

PRESENT DISTRIBUTION OF ASIAN PIED STARLING *STURNUS CONTRA* IN RAJASTHAN

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Three subspecies of Asian Pied Starling *Sturnus contra* are recognised, namely, *Sturnus contra contra*, *Sturnus contra sordidus* and *Sturnus contra superciliaris* (Ali & Ripley, 1983). Of the three subspecies *Sturnus contra contra* is the most common subspecies, distributed in the northern and eastern continental India, east of a line from c. 76°E Ludhiana and Hissar, south through eastern Rajasthan roughly to Hoshangabad (M.P.), Hyderabad (A.P.) and the Krishna river delta. In the north along the Uttar Pradesh and Nepal terai, duars, foothills and through the Gangetic plains to Lakhimpur and North Cachar districts in Assam, and Bangladesh.

It appears from the above text that *Sturnus contra contra* occurs in the State of Rajasthan only east of a line from c. 76°E. As many as fourteen districts of Rajasthan namely Baran, Dholpur, Bharatpur, Alwar, Dausa, Karauli, Sawai Madhopur and in parts of Jhalawar, Kota, Jaipur, Sikar, Jhunjhunu, Bundi and Tonk occur east of 76°E. Besides Ali & Ripley (1983), many others like Ewans (1992), Sankar *et al.* (1993), Sharma and Singh (1993) and Vyas (1992) have confirmed the occurrence of *S. c. contra* only east of 76°E in the state. This species has been reported absent from the districts of Ajmer (Sharma, 1988); Mt. Abu, a part of Sirohi district (Mc Cann, 1942); western Rajasthan (Adams, 1990; Whistler, 1938) that are located west of 76°E.

To study the present distribution pattern of *S. contra* in Rajasthan, a survey of the state in a criss-cross manner specifically the area west of 76°E was taken up. Agricultural fields around cities and towns, and garbage dumps were visited for getting direct sightings. The untidy nest of this species on electric and telephone poles, and trees, which is a good evidence of their presence were also searched. Railway stations, bus stand and other similar places were also visited in search of the bird as well as for counting nests.

Of the 19 districts surveyed presence of *S. contra* were found in 12 districts. Two-hundred nests of the species were observed during the survey. Nests were found on electric and telephone poles, and trees and were observed in Alwar, Jaipur, Tonk, Bundi, Kota, Bhilwara and Chittorgarh districts. In the districts of Jhunjhunu, Udiapur, Ajmer, Sikar and Hanumangarh no nests were found even though the species was found in several parts of the districts. *S. contra* was found well distributed in Alwar and Jaipur districts, even commonly present around small villages. It is in abundance in Bharatpur, an eastern district of State (Bholu Abrar Khan, *pers. comm.*). During the survey, nests of *S. contra* were observed on 12 tree species (Table 2). *Prosopis cineraria* and *Acacia nilotica* var. *indica* used for nesting were commonly present in Alwar, Tonk, Kota, Jaipur,

Ajmer and Bundi districts, but *A. nilotica* appears to be preferred over *P. cineraria*. Generally, nests were found placed towards extremities of branches and both green and dried trees were selected for nesting. Stump ends of thick branches having a growth of new shoots appeared to be liked much for placing the nests.

Present study reveals that Asian Pied Starling is advancing west of 76°E longitude. At present, it has reached up to Udaipur city in southern Rajasthan and up to Ajmer in central part of the state. It is totally absent in Jhadol, Gogunda, Kotra and Sirohi area, which are present west of Udaipur city. Interestingly, Jadhrol and Gogunda are only 50 and 35km away from Udaipur

Table 1. Nesting and sighting records of Asian Pied Starling in Rajasthan

Distt.	Locality	Nesting observed on*			Sighting records by author*
		Poles Trees	City Field	Agriculture Trees	
Jaipur	Jaipur	+	+	+	+
	Shahpur	+	+	+	+
	Sanganer	+	+	+	+
	Phulera	-	-	-	+
	Sambhar	-	-	-	+
Bhilwara	Bhilwara	+	+	+	+
	Bachchh Kheda (Shahpura)	+	+	+	+
	Hamirgarh	+	+	+	+
	Mandal	-	-	+	+
Jhunjhunu	Gulabpura	-	-	+	+
	Jhunjhunu	-	-	-	+
	Chirawa	-	-	-	+
Udaipur	Pilani	-	-	-	+
	Udaipur	-	-	-	+
	Gogunda	-	-	-	-
	Jhadol	-	-	-	-
	Kotra	-	-	-	-
Ajmer	Phulwari Wildlife Sanctuary	-	-	-	-
	Ajmer	-	+	-	+
	Kishangarh	-	-	-	-
Chittorgarh	Nasirabad	-	-	+	+
	Chittorgarh	+	+	+	+
Sirohi	Chandera	-	-	+	+
	Sirohi	-	-	-	-
Pali	Mt. Abu	-	-	-	-
	Pali	-	-	-	-
Barmer	Sadri	-	-	-	-
	Barmer	-	-	-	-
Bikaner	Bikaner**	-	-	-	-
Jodhpur	Jodhpur	-	-	-	-
Jaisalmer	Jaisalmer	-	-	-	-
	Mohangarh	-	-	-	-
	Chandan	-	-	-	-
Nagaur	Nagaur	-	-	-	-
Sikar	Sikar	-	-	-	-
	Ringus	-	-	-	+
	Palsana	-	-	-	+
	Nawalgarh	-	-	-	+
Hanumangarh	Lakhuwali (Canal Head)	-	-	-	+
	Rawatsar	-	-	-	+
Alwar	Alwar	+	+	+	+
	Behror	+	+	+	+
	Khairthal	+	+	+	+
Tonk	Tonk	+	+	+	+
	Deoli	+	+	+	+
	Niwai	+	+	+	+
	Uniyara	+	+	+	+
Bundi	Bundi	+	+	+	+
	Kota	+	+	+	+

