

Status and distribution of White-winged Black Tit *Parus nuchalis* in Kachchh, Gujarat, India

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Summary

The White-winged Black Tit *Parus nuchalis* is an endemic Indian species threatened by the destruction of its *Acacia* scrub forest habitat. Historical and recent unpublished records are here combined to provide a new assessment of its disjunct range. Only three records exist from its southern area of distribution; against this, there were 27 sightings of up to four individuals between 1976 and 1991 at 14 localities in Kachchh. The species urgently needs measures to preserve its habitat, and particularly its nest trees.

Introduction

The White-winged Black Tit *Parus nuchalis* is a resident Indian species with a very restricted and disjunct range in the west and the south of the country (Ali and Ripley 1973; see Figure 1). The available information indicates that the species has declined drastically, primarily owing to habitat destruction. It has been included in the ICBP checklist of threatened birds (Collar and Andrew 1988), and needs the immediate attention of wildlife managers and conservationists. In this paper we report on the species in part of its western area of distribution, which appears to be the more important for its conservation.

The White-winged Black Tit (Plate 1) was first obtained and described by Jerdon in 1844 from the Eastern Ghats west of Nellore. Another specimen was collected at Bangalore (Baker 1922), while one more specimen, now apparently lost, was collected at Satyamangala (about 600 m) in the Biligirirangan hills in south-east Mysore district. These are the only three known records of this species from peninsular India (Ali and Ripley 1973), and Ali (1945) concluded that it was very rare there. A specimen in the British Museum from the Gadow collection is labelled *Bhutan*, which Baker (1922) felt was mistaken.

The distribution of the White-winged Black Tit in north-western India comprises Kachchh, northern Gujarat (Deesa, Palanpur, Mehsana), central and south-central Rajasthan (Pali, Jodhpur, Nasirabad, Ajmer, Kishangarh, Jhalawar, and Sambhar lake). Adam (1873) and Butler (1875) reported it to be quite common in this western range. Adam obtained 12 specimens in a patch of jungle near Marot (Rajasthan), where it seemed to be so common that every collecting trip yielded one or more specimens. He also reported it from a range of hills towards the marble quarries of Makrana.

The present distribution of the White-winged Black Tit in Kachchh is mapped on the basis of 27 sightings of the bird made by seven birdwatchers and naturalists during 1976 to 1991 (Figure 2). This includes our own field observations



Figure 1. Distribution of White-winged Black Tit *Parus nuchalis* in India.

made for the Bombay Natural History Society (BNHS) between January 1990 and March 1991.

Materials and methods

Thorny scrub forest dominated by *Acacia catechu* and *Acacia nilotica* is the ideal and preferred habitat of the White-winged Black Tit (Plate 2). Besides this habitat, we also surveyed the other habitats in the areas, i.e. grassland and *Prosopis*-dominated scrub.

A compilation of all sightings of the White-winged Black Tit in Kachchh (Tables 1 and 2) is made here based on (a) literature survey, (b) bird surveys, (c) random and intensive mist-netting in representative tit habitats, (d) census by line transect method (Emlen 1971), (e) nest surveys, and (f) information gathered from birdwatchers and other naturalists in the area.



Plate 1. White-winged Black Tit.

Results

The 27 sightings of the White-winged Black Tit recorded from 1976 to 1991 were mainly confined to three of the nine administrative "talukas" (blocks) of Kachchh district, namely Bhuj, Nakhtrana and Lakhpat (Figure 2). Two adult birds were ringed, one in Jathaveera "rakhal" (protected forest) (Taluka Nakhtrana) and one in Matanomadh rakhal (Taluka Lakhpat). The Jathaveera rakhal registered the maximum number of sightings. The second stronghold is in a privately owned scrub forest in Fulay village (Taluka Nakhtrana). The sightings have been typically of one or two birds except for a single gathering of four recorded at Fulay rakhal on 5 January 1990. We maintained a nest search from May to August 1990 in the scrub forests where the tit has been recorded, but found none. A few nest-boxes were also put up in Jathaveera rakhal, but they were destroyed by vandals. The bird is known to nest in natural hollows mostly made by woodpeckers in old tree-trunks. Lester (1904) reported its occurrence and breeding on the borders of the Rann around Koonria and Doria Soomrasir (Figure 2). The literature survey revealed 18 records of the bird scattered over Rajasthan, Kachchh, Gujarat, Karnataka and Andhra Pradesh between 1844 and 1943 (Tables 2, 3).

