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NOTES ON THE ODONATA OF IRAQ

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Our knowledge of the dragonfly fauna of Iraq is still very imperfect, and literature on the subject is scanty. E. de Selys Longchamps (1887) published a valuable list of the dragonflies of Asia Minor in which certain species are mentioned as occurring in Mesopotamia (Iraq). The most important, however, are those of Morton (1919, 1920) which deal with large collections made mainly by Capt. W. Edgar Evans and Major R. Brewitt-Taylor from 1916-1919, primarily in the great marshes around Amara and Basra. A few of Capt. Evans's records are from the Ruz Canal near Shahroban in the Jebel Hamrin Hills. It is unlikely that many more species remain to be recorded from the marshes of the Tigris and Euphrates south of Baghdad, the drying out of most of these marshes in the summer, no doubt restrict the number of species that can exist there.

During the period May — October I collected in the vicinity of Khanaqin on the Alwand River, about 90 miles north-east of Baghdad in the foothills of the Jebel Hamrin. I worked out my collection in the Department of Entomology, British Museum (Natural History), in London, and am grateful to Mr. D. E. Kimmins for his kind assistance in this connection. The collection contained 17 species, four of which were not represented in Morton's material.

Iraq is particularly interesting to the zoologist as it is situated in a more or less central position between east and west; and in consequence most of the faunal groups are of a heterogenous nature with elements whose main areas of distribution are Palaearctic, Oriental, or Ethiopian. The dragonflies are no exception to this rule and the genera represented in Iraq include many species whose distribution varies from cosmopolitan to very restricted areas. *Brachythemis fuscopalliata* (Selys) for instance is known only from Iraq and the Arabian (Persian) Gulf area. Then again *Orthetrum trinacria* (Selys) is primarily an African species and only reaches Iraq in the extreme south. At the other extreme is *Aeshna mixta* Latr. which although mainly a Mediterranean species, ranges from the British Isles across Europe and Russia to Tibet. In the following table I have shown the world distribution of the dragonfly genera known to occur in Iraq :—

Genus	Main World Distribution
Coenagrion	Mainly Palaearctic, but represented in India, Malaysia and Australia
Ischnura	Cosmopolitan
Sympecna	Palaearctic
Lestes	Cosmopolitan
Epallage	Mainly Oriental
Agrion	Cosmopolitan
Anormogomphus	Oriental
Gomphus	Nearctic, Palaearctic, and Oriental
Lindenia	Ethiopian and Eurasian
Aeshna	All N. Asia, Europe and N. America.
Anax	Worldwide, temperate and tropical
Hemianax	Europe and Australia
Cordulegaster	Palaearctic and Nearctic
Selysiothemis	Confined to the desert areas of the Arabian Gulf, N. India, Asia Minor and N. Africa
Orthetrum	The Old World generally to Australia
Diplacodes	Throughout the Old World to Papua, Australia and Oceania
Crocothemis	Ethiopian and Oriental
Brachythemis	Ethiopian and Oriental
Sympetrum	Palaearctic and Nearctic
Trithemis	Ethiopian
Pantala	Cosmotropical

The species of the genus *Agrion* occurring in Asia Minor and the Middle East have been divided into a number of races or subspecies, the validity of many of these is still obscure. Some workers incline to the opinion that some of these are in fact nothing more than seasonal forms, differing mainly in the amount and distribution of the dark pigmentation of the wings. This may well be the case, particularly in those countries like Iraq, where many species have a long season or occur all the year round. To solve this problem it will be necessary to assemble large series of specimens from numerous localities, taken at all times of the year and with full details of habitat, altitude and temperature. Work on these lines on *Agrion splendens* Harris in Iraq would be most valuable.

In the annotated check list that follows I have listed the 26 species recorded by Morton and myself, the area covered therefore is Iraq south of Kurdistan. Field investigations in the west on the Syrian border may result in the addition of a few more species. In Selys

(1887) list the following species, not included in the present check list, are given as definitely occurring in Iraq:—

Ischnura pumilio (Charpentier). Hor. Ent. P. 22. 1825.
Lestes barbara (Fabricius). Suppl. Ent. Syst. p. 286. 1798.
Epallage fatime (Charpentier). Dibell. Eur. p. 132. 1840.
Cordulegaster insignis Schneider. Stettin. ent. Ztg. 6:114. 1845.

Unfortunately de Selys does not give any details of the exact location or habitat of these species. However, from their known distribution outside Iraq, it is probable that they are to be found in Kurdistan. Their distribution is as follows — *I. pumilio* North and Central Europe, Russia, Asia; *L. barbara* Mediterranean area eastwards to Kashmir and beyond; *E. fatime* Greece, Asia Minor and North Iraq; *C. insignis* Armenia and North Iran. In addition to these four species *Coenagrion puella* (L.) definitely occurs in Kurdistan, so that the minimum number of species so far known from all Iraq is 31.

