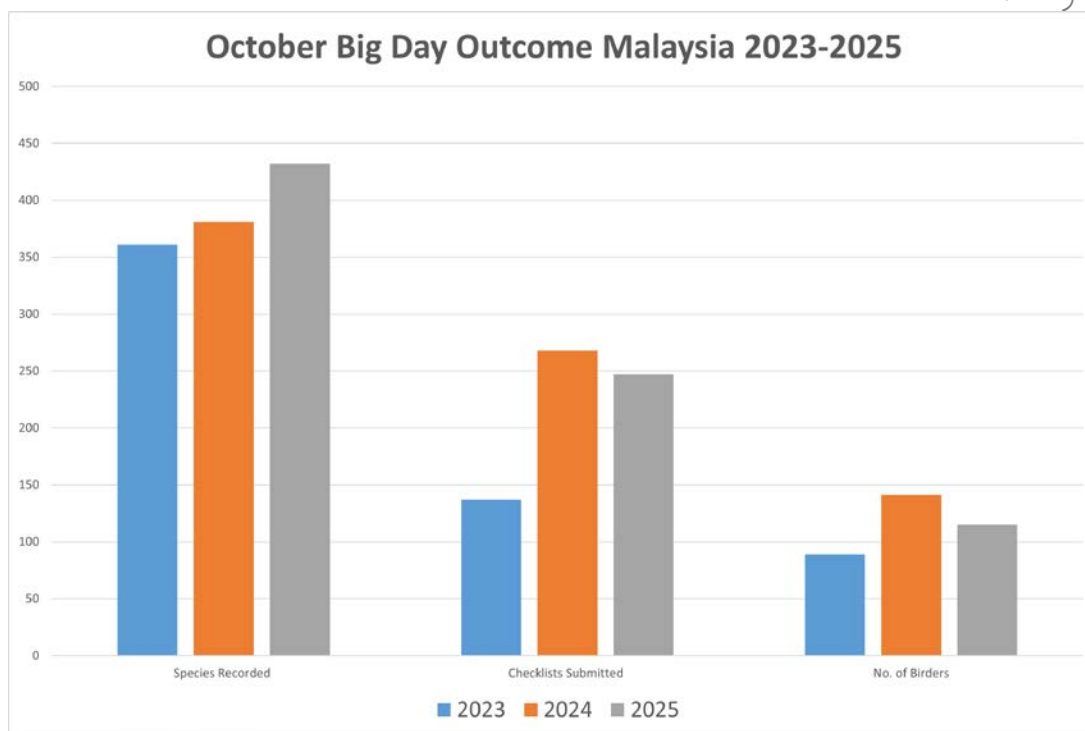


Figure: Comparison of Malaysia's performance in October Big Day from 2023 – 2025

Graph prepared by Amar-Singh HSS

Some salient points are:

- A steady increase in species numbers of from 361 in 2023 to 432 in 2025. This suggests either improved observer skill, better coverage of habitats, or favourable bird movement during the count.
- Number of checklists peaked in 2024 at 268 then dipped slightly to 247 in 2025. This may reflect fewer participants or reduced effort per birder.
- Number of birders declined in 2025 to 115 birders, down from 141 in 2024. While not drastic, it is a trend worth watching.

Despite the dip in participation, Malaysia's birding community continues to show strong results in species documentation. The increase in species count is encouraging and reflects the dedication and skill of local birders. With continued outreach, community engagement, and perhaps more visibility around bird related events, Malaysia is well-positioned to bounce back in 2026.

If you enjoyed October Big Day, mark your calendars for another opportunity to celebrate birds on Global Big Day on 9 May 2026

Coming Events

Asian Waterbird Census (AWC) 2026 (01 Dec 2025 to 28 Feb 2026)

Waterbirds are indicators of wetland health. By joining the AWC, you help track changes in bird populations, identify threats, and advocate for the protection of these fragile ecosystems. Every January, thousands of enthusiastic birdwatchers, conservationists, and nature lovers across Asia unite for a shared mission: to count waterbirds and protect the wetlands they call home.



Counts usually take place each year in January or February, with dates varying by region. **Between 1 December 2025 and February 2026**, visit your local wetlands, lakes, river, or coastal site. Count and record waterbird species. Submit your data via eBird or the Wetland Assessment form. Extra counts may be held during breeding seasons in certain regions.

More info:

<https://south-asia.wetlands.org/news/join-us-for-the-asian-waterbird-census-2025/>

or

https://web.facebook.com/story.php?story_fbid=1000344795471429&id=100064877520550&_rdc=1&_rdr#

Contact: Malaysian coordinator Yeap Chin Aik

Address: Malaysian Nature Society, JKR 641, Jalan Kelantan, Bukit Persekutuan, 50480 Kuala Lumpur. Phone: 03-22879422. Email: hornbills@mns.org.my

Great Backyard Bird Count 2026 (13-16 February 2026)

The annual [Great Backyard Bird Count \(GBBC\)](#) is on a Friday through to Monday in the month of February. The dates for 2026 are 13-16 February 2026. Spend 15 minutes at any time during these 4 days, counting all the birds that you see or hear and enter your observations in eBird. It can be just your backyard or your favourite birding patch.

