

Emberiza flaviventris kalaharica (Roberts). Golden-breasted Bunting.

Tanka ♂ 28th October.

Emberiza cabanisi orientalis (Shelley). Cabanis's Yellow Bunting.

Namadjo ♂♂ 2nd and 8th August.

References:

- Brooke, R. K. 1966. The Bat-like Spinetail *Chaetura boehmi* Schallow (Aves). *Arnoldia (Rhodesia)* 2 (29).
- Clancey, P. A. 1968. On geographical variation in the Whitebrowed Sparrow-Weaver *Plocepasser mahali* Smith of Africa. *Bonn. Zool. Beitr.* 19 (3/4): 257-268.
- Irwin, M. P. S. 1957. Description of a new race of *Buccanodon leucotis* from southern Portuguese East Africa and eastern Southern Rhodesia. *Bull. Brit. Orn. Cl.* 77: 57-58.
- Irwin, M. P. S. & Benson, C. W. 1967a. Notes on the birds of Zambia: Part III. *Arnoldia (Rhodesia)* 3 (4).
- Irwin, M. P. S. & Benson, C. W. 1967b. Notes on the birds of Zambia: Part IV. *Arnoldia (Rhodesia)* 3 (8).
- Loveridge, A. 1922. Notes on east African birds (chiefly nesting habits and stomach contents) collected 1915-1919. *Proc. Zool. Soc. Lond.*: 837-862.
- Rosa Pinto, A. A. da 1963. Notas sobre uma recente colecao de aves de Mocambique do Museu Dr. Alvaro de Castro, com a descricao de duas novas subespecies. *Mem. Inst. Invest. Cient. Mocamb.* 5: 31-49.
- Sacarrao, G. F. 1948. Contribuicao para o estudo das aves de Mocambique II. *Arquiv. Mus. Bocage* XIX: 1-44.
- Sacarrao, G. F. 1951. Contribuicao para o estudo das aves de Mocambique III. *Arquiv. Mus. Bocage* XXII: 39-52.
- Shelley, G. E. 1897. Exhibition of, and remarks upon a collection of bird-skins formed by Mr. W. A. Churchill at Mozambique. *Proc. Zool. Soc. Lond.*: 188-189.
- Vaurie, C. 1949 A revision of the bird family Dicruridae. *Bull. Amer. Mus. Nat. Hist.* 93: 199-342.
- Vincent, J. 1933-1936. The birds of northern Portuguese East Africa. Comprising a list of, and observations on, the collections made during the British Museum Expedition of 1931-32. *Ibis* 1933: 611-652; 1934: 126-160, 305-340, 495-527, 757-799; 1935: 1-37, 355-397, 485-529, 707-762; 1946: 48-125.
- Wild, H. & Fernandes, A. 1968. Vegetation map of the Flora Zambesiaca area. *Flora Zambesiaca* Suppl.

Notes on Tripolitanian Birds

by Graham Bundy and John H. Morgan

(PART II)

Received 27th June, 1969

Chlidonias niger. Black Tern

Rare in April and May along the coast, but common in Aug. and Sept., often up to 150 in Tripoli harbour. Two were seen flying south over steppe at Idris airport 5 Sept., 1964. Latest was a single bird, Wadi Kaam, 19 Dec., 1965.

Chlidonias leucoptera. White-winged Black Tern

The statement in E. & H. that this species is commoner in spring is probably due to it being overlooked in autumn plumage. In coastal localities uncommon April and May, not uncommon Aug. - late Sept.

Chlidonias hybrida. Whiskered Tern

Uncommon, only seen July-Sept. at coastal wadis. Breeds in Tunisia, where there is also a double passage (H. de B. & M.).

Gelochelidon nilotica. Gull-billed Tern

A small but regular passage occurs along the coast Mar.-May and July-Sept. No evidence to support Johnson's claim that it winters in Tripoli harbour.

Hydroprogne tschegrava. Caspian Tern

In the Pisida area, close to the Tunisian border, it was present throughout the winter until May in both years 1965 and 1966. Further east along the coast it is chiefly an uncommon passage migrant, Aug. to Nov. and in May.