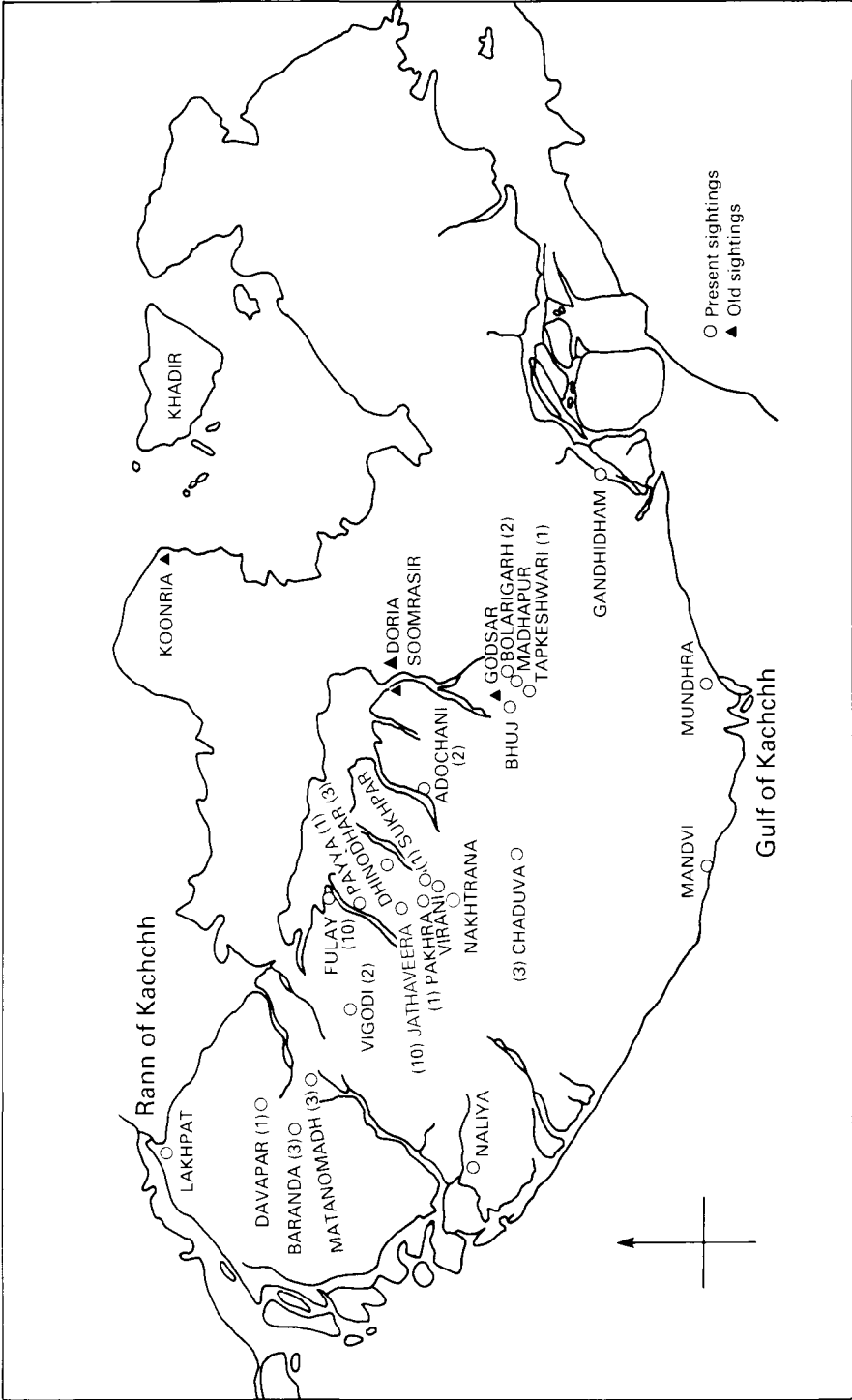


Figure 2. Sightings of White-winged Black Tit in Kachchh, Gujarat, 1976–1991. Figures in brackets indicate number of birds encountered.



