

ON A COLLECTION OF BIRDS FROM RAJPUTANA

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INTRODUCTION

A party of the Zoological Survey of India, consisting of Dr. B. N. Chopra, Dr. M. L. Roonwal and a taxidermist made a short collecting trip to Rajputana in October-November, 1941. The collections made by them include about 100 bird skins from Ajmer-Merwara, and the Mewar (Udaipur) and Dungarpur States.

The physiography¹, etc., of the areas visited are briefly described below.

(a) *Ajmer-Merwara*—Collections were made in and around Ajmer City, which lies at the foot of the Târagârh Hill. The average mean temperature of the year is about 76°F., and in October-November about 68°F. The rainfall is low, the annual average being about 21 inches.

(b) *Mewar State*—The northern and eastern portions of the State consist of an elevated plateau of fine open country sloping to the north-east, while the southern and western portions are entirely covered with rocks, hills and dense jungle. The hill tract embraces the wildest portion of the Arâvalli range. Moreover, to the east of Chitorgarh is a series of hills running north and south forming narrow parallel valleys.

The country is arid. There are only a few rivers flowing through this State. The average annual rainfall at Udaipur is about 24 inches. There is usually more rain in the south-west. The climate is not severe. The average mean annual temperature at Udaipur is about 77°F.

In this State collections were made at the following places :—
Chitorgarh—in and around the town; also on the banks of the adjacent Berach river.

Udaipur—the capital of the State. Collected around the city.

Udaisagar Lake—7 miles from Udaipur.

Barapal—about 15 miles south of Udaipur.

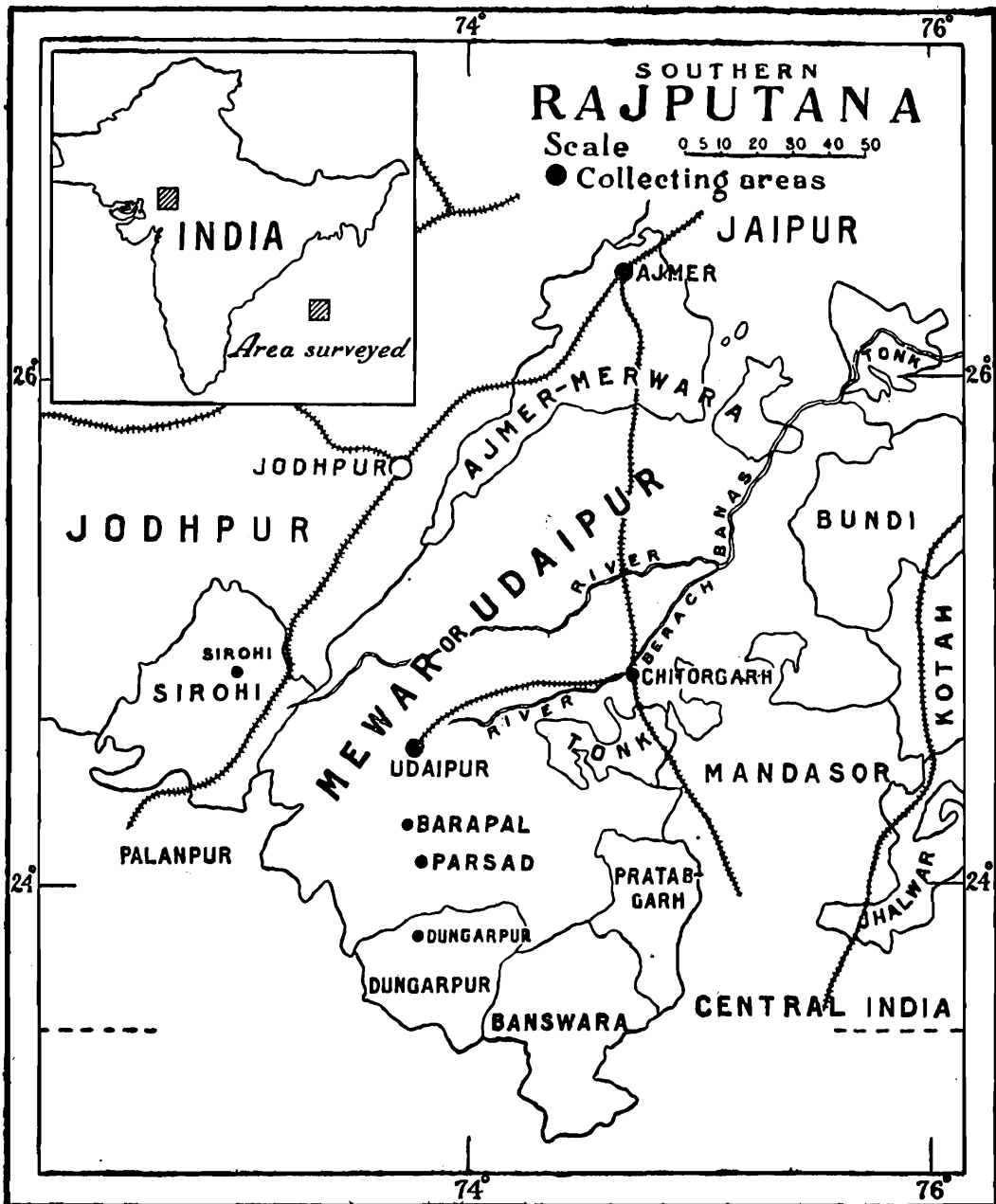
Parsad—about 30 miles south of Udaipur. Collected in the surrounding jungle and adjacent streamlets.

