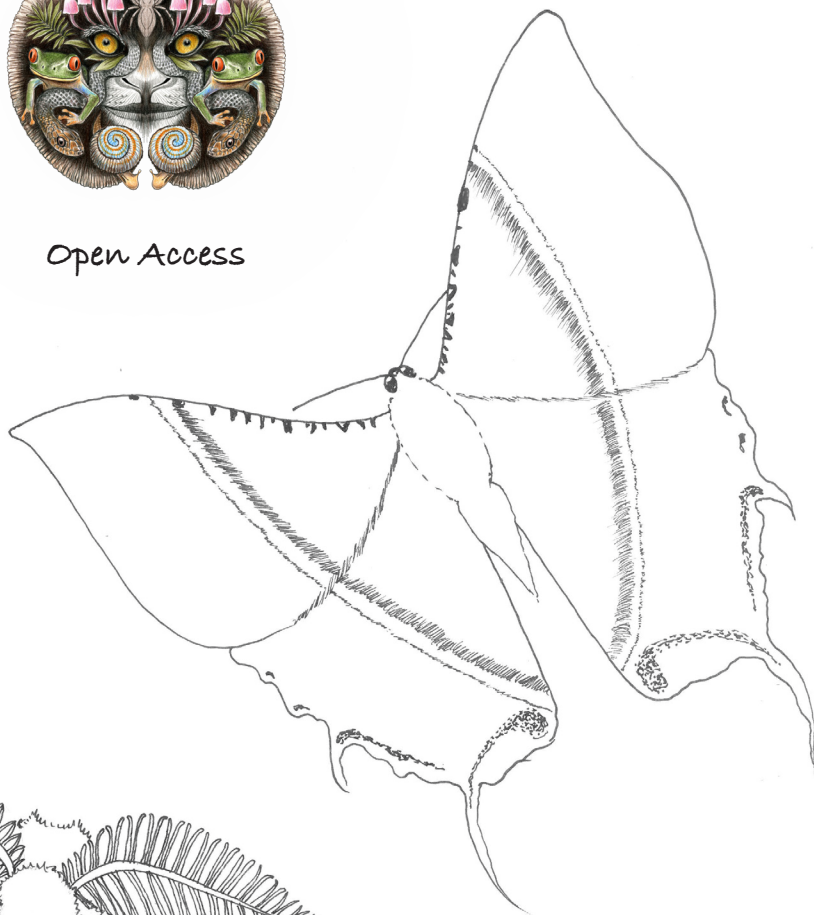
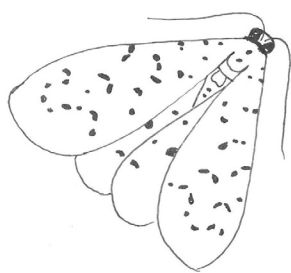


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continued on the back inside cover

Cover: Celebrating the unsung heroes—moths, our nocturnal pollinators. © Priyanka Iyer.



NOTE

## Powerline pylons: an unusual nesting success of White-bellied Sea-Eagle *Haliaeetus leucogaster* (Gmelin, 1788) (Aves: Accipitriformes: Accipitridae) from Ramanathapuram, southeastern coast of India

H. Byju<sup>1</sup> , N. Raveendran<sup>2</sup> & A.J. Mathiyazhagan<sup>3</sup>

<sup>1</sup>Centre of Advanced Study in Marine Biology, Annamalai University, Parangipettai, Tamil Nadu 608502, India.

<sup>2</sup>Iragukal Amritha Nature Trust, 61, Ramachandra Thadaga Street, Thirumangalam, Madurai, Tamil Nadu 625706, India.

<sup>3</sup>5/1 Sathya Sai Nagar, Opposite to Sai Baba Temple, Madurai, Tamil Nadu 625003, India.

<sup>1</sup>byjuhi@gmail.com (corresponding author), <sup>2</sup>lant.ravee@gmail.com, <sup>3</sup>mathiazhagan.photos@gmail.com

The White-bellied Sea-Eagle (WBSE) *Haliaeetus leucogaster* (Gmelin, 1788) is a resident raptor belonging to the family Accipitridae. It has a wide distribution range on the sea coast of India from about Mumbai, south to the eastern coast of Bangladesh, and Sri Lanka in southern Asia (del Hoyo et al. 1994), through all coastal southeastern Asia, including Burma, Thailand, Malaysia, Indonesia, Indochina, the main and offshore islands of the Philippines, and southern China, including Hong Kong, Hainan, and Fuzhou, eastwards through New Guinea & the Bismarck Archipelago, and Australia. In the northern Solomons, they are restricted to the Nissan Island (Strange 2000; Ferguson-Lees et al. 2001). According to the IUCN Red List, it is categorized as 'Least Concern' (IUCN 2022).