* + Yes, - No

** Pied Starling has been reported in Bikaner by Rahmani (1997).

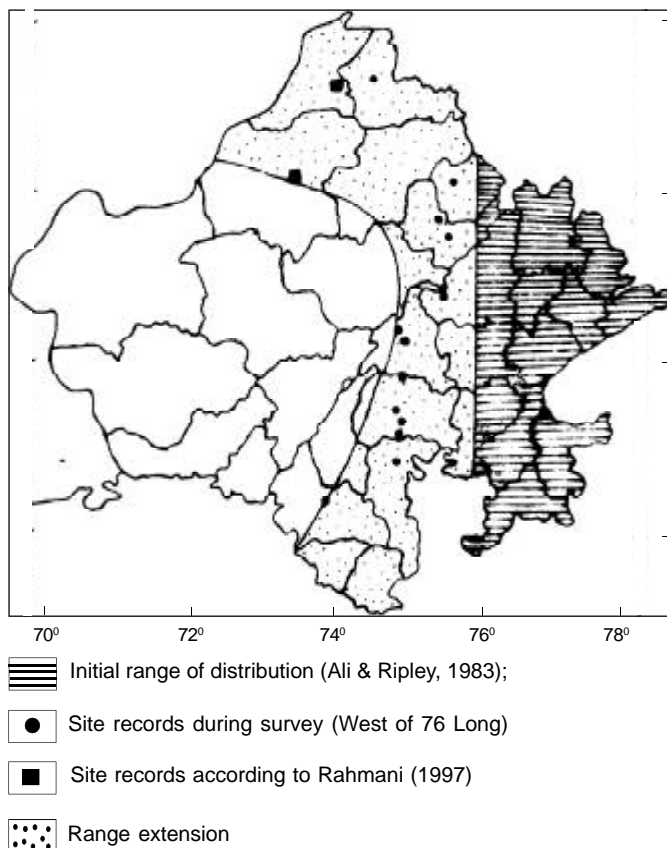


Figure 1. Present distribution limits of Asian Pied Starling in Rajasthan

respectively. It is also absent in Vijai Nagar, Ashram, Khedbrahmah and Ambaji towns of Gujarat state bordering the southern most boundary of Rajasthan. This species has not yet reached Phulwari Wildlife Sanctuary. It is now present nearly 80km east of the border of Phulwari Sanctuary.

Occurrence of Pied Starling in few western districts in the State has been previously reported. Rahmani (1997) recorded this species from near and inside Suratgarh town in Ganganagar district, and also from Bikaner district. And, in Sikar, Jhunjhunu

and Udaipur districts from the present study. Nesting of this species has however not been observed in these districts so far while it has started to nest in Jaipur, Bundi, Tonk, Ajmer, Bhilwara and Chittoragarh districts, which are adjoining to its previous distribution limit *i.e.* 76°E. It seems that presence of this species in Bikaner, Ganganagar, Hanumangarh, Sikar, Jhunjhunu and Udaipur districts is a result of recent entry and in near future it is likely to establish and breed over here like in other areas. It is also evident from the present study and from literature review that this species is still absent from the western foothills of the Aravallis up to the extreme west.

The Indira Gandhi canal is a major source of irrigation in Hanumangarh, Ganganagar and Bikaner districts (Sharma, 2001). Sprinkler irrigation is widely being used in Sikar, Nagaur and Jhunjhunu districts. Hand pumps have reached everywhere in the state to provide drinking water. Apart from this, enhanced urbanization has led to increase in garbage dumps. All these situations have helped in creating a congenial habitat to the Asian Pied Starling, and which has made its westward movement possible. Trees, planted in the recent afforestation schemes are also providing suitable roosting sites to this new entrant bird in the Thar. In future, planted trees may be used for nesting also.

Physical conditions are identical and seem congenial to this species in most parts of Hanumangarh and Ganganagar districts and part of Bikaner and Jaisalmer districts. Hence in near future, this species is likely to advance in the command areas of these districts. At present, this species has crossed 74°E Longitude in the state of Rajasthan (Fig. 1) and likely to advance further towards west.

