

Biodiversity Record: House crows disrupting nesting attempt by brahminy kites

Chin Yu Xun^{1*}, Soo Y. R. Angus, Lim K. J. Zachary & Ang Zhi Yi

¹National Parks Board, Singapore Botanic Gardens, Singapore 259569

Email: yu_xun_chin@nparks.gov.sg (*corresponding author)

Recommended citation. Chin YX, Soo YRA, Lim KJZ & Ang ZY (2026) House crows disrupting nesting attempt by brahminy kites. Nature in Singapore, 19: e2026081. DOI: 10.26107/NIS-2026-0081

Subjects: Brahminy kite, *Haliastur indus intermedius* (Aves: Accipitriformes: Accipitridae);
House crow, *Corvus splendens* (Aves: Passeriformes: Corvidae).

Subjects identified by: Chin Yu Xun.

Location and dates: Singapore Island, West Coast Park; 1 December 2025 to 20 February 2026.

Habitat: Urban parkland.

Observers: Chin Yu Xun (CYX), Soo Y. R. Angus (AS), Lim K. J. Zachary (ZL) and Ang Zhi Yi (AZY).



Fig. 1. Aerial view of West Coast Park showing locations of Jetty Lawn (1A) where the brahminy kite was first seen, and the brahminy kite nest at Marsh Garden (1B). Inset shows the location of West Coast Park on Singapore Island. (Source: Google Earth).

Observations: On 1 December 2025, a brahminy kite was observed by CYX taking off from a tree at the Jetty Lawn (Fig. 1A). It was carrying a single stick measuring approximately 50 cm in its talons. The bird was subsequently lost from view as it flew towards the sea.

On 5 December 2025, a member of the public observed a brahminy kite carrying nesting material returning to a nest located on a tree at the Marsh Garden (Fig. 1B). The nest was verified by CYX on 9 December 2025. On that day, a brahminy kite carrying a fish in its talons was observed flying above the Marsh Garden, but did not land at the nest.

The nest was partially constructed on a *Terminalia bellirica* tree (height = 27.8 m; girth measured at 1 m above ground level = 2.1 m; Figs. 2 & 3). Using a Haglöf Sweden Laser Geo 2 rangefinder, the nest height was measured at 21.3 m above ground level. The nest was subsequently monitored for nesting activity. On 16 December 2025, CYX observed a single brahminy kite perched on a branch adjacent to the nest. On 26 December 2025, CYX observed a pair of brahminy kites carrying nesting materials to the nest (Fig. 4.).



Fig. 2. View of the *Terminalia bellirica* tree with the brahminy kite nest (indicated by arrow) situated in the middle of its crown. Fig. 3. View of the partially constructed brahminy kite nest on 9 December 2025. Fig. 4. A brahminy kite in the nest on 26 December 2025. (Photographs by: Chin Yu Xun).

On 28 December 2025, between 0818–0855 hours, a member of the public observed approximately six crows entering the brahminy kite nest and removing nesting materials with their beaks. A single brahminy kite, presumed to be one of the individuals observed on 26 December 2025, returned to the nest and attempted to chase the crows away but was surrounded by about 15 crows. A pair of brahminy kites then returned to the nest after the crows had dispersed. One individual subsequently departed and continued to engage in defensive behaviour against the crows, while the other remained at the nest. During this period, several crows returned and perched on branches close to the nest but were not displaced by the remaining brahminy kite. The interactions between the kites and crows were recorded on video by the member of the public, and can be viewed at: https://youtu.be/kzVO_XVoVw

Following this interaction, the nest was monitored by CYX, AZY, ZL, and AS until 20 February 2026. During this period, no further nesting activity was observed. A lone brahminy kite was sighted on 30 December 2025 at 1255 hours flying above the Marsh Garden without carrying nesting material or prey. The nest remained unchanged throughout the observation period, suggesting that nest-building activity had ceased and that the nesting attempt was abandoned.