The WBSE is occasionally seen in inland waters along tidal rivers and in freshwater lakes (Ali & Ripley 1987). It feeds mainly on sea snakes and fish. WBSE builds nests near the seacoast, tidal creeks, and estuaries. This diurnal monogamous bird of prey occupies the same localities for several years in succession and nests in tall trees (Ali 1996). Nesting of WBSE is reported from trees like

Mango *Mangifera indica*, *Casuarina equisetifolia*, Banyan *Ficus bengalensis*, Fig *Ficus religiosa*, Coconut Palm *Cocos nucifera*, Tamarind *Tamarindus indica*, *Sterculia foetida*, *Terminalia paniculata*, Devil's Tree *Alstonia scholaris*, and Baheda *Terminalia bellirica* (Ali 1996; Neema et al. 2021). On the eastern coast of India, nesting in trees are recorded at Bhitarkanika (Gopi & Pandav 2006; Palei et al. 2014), Chilika Lake, and Konark Balukhanda Wildlife Sanctuary (Rahmani & Nair 2012). On the western coast of India, tree nesting is recorded from Raigad, Ratnagiri, and Sindhudurg districts of Maharashtra (Katdare & Mone 2003; Katdare et al. 2004), and the Netrani Islands of Karnataka (Pande et al. 2011).

### Observations

The nesting observations were conducted from November 2022 to March 2023. We used binoculars and Canon DSLR cameras with telephoto lenses for observation and pictures. The visual surveys were carried out for recording parameters like: (1) the height of the power line tower, (2) height of the nest from the ground, (3) the width of the artificial structures, and (4) the

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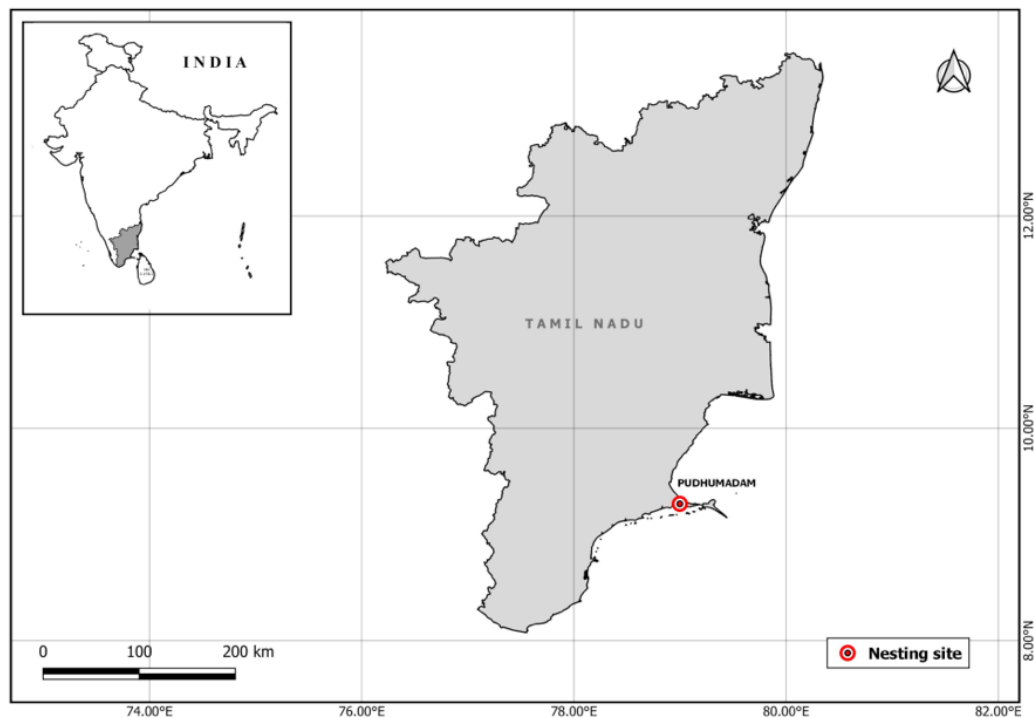


Figure 1. Map showing the nesting site of White-bellied Sea-Eagle from Ramanathapuram district on power pylon.

distance from the sea (Azman et al. 2013).

On 24 November 2022, during one of our routine shorebirds monitoring studies in Ramanathapuram, we observed a large nest on a powerline pylon near the rainwater storage area of Pudumadam (9.289035° N, 78.998988° E) (Figure 1). This storage area was nearly full last year and almost dried up this year. As we passed the first pylon to the next one, we saw another nest of similar size, which made us stop and check the nest from a better position. We observed the presence of WBSEs sitting on the edge of the nest on the first pylon. As we

scanned the adjacent pylons, we also found a third nest on the third pylon. Each pylon was at a distance of 100 m from the other (Image 1). These pylons were on the paddy fields adjacent to the rainwater storage area. WBSEs are reported to nest on power poles and transmission towers in Australia and Thailand by birdwatchers. In India, WBSE nesting on a telecommunications tower was reported from Andhra Pradesh (Narayana & Rao 2019).

