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Cover: Mixed media with fine liners, colour pencils, and watercolour background of an Indian funnel web spider. © Elakshi Mahika Molur.

generated daily from households in the city areas are transported and dumped at the Vellalore dump yard (Thyagarajan et al. 2021). The vegetation of the dump yard consists of *Prosopis juliflora*, *Albizia saman*, *Azadirachta indica*, *Calotropis giganteus*, and *Parthenium* spp. The dump yard is situated on the southern bank of the Noyyal River that irrigates agricultural lands in and around the city facing various threats due to urbanization.

The survey method was followed by point counts at select four vantage points covering the area of the dump yard (Image 1). The points for the survey were chosen in elevated locations with maximum visibility to detect the soaring raptors (Thiollay 1989; Nijman 2004; Eduardo et al. 2007). The study site was visited twice a month and a survey was conducted from 0900 h to 1800 h. The raptors were observed using binoculars (Nikon 15 X 70), and photographs were taken for identification using (Nikon P900), and done with the help of field guides (Ripley 1982; Ali & Ripley 1987; Grimmett 2011). Relative abundance was estimated using the index (percentage) of the total number of individual species divided by the total number of species population, multiplied by one hundred (Woffinden & Murphy 1977)

$$\text{Relative abundance} = \frac{\text{No. of individual of species}}{\text{No. of individual of all species}} \times 100$$

RESULTS

About 34 species of birds including seven species of raptors were recorded during the study from the Vellalore dump yard of Coimbatore City (Tables 1 & 2). The highest occurrence percentages were recorded for four common raptor species throughout the season: Black Kite *Milvus migrans*, Booted Eagle *Hieraaetus pennatus*, Shikra *Accipiter badius*, and Greater Spotted Eagle *Aquila clanga* (Figure 2). While other resident raptor species were observed only sporadically over a few months, all seven raptor species were recorded in March. Black Kites and Booted Eagles particularly congregated abundantly at the dump yard. The winter migrant, the Greater Spotted Eagle, was observed throughout all months, meanwhile, Tawny Eagle *Aquila rapax* was recorded only in March. Tawny Eagle and Greater Spotted Eagle are 'Vulnerable' according to the IUCN Red List (IUCN 2024). Additionally, a total of 27 other bird species, including the passage migrant Rosy Starling *Pastor roseus*, were also recorded