Remarks: Brahminy kites can be found from the Indian subcontinent, across Southeast Asia to Australia (Birdlife International, 2024). The subspecies *Haliastur indus intermedius* is a common resident in Singapore (Bird Society of Singapore, 2025). Coastal habitats are among the preferred nesting environments of the brahminy kite (Khaleghizadeh & Anuar, 2014), and the species is known to tolerate human activity and modified landscapes (Sivakumar & Jayabalan, 2004). The coastal setting of West Coast Park therefore provides a suitable nesting habitat despite its proximity to areas of high human activity, such as maritime activities at the Port of Singapore and traffic along the West Coast Highway. In addition, the Marsh Garden at the western end of the park offers a relatively sheltered area that may support both foraging and nesting activities.

House crows are considered invasive in Singapore (Chong et al., 2012), and are widely distributed across the Indian subcontinent, Southeast Asia, and parts of the Middle East (BirdLife International, 2018). The species is an omnivorous and opportunistic feeder that readily exploits anthropogenic food sources such as garbage (Brook et al., 2003). In addition, house crows are habitat generalists capable of nesting in various natural and urban environments, even adapting to changing landscapes over time (Soh et al., 2002; Leong et al., 2026). These ecological traits likely contribute to their establishment success in Singapore, where populations have increased markedly since their introduction (Tan et al., 2020).

The interactions observed between house crows and brahminy kites in this study are consistent with mobbing behaviour. During the observation period, multiple crows were observed approaching the nest, tugging at nesting material, and

collectively harassing the brahminy kite as it returned to the nest. Such behaviour can be classified as mobbing, defined as interspecific aggression directed at a perceived predator (Freeman & Miller, 2018). Mobbing typically involves multiple individuals cooperatively harassing or attacking a target and is a widespread anti-predator strategy among birds. Factors including predation risk, competition for resources such as food and nesting sites, or both, may drive this behaviour.

Crows are among many bird species that engage in mobbing behaviour. They have been recorded disrupting the nesting attempts of birds of prey through harassment, nest dismantling, and predation on eggs and chicks (Bauer & McDonald, 2018). In cities including Singapore, house crows frequently mob other bird species (Ryall, 1992; Soh et al., 2002; Brook et al., 2003; Indrayanto et al., 2016), particularly larger birds that may pose a threat or compete for resources (Wee, 2005; Singhal et al., 2025). Mobbing behaviour in this species has also been associated with kleptoparasitism and predation, including the theft of eggs, fledglings, and food (Shanbhag et al., 2012). Notably, it had been documented in Penang, Malaysia, that failed brahminy kite nests were attributed to crow attacks and associated disturbance at nesting sites (Indrayanto et al., 2016). Avian mobbing behaviour is thought to be driven either by direct predatory threats or by responses to the perceived risk posed by generalised predators (Pettifor, 1990). This framework provides a plausible explanation for the targeting of brahminy kites by house crows. Although brahminy kites feed primarily on fish and are not known to regularly prey on corvids (Rourke & Debus, 2016; Riddell, 2017), their morphology and flight profile resemble those of typical raptors, which may trigger a generalised anti-predator response in crows.

Nest defence represents another likely driver of mobbing behaviour in house crows. While brahminy kites exhibit a relatively restricted breeding season from December to April (Whistler, 1949; Indrayanto et al., 2016), house crows intermittently breed throughout the year and maintain persistent nest-defence behaviours against both conspecifics and potential predators (Brook et al., 2003; Roshnath & Sinu, 2021). As a result, some proportion of the local crow population is likely to be engaged in breeding activities at any given time, sustaining a high baseline level of defensive aggression. In the present observation, the proximity of the brahminy kite nest to potential crow nesting or roosting sites may have elicited such responses, with crows treating the kite as a threat and attempting to exclude it from the area. However, in the absence of precise spatial data on crow nesting locations within the study site, this interpretation remains inferential.

The mobbing behaviour observed in this study may have contributed to the subsequent abandonment of the nesting attempt by the brahminy kite pair. Mobbing has been shown to induce acute stress responses in birds of prey, which may lead individuals to modify their behaviour to avoid further disturbance, including the abandonment of previously used sites (Consla & Mumme, 2012). Disturbance during the early stages of nest establishment may be particularly influential. Elevated stress levels, potentially mediated by increased corticosterone, a glucocorticoid hormone that regulates physiological responses to stress, can disrupt reproductive investment and reduce the likelihood of continued nesting (Ouyang et al., 2012). In such cases, the energetic and reproductive costs associated with defending a compromised nest, including the risk of losing nesting material, eggs, or chicks, may outweigh the costs of relocating to a new site (Flegeltaub et al., 2017).