Sterna bengalensis. Lesser Crested Tern

Fairly common along the coast Sept.–Nov. and especially June and July. In June a regular easterly passage occurs all along the Tripoli coast. Breeds Gulf of Sirte and probably Tunisia (H. de B. & M.). Adults were feeding flying juveniles at Wadi Kaam 6 Oct., 1965.

Sterna dougallii. Roseate Tern

Uncommon, seen once in April, but fairly regularly in Tripoli harbour Aug.–Oct., with a maximum of 10 there 22 Sept., 1965. H. de B. & M. state no passage in Mediterranean; these would appear to be the first for Libya.

Sterna albifrons. Little Tern

Present locally along the coast from April–Oct. A pair were feeding chicks, Wadi Kaam during June, 1965, and there were flying juveniles, Tripoli harbour, Aug., 1965 and 1966. Breeds Tunisia (H. de B. & M.), but apparently not proved breeding in Tripolitania before.

Pterocles senegallus. Spotted Sandgrouse

The commonest sandgrouse in Tripolitania, found in many sub-desert areas in every month. Seen in flocks of up to 250 at watering places, usually, like other *Pterocles* spp. arriving from two hours after dawn, occasionally at dusk also. All four *Pterocles*, *P. coronatus*, *P. alchata*, *P. orientalis* and the present species, especially frequent the Wadi Kaam, more often in the near-rainless months from June–Sept.

Cuculus canorus. Cuckoo

Our only record, one Wadi Kaam 4 April, 1965. Only others 4 Feb. (Guichard, 1956), 24 April (Johnson, 1949) and 21 April, 1935, and 5 May, 1935 (Moltoni, 1938).

Apus apus. Swift

Uncommon passage migrant, recorded in April, Aug., and once in Nov. No evidence of breeding as shown in E. & H.

Apus pallidus. Pallid Swift

Summer visitor, very common from Mar.–Sept., less common Jan., Feb. and Oct. Frequents towns, especially Tripoli, and the cliffs on the Jebel Nafusa escarpment. Young were still being fed in nest at Idris 14 Sept., 1964, though most had left by this date.

Apus melba. Alpine Swift

Passage migrant, not uncommon Mar.–April and July–Oct. In spring some birds were seen coasting east.

Apus affinis. Little Swift

Records from Feb.–July, mainly Feb.–April, uncommon though once about 100 near Jefren April, 1967.

Merops apiaster. Bee-eater

A few pairs breed on the coastal plain, south to the escarpment near Garian, and east to Garrabulli. Common passage migrant April and May, autumn passage less marked and obscured by breeding birds. Not previously recorded breeding east of Tunisia.

Upupa epops. Hoopoe

Present throughout the year, breeding in the coastal zone Mar.–July. Spring passage, obscured by breeding birds, is not very noticeable, only a few birds in desert areas which were unlikely nesting places. At Idris numbers built up in Aug. and Sept. on a small watered cricket pitch of about an acre, around which some six pairs bred in buildings; whether they were migrants or locally bred birds congregating in an unusually favourable place is unknown. Numbers often exceeded 100 during this period, with up to 172 on 9 Sept., 1965. By early Oct. only the wintering population, usually around 10 birds, remained.

Rhamphocorys clot-bey. Thick-billed Lark

Extends further east than shown on the map in E. & H., at least to Sirte coast, 16° E. Has a sharp “prit” flight note, not unlike *Emberiza calandra*, a thin, ascending trill, and a more drawn-out little whistling note, also ascending in pitch.

Melanocorypha calandra. Calandra Lark

The indication by E. & H. that it breeds throughout northern Tripolitania is not supported by our observations. In Tunisia uncommon east of Gabes (H. de B. & M.). Our only record was two at Idris, 15 Oct., 1964.

Galerida theklæ. Thekla Lark

Extends south to Jebel Waddan (29° N. 16° E.) (further south than indicated by E. & H.), where it is local and *G. cristata* is absent. *G. theklæ* had young just out of nest, Bugellian, by 12 June, 1965. Absent near the coast except in hills near Khoms.