First timers can refer to: [eBird Best Practices: Help Center](#) for tips on how to make your checklists have the biggest impact. Upload any nice photos taken during the GBBC including photos of yourself, family or friends enjoying birdwatching during GBBC.

The Great Backyard Bird Count

Four days of bird-fun! February 13-16, 2026



American Oystercatchers by Michael Stubblefield / Macaulay Library



Piropo Panichpakdi in Thailand / GBBC



During the weekend of the GBBC you can view live submissions at this link [eBird Live Subs](#). Sunday night would be best time. Follow along with the [Great Backyard Bird Count on eBird](#), where you can filter sightings and recent GBBC checklists by region

Most of all have a great time at the GBBC 2026.

Raptor Watch 2026

Date: Yet to be announced

Venue: Tanjung Tuan, Melaka.

This annual event, organised by the Malaysian Nature Society is usually held in the second weekend in the month of March to coincide with the peak of the spring migration of raptors. Tanjung Tuan is without doubt the best place in Malaysia to view raptor migration. You can expect that there will be a good line up of activities lined at this event like nature walks, talks and workshops and activities for kids.



Tel: +603 2287 9422

Website: <https://www.mns.my>

Global Big Day 9 May 2026

Mark your calendar for the [Global Big Day \(GBD\)](https://ebird.org/globalbigday) on 09 May 2026 which will coincide with the spring migration of birds for Malaysia as birds return to their northern breeding grounds. If you do not have an eBird account, open one now so you can share what you see and hear on GBD. <https://ebird.org/globalbigday>



9th International Galliformes Symposium 26-30 October 2026

Venue: Hotel Barahi, Pokhara, Nepal

The World Pheasant Association (WPA) will hold a symposium on the conservation and sustainable management of all species of Galliformes (megapodes, cracids, guinea fowl, quails, turkeys, grouse and pheasants), with a special emphasis on threatened species and their habitats. It is jointly organised by WPA, WPA Nepal Chapter, Biodiversity Conservation Society-Nepal (BIOCOS) Nepal and the International Union for Conservation of Nature (IUCN) Galliformes Specialist Group. It is a major gathering of all those with an interest in Galliformes and the conservation of these birds and their habitats. Latest date for submission of abstract is April 2026. For more information about this symposium & the registration form, see links:

<https://www.pheasant.org.uk/second-calling-notice-9th-international-galliformes-symposium/>

https://www.pheasant.org.uk/second-calling-notice-9th-international-galliformes-symposium/?mc_cid=88b5e64924&mc_eid=6d8c3609e5



9th International Galliformes Symposium

Hotel Barahi, Pokhara, NEPAL

26th-30th October 2026

Book & Site Reviews

The Malaysian Biodiversity Information System (MyBIS)

Swee-Yian Lim



Malaysia is a signatory to the Convention on Biological Diversity (CBD) which is a landmark international treaty adopted at the Earth Summit in Rio de Janeiro in 1992 and entered into force on 29 December 1993. Malaysia has since developed national biodiversity strategies and platforms like the Malaysian Biodiversity Information System ([MyBIS](https://www.mybis.gov.my/one/)) website, <https://www.mybis.gov.my/one/> to fulfil its obligations under the CBD.

MyBIS is designed to centralise and share data on the country's rich biological diversity. MyBIS.gov.my offers a broad and detailed scope of coverage across Malaysia's natural heritage, focusing on biodiversity, ecosystems, and conservation. If you are passionate about conservation or simply curious about Malaysia's natural heritage, MyBIS is a treasure trove of knowledge.

MyBIS offers a vast catalogue of thousands of species, ranging from microbes and fungi to plants, mammals, birds, reptiles, amphibians, insects, and marine life. It highlights Malaysia's diverse ecosystems—including mangroves, peat swamps, montane forests, and coral reefs—while providing insights into their ecological roles and the threats they face. The portal also includes data on genetic diversity and biological specimens, supporting research in biotechnology, agriculture, and conservation genetics, with links to digitised collections from 12 national centres covering herbarium, zoology, entomology, and marine archives.

MyBIS contributes to tracking threatened species, aligns with the Convention on Biological Diversity (CBD), and promotes sustainable use of biological resources through access and benefit-sharing (ABS) frameworks. It also lists over 500 biodiversity experts across Malaysia for collaboration and consultation, and supports environmental campaigns such as the Kempen Penanaman 100 Juta Pokok, which aims to restore forest cover and raise public awareness about nature's role in human well-being.



Figure: Example of a bird species description in MyBIS. Note also the other tabs on taxonomy, gallery, location, publications, etc.