However, it is uncertain if the nest abandonment observed in this study can be attributed to crow mobbing alone. While corvid harassment has been documented to negatively affect raptor breeding success in some cases (Madden et al., 2015; Indrayanto et al., 2016), other studies suggest that its overall impact may be limited or context-dependent (Madden et al., 2015). It is therefore likely that multiple interacting factors influenced the outcome observed in this case. The nesting site was situated within a highly urbanised environment and in proximity to anthropogenic disturbances, including vehicular traffic and ongoing tunnelling works. In addition, the observation period coincided with the northeast monsoon, during which periods of heavy rainfall and strong winds are common in Singapore (Meteorological Services Singapore, 2026). Such environmental conditions have been associated with nesting failures in brahminy kites, including the loss of eggs due to wind dislodgement (Indrayanto et al., 2016; Chin et al., 2025). The combined effects of biotic pressures, such as interspecific aggression, and abiotic stressors may therefore have rendered the site unsuitable for successful breeding.

Although interactions between corvids and raptors, including mobbing behaviour, are not uncommon (Madden et al., 2015), detailed accounts of their consequences for brahminy kite breeding ecology in Singapore remain limited (Wee, 2007; Lim, 2022). The observations presented in this record therefore contribute to a growing body of local knowledge by documenting a potential link between interspecific interactions and nesting outcomes. Such records are valuable for improving understanding of how urban-adapted species and environmental pressures may influence the breeding success of raptors in Singapore's cityscape.

Literature cited:

- Bauer A & McDonald P (2018) Interactions between Australian ravens and raptors in a pastoral area of New South Wales: Interspecific aggression and nest-site spacing. *Australian Field Ornithology*, 35: 1–7.
- BirdLife International (2018) *Corvus splendens*. The IUCN Red List of Threatened Species 2018: e.T22705938A131944731. <https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T22705938A131944731.en> (Accessed 15 June 2026)