Lullula arborea. Woodlark

Four records Nov.–Feb. possibly from Tunisia, where it breeds (H. de B. & M.).

Chersophilus duponti. Dupont's Lark

Extends further east, Tawarga (32° N. 15° E.), than shown in E. & H. map. Occurs south to Beni Ulid (32° N. 14° E.). Commonest note by which it can usually be located is a disyllabic “coo-chic” or “pu-chee”, the second syllable rising sharply, rather “creaky” and nasal in quality, and uttered both in flight and on the ground.

Hirundo rustica. Barn Swallow

More numerous than the “common” of Moreau, in spring and equally in autumn, a few lingering until early Dec. Two at Wadi Kaam 5 Dec., 1965, were moulting tail and primaries and could scarcely have made a desert crossing. Two at Tawarga 16 Jan., 1966. A few pairs breed in and around Tripoli town, as suspected by Guichard (1957).

Hirundo daurica. Red-rumped Swallow

Not uncommon in spring, absent in autumn. Guichard saw only two, hence its “rare” status in E. & H. Has occurred autumn, Tunisia (H. de B. & M.). We found it regularly in the coastal zone from Mar. until mid-May, up to 20 together 19 Mar., 1965.

Hirundo obsoleta. Pale Crag Martin

Up to 4 around the castle at Sebha (Fezzan) 18, 19 Jan., 1966. It lacks the dark axillaries which show up well on *H. rupestris* when seen from below. One bird continually dived at another which was perched on a wall, eventually mounting it and copulating without ceremony, before gliding away again.

Anthus spinoletta. Water Pipit

Uncommon winter visitor to the coast, Tripoli area, and the wadis Turgat and Kaam. Records from Nov. until April. Apparently the first noted in this area.

Lanius senator. Woodchat

What are probably local breeding birds arrive in coastal zone late Feb., but they are not numerous and the heavy spring passage is very marked. Seen feeding young June and July, 1965 and 1966. No evidence of any autumn passage, although immatures were seen as late as 17 Oct., no adults were seen after mid-Aug. An adult *L. s. badius* was found dead in Tripoli 27 April, 1965.

Lanius collurio. Red-backed Shrike

An immature at Sabratha 16 Oct., 1965, the second for Tripolitania.

Lanius excubitor. Great Grey Shrike

Common resident in coastal zone, but does not appear to extend far into desert, not found nesting south of about 30° N. Seen competing territorially with *L. senator*; the latter's scarcity as a breeding species may possibly be attributed to this. One nest in sub-desert scrub held c/4 on 24 April, 1965; juveniles had left another nest by 5 May, 1965.

Lanius minor. Lesser Grey Shrike

Three in Khoms area 11/12 Sept., 1965, the first since Snow and Manning (1954).

Prunella modularis. Dunnock

Up to 3 at Sabratha in Jan. and Feb., 1965, and one at Jefren 13 Mar., 1965. These are the only records for Libya. H. de B. & M. call it regular in N. Tunisia and rare in Central Tunisia.

Hippolais pallida. Olivaceous Warbler

Locally common in coastal zone and oasis towns, almost exclusively in tamarisk, not usually common until mid-May. Most have gone by mid-Sept., some were already in heavy moult in mid-Aug. Many in reeds Wadi Kaam on 15/16 July, 1965, were unusual.

Sylvia hortensis. Orphean Warbler

Summer visitor, scarce and local. Earliest date 3 Mar., latest 14 Sept. Fledglings had just left a nest at Idris on 1 July, 1965. No evidence of passage.

Sylvia rüppelli. Rüppell's Warbler

Up to 3 males each spring at the Wadi Kaam, extreme dates 19 Mar. and 10 April.

Sylvia melanocephala. Sardinian Warbler

Winter visitor. Very common 1964/65, uncommon 1965/66. A few males were singing Feb., 1965, and in 1966 a pair probably bred in introduced acacia scrub near Tripoli.

Sylvia cantillans. Subalpine Warbler

A male at Sebha 18/19 Jan., 1966. See also Table I.