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Table 2. Trees nested by Asian Pied Starling observed near survey tract in different district of Rajasthan

S.No.	Nested tree species	No. of nested trees recorded in geographic limits of different districts.								Total
		Alwar	Tonk	Kota	Jaipur	Chittoragarh	Ajmer	Bhilwara	Bundi	
1	Ailanthus excelsa	-	-	-	1	-	-	-	-	1
2	Acacia nilotica var. indica	104	22	-	19	1	7	8	-	161
3	A. nilotica var. cuppresiformis	7	-	-	-	1	2	-	2	12
4	A. leucophloea	-	-	1	-	2	2	7	-	12
5	Ficus religiosa	2	-	-	-	-	1	2	-	5
6	Aelbizia lebbeck	1	-	-	-	-	-	-	-	1
7	Prosopis juliflora	1	1	-	-	-	-	-	-	2
8	P. cineraria	1	-	-	-	-	-	-	-	1
9	Leucena leucocephala	-	-	1	-	-	-	-	-	1
10	Morus alba	1	-	-	-	-	-	-	-	1
11	Cassia siamea	-	-	-	-	-	1	-	-	1
12	Azadirachta indica	-	-	-	-	-	-	1	-	1
13	Eucalyptus sp.	-	-	1	-	-	-	-	-	1
	Total	117	23	3	20	4	13	18	2	200

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NOTE

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AVIFAUNA OF DESERT REGIONAL STATION, ZOOLOGICAL SURVEY OF INDIA CAMPUS, JODHPUR, RAJASTHAN

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The Great Indian Desert or Thar Desert is biogeographically the easternmost edge of the Saharan-Arabian Desert zone. Located in the northwestern region this desert is the only habitat of its type in the Indian subcontinent. In spite of the harsh climatic conditions this region exhibits a vivid and spectacular biodiversity, with several records of birds.

We recorded 89 species of birds belonging to 38 families from 1999 to 2003 in the campus of the Desert Regional Station of the Zoological Survey of India (Table 1). The campus with an area of 24ha is located 10km away from Jodhpur city. Changanani (2002) had reported 158 species from Jodhpur district. In the present study 84 species recorded in the campus were residents while species like Pied Crested Cuckoo, Common Swallow, Paddyfield Pipit and Yellow Wagtail were local migrants. Trans-continental migrant species namely Dunlin, Cream-coloured Courser, Common Swift, European Nightjar and Grey Wagtail were also recorded.

Table 1. List of birds recorded in the Desert Regional Station, ZSI.

Common name	Scientific name	Status*
Family: Phalacrocoracidae Little Cormorant	<i>Phalacrocorax niger</i>	R
Family: Anatidae Spot-billed Duck	<i>Anas poecilorhyncha</i>	R
Family: Accipitridae Black Kite	<i>Milvus migrans</i>	R
Egyptian Vulture	<i>Neophron percnopterus</i>	R
Indian White-backed Vulture	<i>Gyps bengalensis</i>	R
Tawny Eagle	<i>Aquila rapax</i>	R
Shikra	<i>Accipiter trivirgatus</i>	R
Family: Ardeidae Cattle Egret	<i>Bubulcus ibis</i>	R
Family: Phasianidae Grey Francolin	<i>Francolinus pondicerianus</i>	R
Common Quail	<i>Coturnix coturnix</i>	LM
Indian Peafowl	<i>Pavo cristatus</i>	R
Family: Charadriidae Red-wattled Lapwing	<i>Vanellus indicus</i>	R
Common Snipe	<i>Gallinago gallinago</i>	LM
Dunlin	<i>Calidris alpina</i>	M
Family: Burhinidae Stone Curlew	<i>Burhinus oedicephalus</i>	R
Family: Glareolidae Indian Courser	<i>Cursorius coromandelicus</i>	R
Cream-coloured Courser	<i>Cursorius cursor</i>	M
Family: Laridae River Tern	<i>Sterna aurantia</i>	R
Family: Columbidae Blue Rock Pigeon	<i>Columba livia</i>	R
Eurasian Collared-Dove	<i>Streptopelia decaocta</i>	R
Little Brown Dove	<i>Streptopelia senegalensis</i>	R
Red Collared-Dove	<i>Streptopelia tranquebarica</i>	R
Family: Psittacidae Rose-ringed Parakeet	<i>Psittacula krameri</i>	R
Family: Cuculidae Pied Crested Cuckoo	<i>Clamator jacobinus</i>	LM
Asian Koel	<i>Eudynamis scolopacea</i>	R
Family: Tytonidae Barn Owl	<i>Tyto alba</i>	R
Family: Strigidae Eurasian Eagle Owl	<i>Bubo bubo</i>	R
Tawny Wood-Owl	<i>Strix aluco</i>	R
Spotted Owllet	<i>Athene brama</i>	R
Family: Caprimulgidae European Nightjar	<i>Caprimulgus europaeus</i>	M
Family: Apodidae Common Swift	<i>Apus apus</i>	M
House Swift	<i>Apus affinis</i>	R
White-rumped Needletail-Swiftlet	<i>Zoonavena sylvatica</i>	R
Family: Alcedinidae Lesser Pied Kingfisher	<i>Ceryle rudis</i>	R
Small Blue Kingfisher	<i>Alcedo atthis</i>	R
White-breasted Kingfisher	<i>Halcyon smyrnensis</i>	R