

University of Baghdad  
College of Arts and Science  
IRAQ NATURAL HISTORY MUSEUM

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Some Hymenoptera and Coleoptera  
from Iraq.

KAMEL T. KHALAF

High Teachers College, Baghdad.

This work includes about 310 specimens which were deposited in the college collection in the years 1953-1957. The reported incidence following each species is for Baghdad, unless stated otherwise. Most of the classified material is now added to the college collection.

For the identification of these insects we extend our sincere gratitude to M. R. SMITH (Formicidae), LUELLA M. WALKLEY (Ichneumonidae, Evaniidae), K. V. KROMBEIN (the rest of the Hymenoptera), R. S. BEAL JR. (Dermestidae, Bruchidae), and E. A. CHAPIN (Coccinellidae).

ICHNEUMONIDAE

*Ephialtini* sp.: (March).

*Cryptus* sp.: (Jan.).

*Diplazon laetatorius* (F.): (Feb.).

*Casinaria* sp.: (April).

EVANIIDAE

*Evania* sp.: (Nov.).

MUTILLIDAE

*Platymyrmilla quinquefasciata* (Oliv.): Shaklawa (July).

*Timulla ballioni* (Rad.): Sa'dia (Nov.).

*T. sp.*: (Oct.).

SCOLIIDAE

*Campsomeris thoracica eriophora* (Klug): (Nov.) and Falluja (Nov.).

FORMICIDAE

*Dorylus (Typhlopone) fulvus* (Westw.): (Feb., March, and Dec.).

*Cataglyphis bicolor* (F.) br. sense: (Oct. — Jan., March and April)  
and Baqouba (March).

*Pheidole* sp.: (April).

*Messor* spp.: Baghdad.

*Camponotus* spp.: Baghdad.

*C. compressus* (F.), br. sense: (Feb. — July, and Sept. — Dec.),  
Hilla (Nov.), Hamar (April), and Baqouba (April).

#### VESPIDAE

*Vespa orientalis* L.: Feb., May, and Oct. — Jan.), Shaklawa  
(Summer), and Falluja (Oct.).

*Vespula germanica* (F.): (Nov.).

*Polistes gallicus* (L.): (April) and Shaklawa (July).

*P. macaensis* (F.): (Oct. — March) and Baqouba (April and Dec.).

*Eumenes pomiformis* (F.): (Oct.).

*E. campaniformis esuriens* (F.): (Nov.).

*Hoplomerus spinipes* (L.): (Oct.).

*Odynerus* sp.: (March).

#### POMPILIDAE

*Anoplius* sp.: (March and Oct.).

#### AMPULICIDAE

*Trirhogma coerulea* Westw.: (Oct.).

#### SPHECIDAE

*Oxybelus lamellatus* Oliv.: (March).

*Lindeni* sp.: (April).

*Philanthus triangulum abdelkader* Lep.: (Feb.).

*Cerceris sabulosa* Panz.: (Nov.).

*C. sp.*: (Nov.).

*Tachysphex* sp.: (March).

*Motes nigrita* (Lep.): (Feb.).

*Liris haemorrhoidalis* (F.): (Feb. and March).

#### ANDRENIDAE

*Andrena* sp.: (April).

*A. sp.*: (Feb. and March).

HALICTIDAE

- Nomioides variegata* (Oliv.): (April).  
*Nomia* sp.: (April and Oct.).  
*N.* sp.: (Feb.).  
*Halictus senilis* Ev.: (April) and Samarra (Feb.).  
*H.* sp.: (April and Oct.).

MEGACHILIDAE

- Megachile* sp.: (Oct. and Nov.).  
*M.* sp.: (Nov.).

APIDAE

- Apis mellifera* L.: (Oct. — Jan. and April) and Baqouba (Oct.).  
*Xylocopa fenestrata* F.: (April) and Basrah (April).  
*Ceratina* sp.: (April and Oct.).  
*Anthophora fulvitaris* (Br.): (Feb. and April).  
*A. albigena* Lep.: Baqouba (Oct.).  
*A. crinipes* Sm.: (Jan. and March).  
*Nomada* spp.: Baghdad.  
*Tetralonia* sp.: (Feb.).  
*Eucera bidentata* Per.: (April) and Samarra (Feb.).  
*E.* sp.: Samarra (Feb.).

DERMESTIDAE (COLEOPTERA)

- Attagenus* (*Lanorus*) *bifasciatus* Olivier: (Jan. — April) and Samarra (Feb.).  
*Anthrenus* (*A.*) *flavipes* Le Conte: (April and Dec.).

BRUCHIDAE (COLEOPTERA)

- Bruchus* near *rufimanus* Boheman: (March and Nov.).

COCCINELLIDAE (COLEOPTERA)

- Epilachna chrysomelina* (L.): (Oct.).  
*Coccinella* *7-punctata* L.: (Jan. — June and Oct. — Jan.), Falluja (Oct.), Sa'dia (May and Nov.), Shaklawa (July), Mansoria (April), and Samarra (Feb.).  
*C. 11-punctata* L.: (March, May, and Oct. — Jan.).  
*Propylaea 14-punctata* (L.): Shaklawa (July).  
*Thea 22-punctata* (L.): Shaklawa (July).

## Electromicroscope Study of the Cuticle Surface of the Cockroach (c)

KAMEL T. KHALAF

High Teachers College, Baghdad.

In this work, the replica techniques were applied on the cockroach *Periplaneta americana* (Linn.). Replicas were taken for the pronotum, the dorsal surface of the wing, and the ventral surface of the abdomen and hind coxa of both nymphs and adults.

The writer is very grateful to Professor DR. J. — G. HELMCKE, DR. H. LENZ, and MR. R. RAW for affording him every facility and advice throughout this and many other aspects of electron-microscope studies.

### MATERIAL AND METHODS

The impressions were made on triafol (Acetobutyratfolie) rectangles, about  $1\frac{1}{2} \times 1$  cm., and 0.1 mm. thick. One drop, or two of acetone were placed on the triafol and the object was laid on it with the test surface towards the acetone. The system was left for ten minutes or more, until dry. The object was then removed from the impression. Raised margins or fibrills have to be picked up with a very fine pair of forceps, under a stereoscopic microscope, otherwise they interfere with the shadowing procedure.

The replicas were then taken to the shadowing apparatus. The pressure was reduced to  $10^{-4}$  torr. Shadowing was accomplished with SiO vapour from a small focus, first at an angle for  $1 - 1\frac{1}{2}$  minutes, and then vertically for  $\frac{3}{4} - 1$  minute.

A thin, even film of paraffin (melting point  $52 - 56^{\circ}\text{C}$ ) was then formed on the shadowed surface. One or two small drops from a glass tube were often sufficient. This was left to cool.

The triafol was then dissolved, using methyl acetate saturated with paraffin. The replicas were transferred into the acetate, the paraffin surface uppermost, and left for one, or several, hours. One change to fresh acetate for about one hour was practised, after which the replicas were taken out and left to dry.