Sylvia deserticola. Tristram's Warbler

At least 10 in roadside tamarisk scrub, Waddan (29° N. 16° E.), 17 Jan., two at nearby Socha same day, and two Sebha 18/19 Jan., 1966. Can hardly be confused with *S. undata*, having the proportions of *S. cantillans*. Its presence is often betrayed by a quiet "tack-tack", while several were heard

singing at Waddan on 17 Jan. Some display was seen there, one pursuing another through some palm scrub, with half-open, quivering wings, uttering a "tacking" rattle. The song is a series of hard "tack" or "chit" notes, with intermingled squeaky trills, typically sylviid in character.

Sylvia sarda. Marmora's Warbler

Not uncommon between 10 Nov., 1964, and 3 Mar., 1965, from coast (Sabratha east to Wadi Kaam) to arid, bushy plains south of Azizia. Absent 1965/66. Present in small numbers again 1966/67.

Phylloscopus bonelli. Bonelli's Warbler

Not uncommon in coastal "green belt" Mar.-April, none seen in autumn.

Regulus ignicapillus. Firecrest

Libya is not mentioned by E. & H. or H. de B. & M., though Guichard (1955) records one. It is uncommon in the "green belt" along the coast and absent some winters. Most together 10+ in pines near Tarhuna, 13 Jan., 1966.

Cisticola juncidis. Fan-tailed Warbler

More than 20 at Tawarga, Jan., 1966, when birds were singing all over the rough marsh west of the oasis. Not seen in this locality in Feb. and April, 1965. Only previous record, one (?) Wadi Kaam, 14 April, 1935 (Moltoni, 1938).

Scotocerca inquieta. Scrub Warbler

Mentioned by Whittaker (1902) and Cavazza (1932), but though we made special searches for this, and *Sylvia nana*, we saw none, and it would seem that the map in E. & H. exaggerates its range in this area.

Ficedula parva. Red-breasted Flycatcher

Uncommon but regular in autumn, extreme dates 10 Oct. and 9 Nov., in various coastal localities. Most were 5 at Idris, 13 Oct., 1965. None in spring.

Oenanthe deserti. Desert Wheatear

Present throughout the year, fairly common in stony sub-desert, but also on sebka (salt flats) near Tawarga and Misurata. Apparently present only April-Oct. in Tunisia (H. de B. & M.). A pair were feeding small young by 4 April, 1965.

Oenanthe isabellina. isabelline Wheatear

Fairly common on passage from coast south to at least 31° N. Latest in spring was one Tawarga area 25 April, 1965. One presumably wintering at Sebha oasis 18 Jan., 1966, was uttering a warbling sub-song when located.

Oenanthe leucura. Black Wheatear

Only found on the hills near Khoms and along the high escarpment that extends from here S.W. to the Tunisian border. Replaced in the desert south of 31° N. by *O. leucopyga*. A fledgling seen Bugellian, 17 April, 1965.

Oenanthe lugens. Mourning Wheatear

Distribution as in E. & H. but also further north at Giosc, Jefren and Beni Ulid. In addition to the usual desolate desert habitat, it seems to like masonry, especially road bridges over rocky, dry wadi beds, and sometimes old buildings in villages such as Giosc, Beni Ulid and Sebha. Two males at Giosc were uttering a quiet, warbling sub-song on 8 Oct., 1965. Typical song is a simple, thin, subdued trill, descending in pitch. On 2 May, 1965, display was seen north of Mizda. The male adopted an upright posture and pranced around a crouching, wing-shivering female several times, before

attempting to mount her. A rapid aerial pursuit then took place before they pitched and copulated.

Monticola solitarius. Blue Rock Thrush

Though shown to breed throughout the north by E. & H. we have no evidence to support this. Common winter visitor, south to the Fezzan, extreme dates 6 Sept. and 10 April.

Monticola saxatilis. Rock Thrush

Not uncommon late Mar. – early May, only one in autumn; an immature Wadi Kaam 28 Sept., 1965. Guichard (1956) reported a few in winter, but we saw none.