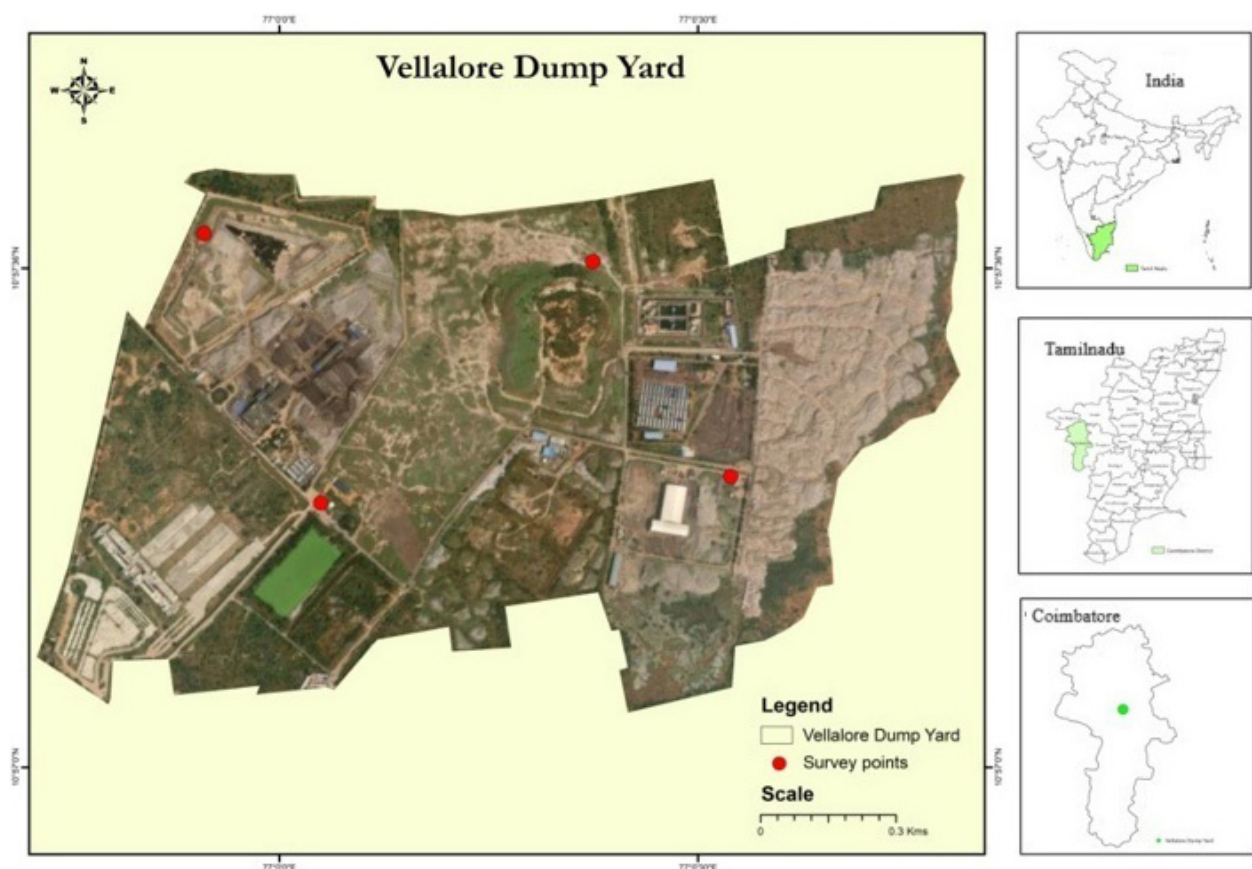


Figure 1. Map showing the study area - Vellalore dump yard.

Table 1. List of diurnal raptors at Vellalore dump yard during the study period.

	Common name	Scientific name	Migratory status	IUCN Red List status/WPA 2022	RA
Order: Accipitriformes Family: Accipitridae	Black Kite	<i>Milvus migrans</i>	BR	LC/Sch-II	37.0
	Black-shouldered Kite	<i>Elanus caeruleus</i>	BR	LC/Sch-II	3.7
	Brahminy Kite	<i>Haliastur indus</i>	BR	LC/Sch-I	0.9
	Shikra	<i>Accipiter badius</i>	BR	LC/Sch-I	3.7
	Greater-spotted Eagle	<i>Aquila clanga</i>	W	Vu/Sch-I	6.5
	Tawny Eagle	<i>Aquila rapax</i>	W	Vu/Sch-I	0.9
	Booted Eagle	<i>Hieraaetus pennatus</i>	W	LC/Sch-I	47.2

W—Winter visitor | BR—Breeding Resident | LC—Least Concern | Sch—Schedule | Vu—Vulnerable | RA —Relative abundance | WPA—Wildlife Protection Act.

Table 2. Percentage relative abundance bird species (other than raptors) recorded in the study area (December 2020–March 2021).

	Species name	Scientific name	RA
1	Intermediate Egret	<i>Ardea intermedia</i>	31.38
2	Red-wattled Lapwing	<i>Vanellus indicus</i>	19.24
3	House Crow	<i>Corvus splendens</i>	16.73
4	Black Drongo	<i>Dicrurus macrocercus</i>	11.71
5	Red-rumped Swallow	<i>Cercopis daurica</i>	6.27
6	Barn Swallow	<i>Hirundo rustica</i>	2.51
7	Indian Peafowl	<i>Pavo cristatus</i>	2.09
8	Indian Pond Heron	<i>Ardeo lagrayii</i>	1.67
9	Ashy Prinia	<i>Prinia socialis</i>	1.46
10	Greater Coucal	<i>Centropus sinensis</i>	1.04
11	Purple-rumped Sunbird	<i>Leptocoma zeylonica</i>	0.83
12	Bay-backed Shrike	<i>Lanius vittatus</i>	0.83
13	Common Tailorbird	<i>Orthotomus sutorius</i>	0.83
14	Large Grey Babbler	<i>Turtoides malcolmi</i>	0.83
15	Pied Bushchat	<i>Saxicola caprata</i>	0.41
16	Common Myna	<i>Acridotheres tristis</i>	0.41
17	Grey Wagtail	<i>Motacilla cinerea</i>	0.41
18	Sykes's Warbler	<i>Iduna rama</i>	0.41
19	Plain Prinia	<i>Prinia inornata</i>	0.41
20	Purple sunbird	<i>Cinnyris asiaticus</i>	0.41
21	Ashy-crowned Sparrow-lark	<i>Eremopterix griseus</i>	0.41
22	Asian Koel	<i>Eudynamis scolopaceus</i>	0.20
23	Common Kingfisher	<i>Alcedo atthis</i>	0.20
24	Rosy Starling	<i>Pastor roseus</i>	0.20
25	Rufous Treepie	<i>Dendrocitta vagabunda</i>	0.20
26	Asian Palm Swift	<i>Cypsiurus balasiensis</i>	0.20
27	Zitting Cisticola	<i>Cisticola juncidis</i>	0.20