\*This study was made in the laboratories of **Forschungsgruppe Fur Mikromorphologie im Fritz — Haber Institut, Berlin.**

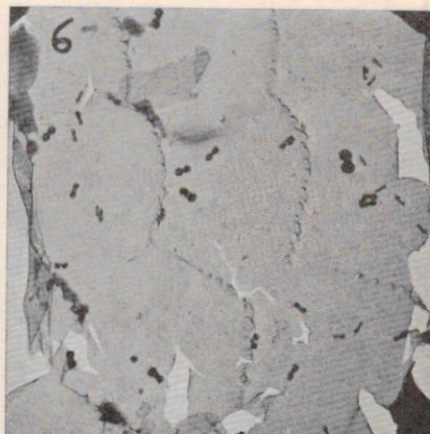
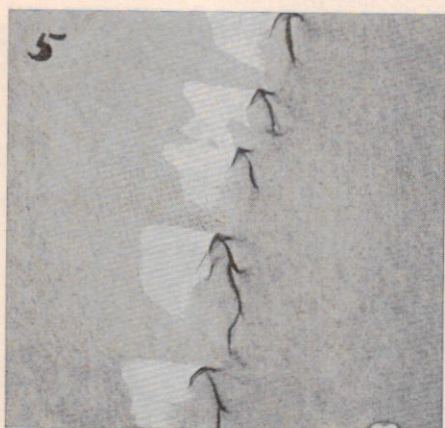
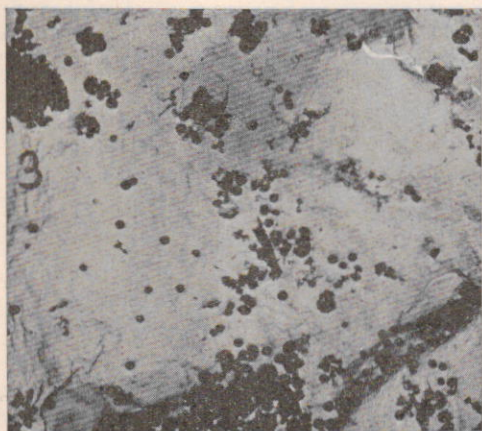
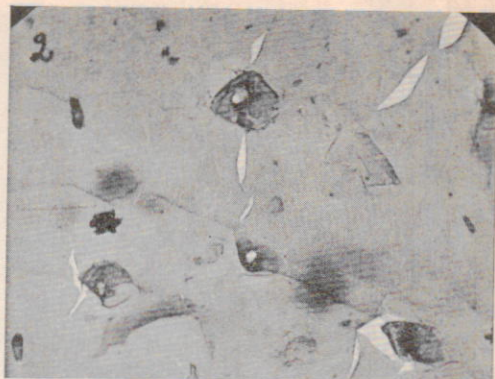
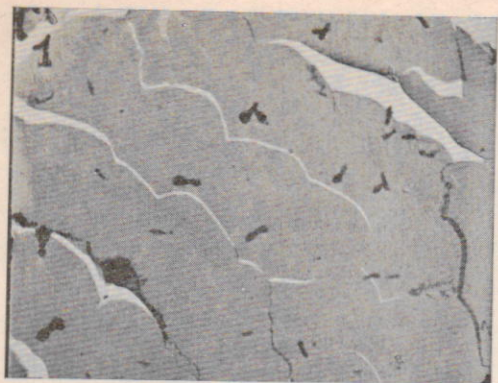


PLATE I.

Shaded replicas of the nymph cuticle of *Periplaneta americana*: 1-Upper surface of the wing pad (X 1200). 2 and 3-Pronotum (X 1200). 4-Ventral surface of abdomen (X 1200). 5-Ventral surface of abdomen (X 7200). 6-Lower side of hind coxa (X 1200).

The SiO film was then transferred onto the specimen screen (blende). The required part of the film, with its paraffin base, of about the size of the diameter of the screen, was cut with a sharp razor blade under a hand lens. This was transferred on to the screen, film downwards. A piece of wire net of a corresponding size was then laid over, as a weight on the paraffin block to prevent it from floating off later on. Using forceps with a fine, bent end, the screen was moved with its load into a dish with smooth, flat bottom containing toluol, to dissolve the paraffin. It was left in that fluid for two hours, or overnight. If the paraffin base was thick, the block or the net would probably drop off the screen on being moved into toluol. The screen, together with its load, was again transferred into another dish containing a fresh amount of toluol, to dissolve the last traces of paraffin. It was left for one hour or more. The SiO film, after toluol treatment, is left on the screen. The later, with the overlaid net, was taken out from the toluol with the same forceps, and moved onto a filter-paper to remove the toluol. In few minutes, it was dry, and with a light touch of the end of the forceps the net was removed.

Finally, the screen was microscopically examined in transmitted light, to check the presence of the film and the proper results, before examining it under the electromicroscope. The electromicroscope used was Siemens and Halske, Type 100 B.

The micrographs taken are of the surface of the replicas, in which a light shadow is the result of a standing structure or elevation on the surface of the replica, and therefore it represents a concavity or depression in the surface of the cuticle. On the contrary, what appears in the replica to be depressed below the general level, is, on the actual cuticle raised above the surface.

The dimensions of structures in the micrographs could be estimated, given that each centimeter is approximately equal to 1.2 microns in X 7200 and 8 microns in X 1200.

## OBSERVATIONS

### *The nymph:*

A distinct pattern was found on the upper surface of the wing-pad (Fig. 1) which is relatively smooth. Bacteria (+).

The pattern on the pronotum looks about the same (Fig. 2). Bacteria abundant (Fig. 3).



A somewhat similar pattern was encountered on the lower surface of the abdomen (Fig. 4). The pattern is composed of chains of "compound grooves" containing microgrooves within (Fig. 5). The number of microgrooves within a groove varies.

A pattern of compound grooves was also present on the lower surface of hind coxa (Fig. 6). Bacteria (+).

*The adult:*

On the upper surface of the front wings there is a pattern (Fig. 7) which may not be actually very unlike that on the wing pad of the nymph. The surface is studded with numerous minute pits. The same general type of pattern was found on the lower surface of the coxa (Figs. 8, 9); in one of the screens there was an indication of the presence of compound grooves. No such pattern was demonstrated on the surface of the pronotum (Fig. 10); bacteria, representing more than one species, were abundant. In the nymph also, Fig. 3 shows no pattern, in contrast to Fig. 2.

On the lower surface of the abdomen (Fig. 11) the pattern is very much like that of the same region from the nymph.

On the antennal flagellum (Fig. 12), there are larger hairs in addition to the microtrichia which are represented by their effect (holes). The surface of the larger hairs is not smooth as can be seen from their impression. The pattern of grooves in the antenna is not very much different from that on the other parts of the body.

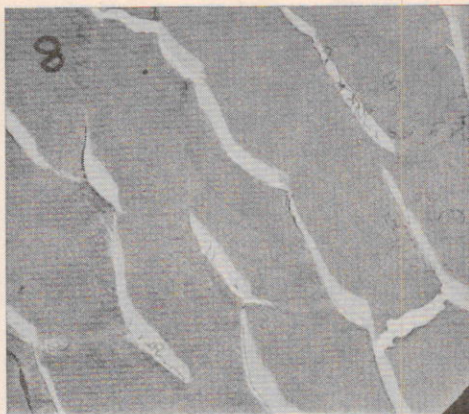


PLATE II.

Shaded replicas of the adult cuticle of *Periplaneta americana* (original magnification approximately X 1200): 7-Upper surface of front wing. 8 and 9-Lower side of coxa. 10-Pronotum. 11-Ventral surface of abdomen. 12-Antennal flagellum.

## Observations At Habbaniya (Iraq)

From 24th October, to 30th November 1957.

A. S. NORRIS

R.A.F. Staging Post, Habbaniya.

I arrived at Habbaniya on the 24th October, and immediately commenced observations. It soon became apparent that certain species were abundant inside the cantonment, and others, (in the light of my experiences during the past month or so), were to increase as the winter advanced on the one hand, and as late passage migrants, decrease and entirely disappear on the other.

Almost all my observations have been carried out during afternoons, (because of duty), and the weather, though generally dry and mild with warm sunny periods at times, has lately become cold, overcast and subject to heavy rains.

I am extremely grateful to the Director of The Iraq Natural History Museum, Bashir E. Allouse, for his very kind advice and encouragement on field work, and for the gift of a copy of his work "The Avifauna of Iraq".

### SYSTEMATIC LIST

1. GREAT CRESTED GREBE. *Podiceps cristatus*.

Two on 19 November, and five on 22 November, on Lake Habbaniya, all in winter plumage.