(c) *Dungarpur State*—In this, the southernmost State of Rajputana, collections were made around Dungarpur town. The climate is temperate and dry. The mean annual temperature is about 75°F., and the annual rainfall averages about 27 inches.

The accompanying map (Text-fig. 1) shows the positions of the different localities surveyed.

¹ Adapted from the Imperial Gazetteer of India.

Ornithology of Rajputana—The avifauna of Rajputana is imperfectly known. The only noteworthy reports on the birds of Rajputana are



TEXT-FIGURE 1.—Map of the southern part of Rajputana to show the area surveyed. The scale is in English miles. (Sirohi has been wrongly indicated as a collecting locality; no collecting was done there.)

from the Sambhar Lake and its vicinity by Adam (1873-74), the Mount Aboo region by Butler (1875-76), and the Jodhpur State by Hume (1878) and Whistler (1938).

Measurements, etc.—For the methods of taking measurements and determination of sex, weight, local names, etc., my previous paper (Biswas, 1947) may be referred to. When sex was determined from plumage and not by an actual examination of the gonads, it is indicated in brackets, e.g., (♂) or (♀).

The specimen numbers refer to the Registration numbers in the Zoological Survey of India collections.

Brief synonyms are given in controversial cases only. For a more complete list of synonyms reference may be made to Baker's volumes (VII-VIII) on Birds in the Fauna of British India series,

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SYSTEMATIC ACCOUNT

Order PASSERIFORMES

Family CORVIDAE

Corvus macrorhynchus culminatus Sykes

(The Indian Jungle-Crow)

1930. *Corvus levaillanti levaillanti* Less., Baker, *Faun. Brit. India Birds* (2nd. ed.) VIII, p. 593.

1930. *Corvus levaillanti culminatus* Sykes, Baker, *Ibid.*, p. 594.

1932. *Corvus macrorhynchus culminatus* Sykes, Whistler and Kinnear, *J. Bombay nat. Hist. Soc.* XXXV, p. 512.

Specimen collected : No. 26738, ♂, Barapal, October 15, 1941.

Measurements : 1 ♂ : W 282 ; Tl. 160 ; Tr. 54 ; B. 58 mm.

Local (Bhil) name : Kagwad.

Field note : The testes were in the non-breeding condition, measuring approximately 4.0×2.5 mm.

Remarks : Adam (1873-74), Hume (1878) and Whistler (1938) did not record this species from the Sambhar Lake area or the Jodhpur State, but Butler (1875) found it to be common in Mount Aboo region.

Family PARIDAE

Parus major marhattarum Hartert

(The Southern Grey Tit)

Specimen collected : No. 26739, (sex ?), Parsad, October 20, 1941.

Measurements : 1 (sex ?) : W 64 ; Tl. 56 ; Tr. 17 ; B. 11 mm.

Weight : 11.9 gms.

Family TIMALIIDAE

Turdoides somervillei terricolor (Blyth)

(The Bengal Jungle-Babbler)

1844. *Malacocercus terricolor*, Blyth, *J. Asiat. Soc. Bengal* XIII, p. 367 (Nepal).
(ex *Maina Terricolor*, Hodgson (1836), *J. Asiat. Soc. Bengal* V, p. 771.
Nom. nud.)
1922. *Turdoides terricolor terricolor* Hodgs., Baker, *Faun. Brit. India, Birds*
(2nd. ed.) I, p. 191.
1932. *Turdoides somervillei terricolor* (Blyth), Whistler and Kinnear, *J. Bombay
nat. Hist. Soc.* XXXV, p. 738.

Specimens collected : No. 26742, ♀, Chitorgarh, October 7, 1941 ;
Nos. 26741, ♂, and 26740, (sex ?), Parsad, October 19, 1941.

	Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♂	: : : : .	106	110	34	22
1 ♀	: : : : .	105	100	35	21
1 (sex ?)	: : : : .	102	107	34	22

Weights (gms.) : No. 26741, ♂, 65.7 ; No. 26742, ♀, 68.2 ; No. 26740,
(sex ?) 59.0.

Local (Bhil) name : *Nelô* and *Kaugô*.

Argya caudata huttoni (Blyth)

(The Afghan Babbler)

Specimens collected : Nos. 26743, ♀, and 26744, (sex ?), Ajmer, October
31, 1941.

	Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♀	: : : : .	86	111	28	18
1 (sex ?)	: : : : .	79	120	28	18

Weights (gms.) : No. 26743, ♀, 38.2 ; No. 26744, (sex ?), 31.2.

Systematic note : These specimens are somewhat intermediate between
the subspecies *caudata* and *huttoni* but nearer the latter. In Rajputana
caudata has been recorded by Adam (1873, p. 378) in the Sambhar Lake
area, by Butler (1875, p. 472) in Deesa (south-western Rajputana), and
by Hume (1878, p. 55) and Whistler (1938, p. 216) in Jodhpur State.
Ticehurst (1922, p. 540) found both *caudata* and *huttoni* in Sind. It
seems, therefore, that both the subspecies possibly occur in Rajputana.