The height of the nest in the pylon was approximately 18 m (60 ft). The base width of the pylon structure was 180 cm (6 ft). The nest was about 145 m (4 ft) wide (Image 2). The nest is a large deep bowl constructed of thick sticks, twigs, and branches and lined with materials such as grass, seaweed, or green leaves (Image 3). The nesting location was at approximately 2 km aerially from the sea. We maintained a safe distance of about 100 m on the first observation day. Then one adult bird moved away from the nest in the evening. One stayed back in the nest, and the other did not return till dark.

On our subsequent visits on 24–26 December, we observed an incubating adult on the nest on the first pylon. We also found a fourth nest on another pylon (the fourth one) which was absent during the previous observations. Only one nest among the four was utilized by the WBSEs for incubation. False nesting among WBSEs is not reported elsewhere, so this could either be a false nesting since the fourth nest was found during the



Image 1. Multiple nests in different pylons constructed by the White-bellied Sea-Eagle.



later observations or the abandoned nests of previous years. The adult male usually visited the nest during the sunrise. As soon as this happened, the incubating adult bird slowly got up and stretched its wings and started flying and soared for about an hour, either alone or with the other adult bird, and returned to the nest. On 6–7 January 2023, we noticed the incubation by an adult bird, and the other adult was not seen till evening. The male bird while reaching the nest, stayed on the edges of the large nest, while the female continued to incubate the eggs (Image 4).

The adjacent wetland had more than 50 Brahminy Kite, Black Kite, and a few feral dogs (Image 5). This place was used as a dumping yard for chicken waste (poultry) (Image 6). Crows were regularly sighted in the vicinity of the WBSE nest, often disturbing and chasing one of the adult WBSE (Image 7). During our observation on 30 January 2023, both adults flew for a few minutes but stayed close to the nests. A few crows sat on the edges of the nest (Image 8) and the WBSEs chased them away. The adult female bird incubated almost throughout the day time. The male often stayed in nearby palm trees and kept a watch on the nest and often chased away nest approaching Brahminy Kites and Black Kites. On 16 February 2023, we observed the presence of two chicks in the nest (Image 9). One was smaller compared to the other chick. The male WBSE brought fish to the nest (Image 10). We also recorded the left-over fish



Image 3. Nest construction material.



Image 4. Male White-bellied Sea-Eagle on the nest edge and the female bird incubating in the nest.



Image 2. Individual nest width for a comparison with power line structure.



Image 5. Brahminy Kite and Black Kite in the nearby wetland used for dumping waste.





Image 6. Poultry waste dumped in the nearest waterbody.



Image 7. Crows chasing White-bellied Sea-Eagle.



Image 8. Crows sitting on the nest edges in the pylon with White-bellied Sea-Eagle.



Image 9. Two chicks of White-bellied Sea-Eagle in the nest.

skeletons beneath the nest (Image 11). At times, the fish were taken to the adjacent nest in another nearby pylon and eaten there too. Sometimes, the adult WBSE chased Brahminy Kite and snatched chicken waste from it and brought to the nest for the chicks to feed on. Black Drongo had a good relationship with the WBSE. They were present most of the time on the first and second layers of the pylon and never disturbed the nesting bird.

The breeding season of the WBSEs varies according to location. It occurs in the dry season in Papua New Guinea and from June to August in Australia. According to Ali & Ripley (1974), WBSEs are known to breed from October to January. However, in the Ratnagiri district, nest building occurred from mid-September to January, and chicks were found in the nest by the end of March (Neema et al. 2021). This phenomenon has been documented in more than 70 raptor species worldwide (Hunting 2002; Lehman et al. 2007). Several species of birds are known to use pylons and towers for nesting, perching, and roosting options (Morelli et

al. 2014). APLIC (2006) mentions 27 species. Among the bird families, birds of prey are among the groups that are most seriously affected by electrocution (Ellis et al. 2009). Habitat destruction represents the most significant threat to the species, as it has resulted in the direct loss of nesting sites and has caused birds to nest in suboptimal habitat types where breeding success can be reduced (Bilney & Emison 1983).

### Conclusion

Due to a lack of suitable nesting sites and trees, the WBSE has chosen power line towers for nesting, which are approximately 2 km away from the sea. This helps the bird conveniently scan the marine area for food. It is important to note that the use of man-made structures as nesting sites by the WBSE can pose both risks and benefits to eagles and humans. As a result, careful management and monitoring of these man-made nesting sites are critical to the safety of both eagles and human communities.



Image 10. Male White-bellied Sea-Eagle bringing fish for the chicks.



Image 11. Left over fish remains from beneath the White-bellied Sea-Eagle nesting pylon.

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 Tamil Nadu 641006, India  
 ravi@threatenedtaxa.org



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