2. BLACK-NECKED GREBE. *Podiceps nigricollis*.

One on large pool at Habbaniya on 27 November, in winter plumage. (Confused with *Podiceps auritus* at first).

3. LITTLE GREBE. *Podiceps ruficollis*.

Three on 31 October, 5 on 4th, and 14 on 27 November, all on pools, and adults in winter plumage.

4. CORMORANT. *Phalacrocorax carbo*.

Seen in small numbers from 28 October — 24 November, on Lake Habbaniya, outlet canal and River Euphrates.

5. PELICAN. *Pelecanus* (sp.?).

One seen flying over camp towards lake on 15 November, all white, with black primaries. [Considered to be "White" species].

6. HERON. *Ardea cinerea*.

Seen regularly from 27 October — 25 November, on lake and river, but never on canal (too deep at sides for wading); eight was the largest number seen at one time, on lake shore.

7. LITTLE EGRET. *Egretta garzetta*.

Seen in small numbers from 27 October — 16 November, on islands in river, banks of canal and lake edge. Flock of 5 on 8th November.

8. GREAT WHITE HERON. *Egretta alba*.

One on 27 October, another on 10th, and 4 on 15 November. All on islands in river. Bills yellow/winter, and size much larger than *Egretta garzetta*, seen nearby for comparison on at least one occasion.

9. NIGHT HERON. *N. nycticorax*.

Roost in continuous use within cantonment. Main concentration in tall eucalyptus trees, a smaller roost in pine trees some distance apart. Estimated numbers, 35-40, (accurate count very difficult). Apparently more immatures than adults.

10. MALLARD. *Anas platyrhynchos*.

First seen on 18th November, 12 on 23rd, 30 on 24th, (and 100+ on 1st December, on Tigris at Baghdad). All records from Habbaniya are of birds seen on the Euphrates.

11. TEAL. *Anas crecca*.

Fifteen on 24th November, 24 on 25th and 12 on 29th November. All on Euphrates.

12. WIGEON. *Anas penelope*.

Thirteen on 8 November, on a pool near camp. (4 males, remainder, eclipse and/or females).

13. PINTAIL. *Anas acuta*.

One male on 24 November with other ducks on Euphrates.

14. SHOVELER. *Spatula clypeata*.

Twelve (12) on 24 November on river.

15. TUFTED DUCK. *Aythya fuligula*.

Twelve (12) on 14 November on pool near camp, and 3 on 28 November on canal.

16. POCHARD. *Aythya ferina*.

Singly until 8 November, when six were seen on a pool near camp, and 9 on 24 November on Euphrates. Sexes appeared fairly even in numbers.

17. FERRUGINOUS DUCK. *Aythya nyroca*.

One (1) on 24 November, with others ducks. Very white under tail-coverts, otherwise still in eclipse plumage.

18. RED-BREASTED MERGANSER. *Mergus serrator*.

Unusual looking duck:— Appeared whitish on frontal parts, with some mottling at shoulders. Head looked grebe-like, there being a wedge-shaped area of light brownish colour from the eye back to nape, above which was something of a slight crest standing out from back of head. Bill dull, legs *very* bright red, the feet appearing even deeper red (when in flight).

Appeared about size of Mallard when flying, but slimmer, and wings narrower, upon which was a white patch. Neck seemed relatively short, and bore no evidence of sharp demarcation of colours.

Seen both standing and in flight along canal near camp on 22nd November.

19. GREY LAG GOOSE. *Anser anser*.

Two (2) swimming on Euphrates, 24 November. Took flight and passed overhead, honking loudly, when details could be seen clearly.

20. SPOTTED EAGLE (Greater or Lesser). *Aquila clanga* or *A. pomarina*.

An example of either *clanga* or *pomarina* soaring high over cultivated area at Habbaniya on 27 November. Whitish upper tail-coverts clearly visible.

21. BUZZARD. *Buteo* (sp.?).

One on 23rd & 28th November along canal bank.

22. LONG-LEGGED BUZZARD. *Buteo vulpinus*.

Single specimens, (sometimes in two's), seen regularly from 10th November, always near water, *i.e.* river, canal and pools, perching along banks. Seen on one occasion to hover three times for short periods.

23. SPARROW-HAWK. *Accipiter nisus*.

Seen almost every day within cantonment, males and females, in one's and/or two's quartering tree-tops and hedges, and circling over general area. Causes doves and pigeons to panic and leave tree-top perches with a loud clatter of wings, particularly during evenings as birds go to roost.

24. BLACK KITE. *Milvus migrans*.

Common within cantonment, where at least 50 have been seen at one roost in eucalyptus trees. Disperses during day, many going to refuse tip on the plateau escarpments outside camp boundaries. (A wintering species I understand).

25. MARSH HARRIER. *Circus aeruginosus*.

Five (or more) seen to enter reed bed in camp each evening (since 26 October) where they roost. One appears to be an immature male, others females, and at least one, an all-brown first winter specimen.

26. PALLID HARRIER. *Circus macrourus*.

Adult male seen on 30 October, and another on 8 November. Typical harrier flight characteristics, but slim body and narrow wings very noticeable after the heavy buzzard-like appearance of *aeruginosus*. Very light breast and shoulders also striking, appearing almost white.

In view of previous reports, I had expected to see much more of this graceful Harrier in this area.

27. HOBBY. *Falco subbuteo*.

One hunting over plain west of camp on 29 October. Splendid view of an immature male resting on an earth mound, on cultivated area, north of camp, on 25 November.

28. PEREGRINE. *Falco peregrinus*.

Seen singly throughout period under review, mostly adults,

occasional brownish birds, dark crown seeming to rule out possibility of a Lanner. One seen to convey a dove to island in river where it plucked and devoured the dead victim, hooded crows coming to clean up the remains afterwards.

29. MERLIN. *Falco columbarius*.

Seen on 9 and 28 November, single birds, very fast, just above scrub-top tactics, swinging first this way, then that, in anticipation of unwary lark, pipit or finch. Short, pointed and relatively wide-at-shoulder wing appearance noticed.

30. KESTREL. *Falco tinnunculus*.

Seen regularly, males and females, from 24 October until present time, some roosting in trees on camp. Numbers never more than three or four on any one day.

31. BLACK PARTRIDGE. *Francolinus francolinus*.

Two or three pairs seen on the outskirts of the camp in scrub. Sometimes odd birds flushed from long grass. One of a pair (male) shot on 1st November inside camp.

32. MOORHEN. *Gallinula chloropus*.

One on a pool 31 October, another in dense rushes without water, (or very little), on 2nd December.

33. COOT. *Fulica atra*.

Seen in small numbers from 4 November onwards. Additionally, 12 on Euphrates on 20th November and 18 on pool N. of river on 27 November (one shot).

34. LAPWING. *Vanellus vanellus*.

One on 10 November, 12 on 15th, 30 on 18th, and odd two's and three's here and there since. Chiefly in marshy situations.

35. RED-WATTLED LAPWING. *Lobivanellus indicus*.

Seen throughout period under review in two's and three's, a flock of 8 on two occasions. Is nocturnal in its habits, flying about the camp after dark (at night) calling persistently.

36. RINGED PLOVER. *Charadrius hiaticula*.

Most seen was 12 on 16th November, but small parties seen on sewage bed, pools, river and lake, etc. It was noted on one occasion that a party of three adults had dark bills.

37. LITTLE RINGED PLOVER. *Charadrius dubius*.

One seen and clearly identified (no wing stripe in flight) on 12th November, on sewage bed near camp.

38 KENTISH PLOVER. *Charadrius alexandrinus*.

Seen mostly along lake shore in parties, feeding in company with stints and ringed plovers. Over 24 on 9 November, smaller numbers at other times. Once on mud flats by bend in river (4-5).

39. SNIPE. *Capella gallinago*.

One on lagoon near camp, 29th October.