Aegithina tiphia tiphia (Linné)

(The Common Iora)

Specimens collected : Nos. 26745, ♂, and 26746, (sex ?), Dungarpur,
October 26 and 28, 1941, respectively.

	Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♂	: : : : .	64	49	18	16
1 (sex ?)	: : : : .	63	51	21	16

Weight (gms.) : No. 26745, ♂, 11.8 ; No. 26746, (sex ?), 12.4.

Field notes : Only a few pairs were seen.

Adam (1873) also found this species to be very rare in the Sambhar Lake area.

In No. 26745 the testes were in the non-breeding condition, measuring approximately 2.0×1.0 mm.

Family PYCNONOTIDAE

Molpastes cafer pallidus Baker

(The Central Indian Red-vented Bulbul)

Specimens collected : No. 26747, ♂, Barapal, October 14 ; No. 26748, ♂, Parsad, October 19 ; Nos. 26749, ♀, and 26750, ♂, Ajmer, November 1, 1941.

	Measurements (mm.).	W.	Tl.	Tr.	B.
3 ♂♂	: : :	90—97	82—90	23—24	16
1 ♀	: : :	89	83	23	16

Weights (gms.) : ♂♂ : Nos. 26747, 36.2 ; 26748, 41.7 ; 26750, 33.9.

♀ : No. 26749, 28.7.

Field notes : Very common.

The testes in No. 26748 were in the non-breeding condition and measured about 2.0×1.5 mm.

Local (Bhil) name : *Peetrôlyô*.

Family TURD DAE

Oenanthe picata (Blyth)

(The Pied Chat)

Specimen collected : No. 26758, ♂, on R. Berach near Chitorgarh, October 8, 1941.

Measurements (mm.) : 1 ♂ : W. 94 ; Tl. 72 ; Tr. 22 ; B. 17.

Weight (gms.) : 21.1.

Cercomela fusca (Blyth)

(The Brown Rock-Chat)

Specimen collected : No. 26756, ♀, Parsad, October 20, 1941.

Measurements (mm.) : 1 ♀ : W. 85 ; Tl. 68 ; Tr. 22 ; B. 17.

Weight : 12.7 (gms.).

Field note : Only a pair seen on river.

Saxicola fulicata cambaiensis (Latham)

(The Brown-backed Indian Robin)

Specimens collected : Nos. 26751 and 26752, ♂ (♂), Chitorgarh, October 9 ; No. 26753, ♀, around Udaisagar Lake, October 11 ; Nos. 26754, (♂), and 26755, (♀), Parsad, October 17 and 20, 1941, respectively.

	Measurements (mm.).	W.	Tl.	Tr.	B.
3 ♂♂	:	72—76	65—69	25—27	15—16
2 ♀♀	:	70—71	63—69	26	14—16

Weights (gms.) : ♂♂ : Nos. 26751 and 26754, 20.0 and 17.0 respectively ; ♀♀ : Nos. 26753 and 26755, 18.6 and 19.0 respectively.

Local (Bhil) name : Dachkô.

Field notes : They were common all over.

In No. 26753 the ovary was in the non-breeding condition, measuring approximately 3.0 × 2.5 mm.

Copsychus saularis saularis (Linné)

(The Indian Magpie-Robin)

Specimen collected : No. 26757, ♂, Parsad, October 19, 1941.

Measurements (mm.) : 1 ♂ W. 99 ; Tl. 90 ; Tr. 27 ; B. 21.

Weight : 31.2 (gms.).

Local (Bhil) name : Kabrô.

Field note : A few seen.

Family MUSCICAPIDAE

Tchitrea paradisi paradisi (Linné)

(The Indian Paradise Flycatcher)

Specimen collected : No. 26762, ♂, (in black and white plumage), Barapal, October 14, 1941.

Measurements (mm.) : 1 ♂ : W. 96 ; Tl. 134 ; Tr. 19 ; B. 26.

Weight : 19.5 (gms.).

Field notes : Only one seen.

The testes were in the non-breeding condition and measured about 2.0 × 1.5 mm.

Leucocirca aureola aureola (Lesson)

(The White-browed Fantail Flycatcher)

Specimens collected : No. 26759, ♂, Barapal, October 15 ; No. 26761 (sex ?), Dungarpur, October 26 ; No. 26760, ♀, Ajmer (in scrub jungle close to the town), November 1, 1941.

	Measurements. (mm.)	W.	Tl.	Tr.	B.
1 ♂	84	90	18	16
1 ♀	88	95	18	14
1 (sex ?)	86	94	18	15

Weights (gms.) : ♂ : No. 26759, 12.0 ; ♀ : No. 26760, 10.0 ; (sex ?) No. 26761, 11.5.

Field notes : At Barapal it was not found to be common, while in the scrub jungles near Ajmer it was common in certain patches. Hume (1878) found it to be rare in the Jodhpur State.

In No. 26759 the testes were in the non-breeding condition measuring about 2.5 × 1.5 mm.

Family LANIIDAE

Lanius excubitor lahtora (Sykes)

(The Indian Grey Shrike)

Specimen collected : No. 26763, ♀, Chitorgarh, October 7, 1941.

Measurements (mm.) : 1 ♀ : W 105 ; Tl. 117 ; Tr. 31 ; B. 23.

Weight : 62.0 (gms.).

Field note : Two or three seen.