in the dump yard. Among other common bird species, the Intermediate Egret *Ardea intermedia* showed predominance, followed by the Red-wattled Lapwing *Vanellus indicus*, House Crow *Corvus splendens*, and Black Drongo *Dicrurus macrocercus*, and several others were found with less than 1% occurrence (Table 1). Stray dogs were observed feeding on various organic wastes including poultry in the Vellalore dump yard.

DISCUSSION

This study is the first survey of birds in the Vellalore dump yard, Coimbatore district, and a total of 34 species of birds were recorded. The presence of the winter migratory birds especially raptors such as the Tawny Eagle and Greater Spotted Eagle with the highest relative abundance of Booted Eagle indicated that dumpsites provide sufficient feeding and roosting space for a large number of bird species thereby playing a key role in the conservation of birds (Teshahunegny & Assefa 2023). The Greater Spotted Eagle record in the dump yard is the 25th site in Tamil Nadu (Santhakumar et al. 2016). Earlier records from the Coimbatore urban area were 135 bird species (Ramakantha et al. 2005), and 321 species (Balaji et al. 2016). The highest relative abundance of few common birds particularly raptor species showed that these birds mostly preferred dump yards for foraging and roosting because the presence of poultry wastes and availability of organic food sources in dumpsites is one of the most important factors influencing the survival and distribution of birds in urban areas (Mehra et al. 2017). Some harmful residues of the toxic substances that are present in the waste may cause bird deaths (Donazar 1993; Newton 1998). Therefore, an urgent need to evaluate the toxicological and health effects of harmful residue exposure of birds especially the globally threatened species for better conservation efforts (Teshahunegny & Assefa 2023).

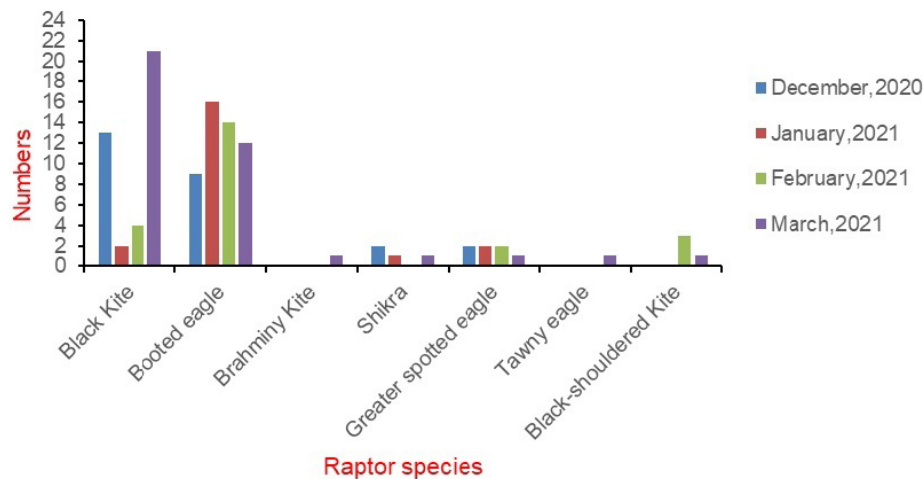


Figure 2. Monthly wise raptor species in the Vellalore dump yard.

CONCLUSION

This pivotal study on a population of raptors in the Vellalore dump yard offers the baseline data that aids in the long-term monitoring of wintering raptors and paves the way for conservation and preparing management policies as these dump sites also provide constant food for various bird species, particularly migratory raptor species.

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Appendix 1. 1—Booted Eagle | 2—Greater Spotted Eagle | 3—Indian Peafowl | 4—Red-vattled Lapwing | 5—Intermediate Egret.

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