40. GREEN SANDPIPER. *Tringa ochropus*.

Always in one's at the most two. Seen on seven or more occasions from 29 October, until 27 November, when a single bird was flushed on marshy ground near river, (a beautiful call-note). Looks black and white when in flight.

41. COMMON SANDPIPER. *Tringa hypoleucos*.

Two on 27 October, singly on 16th & 17th November, and two on 23 November. (A very distinctive wing beat). River & canal.

42. REDSHANK. *Tringa totanus*.

Two on 28 October, singly on 4th, 8th & 12th, November, and two on 22nd. On canal, river and pools.

43. GREENSHANK. *Tringa nebularia*.

Seen throughout period under review, and in fair numbers, mostly along river and canal banks, sometimes lake. Twelve seen on 24 November. Rarely less than six on any outing.

44. MARSH SANDPIPER. *Tringa stagnatilis*.

A dainty wader, always a delight to watch! One on 28 October, another, 4 November, two on 8 November, and one on 27 November. Has a call rather like Redshank when alarmed. On marsh, pools and canal



45. LITTLE STINT. *Calidris minuta*.  
Small parties of 3 & 5 from 28th October until 27 November, Lake, river and pools.
46. TEMMINCK'S STINT. *Calidris temminckii*.  
Two on 8 November. One on 12 November. (Trilling call, white on outer feathers at base of tail).
47. DUNLIN. *Calidris alpina*.  
Single birds on 28 October, 12th, 16th, 22nd, 25th November, and two on 29 November. Sewage, pools & lake.
48. BLACK-WINGED STILT. *H. himantopus*.  
One male on 4 November, five on 8th, and 3 on 22nd and 23rd November. All adults. Pools and canal bank.
49. HERRING-GULL. *Larus argentatus*.  
(*Yellow legs*). Throughout period, and large numbers on lake fringes and refuse tip near plateau.
50. SLENDER-BILLED GULL. *Larus genei*.  
Five on 8 November on pool.
51. BLACK-HEADED GULL. *Larus ridibundus*.  
Eight on 12th November, 6 on 16th, and others at various times. Juveniles among parties, the rest in winter plumage. Seen on canal mostly.
52. BLACK TERN. *Chlidonias nigra*, or WHITE-WINGED BLACK TERN. *C. leucoptera*.  
Two terns on island in pool near camp. Greyish, with dark patches, reddish legs, dark bill, wings relatively broad at shoulder, white head with mottled appearance. Seemed to be black patch either behind eye or at shoulder, (bad light), about Little Tern size, but lacking the narrow wings of that species, bill without yellow also (12th October).
53. CASPIAN TERN. *Hydroprogne tschegrava*.  
One on 16 November, three on 19th, flying along edge of Lake Habbaniya. (Harsh call). Unmistakable large size and red bill. (Saw it in S.W. Arabia 1950-2).

54. ROCK DOVE. *Columba livia*.

Common, many flocks on plateau scarps and around hangars and other buildings on camp.

55. WOOD PIGEON. *Columba palumbus*.

Common, large flocks seen within cantonment, and going to drink on banks of Euphrates.

56. COLLARED TURTLE-DOVE. *Streptopelia decaocto*.

Abundant! and I understand, resident. These doves become panic stricken at sight of Sparrowhawk's daily appearances along avenues of trees, and leave tree-tops with a loud clatter of wings.

57. LITTLE OWL. *Athene noctua*.

Birds closely resembling this species seen on camp, (but only fleeting glimpses). A definite specimen was clearly seen however, on the way to Ramadi one afternoon (18th November).

58. SWIFT. *Apus apus*.

Two at 07.00 hours on mild morning at about 200 ft. over camp. Call, size and colouring, clearly that of *Apus apus*. Seen on 15th November.

59. PIED KINGFISHER. *Ceryle rudis*.

Seen throughout period under review. Mostly along canal, others on river and over lake edges.

60. LESSER SHORT-TOED LARK *Calandrella rufescens*.

Seen along the approaches to Lake Habbaniya, and the shore. sixteen on the 16th, and 16 again on 22nd November.

61. CRESTED LACK. *Galerida cristata*.

Common, everywhere on open ground around outskirts of camp.

62. SKYLARK. *Alauda arvensis*.

First seen on 8th November, after which they increased on cultivated land, many small and large flocks frequenting the Habbaniya district. A flock 400+, on 7th November.

63. DESERT LARK. *Ammomanes deserti*.

Seen on the barren scarps leading up to the plateau. Four on 7th, and 4 on 9th November.

64. SWALLOW. *Hirundo rustica*.

Three (3) on 28 October, evidently a passage remnant.

65. RAVEN. *Corvus corax*.

Never many, just one's and two's on fringes of plateau, but always to be seen when I was in the area.

66. HOODED CROW. *Corvus corone*.

Common, many seen each day almost anywhere.

67. ROOK. *Corvus frugilegus*.

First seen on 30th October, when a large flock came under my notice. Thereafter, in increasing numbers, and on 20th November 1,000+, 23rd, 2,000+. Now known to roost in the camp on date palms.

68. MAGPIE. *Pica pica*.

Common. Seen everywhere inside cantonment. Large gatherings at times along boundary fence of camp.

69. WHITE-EARED BULBUL. *Pycnonotus leucotis*.

Very common within the cantonment. Certain calls have flute-like qualities reminding me of golden orioles (which were well known to me in Germany, 1953-6).

70. WREN. *T. troglodytes*.

At the time of writing, a record of this species has recently been added to my notes for inclusion in the next report.

71. MISTLE-THRUSH. *Turdus viscivorus*.

One on tree-top inside camp on morning of 30th October.

72. SONG THRUSH. *Turdus philomelus*.

First seen on 11th November, then five flushed from amongst a patch of bushes bearing a blue berry on 20th, two more seen on 26th. Thereafter heard and/or seen in one's and two's frequently.

73. BLACKBIRD. *Turdus merula*.

Heard on 17th November, seen for first time on 26th, then in one's or two's from time to time. Always in secluded gardens, and like the previous species, very timid, quite unlike their confiding ways when in breeding quarters in Europe, etc.

74. WHEATEAR. *Oenanthe oenanthe*.

Single birds on 29th October, 4th, 15th & 17th November.

75. DESERT WHEATEAR. *Oenanthe deserti*.

Excellent specimens seen on 28th and 29th October, others on 8th, 12th and 15th November.

76. FINSCHE'S/ARABIAN WHEATEAR. *Oenanthe finschii*.

Two fine examples of this handsome black and white chat on 7th and 24th November, respectively. Each time on the escarpments of the plateau.

77. ISABELLINE WHEATEAR. *Oenanthe isabellina*.

Seen previously on 7th, 8th and 9th November, and with certainty, on 15th and 22nd November. Always in one's or two's and on one occasion three were seen. A large upright and very active bird.

78. STONECHAT. *Saxicola torquata*.

Quite numerous (in two's) between 25th October to 13th November on open ground around outskirts of camp, since then has decreased, only odd pairs being seen occasionally now.

79. REDSTART. *P. phoenicurus*.

Five or more in Command gardens on 26th October, single birds on 3rd, 11th, 17th and 21st November, then very scarce.

80. BLACK REDSTART. *Phoenicurus ochruros*.

First seen on 8th November, single adult males on 11th and 15th, and since then, both sexes (but solitary) in one's. Males have a splendid contrast of colours.

81. ROBIN. *Erithacus rubecula*.

Widespread over the cantonment, but localised to gardens and secluded thickets from where they are heard to sing at times. First seen on 24th October, (my arrival date in Habbaniya from Cyprus).

Numbers are such as to almost justify the term, common, but not quite really I think.

82. MOUSTACHED WARBLER. *Luscinola melanopogon*.

In view of my arrival at Habbaniya on 24 October, what I observed must have been a remnant of passage migrants. Seen on 27th, 30th & 31st October, and 11th & 13th November. Along irrigation channels and in dense reeds. Looking like a dark Sedge Warbler with a white eye-stripe, rufous tones on the flanks and a short rounded tail. One or two short snatches of song.