Phoenicurus ochruros. Black Redstart

Not uncommon winter visitor from Oct.–Mar., single birds seen at Hon and Sebha oases, Jan., 1966, further south than illustrated by E. & H.

Phoenicurus moussieri. Moussier's Redstart

Not uncommon in winter from Tunisian border east to Wadi Kaam. Caunter (pers. comm.) strongly suspected breeding at Garian in 1955.

Luscinia luscinia. Thrush Nightingale

One at Wadi Kaam 4 April, 1965, was singing. One in a Tripoli garden 15 April, 1965. The only records for the area.

Turdus pilaris. Fieldfare

Called rare throughout N. Africa by E. & H., though H. de B. & M. mention records from Cyrenaica and Tunisia in hard winters. In 1965/66, it was present from 28 Oct. – 6 Mar. all along the coastal zone south to Jefren, maximum 40 Wadi Kaam from 14 Nov. – 5 Dec.

Turdus viscivorus. Mistle Thrush

A flock of about 30 near the coast 10 Feb., 1965, the only record except one in Oct., 1935 (Moltoni, 1938).

Parus caeruleus. Blue Tit

In contrast to Cyrenaica, not yet recorded anywhere in Tripolitania, nor at Gabes (H. de B. & M.), despite the map in E. & H., which shows it breeding throughout the northern quarter of Libya.

Turdoides fulvus. Fulvous Babbler

Juveniles were just out of nest at Idris, 24 Mar., 1966. An adult performed an elaborate distraction display, hopping towards the observer to within a few yards, then away, holding the short rounded wings up over the back. It repeatedly uttered an excited, descending trilling note.

Emberiza calandra. Corn Bunting

Common on steppe, especially around barley plots, from late Feb. until April, males singing. Not seen May–Aug., after which they re-appear. Sometimes in flocks up to 40 near the coast, Nov.–Feb. E. & H. show it as breeding in the north, but this requires confirmation.

Emberiza striolata. House Bunting

Very local and seemingly confined to a few old escarpment towns from Jefren west to the Tunis border. Males were singing in Mar.

Emberiza schoeniclus. Reed Bunting

Records near the coast, Nov.–Feb. 5 together at Leptis Magna, 19 Dec., 1964, was the most seen. The first for Libya.

Fringilla coelebs. Chaffinch

H. de B. & M. state "it does not nest in Tripoli", but *F. c. spodiogenys* is

resident in the Jebel Nafusa, as in east Tunisia. It does not appear to extend further east than Garian, frequenting especially the olive groves on the escarpment ridge. Winter visitors to the coast are fairly common Nov.–Mar., and show the characters of European birds, possibly *F. c. coelebs*, though none were obtained.

Passer domesticus. House Sparrow

In Tripoli town birds resemble *P. d. italiae*, with much less black than typical *P. hispaniolensis*.

Passer hispaniolensis. Spanish Sparrow

Extends further south than illustrated in E. & H. Common in all oasis towns. Dawn post-roosting flights totalled about 650 birds at Sebha oases (27° N.) on 18 Jan., 1966, indicating its abundance and success even in such an isolated area.

Passer simplex. Desert Sparrow

Small populations at Waddan and Hon, as well as Sebha, are further north and east than on map in E. & H., though mentioned by H. de B. & M. It associates with *P. hispaniolensis* but keeps chiefly to outskirts of oases, in dunes and date palms. Pairs were seen inspecting potential nest holes and displaying, at Sebha, 19 Jan., 1966; the males excitedly hopping after a female, with outstretched, shivering wings. Calls are all softer and more musical than *P. hispaniolensis*. In flight a quiet twitter, and a soft “jip” note, both reminiscent of *Carduelis chloris*. Also a short chatter and a “chirrup”, ascending in pitch.

Petronia petronia. Rock Sparrow

Resident on the coastal plain south to the Jebel Nafusa escarpment, where it is especially common. At Idris about 20 pairs nested in buildings, and hollow metal goal posts. Seen successfully competing with *Passer hispaniolensis* for sites, though most *hispaniolensis* nest in trees and are not so dependent on such sites.