Lanius excubitor pallidirostris Cassin

(The Allied Grey Shrike)

Specimen collected : No. 26764, ♀, Ajmer (in the scrub jungle close to the town), October 31, 1941.

Measurements (mm.) : 1 ♀ : W 108 ; Tl. 109 ; Tr. 31 ; B. 33.

Weight : 60.0 (gms.).

Field note : One seen in the scrub jungle.

Remarks : This is a palaeartic race breeding in Baluchistan, but rarely recorded from the rest of India—once in the Punjab (Baker, 1924, p. 288) and twice in Sind (Ticehurst, 1922, p. 606). There is also in the Zoological Survey of India collections one specimen from Shahasan, Sind (No. 25701, ♀, Manchar Survey Party, November 1927) belonging to this race. The present one is, I believe, the first record from Rajputana.

Lanius vittatus Valenciennes

(The Bay-backed Shrike)

Specimens collected: Nos. 26766 and 26768, ♂♂; 26767, (sex ?),
Dungarpur, October 26, 1941.

	Measurements (mm.).	W.	Tl.	Tr.	B.
♂♂	: : : : :	84—85	87—88	23—25	14
1 (sex ?)	: : : : :	84	92	23	15

Weights (gms.): ♂♂: Nos. 26766, 21.9, and 26768, 21.9; (sex ?):
No. 26767, 21.7.

Field notes: Fairly common.

In Nos. 26766 and 26768 the testes were in the non-breeding condition and measured 2.0-2.5 × 1.0-2.0 mm.

Lanius schach erythronotus (Vigors)

(The Rufous-backed Shrike)

Specimens collected: Nos. 26765, ♂, and 26769, ♂ (juv.), Barapal,
October 14, 1941.

Measurements (mm.): 1 ad. ♂: W. 88; Tl. 105; Tr. 27; B. 19.

Local (Bhil) name: Monalyô.

Field note: Not uncommon.

Systematic note: The adult ♂ specimen shows a faint rufous tinge in patches on the upper back, and in this character it resembles the allied southern subspecies *caniceps*.

Family PERICROCOTIDAE

Pericrocotus peregrinus pallidus Baker

(The Sind Small Minivet)

Specimens collected: No. 26770, ♂, Parsad, October 19; No. 26771,
♂, Ajmer, October 31, 1941.

Measurements (mm.): 2 ♂♂: W. 68—70; Tl. 72—73; Tr. 15; B.
11—12.

Weights (gms.): ♂♂: Nos. 26770, 8.5; 26771, 8.3.

Field notes: Only a few seen.

In both the specimens the testes were in the non-breeding condition; measuring approximately 0.75-1.0 × 0.75-1.0 mm.

Systematic note: The specimens are somewhat intermediate between the subspecies *peregrinus* and *pallidus*, but closer to the latter. On the abdomen there is a very faint tinge of yellow; in this character they approach *peregrinus*. The lateral tail-feathers are tipped neither with scarlet-cream nor brick-pink, but with orange.

Family DICURURIDAE

Dicrurus macrocercus macrocercus Vieillot

(The Black Drongo)

Specimens collected : No. 26779, ♂, Barapal, October 14; No. 26778 (sex ?) (juv.), Parsad, October 17, 1941.

Measurements (mm.) : 1 ad. ♂ : W. 133; Tl. 124; Tr. 20; B. 21.

Local (Bhil) name : Kalyô.

Field note : Not uncommon.

Family STURNIDAE

Temenuchus pagodarum (Gmelin)

(The Black-headed Myna)

Specimens collected : Nos. 26772 and 26773, ♂♂, Dungarpur, October 25 and 26, 1941, respectively.

Measurements (mm.) : 2 ♂♂ : W 99—107; Tl. 70—72; Tr. 26—28; B. 18—19.

Weights : No. 26773, ♂, 44.4 gms.

Field notes : Common in the jungle close to Dungarpur.

In No. 26772 the testes were in the non-breeding condition and measured about 1.5×1.0 mm.

Acridotheres tristis tristis (Linné)

(The Common Myna)

Specimens collected : No. 26776, (sex ?), Chitorgarh, October 8; Nos. 26774, ♀, and 26775, ♂, Dungarpur, October 26, 1941. All are juveniles.

Local (Bhil) name : Kābar.

Remarks : Nos. 26774, ♀, and 26775, ♂, appear to be in moulting condition, the nape showing some small newly emerged feathers, and the crown with almost fully developed ones, with naked spaces here and there. No. 26776 (sex ?) appears to have completed moulting, the feathers being fresh.

Acridotheres ginginianus (Latham)

(The Bank Myna)

Specimen collected : No. 26777, ♀, Udaipur, October 11, 1941.

Measurements (mm.) : 1 ♀ : W 114; Tl. 76; Tr. 35; B. 22.

Local (Bhil) name : Gurkal (?)

Field note : The ovary was in the non-breeding condition, measuring approximately 4.0×4.0 mm.

Remarks : From plumage this specimen appears to have just completed moulting, the nape and posterior crown showing some newly developed feathers.

Family PLOCEIDAE

Uroloncha malabarica (Linné)

(The White-throated Munia)

Specimens collected : No. 26780, ♀, Chitorgarh, October 7 ; Nos. 26781 ♀, 26782, (sex ?), and 26783, ♂, Ajmer, November 1, 1941.

	Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♂	.	57	51	14	10
2 ♀♀	:	52—55	49—50	13—14	10
1 (sex ?)	55	52	13	10

Weights (gms.) : ♂ : No. 26783, 11.3 ; ♀♀ : Nos. 26780, 12.5, and 26781, 11.4 ; (sex ?) : No. 26782, 10.6.

Field notes : Common all over.

In No. 26783 the testes were in the breeding condition, and measured 5.0×3.0 mm.

Family FRINGILLIDAE

Passer domesticus indicus Jardine & Selby

(The Indian House-Sparrow)

Specimens collected : Nos. 26784, ♂, 26785 and 26786, ♀♀, Barapal, October 13, 1941.

	Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♂	:	76	58	19	12
2 ♀♀	:	69—70	53	17—18	10—11

Weights (gms.) : ♂ : No. 26784, 21.7 ; ♀♀ : Nos. 26785, 20.5 ; 26786, 21.3.

Local (Bhil) name : Charkalpe (for ♂♂ only).

Field notes : Fairly common near habitation.

The gonads were in the non-breeding condition. The testes in No. 26784 measured 1.0×0.75 mm., and the ovary in No. 26785, 3.0×3.0 mm.

Remarks : In the Jodhpur State Whistler (1938) found *P. d. parkini*, and not *P. d. indicus*.

Family HIRUNDINIIDAE

Hirundo daurica erythrogyia Sykes

(Sykes's Striated Swallow)

Specimen collected : No. 26787, ♂, Dungarpur, October 28, 1941.*Measurements* (mm.) : 1 ♂ : W 106 ; Tl. ? ; Tr. 14 ; B. 7.5.*Weight* : 17.5 gms.*Field note* : Very common, especially in the vicinity of water.**Hirundo daurica temmincki** (Hume)

(The European Striated Swallow)

Specimen collected : No. 26788, ♂, Chitorgarh, October 8, 1941.*Measurements* (mm.) : 1 ♂ : W 118 ; Tl. 116 ; Tr. 13 ; B. 10.*Weight* : 17.8 gms.*Local (Bhil) name* : *Chami chodalyô*.*Field note* : The specimen was shot from a flock of 100 or more which might possibly have been a mixed one of *H. d. erythrogyia* and *H. d. temmincki*. They were seen either soaring high up or sitting in flocks on telegraph wires, etc.*Remarks* : This palaeartic race occurs as a rare straggler in N. W. India, Gilgit, Kashmir and Nepal, and has once been recorded from Sind. The present one is probably the first record from Rajputana.

Family MOTACILLIDAE

Motacilla alba dukhunensis Sykes

(The Indian White Wagtail)

Specimen collected : No. 26789, ♀, on R. Berach near Chitongarh. October 8, 1941.*Measurements* (mm.) : 1 ♀ : W. 92 ; Tl. 91 ; Tr. 23 ; B. 17.*Weight* : 20.4 gms.*Local (Bhil) name* : *Náchangôl*.*Field notes* : Not common.

The ovary was in the non-breeding condition, measuring about 2.0×2.0 mm.

Motacilla maderaspatensis Gmelin

(The Large Pied Wagtail)

Specimen collected : No. 26790, ♂, on R. Berach near Chitongarh, October 8, 1941.

Measurements (mm.): 1 ♂: W. 95; Tl. 98; Tr. 26; B. 20.

Weight: 29.5 gms.

Local (Bhil) name: Náchangól.

Field note: A few seen on river.

Anthus trivialis trivialis (Linné)

(The Tree-Pipit)

Specimen collected: No. 26791, ♂, Chitorgarh, October 8, 1941.

Measurements (mm.): 1 ♂: W. 86; Tl. 66; Tr. 21; B. 14.5.

Weight: 20.9 gms.

Field note: The testes were in the non-breeding condition and measured approximately 0.75×0.50 mm.

Family ALAUDIDAE

Mirafra erythroptera erythroptera Blyth

(The Red-winged Bush-Lark)

Specimen collected: No. 26792, ♂, Chitorgarh, October 7, 1941.

Measurements (mm.): 1 ♂: W. 78; Tl. 53; Tr. 22; B. 12.

Weight: 21.1 gms.

Field notes: A few seen.

The testes appeared to be in the breeding condition, measuring about 6.0×3.5 mm.

Family ZOSTEROPIDAE

Zosterops palpebrosa occidentis Ticehurst

(The North-Western White-Eye)

Specimen collected: No. 26793, ♀, Dungarpur, October 27, 1941.

Measurements (mm.): 1 ♀: W. 55; Tl. 37; Tr. 15; B. 12.

Weight: 7.8 gms.

Order CUCULIFORMES

Family CUCULIDAE

Cuculus canorus (subspecies ?)

Specimen collected: No. 26794, ♀ (subadult), Parsad, October 21, 1941.

Measurements (mm.): 1 subad. ♀: W. 207; Tl. 172; Tr. 23; B. 28.

Weight: 104.0 gms.

Field notes: Only one seen.

Clamator jacobinus jacobinus (Boddaert)

(The Pied Crested Cuckoo)

Specimen collected : No. 26795, ♀, Parsad, October 22, 1941.*Measurements* (mm.) : 1 ♀ : W. 148 ; Tl. (165) ; Tr. 27 ; B. 14.
(Tip of tail abraded)*Weight* : 70.9 gms.*Field notes* : A few seen.