83. REED WARBLER. *Acrocephalus scirpaceus*.

Also a remnant of passage migrants. Seen on 26th and 31st October, and 3rd, 4th, 8th and 13th November. All in reeds, three on one occasion.

84. SARDINIAN WARBLER. *Sylvia melanocephala*.

Seen in and around camp on 25th, 27th, 29th and 30th October, 3rd, 4th, 11th and 20th November. Only one's or two's and none seen since last date. Some juvenile birds.

85. FAN-TAILED WARBLER. *Cisticola juncidis*.

Two seen in long dense grass inside the camp on 26th October, and single birds in same locality on 3rd and 13th November.

86. CHIFFCHAFF. *Phylloscopus collybitus*.

Throughout period under review, becoming less numerous during late November. Some passage migrants late October and early November. Considerable variation in colouring, some dark, others fairly light.

87. GRACEFUL WARBLER. *Prinica gracilis*.

Common in suitable localities everywhere, (and resident I understand).

88. HUTTON'S BABBLER. *Turdoides caudata huttoni*, or, MESOPOTAMIAN BABBLER. *T. c. altirostris*.

McGeoch. Ibis, 98 (1956): 577-594, records *altirostris* as resident in the Habbaniya district, stating that this species (unlike *T. c. huttoni*) has unstreaked back and tail.

I have seen parties of from 5-7, or more, of babblers in reeds and hedges at Habbaniya, and had reason to think they were *T. c.*

*altirostris*. Recently, however, I noticed streaking on the back of one of a party of seven, and therefore, wonder if in fact there is a mixture of the two species here.

89. SPOTTED FLYCATCHER. *Muscicapa striata*.

Seen 25th and 28th October only.

90. RED-BREASTED FLYCATCHER. *Muscicapa parva*.

An apparent female in the Command gardens in the cantonment on 26th November, (and recorded over first eight days of December).

91. HEDGE SPARROW. *Prunella modularis*.

First heard on 10th & 11th November, then seen on 17th, 24th & 29th November and single birds seen fairly frequently since.

92. MEADOW PIPIT. *Anthus pratensis*.

Seen on 26th October, numbers increasing during November, 30+ flushed from reeds in late afternoon.

93. TAWNY PIPIT. *Anthus campestris*.

Single birds on 28th and 29th October.

94. TREE PIPIT. *Anthus trivialis*.

First seen on 6th December, party of three seen several times since and up to 11th December (time of writing).

95. WATER PIPIT. *Anthus spinoletta*.

Fairly common in the period under review, either alone or in company with meadow pipits, white wagtails and chaffinches.

96. WHITE WAGTAIL. *Motacilla alba*.

Common on cultivated land and roosting in reed beds in and around cantonment. A Sparrowhawk seized one as they came in from surrounding country-side to roost at dusk.

97. GREY WAGTAIL. *Motacilla cinerea*.

Almost every day one or two seen or heard in the cantonment.

98. ISABELLINE SHRIKE. *Lanius collurio isabellinus*.

One on 30th October, and presumably the same bird again on 3rd November.

99. STARLING. *Sturnus vulgaris*.

First seen on 7th November, hundreds seen in flock on 15th, and over a thousand on 19th, Further huge flocks on 24th, 25th, and 27th November.

100. GOLDFINCH. *Carduelis carduelis*.

Seen in small numbers on 10th, 20th and 26th November.

101. LINNET. *Acanthis cannabina*.

A flock passed overhead on 9th November.

102. TRUMPETER BULLFINCH. *Rhodopechys githaginea*.

Flocks of 8-10, on 9th, 27th and 28th November on fringes of Lake Habbaniya feeding on seeds beneath scrub. Also others drinking from canal.

103. CHAFFINCH. *Fringilla coelebs*.

Seen throughout period under review, increasing as winter advanced, small flocks seen now in many parts of camp.

104. CORN BUNTING. *Emberiza calandra*.

Two or three on 10th November, flock of twenty on 27th November.

105. REED BUNTING. *Emberiza schoeniclus*.

Flock of ten females on 11th November. One male on 13th November. Odd birds seen since.

## Two Ringed Birds Shot in Iraq

BASHIR E. ALLOUSE

Director, Iraq Natural History Museum.

### 1. ARDEA CINEREA. *Grey Heron.*

In December 1956, a local farmer at Shatra (Muntafik Liwa), in the southwestern part of Iraq, shot a large heron which was unusual to him for the three aluminum rings which were affixed to his right leg. He reported this incidence to the local authorities who were kind enough to save the tarsus and foot and send it to the Directorate General of Agriculture in Baghdad, who turned it to this Museum for identification and information. From this part of the leg, the bird was identified as *Ardea cinerea*. The three rings bore the following numbers and inscriptions:

Moskwa: 32154 B.

Moskwa: 313477 D.

Moskwa: 287730 E.

### 2. ARDEA ALBA. *Large Egret.*

This bird was shot by Mr. Ibrahim Ghazala, (Physics Teacher, Eastern Secondary School, Mosul) at Shiyora scrub jungle, about 60 kms, east of Mosul on the road to Aqra, on 19th December 1957. We are grateful to Mr. Ghazala for saving the bird and sending it to this Museum. Again, the bird was ringed in Moscow and had the following number and inscription on the ring:

Moskwa: 49570 B.

The Central Bureau of Bird-Banding at Moscow (Neglinnaya 21) is kindly asked to record these two recoveries of ringed birds in Iraq.



**Current Research and Publication  
(in Quotes) Projects**

of the

DEPARTMENT OF BOTANY, COLLEGE OF ARTS AND SCIENCE,

BAGHDAD, IRAQ

for the

Academic Year 1957-58.

Compiled by

Professor NICHOLAS POLUNIN, D. Phil., D.Sc. (Oxon),

Head of the Department and Director of the University Herbarium.

ABDIN, Gamal — *see* KAISI, Kamal.

ABDUL-WAHAB, Ahmed Shawki.

Nitrogen fixation in root nodules of *Prosopis stephaniana*, with special reference to soil fertility in Iraq, (with Abdul Karim KHUDAIRI).

*see also* — KHUDAIRI, Abdul Karim (twice).

AGNEW, Andrew D. Q.

Juncaceae in the flora of Iraq.

Studies in root competition.

*see also* — AGNEW, Shirley, and POLUNIN, Nicholas.

AGNEW, Shirley.

Bryophyte flora of Iraq, (with Andrew D. Q. AGNEW).

AGRICULTURE, *Ministry of, Department of Agronomy* — *see* ANI, Hussein.

AGRICULTURE, *Ministry of, Department of Plant Pathology* — *see* HADDAD, Sherif.

ALAISH, Matti.

Polyploidy in relation to resistance to damping-off diseases of vegetables in Iraq, (with Jousef DOORY).

Some cytological aspects of Date Palm (*Phoenix dactylifera*) in Iraq.

Cytological and taxonomic studies of Iraqi grasses.

Systematics of the Gramineae.

ANI, Badri — see TOLBA, Moustafa K.

ANI, Hussein.

Investigation of the causal organism and control of Shara disease of Rice, (with Jousef DOORY, and Moustafa K. TOLBA).

Study of the causal organism of *Fusarium* Wilt of Sesame and selection of resistant varieties, (with Department of Agronomy, Ministry of AGRICULTURE).

see also — DOORY, Jousef, and TOLBA, Moustafa K.

AR-RUSHDI, Abbas.

"Cytology of *Tigriopus californicus*, *T. japonicus*, and *T. funiberis*".

"Studies on sex determination in *Tigriopus*".

"Experiments on the heritability of brood number in *Tigriopus*".

BAZZAZ, Fakri — see KHUDAIRI, Abdul Karim.