Corvus corax. Raven

Some birds near the coast and in sub-desert in winter have brown underwings, though they conform in other respects to this species. They were thought to be intermediate *C. corax*/*C. ruficollis*. *C. ruficollis* sometimes overlaps with *corax* south of Tawarga at about 31° N., which is the northernmost extent of its desert range. Otherwise the maps in E. & H. agree closely with our observations there.

Table I compares the status of individual species which Moreau (1961) inferred from inadequate published information, with our records. Occurrence in transit with no indication of abundance is denoted by “p”. See page (140) for explanation of authors’ abundance ratings.

TABLE I
Frequency of selected migrants in Tripolitania

Species	Moreau (1961)		Authors	
	Spring	Autumn	Spring	Autumn
<i>Falco vespertinus</i>	p	—	not uncommon	—
<i>F. subbuteo</i>	rare	rare	uncommon	uncommon
* <i>Streptopelia turtur</i>	rather uncommon	rather uncommon	common	uncommon
<i>Coracias garrulus</i>	common	rare	common	uncommon
<i>Jynx torquilla</i>	rather uncommon	rather uncommon	common	fairly common

<i>Calandrella cinerea</i>	common	—	common	common
* <i>Hirundo rustica</i>	common	rather uncommon	common	common
<i>Delichon urbica</i>	rather uncommon	—	common	fairly common
<i>Riparia riparia</i>	common	rather uncommon	common	common
<i>Luscinia megarhynchos</i>	rather uncommon	—	fairly common	—
<i>Acrocephalus arundinaceus</i>	p	p	uncommon	rare
<i>A. scirpaceus</i>	p	p	uncommon	rare
<i>A. schoenobaenus</i>	rather uncommon	rare	common	not uncommon
<i>Hippolais icterina</i>	rather uncommon	—	common	uncommon
<i>Sylvia borin</i>	common	rather uncommon	common	fairly common
<i>S. cantillans</i>	common	rather uncommon	common	uncommon
<i>Phylloscopus sibilatrix</i>	rather uncommon	rare	common	not uncommon
<i>Ficedula hypoleuca</i>	common	—	common	not uncommon
<i>F. albicollis</i>	common	—	fairly common	rare
<i>Anthus campestris</i>	rather uncommon	rare	common	not uncommon
<i>A. trivialis</i>	common	p	common	not uncommon
* <i>Lanius senator</i>	rather uncommon	p	common	uncommon

* indicates migrants, especially in autumn; may be obscured by small breeding populations.

SUMMARY

Notes are given for 122 species out of 235 recorded during a three-year period spent in north-west Libya (Tripolitania), where observations varied from previous literature. Quantitative comparisons have been attempted for migrants between spring and autumn.

ACKNOWLEDGMENTS

We would like to thank the editors of *British Birds* for publishing our request for unpublished records. Also R. E. Moreau, W. R. P. Bourne and K. D. Smith, who read this paper and criticised helpfully; and Dr W. E. Waters who supplied some translations of Italian papers. We are grateful to the following who helped, or provided records which contributed to the preparation of a full check-list: K. Atkin, G. Blackwell, J. V. Boys, Mrs. C. A. Bundy, A. Cadman, Maj. J. R. L. Caunter, S. Cramp, J. De Rios, M. Jones, Gen. Sir Gerald Lathbury, Maj. B. McBooth, H. Pease and Dr. W. E. Waters.

References:

- Cavazza, F. 1932. Osservazioni Sulli uccelli della Tripolitania. *Riv. Ital. Orn.* II, 2: 155-209.
 Etchécopar, R. D. and Hue, F. 1967. *The birds of north Africa*. London. Oliver and Boyd.
 Guichard, K. M. 1956. Observations on wintering birds near Tripoli, Libya. *Ibis* 98: 311-316.
 — 1957. The spring migration in Tripolitania. *Ibis* 99: 106-114.
 Heim de Balsac, H. and Mayaud, N. 1962. *Les oiseaux du nord-ouest de l'Afrique*. Paris. Paul Lechevalier.
 Johnson, G. F. 1949. Bird Life in Tripolitania. *Household Brigade Mag.*: 156-159, 218-219.
 Moltoni, E. 1934a. Uccelli catturati ed osservati nei clintori di Tripoli (10/11 Novembre, 1933). *Riv. Ital. Orn.* II, 4: 11-31.
 — 1934b. Piccolo contributo all'avifauna della Tripolitania. *Riv. Ital. Orn.* II, 5: 127-176.
 — 1938. Contributo alla conoscenza dell'ornito fauna Libica. *Riv. Ital. Orn.* II, 8: 101-127.