Plate 2. Typical habitat of the White-winged Black Tit at Jathaveera/Fulay, Kachchh.

Discussion

Our observations support reports (Ali and Ripley 1973) that the White-winged Black Tit is found in parties of 2–4 birds. We found it to be extremely shy, disclosing its presence only by musical whistling notes, *tee-whi-whi* or *tee-whi-whi-whi* (see *pit-pit-pit-pit*). The tit was mainly observed in *Acacia catechu* forest, flitting from tree to tree and adopting various acrobatic positions in its restless search for insects and spiders.

Butler (1875) reported it to be rare on and around Mount Abu and in northern Gujarat. However, Hume (1875), commenting on Butler's notes, considered it to be not uncommon in its western range. He reported sightings from all round the Sambhur lake, Kishengarh and Ajmer, from around Pali near Jodhpur and also from near Soegam on the Rann of Kachchh and at several other localities in Kachchh. He also noted that the western form of the species could prove distinct, as it did not agree perfectly with Jerdon's description, which was based on a southern specimen. He further highlighted the difference between the habitats obtaining in its southern and western ranges and the absence of the species in any intermediate localities. He felt that this distribution was worth investigation.

In fact, the unusual distribution of the White-winged Black Tit can very simply be explained by the absence of a continuous tract of scrub forest between the two distributional ranges. The only three records of this species from southern India suggests a relict population which was presumably isolated as the forest cover between the regions slowly disappeared. It is of considerable importance to establish whether this population still exists. In the western area of its distribution, dry forest cover is rapidly diminishing, so that the future of this species

Table 1. Recent sight records of White-winged Black Tit

S No.	Chronology of sightings	Locality	Nos.	Source/remark
1	01.08.76	Dhinodhar	2	S. N. Varu
2	14.07.84	Dayapar	1	S. N. Varu
3	14.09.86	Tapkeshwari	1	N. N. Bapat
4	18.09.86	Adochani dam	1	N. N. Bapat
5	22.11.86	Chaduva	1	S. N. Varu
6	22.02.87	Vigodi	2	S. N. Varu
7	29.07.87	Adochani dam	1	N. N. Bapat
8	29.02.88	Chaduva	1	N. N. Bapat
9	24.06.89	Chaduva	1	N. N. Bapat
10	04.09.89	Dhinodhar	1	S. N. Varu
11	25.09.89	Barenda	3	Ravi Sankaran
12	05.01.90	Fulay	4	*
13	20.02.90	Jathaveera	2	*
14	10.03.90	Bolarigarh	2	N. N. Bapat
15	17.03.90	Fulay	2	*
16	23.03.90	Fulay	1	*
17	26.03.90	Jathaveera	3	*
18	27.04.90	Sukhpar virani	1	*
19	24.07.90	Jathaveera	2	*
20	22.08.90	Jathaveera	1	*
21	10.09.90	Pakhda	1	*
22	07.11.90	Payya	1	*
23	03.01.91	Jathaveera	1	* Census
24	03.01.91	Jathaveera	1	* Ringed
25	07.01.91	Matanomadh	1	* Ringed
26	07.01.91	Matanomadh	2	*
27	11.01.91	Fulay	3	*

* Sightings by BNHS team.

Biometrics of specimens ringed

S no. 24: ring no. A-233761, wing - 66 mm, bill - 12.0 mm, tarsus - 17 mm, tail - xxx, weight - 13.0 g.