CHALABI, Zahra

The genus *Plantago* in Iraq.

DAOUD, Hazim.

A new staining method for chromosomes.

DOORY, Jousef.

Study of the petiole-rot disease of Date Palm, (with Hussein ANI and Moustafa K. TOLBA).

see also — ALAISH, Matti; ANI, Hussein; and TOLBA, Moustafa K.

ERDTMAN, Gunnar (now back in Stockholm).

Pollen periodicity of a desert region as indicated by trapping in Habbaniya Lake, (with Kamal KAISI).

Pollen morphological studies of Iraqi wild plants.

Pollen morphology of strains of Date Palm.

Investigation through pollen analysis of past vegetation types and climates in Iraq.

GHARBI, Adnan Shakir — *see* KHUDAIRI, Abdul Karim.

HADDAD, Sherif.

Chemical weed control, (with Falah NAIB).

Diseases of fruit trees, (with Department of Plant Pathology, Ministry of AGRICULTURE).

HAINES, Richard Wheeler.

Effects of variation in seasonal rainfall on desert plants in Iraq.

Systematic position and relationships of the Alismatales.

*see also* — POLUNIN, Nicholas.

KAISI, Kamal.

Phytoplanktonic periodicity in Habbaniya Lake, (with Nicholas POLUNIN).

Studies towards an Algal Flora of Iraq, (with Gamal ABDIN).

*see also* — ERDTMAN, Gunnar, and TOLBA, Moustafa K.

KHUDAIRI, Abdul Karim.

The mechanism of flower-initiation in some long- and short-day plants.

Physiology of germination of Date-palm seeds, (with Fakri BAZZAZ).

Plant-soil-water relationships of some Iraqi crops, (with Ahmed S. ABDUL-WAHAB and Abdul Jalil THWAINI).

Germination and respiration of seeds of *Prosopis stephaniana*, (with Ahmed S. ABDUL-WAHAB).

Studies of soil nutrients and fertilizer effects on some Iraqi crops (with Abdul Jalil THWAINI).

Effect of temperature on seed germination of some Iraqi crops, (with Adnan Shakir GHARBI).

*see also* — ABDUL-WAHAB, Ahmed S., and THWAINI, Abdul Jalil.

NAIB, Falah.

Studies of the weed populations of wheat and barley fields around Baghdad, (with Nicholas POLUNIN).

*see also* — HADDAD, Sherif.

POLUNIN, Nicholas.

"Circumpolar Arctic Flora", (about 550 Royal 8vo pages, with about 1000 illustrations), Clarendon Press, Oxford, in proof — to be published in 1958.

"Arctic Botany", vols. I, II, and III, in preparation for Clarendon Press, Oxford. Each volume will be of about 400 Royal 8vo pages, and widely illustrated.

Editor of "Plant Science Monographs" and General Editor of "World Crops Books", published by Leonard Hill (Books) Limited, Eden Street, London, N.W.1, England.

Vegetation of saline and desert areas in Iraq.

Botanical exploration and collecting in Iraq (with Richard W. HAINES, Andrew D. Q. AGNEW, and others).

"Introduction to Plant Geography and some related sciences", Longmans Green, London, (in proof, to be published in 1958).

"The Botany of Ice-island T-3", (being the general account of this United States Air Force project by its director), Journal of Ecology, (in press).

*see also* — KAISI, Kamal; NAIB, Falah; and TOLBA, Moustafa K.

RECHINGER, Karl H. (now back in Vienna).

Manual flora of lowland Iraq.

Labiatae, Compositae, and the genus *Astragalus* in the Flora of Iraq.

THWAINI, Abdul Jalil.

Rooting and auxin relations of *Citrus cuttings*, (with Abdul Karim KHUDAIRI).

*see also* — KHUDAIRI, Abdul Karim (twice).

TOLBA, Moustafa K.

Survey of the soil Fungus Flora of Iraq, (with Jousef DOORY and Hussein ANI).

Factors affecting incidence and control of damping-off disease of some vegetables in Iraq, (with Badri ANI).

Effect of environmental conditions on the prevalence of soil Fungi in the Baghdad area, (with Mohammed Ali al-WAHAB).

Algal and Bacterial populations of Shatt al-Arab water, (with Kamal KAISI and Nicholas POLUNIN).

*see also* — ANI, Hussein, and DOORY, Jousef.

WAHAB, Mohammed Ali al-, *see* TOLBA, Moustafa K.

## MUSEUM ACTIVITIES

### EXCHANGE OF PUBLICATIONS PROGRAM

The Iraq Natural History Museum maintains mutual exchange of publications with a considerable number of museums, universities and learned societies in many parts of the world, in addition to a limited number of scientists who exchange their papers for Museum publications in their respective fields.

For the benefit of scientific workers in Iraq, we thought it desirable to publish a list of such institutions and to indicate the titles of bulletins, papers or other published material that reach our library, almost regularly, out of this exchange. As other institutions come into agreement with our program of exchange, their addresses shall appear in our forthcoming publications.

As a matter of fact, we do send our publications to any institution on exchange basis only, but for some important reasons we send them almost unconditionally to the countries of the Arab World and the Middle East. Copies of our publications are also sent in Iraq to specialized departments, colleges, public libraries, and secondary schools.

*Note.*—Names indicated by an asterisk receive additional copies for their specialized departments.

## EUROPE

<p><b>AUSTRIA</b> Naturhistorisches Museum, (Schriftentausch) Burgring 7, Vienna 1.</p>	<p>"Annalen des Naturhist. Museums in Wien".</p>
<p><b>BELGIUM</b> Institut Royal des Sciences Naturelles de Belgique, 31, Rue Vautier, Bruxelles 4.</p>	<p>Annual Reports.</p>
<p><b>CZECHOSLOVAKIA</b> National Museum, Dept. of Entomology, Prague II-1700.</p> <p>National Museum Library, Prague II-1700.</p> <p>Zoological Society of Czechoslovakia, Vinicna 7, Prague II.</p> <p>Moravian Museum, Dept. of Geology &amp; Palaeontology, Zelny trh 8 Brno I.</p> <p>Moravian Museum, Dept. of Entomology, Preslova 1, Brno II.</p> <p>Slezske Museum, Tyrsova 1, Opava.</p>	<p>"Acta Entom. Mus. Nationalis Pragae".</p> <p>"Acta Mus. Nationalis Pragae". "Casopis Narodniho Musea v Praze" (Hist. Nat.)</p> <p>"Acta Soc. Entom. Cechosloveniae"</p> <p>"Memoire de la Soc. Zool. Tchecoslovaque de Prague".</p> <p>"Acta Mus. Moraviae" (Sci. Nat.)</p> <p>(as above)</p> <p>"Acta Musei Silesiae"</p>

<p>Silesian Study Institute, Slezsky Studijne Ustav, Opava. Krajske Nakladatelstvi Olomouc, Olomouc.</p>	<p>"Acta Rerum Naturalium Districtus Ostraviensis" "Acta Sluko" (Sci. Nat.) "Jahrbuch der Museen des Kreises Olomouc"</p>
<hr/>	
<p><b>DENMARK</b></p>	
<p>University Library, Scientific and Medical Dept., 49, Norre Alle, Copenhagen N.</p>	<p>"Acta Historica Scientiarum Naturalium et Medicinalium"</p>
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<p><b>ENGLAND</b></p>	
<p>General Library, *British Museum (Nat. Hist.), Cromwell Road, London, S.W. 7.</p>	<p>"Bulletin of the Brit. Mus. (Nat. Hist.) (Zoology Series)"</p>
<p>Science Museum, South Kensington, London, S.W. 7.</p>	<p>List of Accessions to the Science Mus. Library.</p>
<p>Balfour Library, University of Cambridge, Zoological Department, Cambridge.</p>	<p>Reprints of papers on Zoology by members of the University's Staff.</p>
<p>Department of Zoology, Oxford University Museum, Oxford.</p>	<p>Reprints of papers on Zoology by members of the University's Staff.</p>
<p>Zoological Society of London, Regent's Park, London, N.W. 1.</p>	<p>Proceedings of the Zool. Soc. of London (by subscription).</p>
<p>Department of Zoology, University of Edinburgh, West Mains Road, Edinburgh 9, Scotland.</p>	<p>Reprints of paper on Zoology by members of the University's Staff.</p>