- BirdLife International (2024) *Haliastur indus*. The IUCN Red List of Threatened Species 2024: e.T22695094A263649661. <https://dx.doi.org/10.2305/IUCN.UK.2024-2.RLTS.T22695094A263649661.en> (Accessed on 15 June 2026)
- Bird Society of Singapore (2025) Brahminy Kite. <https://singaporebirds.com/species/brahminy-kite/> (Accessed on 15 June 2026)
- Brook BW, Sodhi NS, Soh MCK & Lim HC (2003) Abundance and projected control of invasive house crows in Singapore. *The Journal of Wildlife Management*, 67(4): 808–817.
- Chin YX, Chin KWE, Tay RE, Lim C & Tan DSK (2025) Unsuccessful nesting attempts of the brahminy kite at West Coast Park. *Nature in Singapore*, 18: e2025060. DOI: 10.26107/NIS-2025-0060
- Chong KY, Teo S, Kurukulasuriya B, Chung YF, Rajathurai S, Lim HC & Tan HT (2012) Decadal changes in urban bird abundance in Singapore. *The Raffles Bulletin of Zoology*, 25(1): 189–196.
- Consla DJ & Mumme RL (2012) Response of captive raptors to avian mobbing calls: the roles of mobber size and raptor experience. *Ethology*, 118(11): 1063–1071.
- Flegeltaub M, Biro PA & Beckmann C (2017) Avian nest abandonment prior to laying—a strategy to minimize predation risk? *Journal of Ornithology*, 158(4): 1091–1098.
- Freeman BG & Miller ET (2018) Why do crows attack ravens? The roles of predation threat, resource competition, and social behavior. *The Auk*, 135(4): 857–867.
- Indrayanto P, Latip NSA & Sah SAM (2011) Observations on the nesting behaviour of the brahminy kite *Haliastur indus* on Penang Island, Malaysia. *Australian Field Ornithology*, 28(1): 38–46.
- Khaleghizadeh A & Anuar S (2014) Breeding landscape and nest spacing of two coastal raptors (Accipitriformes: White-bellied Sea Eagle *Haliaeetus leucogaster* and Brahminy Kite *Haliastur indus*) in Peninsular Malaysia. *Italian Journal of Zoology*, 81(3): 431–439.
- Leong YX, Soh MC, Chia SJ, Samsuri AN, Ng YZ & Er KB (2026) Changes in nesting preferences of the invasive house crow (*Corvus splendens*) after two decades in Singapore’s evolving urban landscape. *Frontiers in Ecology and Evolution*, 14: 1784788.
- Lim SB (2022) Brahminy kite nesting @ East Coast Park, 8 December 2021 – 11 March 2022. Singapore Bird Group, Nature Society (Singapore). <https://singaporebirdgroup.wordpress.com/2022/05/01/brahminy-kite-nesting-east-coast-park-8-december-2021-11-march-2022/> (Accessed 15 June 2026)
- Madden CF, Arroyo B & Amar A (2015) A review of the impacts of corvids on bird productivity and abundance. *Ibis*, 157(1): 1–16.
- Meteorological Service Singapore (2026) Climate of Singapore. <https://www.weather.gov.sg/climate-climate-of-singapore/> (Accessed 15 June 2026)
- Ouyang JQ, Quetting M & Hau M (2012) Corticosterone and brood abandonment in a passerine bird. *Animal Behaviour*, 84(1): 261–268.
- Pettifor RA (1990) The effects of avian mobbing on a potential predator, the European kestrel, *Falco tinnunculus*. *Animal Behaviour*, 39(5): 821–827.
- Riddell W (2017) Aspects of breeding ecology and diet of the Brahminy Kite *Haliastur indus* over two breeding seasons in Darwin, Northern Territory. *Australian Field Ornithology*, 34: 116–122.
- Roshnath R & Sinu PA (2021) Co-breeding involving herons and a potential egg predator, the Indian house crow (*Corvus splendens*), in Peninsular India. *Ecological Complexity*, 46: 100922.
- Rourke J & Debus S (2016) The breeding cycle of a pair of Brahminy Kites *Haliastur indus* in New South Wales. *Australian Field Ornithology*, 33: 151–155.
- Sivakumar S & Jayabalan JA (2004) Observations on the breeding biology of Brahminy Kite *Haliastur indus* in Cauvery delta region. *Zoos’ Print Journal*, 19(5): 1472–1474.
- Shanbhag AP, Ghosh I & Umakanth B (2012) Interspecific behavioral studies of house crows (*Corvus splendens* *protegatus*) and jungle crows (*Corvus macrorhynchos culminatus*) on mutual foraging sites. *Global Journal of Environmental Research*, 6(1): 11–16.
- Singhal H, Pandit D, Mishra A & Khot R (2025) First record of a house crow *Corvus splendens* Vieillot, 1817 mobbing a black-crowned night heron *Nycticorax nycticorax* Linnaeus, 1758. *Journal of the Bombay Natural History Society*, 122: 3.
- Soh MCK, Sodhi NS, Seoh RKH & Brook BW (2002) Nest site selection of the house crow (*Corvus splendens*), an urban invasive bird species in Singapore and implications for its management. *Landscape and Urban Planning*, 59(4): 217–226.
- Tan HZ, LOW GW, Sadanandan KR & Rheindt FE (2020) Population assessment of the house crow, *Corvus splendens*, in Singapore. *Malayan Nature Journal*, 72(2): 133–142.
- Wee YC (2005) Mobbing of Predator Birds. <https://besgroup.org/2005/12/16/mobbing-of-predator-birds/> (Accessed on 15 June 2026)
- Wee YC (2007) Brahminy kite: nesting observations. Bird Ecology Study Group. <https://besgroup.org/2007/08/30/brahminy-kite-nesting-observations/> (Accessed 15 June 2026)
- Whistler H (1949) The Brahminy Kite. In: Kinnear NB (ed.) *Popular Handbook of Indian Birds*. Gurney and Jackson, London, pp. 370–371.