- Moreau, R. E. 1961. Problems of Mediterranean – Saharan migration. *Ibis* 103a: 373–427; 580–623.
- Smith, K. D. On the birds of Morocco. *Ibis* 107: 493–526.
- Snow, D. W. and Manning, A. W. G. 1954. Observations sur la migration d'automne en Tunisie et Tripolitaine et dans le Fezzan (1953). *Alauda* 22: 1–24.
- Stanford, J. K. 1954. A survey of the ornithology of Northern Libya. *Ibis* 96: 449–473; 606–624.
- Waters, W. E. 1963. Observations on wintering birds and spring migrants in Tripolitania. *Ibis* 105: 179–184.
- Whittaker, J. I. S. 1902. On a small collection of birds from Tripoli. *Ibis* (8): 643–656.
- Vaurie, C. 1959–65. *The birds of the palearctic fauna*. London. H. F. & G. Witherby.

The function of the pale egg colour of the Jackdaw

by David Holyoak

Received 28th October, 1969

The Jackdaw *Corvus monedula* is the only member of the genus *Corvus* to nest in holes (other than its close relative *Corvus dauricus*), and its eggs are paler than those of the other members of the genus. There are many other examples of a pale or white egg colour being associated with hole-nesting, and Lack (1958) has shown that members of the Turdinae have paler eggs even in partly enclosed nest sites than when nesting in the open. It has been suggested that the eggs of hole-nesting birds are paler than those of related species nesting in open sites either to enable the birds to see the eggs more clearly in a dark hole, or because there is no need for marked eggs in holes, so that the markings have been lost in the course of evolution.

While making routine observations on a number of Jackdaw nests near Tring, Hertfordshire in May and June 1967 I noticed that after heavy rain many of the eggs became badly discoloured with mud from the birds' feet, making it difficult to count them without removing them from the nest-hole. In five clutches where the eggs were noted as being heavily soiled (22 eggs) three eggs were found holed and at least nine disappeared from the nest before they were due to hatch—an unusually high rate of loss. In June, 1968, I tested whether the colour of the eggs affected the rate of loss by painting ten clutches with black pen ink (47 eggs) and leaving another nine clutches (41 eggs) unmarked. Of these, 12 of the black eggs were found holed by the birds' feet, and 28 disappeared (presumably removed from the nest after being damaged) before hatching was due. Five young were seen, and two eggs or young disappeared around hatching time. The eggs that disappeared went one at a time from the clutch in most cases. Of the controls, none were found holed, one clutch of four eggs disappeared before hatching was possible, and eight eggs or small young disappeared at around hatching time.

The difference between the success rate of the blackened eggs and the normal, pale-coloured eggs is statistically significant ($P < .001$), and suggests that more of the darkened eggs were being lost because of accidental breakages, so that the normal pale egg colour would appear to be of selective advantage because it enables the birds to see the eggs more clearly in the half-light of the nest hole. It would also suggest that sight plays an important part either in nest location within the hole, or at least in the Jackdaw, in the movements associated with egg-turning or settling onto the eggs.

Reference:

- Lack, D. 1958. The significance of the colour of Turdine eggs. *Ibis* 100: 145–166.



Bundy, Graham and Morgan, J H. 1969. "Notes on Tripolitanian birds." *Bulletin of the British Ornithologists' Club* 89, 151–159.

View This Item Online: <https://www.biodiversitylibrary.org/item/126847>

Permalink: <https://www.biodiversitylibrary.org/partpdf/77306>

Holding Institution

Natural History Museum Library, London

Sponsored by

Natural History Museum Library, London

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: British Ornithologists' Club

License: <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.