<p>British Ornithologists' Union, Bird Room, British Museum (Nat. Hist.), Cromwell Road, London, S.W. 7.</p>	<p>IBIS (by subscription).</p>
<p>Ministry of Agriculture and Fisheries, Animal Health Div., Hook Rise, Tolworth, Surbiton, Surrey.</p>	<p>Reprints of papers on Economic Zoology.</p>
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<p><b>FINLAND</b></p> <p>Societas Zoologica Botanica Fennica "Vanamo", Snellmaninkatu 9-11, Helsinki.</p>	<p>"Annales Zoologici". "Annales Botanici". "Archivum Soc. Vanamo".</p>
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<p><b>FRANCE</b></p> <p>General Library, Musée National d'Histoire Naturelle, 36, rue Geoffroy St-Hilaire, Paris V.</p>	<p>"Bulletin de Muséum d'Histoire Naturelle de Paris".</p>
<p>UNESCO, Library Division, 19, Avenue Kléber, Paris VI.</p>	<p>"Unesco Bulletin for Libraries".</p>
<p>UNESCO, Museum Division, 19, Avenue Kléber, Paris VI.</p>	<p>ICOM News. "Museum" (by subscription).</p>
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<p><b>GERMANY</b></p> <p>Zoological Museum, d. Humboldt Univ. Bucheri, Invalidstr. 43, Berlin, N. 4.</p>	<p>"Mitteilungen aus dem Zool. Museum in Berlin".</p>

<p>Naturforschende Gesellschaft zu Freiburg i. Br., Universitäts-Bibliothek, Rempartsr. 15, Freiburg i. Br.</p>	<p>"Berichte der Naturforschenden Gesell. zu Freiburg i. Br".</p>
<p>Senckenbergische Naturforsch- ende Gesellschaft, Senckenberg-Anlage 25, Frankfurt a-M.</p>	<p>"Natur und Volk". "Senckenbergiana Biologica". "Senckenbergiana Lethaea".</p>
<p>Übersee Museum, für Natur-, Volker- und Handelskunde, Bahnhofsplatz, Bremen 1.</p>	<p>"Veröffentlichungen".</p>
<p>Staatl. Museum für Naturkunde, Schloss Rosenstein, Stuttgart (14 a)-0.</p>	<p>General Reports. Reprints of papers by the Mu- seum's Staff.</p>
<hr/> <b>HOLLAND</b>	
<p>Zoologische Museum, Plantage Middenlaan 53, Amsterdam-C.</p>	<p>"Beaufortia" (Series of Miscel- laneous Publications).</p>
<p>Rijksmuseum Van Natuurlijke Historie, Leiden.</p>	<p>Occasional Papers. "Zoologische Mededelingen". "Zoologische Bijdragen".</p>
<hr/> <b>HUNGARY</b>	
<p>Museum of Natural History, Baross-Utca 13, Budapest VIII.</p>	<p>"Annalen Hist.-Natur. Musei Nationalis Hungarici".</p>
<p>Magyar Tudományos Akademia, MTA Földrajzi, P.O. Box 37, Budapest 53.</p>	<p>"Földrajzi Ertesítő".</p>

<p><b>ITALY</b></p> <p>Museo de Storia Naturale G. Doria, Via Brigata Liguria 9, Genova.</p> <p>Museo Civico di Storia Naturale, Fontego dei Turchi, Venezia.</p>	<p>"Ann. del Mus. Stor. Nat. G. Doria".</p> <p>"Boll. del Museo Civico di Stor. Nat. di Venezia".</p>
<p><b>JUGOSLAVIA</b></p> <p>Musee d'Histoire Naturelle, P.O. Box 341, Skopje.</p>	<p>"Fragmenta Balcanica"</p> <p>"Acta Musei Macedonici — Sci. Nat."</p>
<p><b>NORWAY</b></p> <p>Universitets Zoologiske, Trondheimsvn 22, Oslo 45.</p>	<p>Annual Reports.</p> <p>Reprints of papers on Zoology.</p>
<p><b>POLAND</b></p> <p>Musée Zoologique Polonais, Ul. Wilcza 64, Warsaw.</p> <p>Zoological Institute, Polish Academy of Sciences, (Krakow Section), Slawkowska 17, Krakow.</p> <p>Polskie Towarzystwo Przyrod- nikow in Koperika, Zarząd Główny, Palace Kultury i Nauki, Warsaw,</p>	<p>"Annales Zoologici"</p> <p>"Fragmenta Faunistica"</p> <p>"Acta Theriologica"</p> <p>"Acta Ornithologica"</p> <p>"Acta Zoologica Cracoviensia"</p> <p>"Kosmos" (Ser. Biol.)</p>
<p><b>PORTUGAL</b></p> <p>Museu Nacional de Hist. Nat., Museu Bocage, Lisbon.</p>	<p>"Arquivos do Museo Bocage".</p>

<p><b>ROUMANIA</b></p> <p>Station Zoologique Marine, Agigea, Constanja.</p>	<p>Publications.</p>
<p><b>SWEDEN</b></p> <p>Naturhistoriska Riksmuseet, Stockholm 50.</p>	<p>Reprints of papers on Zoology.</p>
<p><b>SWITZERLAND</b></p> <p>Museum d'Histoire Naturelle, Geneve.</p> <p>Stadt- und Hochschulbibliothek, Kesslergasse 41, Bern.</p> <p>Natur.-historisches Museum, Augustinergasse 2, Basel.</p>	<p>Annual Reports.</p> <p>"Actes de la Soc. Helvétique des Sciences Naturelles".</p> <p>"Scientific papers".</p>
<p><b>USSR</b></p> <p>Exchange Department, Academy of Sciences of the USSR, Center Birgevajja Linija 1, Leningrad.</p> <p>Institute of Sci. Information, Institut Nauchnoi Informatzif, Baltijskij Posyolok, 42-b, Moscow, D-219.</p>	<p>"Fauna of USSR".</p> <p>"Review of Zoology".</p> <p>Parasitological Publications.</p> <p>"Abstracts of Biology".</p>

## ASIA

<p><b>CEYLON</b></p> <p>National Museums of Ceylon, Colombo.</p>	<p>Annual Reports. "Spolia Zeylanica"</p>
<p><b>INDIA</b></p> <p>Bombay Natural History Society, 114 Apollo Street, Fort, Bombay 1.</p> <p>Zoological Survey of India, Indian Museum, 34 Chittaranjan Avenue, Calcutta 14.</p>	<p>"Journal of the Bombay Nat. Hist. Society" (Subscription).</p> <p>"Records of the Indian Museum"</p>
<p><b>IRAN</b></p> <p>Ministry of Education, Teheran.</p> <p>University of Teheran, Teheran.</p>	<p>.....</p> <p>.....</p>
<p><b>JORDAN</b></p> <p>Ministry of Education, Amman.</p>	<p>.....</p>
<p><b>KUWEIT</b></p> <p>Department of Education, Kuwait.</p>	<p>.....</p>
<p><b>LEBANON</b></p> <p>Ministry of Education, Beirut.</p> <p>American University of Beirut, Faculty of Science, Dept. of Biology, Beirut.</p>	<p>.....</p> <p>Scientific papers from the Dept. of Biology.</p>

AISA	
<b>PAKISTAN</b>	
Pakistan Association for the Advancement of Science, Ferozepore Road, Lahore.	"Pakistan Journal of Science" "Pakistan Journal of Scientific Research".
<b>SAUDI ARABIA</b>	
Ministry of Education, Riyadh.	
<b>SYRIA</b>	
Ministry of Education, Damascus.	
Syrian University, Faculty of Science, Damascus.	
<b>TURKEY</b>	
Ministry of Education, Ankara.	
Fen Facültesi, Ankara Üniversitesi, Ankara.	"Communications de la Faculté des Sciences".
Hidrobiologi Arastirma Enstitüsü, Fen Facültesi, Istanbul Üniversitesi, Istanbul.	"Publications of the Hydrobio- logical Research Institute".
<b>YEMEN</b>	
Ministry of Education, San'a.	