The ovary was quite large, measuring about 9.0×10.0 mm, and suggesting nearness to breeding.

Order CORACIIFORMES

Family CORACIDAE

Coracias benghalensis benghalensis (Linné)

(The Indian Roller)

Specimens collected : No. 26797, ♂, Barapal, October 13 ; No. 26796, ♂, Parsad, October 22, 1941.*Measurements* (mm.) : 2 ♂♂ : W. 178—195 ; Tl. 124—142 ; Tr. 26—28 ; B. 42—48.*Weights* (gms.) : ♂♂ : Nos. 26796, 152.5 ; 26797, 130.0.*Field notes* : The testes were in the non-breeding condition, measuring approximately 2.0-2.5×2.0 mm.

Family MEROPIIDAE.

Merops orientalis orientalis Latham

(The Common Indian Bee-eater)

Specimens collected : Nos. 26798, ♂, and 26799, (sex ?), Barapal, October 13 ; No. 26800, ♂, Parsad, October 20, 1941.

Measurements (mm.).				W.	Tl.	Tr.	B.
2 ♂♂	:	:	:	90—92	115—118	9.5—11	30
1 (sex ?)	:	:	:	91	118	10	29

Weights (gms.) : ♂ : No. 26800, 14.6 ; (sex ?) : No. 26799, 15.5.*Field notes* : Common.

The testes were in the non-breeding condition, and measured about 1.5-2.5×1.25-1.5 mm.

Family ALCEDINIDAE

Alcedo atthis bengalensis Gmelin

(The Common Indian Kingfisher)

Specimen collected : No. 26801, ♂, on R. Berach near Chitorgarh, October 8, 1941.*Measurements* (mm.) : 1 ♂ : W. 68 ; Tl. 34 ; Tr. 7 ; B. 44.*Weight*. 25.0 gms.*Local (Bhil) name* : Karkilô.*Remarks* : Whistler (1938) did not find this subspecies in the Jodhpur State ; he found *pallasii* instead. But *bengalensis* was recorded by Adam (1873) in the Sambhar Lake area, and by Butler (1875) in Mount Aboo region.**Halcyon smyrnensis fusca** (Boddaret)

(The Indian White-breasted Kingfisher)

Specimens collected : No. 26804, ♂, Barapal, October 14 ; Nos. 26802, ♀, and 26803, ♂, Parsad, October 20 and 21, 1941, respectively.

Measurements (mm.).	W.	Tl.	Tr.	B.
2 ♂♂	121—125	84—85	16	62—63
1 ♀	123	87	16	67

Weights (gms.) : ♂♂ : Nos. 26803, 81.7 ; 26804, 74.5 ; ♀ : No. 26802, 86.5.*Local (Bhil) name* : Karkilô.*Field notes* : A few seen.

The gonads were in the non-breeding condition. In No. 26803, the testes measured about 2.0×1.0 mm. ; and in No. 26802, the ovary was about 5.0×6.0 mm.

Family UPUPIDAE

Upupa epops epops (Linné)

(The European Hoopoe)

Specimens collected : Nos. 26805, ♂, and 26806, ♀, Parsad, October 22, 1941.

Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♂	144	105	23	58
1 ♀	136	100	22	51

Weight : No. 26805, ♂, 66.7 gms.

Field notes : The gonads were in the non-breeding condition ; in No. 26805, the testes measured about 3.0×2.5 mm., and in No. 26806, the ovary was about 6.0×5.0 mm.

Remarks : The birds were evidently immigrants.

Upupa epops orientalis Baker

(The Indian Hoopoe)

Specimens collected : Nos. 26807 and 26808, ♂♂ : 26809, ♀, Parsad, October 22, 1941.

Measurements (mm.).	W.	Tl.	Tr.	B.
2 ♂♂	134—135	96—98	21—22	55—61
1 ♀	130	100	20	51

Weights (gms.) : ♂♂ : Nos. 26807, 54.5 ; 26808, 53.0 ; ♀ : No. 26809, 41.7.

Field notes : Not uncommon.

The gonads were in the non-breeding condition ; the testes were approximately $3.0-3.25 \times 2.0-3.0$ mm., and the ovary 5.0×4.0 mm.

Order STRIGIFORMES

Family ASIIONIDAE

39. **Athene brama brama** (Temminck and Laugier)

(The Spotted Owlet)

1927. *Athene brama brama* (Temm. & Laug.), Baker, *Faun. Brit. India, Birds* (2nd. ed.) IV, p. 439.

1927. *Athene brama indica* (Frankl.), Baker, *Ibid.*, p. 440.

Specimens collected : Nos. 26810, (sex ?), and 26811, ♂, Parsad, October 19 and 22, 1941, respectively.

Measurements (mm.).	W.	Tl.	Tr.	B.
1 ♂	151	78	28	20
1 (sex ?)	149	75	27	19

Weights (gms.) : ♂ : No. 26811, 114.0 ; (sex ?) : No. 26810, 105.0.

Field notes : Not common.

In No. 26811, the testes were in the non-breeding condition, measuring about 3.0×2.0 mm.