For birdwatchers, MyBIS is a valuable resource offering detailed information on hundreds of bird species found in Malaysia, including scientific and common names, conservation status under national and international frameworks like the IUCN Red List, habitat descriptions, and distribution maps (Figure1). These maps indicate where specific birds have been recorded, helping users plan birding trips to known hotspots or explore under reported areas. The site also features high-quality images to aid in field identification and confirmation of sightings. Taxonomic updates, including the latest revisions and synonyms, keep users informed of changes in scientific naming. Additionally, MyBIS shares event listings and news that may include birdwatching campaigns, citizen science initiatives, and conservation talks, fostering greater engagement within the birding and environmental community.

Example of 2 books or many books birds available for download on MyBIS:



Burung-burung Malaysia: Malaysia Biodiversity Information System (MyBIS)
<https://www.mybis.gov.my/pb/1140>



Burung-burung Malaysia: Malaysia Biodiversity Information System (MyBIS), Volume 2
<https://www.mybis.gov.my/pb/4960>

If you would like to search for more books go to: <https://www.mybis.gov.my/one/references.php>
Then search with either the key word :bird" or "burung" and review the list.

MyBIS.gov.my is a well-designed and accessible portal that caters to a wide range of users, from casual birdwatchers to researchers and policymakers. Its intuitive layout supports both exploratory browsing and focused research, with a clear top navigation bar linking directly to key sections such as Species, Habitats, Publications, News, and Events. The site's powerful search tool allows users to locate species by name, category, or conservation status, making it easy to find profiles of birds like the Malayan Peacock-Pheasant or Rhinoceros Hornbill. Each species page is meticulously organized with tabs for taxonomy, distribution, images, and references, presenting detailed information in a digestible format. The responsive design ensures smooth access on mobile devices, which is especially useful for birders in the field, and the inclusion of some Malay-language content enhances accessibility for local users. As a reference-only platform, MyBIS does not require user registration and does not support interactive features such as sighting submissions or checklist creation.

MyBIS offers a variety of downloadable resources that support birdwatching, conservation, and biodiversity education. These include species fact sheets in PDF format, which summarize taxonomy, conservation status, and distribution—ideal for field reference or presentations. Users can also access national publications such as the *Malaysia Biodiversity Outlook* and the *National Policy on Biological Diversity*, along with reports and guidelines relevant to environmental planning and advocacy. For outreach and awareness, MyBIS provides posters and infographics on bird conservation and ecosystem themes, suitable for campaigns and educational use. Additionally, event materials like webinars, recordings, campaign kits, and workshop handouts are available for initiatives such as Kempen Penanaman 100 Juta Pokok and Biodiversity Day, helping communities engage with Malaysia's biodiversity efforts.

Whether you are a seasoned birder or simply curious about Malaysia's wild wonders, MyBIS offers more than just facts — it is a living gallery of 12,893 photos capturing the rare, the remarkable, and the delightfully bizarre. It is a place where nature tells its story, one image at a time.

Contributions to the Malaysian Bird Report

Editorial Team, Malaysian Bird Report

The Malaysian Bird Report is intended to be an inclusive publication, one that offers a vehicle for established and young birdwatchers, and bird photographers, to share their field observations and expertise.

We welcome articles that help the birdwatching community to grow its understanding of bird behaviour, social interactions, identification, nesting, etc.

We hope to encourage all of us to go beyond capturing images and try to document and write-up our observations, especially of uncommon and unusual bird ecology, nesting behaviour, etc. The editor is committed to helping birdwatchers to write up their observations.

We welcome you to share the publication freely with all interested birdwatchers and bird photographers, as well as with the general public.

Guidelines for Submission of Articles:

1. All written contributions should be sent to the editor at: malaysianbirdreport@gmail.com using a Microsoft Word or Google Docs file. Articles submitted can be in English, Malay and Chinese. Malay and Chinese articles should contain an abstract in English.
2. Images submitted should be in JPEG (.jpg) format. As this is an electronic publication, we recommend images either 1000 pixels wide or 1000 pixels high. There should be no borders to the image. We will ensure that images submitted contain a watermark/copyright to identify the photographer; this will not obstruct the image in any way.
3. Images chosen for the cover page, back page, or other pages, to illustrate the publication, should be of higher resolution (2500 x 3500 pixels, 300dpi or higher) and not contain any watermark/copyright.
4. Copyright of images submitted will remain that of the photographer.
5. Any maps or other illustrative images should be sent as high-resolution JPEG or TIFF files.
6. Please use this reference for all bird names: MNS Bird Conservation Council. 2021. A Checklist of the Birds of Malaysia. 2020 Edition. Kuala Lumpur: Malaysian Nature Society. (MNS Conservation Publication No. 22).

We encourage collaborative work and hope that birdwatchers and bird photographers will combine observations to produce reports of interest to all of us.

We would like to thank all individuals who have contributed to the Malaysian Bird Report with articles, data, reports and images.