## AFRICA

<b>BRITISH EAST AFRICA</b> The Coryndon Museum, Box 658, Nairobi.	Annual Reports.
<b>CONGO BELGE</b> I.R.S.A.C., Dépêche Speciale, Bukava.	"General Reports".
<b>EGYPT</b> Ministry of Education, Cairo.	.....
University of Cairo, Faculty of Science, Giza, Cairo.	.....
University of Alexandria, Faculty of Science, Alexandria.	.....
Egyptian Museum, Cairo.	.....
National Research Center of Egypt, Dokki, Cairo,	"Documentation Bulletin".
Institute of Arabic Studies, 101 Tulumbaṭ St., Garden City, Cairo.	.....
Agricultural Museum, Dokki, Cairo.	.....

AFRICA

Pan-Arab Organization, Cultural Department, 102 Farouk St., Ajouza, Cairo.	BRITISH EAST AFRICA The Gordon Museum Box 652 Nairobi
Oceanic Institute, University of Cairo, Al-Ghardaga, Red Sea.	Publications of the Oceanic Institute of Ghardaga
<b>NIGERIA</b>	
University College, Ibadan.	"Nigeria" "Nigerian Field"
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South African Museum, Cape Town.	Annual Reports. "Annals of the South African Museum".
<b>SUDAN</b>	
University College of Khartoum, Khartoum.	"Annual Reports of the Hydro- biological Research Unit"



New York State Museum, Albany, N.Y.	Annual Reports.
Buffalo Museum of Science, Humboldt Park, Buffalo 11, N.Y.	.....
Rochester Museum of Science, Rochester, N.Y.	.....
Denver Mus. of Natural History, Denver, Colorado.	Annual Reports.
Cleveland Mus. of Natural Hist., 10600 East Boulevard, Cleveland, Ohio.	.....
Ohio State Museum, Columbus, Ohio.	Publications.
Ohio State University, University Libraries, Columbus 10, Ohio.	Papers on Zoology.
Illinois State Natural History Survey, Natural Resources Building, Urbana, Ill.	"Biological Notes". "Ill. Nat. Hist. Survey Bulletin".
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# جامعة بغداد

كلية الآداب والعلوم



نشرة رقم (١٤) : نيسان ١٩٥٨

## خلاصة البحوث المنشورة في هذا العدد

### بعض الحشرات غشائية الاجنحة ومغمدة الاجنحة من العراق

للدكتور كامل خلف

يستند هذا البحث على ٣١٠ نماذج من الحشرات التي جمعت في العراق واطبقت الى مجموعة الحشرات في دار المعلمين العالية وقد جرى التصنيف النهائي لهذه النماذج من قبل بعض الاختصاصيين في الولايات المتحدة الاميركية • وتتضمن النماذج ٥٢ جنسا ونوعا من غشائية الاجنحة (Hymenoptera) و ٨ انواع من مغمدة الاجنحة (Coleoptera) •

### دراسة بالمجهر الالكتروني لسطح الكيونكل في الصرصر ( مع لوحتين )

للدكتور كامل خلف

اجرى الكاتب هذه الدراسة في معهد فريتز - هابر في برلين مستفيدا من الزمالة التي منحتها اياه الحكومة الالمانية الاتحادية في صيف عام ١٩٥٧ • وقد تناول هذا البحث طريقة الريبليكا (Replica) لتهيئة سطح كيونكل الصرصر للدراسة والتصوير بواسطة المجهر الالكتروني والوقوف على دقائق تركيبه مكبرة الى حد ٧٠٠٠ مرة • ويتضمن المقال ١٢ صورة الكترونية انتخبت من عدد كبير من الصور التي حصل عليها المؤلف لسطح الكيونكل وقد اظهرت هذه الصور وجود تشاكيل خاصة على سطح الكيونكل لا يمكن كشفها بطرق الفحص المجهرى الضوئي •

٤٩٥٥٥

ملاحظات عن الطيور فى الجبانية من ٢٤ تشرين الاول الى ٣٠ تشرين الثانى ١٩٥٧

للمستر أ. س. نورس

لقد اتاحت للكاتب وهو يعمل فى القوة الجوية الملكية فى الجبانية ، فرصة ملائمة لتسجيل ملاحظات يومية عن الطيور التى شاهدها فى تلك المنطقة خلال المدة الواقعة بين ٢٤ تشرين الاول و ٣٠ تشرين الثانى الماضى . وتناولت هذه الملاحظات ١٠٥ انواع من طيور العراق .

### طيران محجلان بحلقة فى ساقيهما صيدا فى العراق

للسيد بشير اللوس

فى كانون الاول ١٩٥٦ تسلم المتحف من وزارة الزراعة ساقا لطير من الطيور الخواضة اصطاده أحد المزارعين فى الشطرة وكان على الساق ٣ حلقات من الالمنيوم مصدرها موسكو ومؤشر كل منها برقم خاص . وتبين لدى الدراسة والتشخيص ان الطير هو مالك الحزين السنجابى (Grey Heron) وفى كانون الاول ١٩٥٧ اصطاد السيد ابراهيم غزالة مدرس الفيزياء فى الثانوية الشرقية فى الموصل مالك حزين ابيض (Gt. White Heron) فى شيورة ( طريق عقرة ) وارسله الى المتحف مشكورا وكان الطير يحمل فى ساقه حلقة مصدرها موسكو ايضا وعليها رقم خاص . وستطلع المحطة العلمية المختصة فى موسكو على مرور هذين الطيرين فى العراق وتستنتج من ذلك بعض المعلومات عن طريق هجرتها .

### مشاريع البحوث والنشر لقسم النبات فى كلية الاداب والعلوم

للسنة الدراسية ١٩٥٧ - ٥٨

للدكتور نيكولاس بوليونين

تضمن هذا المقال عرضا سريعا لعناوين وموضوعات البحوث التى تقوم بها الهيئة التدريسية لقسم النبات فى كلية الاداب والعلوم بالاشتراك مع بعض الاساتذة خارج الكلية .

### فعاليات المتحف : منهاج تبادل النشرات مع الخارج

يقوم المتحف فى الوقت الحاضر بتبادل النشرات مع عدد كبير من المتاحف والجامعات والهيئات العلمية فى الخارج . وقد رأينا من الفائدة ان ننشر فى هذا العدد عناوين تلك الجهات مع ذكر المطبوعات التى ترسلها بانتظام الى المتحف على سبيل التبادل مع منشوراته التى بلغت ١٤ نشرة من ضمنها العدد الحالى . وسيواضب المتحف على نشر عناوين المتاحف والهيئات العلمية الجديدة التى يتم الاتفاق معها على التبادل .

وتشتمل القائمة الحالية على ١١٢ عنوانا وهى لا تشمل الجهات التى ترسل اليها نشرات المتحف فى الداخل - وهى الدوائر الفنية والكليات والمكتبات العامة والمدارس الاعدادية ودور المعلمين والمعلمات ، فضلا عن عدد آخر من العلماء .

# جامعة بغداد

كلية الآداب والعلوم

## متحف التاريخ الطبيعي العراقي

نشرة رقم (١٤) : نيسان ١٩٥٨

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