Systematic note : Baker (1927, pp. 439-440) recognises two subspecies of *Athene brama* in India, viz., *brama* (South Indian) and *indica* (North Indian). From the descriptions of these two subspecies as given by Baker, it was difficult to place the Rajputana specimens subspecifically. He differentiates them on the degree of coloration of the upper side and spotting on the under side, together with very slight

differences in their sizes. He restricts *brama* to the south of lat. 14°N. Whistler and Kinnear (1935, p. 237) maintain this division into two subspecies and give measurements of several specimens to show the differences, but these measurements largely overlap. Moreover, they recognize lat. 20°N. as the dividing line. Peters (1940, p. 150) also upholds this division.

I have examined all the specimens (36 in all) of *Athene brama* in the Zoological Survey of India collections from all over India. I find that in coloration the northern birds are generally slightly paler than the southern ones, but with all degrees of intergradations between them. In sizes, the southern birds tend to be slightly smaller but with much overlapping. The same conclusion was also arrived at by Whistler and Kinnear (*loc. cit.*) in spite of their recognition of the two subspecies as valid. They concluded: "There is, of course, complete intergradation between the two forms, both in colour and size, and there is a further complication that individual birds may vary considerably in colour. A Punjab bird . . ., for instance, is as dark as any specimen from Travancore." And conversely, I may add, in the Zoological Survey of India collections there is a specimen from Shevroy hills (Madras Presidency) which is so pale that it could not be differentiated when placed with the Dehra Dun (United Provinces) birds. The intergradation of the sizes will be clear from the following table (Table 1).

TABLE 1.

Measurements of the specimens of Athene brama in the Zoological Survey of India collections. Arranged from north to south.

Localities.	No. of specimens.	Sex.	MEASUREMENTS (mm.).			
			W.	Tl.	Tr.	B.
Punjab (Simla) Lat. ca. 31°N.	1	?	155	80	29	20
United Provinces (Dehra Dun and Agra Dt. Lat. ca. 27°—30°N.	1	♂	153	79	29	20
	1	♀	162	80	30	20
	2	??	155—157	80—85	29—30	21—21.5
Baluchistan. Lat. ca. 28°N.	1	♀	150	77	29	19.5
Bengal (Siliguri, Calcutta and its suburbs, Canning). Lat. ca. 22°—26°N.	2	♂♂	167—170	84—90	32	21—22
	7	??	157—170	80—86	28—32	21—23
			Av. 164.5	82	30	22
Assam (Gauhati and Cachar). Lat. ca. 25°—26°N.	1	♂	158	83	29	22
	2	??	168—171	81—90	29—32	21—22
Rajputana (Parsad) Lat. ca. 24°N.	1	♂	151	78	28	20
	1	?	149	75	27	19

TABLE 1—*cont. l.*

Localities.	No. of specimens.	Sex.	MEASUREMENTS (mm.).			
			W	Tl.	Tr.	B.
Bihar (Manbhum and Ranchi Dts.). Lat. ca. 23°N.	3	♂♂	151—162	78—82	30—32	20—21
	1	♀	150	78	28	21
	4	??	155—163	80—89	30—32	20—22
			<i>Av. 159</i>	<i>84</i>	<i>31</i>	<i>21</i>
Central Provinces (Pipariya). Lat. ca. 23°N.	1	♂	150	79	32	21
Bombay Presy. {	1	?	151	76	30	20
	2	♂♂	147—156	74—77	30	21—22
South India (Bangalore, Mangalore, Shevroy hills and Trivandrum). Lat. ca. 8°—13°N.	2	♀♀	148—154	73—74	27	18.5—19
	2	??	155—157	70—75	28	18—21

It would appear from the table that there is a very small and hardly significant reduction in size from north to south, and it is impossible to fix a dividing line between northern and southern birds.

The above facts would lead to infer that only one subspecies (*viz.*, *brama*) of *Athene brama* should be recognized in India.

Order FALCONIFORMES

Family FALCONIDAE

Astur badius dussumieri (Temminck and Laugier)

(The Indian Shikra)

Specimen collected : No. 26812, ♂, Barapal, October 14, 1941.

Measurements (mm.) : 1 ♂ : W. 194 ; Tl. 151 ; Tr. 50 ; B. 20.

Weight : 140.0 gms.

Local (Bhil) name : *Richhadnyô*.

Order COLUMBIFORMES

Family COLUMBIDAE

Columba livia intermedia Strickland

(The Indian Blue Rock-Pigeon)

Specimen collected : No. 26813, ♂, Parsad, October 17, 1941.

Measurements (mm.) : 1 ♂ : W. 232 ; Tl. 124 ; Tr. 30 ; B. 22.

Streptopelia chinensis suratensis (Gmelin)

(The Indian Spotted Dove)

Specimen collected : No. 26814, ♂, Parsad, October 21, 1941.*Measurements* (mm.) : 1 ♂ : W. 140 ; Tl. 141 ; Tr. 23 ; B. 20.*Weight* : 103.5 gms.*Field notes* : Common only in certain localities.

The testes were in breeding condition, and measured approximately 8.0 × 6.0 mm.