S no. 25: ring no. A-233767, wing - 67 mm, bill - 12.5 mm, tarsus - 17 mm, tail - 55 mm, weight - 14.5 g.

appears to be very bleak. As elsewhere there has been a continuous and rapid increase in the human and livestock population in Kachchh. The livestock is often fed with branches of trees, particularly *Acacia*. Owing to the resultant lopping and felling, the scrub tree density is decreasing and forest is becoming sparse everywhere. Loss of nesting habitat in this region certainly appears to be the main cause for the decline in numbers of this natural hole-nesting species. The Godsar rakhal, for example, has been entirely lost owing to agricultural encroachment of the people in and around the town of Sukhpar. The preservation of tracts of forest and of suitable nest trees within them must be the highest priority in any modern efforts to save the White-winged Black Tit.

Table 2. Earlier sight records of White winged Black Tit

Sl. No.	Date	Locality	Nos.	Source/remark
1	1844	Eastern Ghats, west of Nellore, Andhra Pradesh	1	T. C. Jerdon A specimen collected for first description of the species
2	1863	Bangalore, Karnataka	1	Dr Stewart Specimen collected
3	1863	Satyamangalam, Biligirirangan hills, Karnataka	1	Specimen is apparently lost
4	1873	Marot, Rajasthan	14	R. M. Adams Specimens collected
5	1875	Sambhur Lake, Rajasthan	–	A. O. Hume, observation
6	1875	Kishengarh, Rajasthan	–	A. O. Hume, observation
7	1875	Ajmer, Rajasthan	–	A. O. Hume, observation
8	1875	Pali, Rajasthan	–	A. O. Hume, observation
9	1875	Soeegam, Rann of Kachchh	–	A. O. Hume, observation
10	1875	Deesa, Gujarat	–	Capt. E. A. Butler
11	23.12.1895	Koonria (Kutch)	2	C. D. Lester, observation
12	July 1896	Godsar (Kutch)	1	C. D. Lester, specimen
13	July 1931	Taranga hill (Mehsana)	–	R. M. Simmons, observation
14	Feb. 1932	Taranga hill (Mehsana)	–	R. M. Simmons, observation
15	1937	Bhujia Fort (Bhuj)	1	H. Abdulali
16	08.08.43	Bhujia Fort (Bhuj)	1	S. Ali, Bird ringed
17	10.08.43	Tapkeshwari (Bhuj)	2	S. Ali, observation
18	04.04.44	Bhujia Fort (Bhuj)	1	S. Ali ^a

^a Bird ringed on 08.08.43 at roost sighted on 04.04.44 at the same roost.

Acknowledgements

We are grateful to M. K. S. Himmatsinhji, S. N. Varu, N. N. Bapat, and Trilochan Chhaya of the Pelican Nature Club (Bhuj, Kachchh), and Ravi Sankaran of the Bombay Natural History Society for providing their valuable field data for this paper. Fieldwork for ringing birds was carried out as BNHS Bird Migration Project funded by a PL-480 grant No. 14-16-0009-87-02 by U.S. Fish and Wildlife Service and sponsored by the Ministry of Environment, Government of India.

Table 3. White-winged Black Tit specimens in the Bombay Natural History Society collection

Date	Place of collection	Sex	Collected by
July 1896	Kachchh	M	C. D. Lester
18.02.39	Bhuj	F	Sir G. F. Archer
27.02.39	Bhuj	M	Sir G. F. Archer
12.08.43	Godsar, Bhuj	M	Salim Ali
12.08.43	Godsar, Bhuj	F	Salim Ali ^a
18.08.43	Chaduva, Bhuj	M	Salim Ali
20.08.43	Chaduva, Bhuj	F	Salim Ali
20.08.43	Chaduva, Bhuj	M	Salim Ali ^a
26.09.43	Kachchh	M	Salim Ali
27.09.43	Kachchh	M	Salim Ali
17.03.44	Matanomadh, Kachchh	F	Salim Ali
11.01.46	Deesa, Palanpur	M	Salim Ali
18.01.46	Gangasagar	–	Salim Ali ^a

^a Specimens donated to Zoological Survey of India, Calcutta.

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