Streptopelia senegalensis cambayensis (Gmelin)

(The Little Brown Dove)

Specimen collected : No. 26815, ♂, Barapal, October 13, 1941.*Measurements* (mm.) : 1 ♂ : W. 126 ; Tl. 120 ; Tr. 19 ; B. 18.*Weight* : 72.7 gms.*Local (Bhil) name* : Hôlu.*Field note* : The testes were in the non-breeding condition, measuring about 2.5 × 1.75 mm.**Streptopelia decaocto decaocto** (Frisvaldszky)

(The Indian Ring Dove)

Specimens collected : No. 26817, ♂, Chitorgarh, October 8 ; No. 26818, ♂, around Udaisagar Lake, October 12 ; No. 26816, ♂, Barapal, October 13, 1941.*Measurements* (mm.) : 3 ♂♂ : W. 161—170 ; Tl. 130—142 ; Tr. 22—23 ; B. 20.*Weights* (gms.) : ♂♂ : Nos. 26816, 132.2 ; 26817, 147.0 ; 26818, 139.7.*Local (Bhil) name* : Hôlu or Alyô.*Field notes* : Common.

In Nos. 26816 and 26817 the testes were in the non-breeding condition, measuring approximately 2.0—3.0 × 1.5—2.0 mm.

Remarks : As already reported by Roonwal (1943), in No. 26817, ♂, the bare orbital skin is pale grey with a distinct bright lemon yellow in patches ; and the edges of the eyelids are yellowish white.

Family PTEROCLIDIDAE

Pterocles indicus (Gmelin)

(The Painted Sand-Grouse)

*Specimens collected*² : Nos. 26572 and 26574, ♂♂, 26573, ♀, Parsad, October 23, 1941.

Measurements (mm.).	W.	Tl.	Tr.	B.
2 ♂♂	178—180	77—85	26—27	19
1 ♀	170	85	28	?

² These specimens have been studied by Roonwal (1947) in connection with his *Catalogue of Pterocletes*.

Field notes. Common among grass on hill-sides, usually in pairs. Shot at a pool where they come in large numbers every evening to drink.

In Nos. 26572 and 26574 the testes were in the non-breeding condition, and measured about 2.0×1.5 mm.

Order GALLIFORMES

Family PHASIANIDAE

Perdica asiatica asiatica (Latham)

(The Jungle Bush-Quail).

Specimen collected : No. 26819, ♀, Barapal, October 15, 1941.

Measurements (mm.) : 1 ♀ : W. 81 ; Tl. 40 ; Tr. 25 ; B. 13.

Weight : 40.8 gms.

Local (Bhil) name : Labdee.

Field note : Fairly common.

Francolinus pondicerianus interpositus Hartert

(The Northern Grey Partridge)

Specimens collected : Nos. 26820, ♀ (juv.), and 26821, ♀, Barapal, October 14 and 15 respectively ; No. 26822, ♀, Parsad, October 22, 1941.

Measurements (mm.) : 2 ad. ♀♀ : W 137 ; Tl. 84—87 ; Tr. 36—37 ; B. 21—22.

Local (Bhil) name : Titar.

Field notes : Very common at Parsad, but not so at Barapal.

The ovaries were of very large size, measuring in No. 26821, 9.0×7.0 mm., and in No. 26822, 12.0×8.0 mm., both with several conspicuous ova (some measuring about 2.5 mm. in diameter), suggesting proximity to breeding.

Order CHARADRIIFORMES

Family CHARADRIIDAE

Lobivanellus indicus indicus (Boddaert)

(The Indian Red-wattled Lapwing)

Specimen collected : No. 26823, (sex ?), on R. Berach near Chitorgarh, October 8, 1941.

Measurements (mm.) : 1 (sex ?) : W. 220 ; Tl. 120 ; Tr. 87 ; B. 38.

Weight : 197.2 gms.

Field notes : Very common.

Himantopus himantopus himantopus (Linné)

(The Black-winged Stilt)

Specimen collected : No. 26824, ♂, Barapal, October 14, 1941.*Measurements* (mm.) : 1 ♂ : W. 238 ; Tl. 88 ; Tr. 117 ; B. 59.*Field notes* : The testes were in the non-breeding condition and measured about 3.0×1.5 mm.

Family SCOLOPACIDÆ

Tringa ocropus Linné

(The Green Sandpiper)

Specimen collected : No. 26825, ♂, Barapal, October 14, 1941.*Measurements* (mm.) : 1 ♂ : W. 142 ; Tl. 65 ; Tr. 34 ; B. 38.*Field notes* : Common.The testes were in the non-breeding condition, measuring approximately 2.0×1.5 mm.

Order CICONIIFORMES

Family PLEGADIDÆ

Plegadis falcinellus falcinellus (Linné)

(The Glossy Ibis)

Specimens collected : Nos. 26827, 26828, 26829, ♂♂, Barapal, October 12, 13 and 14, 1941 respectively.*Measurements* (mm.) : 3 ♂♂ : W 275—287 ; Tl. 110—113 ; Tr. 89—107 ; B. 112—145.*Local (Bhil) name* : Kôylee.*Field notes* : Not very common.The testes were in the non-breeding condition, and measured approximately $7.0-8.0 \times 4.0-5.0$ mm.

Order PODICIPIFORMES

Family PODICEPIDÆ

Podiceps ruficollis capensis Salvadori

(The Indian Little Grebe)

Specimens collected : Nos. 26830, ♂, and 26831, ♀ (juv.), Barapal, October 14, 1941.*Measurements* (mm.) : 1 ad. ♂ : W. 101 ; Tr. 37 ; B. 21.

Field notes : Common.

In No. 26830, the testes were in the non-breeding condition, measuring about 3.5×2.0 mm.

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