It is unfortunate that de Selys regarded Malatia (Malatya) as a part of Mesopotamia. This is in fact a province of east-central Turkey at the foot of the Taurus Mountains, it is bounded to the east and south by the upper reaches of the Euphrates. Selys (1887) listed about 12 species as occurring in Malatia, amongst these were the following:— *Ophiogomphus serpentinus* Charpentier, *Onychogomphus flexuosus* Schneider, *Sympetrum meridionale* Selys, *Libellula gracilis* Selys, and *Coenagrion ornatum* (Selys) of which Malatia is the type locality. All of these, with the exception of the latter, range into Northern Iran, Turkestan and the Transcaucasus etc., so that they probably occur also in Kurdistan. Hans Schiemens (1953) includes Iraq in the range of *Ophiogomphus serpentinus* and *Coenagrion* (*Agrion*) *ornatum*, and in this he is no doubt following Selys (1887). I have little doubt that intensive exploration of the dragonfly fauna of the mountainous regions of Northern Iraq will add a considerable number of species to the list, so that the final total may well be in the region of 40 to 45 or even 50. In addition to those species already mentioned one would expect to find others such as *Cordulegaster boltonii* (Donovan) whose wide range includes Asia Minor and Northern India; *Brachytron pratense* (Müller) a European species which extends through Turkey to Asia Minor; *Libellula depressa* L. which is known from Asia Minor and Syria, and *Sympetrum sanguineum* (Müller) a species with a very wide distribution extending from the British Isles to Mongolia, and including North Africa, Syria, Asia Minor and Northern Iran.

In the check list which now follows I have followed the classification of Fraser (1957).

ANNOTATED CHECK LIST

Suborder ZYGOPTERA

Family COENAGRIIDAE

Subfamily Ischnurinae

Genus *Ischnura* Charpentier

Ischnura bukharensis Bartenef. Rev. Russ. Ent. 13:186. 1913.

Recorded from Amara, Basra, and Hamar Lake in March, April, May, June, August and November, where it was found in gardens, irrigation ditches in date palm gardens, and by the Tigris. Morton's material contained heterochromatic female forms of orange and olive colouration. At Khanaqin it was first noted on 25th May and by 1st June was very numerous with males predominating, still flying on 22nd October. Found mainly along narrow and shallow irrigation ditches.

Ischnura evansi Morton.: Ent. Mon. Mag. 5:146. 1919.

This species was described from specimens collected from the Tigris at Amara, the Aziziah Marshes near Carraba Jedeid, the area between the Masharra and Chahala Canals, Qurnah, Hamar Lake, the Euphrates, and from open marshes at Basra, in February to May and in November, thus indicating a long season.

It will be noted that both these *Ischnura* species occur sympatrically in the great marshes of the Tigris and Euphrates south of Baghdad, and that *evansi* has not apparently been recorded from north of Baghdad, which suggests that it is a species confined to these marshes.

Family LESTIDAE

Subfamily Sympecmatinae

Genus *Sympecna* Burmeister

Sympecna peadisca annulata Selys. Ann. Soc. Belg. 31:43 1887.

Capt Evans took a pair of this species in the Jebel Hamrin Hills in November 1918. It was also taken in the vicinity of Amara in April and May, generally resting among grass. The specimens taken in late April were immature.

Family AGRIIDAE

Subfamily Agriinae

Genus *Agrion* Linnacus

Agrion splendens Harris from *persica* Bartenef. Ann. Mus. Zool. Ac. Sc. 16: 440. 1911.

A male was taken by the Alwand River at Khanaqin on 30th May, thereafter none were seen again until 17th October when six

were seen in a deep irrigation ditch, one of these was still clinging to the nymphal case.

The species apparently has a wide distribution from Baghdad northwards to Kurdistan. In the British Museum (Natural History) is a male taken at Khanaqin by H. D. Peile on 22nd October, 1918. There are also examples taken at 1500-3000 feet near Sulaymaniah in May and September. It was recorded at Baghdad by J. E. M. Boyd from July-October, 1922.

Suborder ANISOPTERA

Family GOMPHIDAE

Subfamily Gomphinae

Genus *Anormogomphus* Selys

Anormogomphus kiritschenkoi Bartenef. Rev. Russ. Ent. 13: 179-185. 1813

Taken at Amara from may to September where it was said to be common throughout the summer, chiefly in dry places about gardens, but occurring almost everywhere. Recorded also from Qurnah and Basra.

At Khanaqin it was noted first on 25th May and was in evidence until late July, but was never numerous. The habitat favoured was low bushes in a dry stony area by the Alwand River.

Genus *Gomphus* Leach

Gomphus simillimus Selys. Mon. Lib. Eur. p 85. 1840.

I took a solitary male in scrub by the Alwand River on 6th June, and it has been provisionally assigned to this species.

This specimen is slightly different from typical *simillimus* and a good series of both sexes from Iraq may well prove the existence there of an erophilous form.

Gomphus ubadschii Schmidt. Mittellungen der Muncher Entomologischen Gesellschaft e.v. XLIII: 6-9. 1953.

At the time this species was described the range was given as Syria, South Turkey, and probably Persia where it may previously have been confused with the very similar *Gomphus davidi*. I obtained a pair in scrub (poplar, sallow, acacia) by the Alwand River at Khanaqin on 25th May, thus proving that it occurs in Iraq also. It is desirable that the comparative ecology of these two species of *Gomphus* should be studied in those parts of Iraq, such as Khanaqin, where they are sympatric.

Subfamily Ictinogomphinae

Genus *Lindenia* Selys

Lindenia tetraphylla (Van der Linden). Mon. Lib. Eur. p. 32. 1825.

Taken at Amara in May and June about barley fields interspersed

with *Suaedas*, and on salty sun-baked clay away from water. Also taken in May at Qurnah on the Tigris and at Hamar Lake on the Euphrates. Major Brewitt-Taylor noted that males were acarcer than females.

At Khanaqin I took only two specimens, both females, on Oleander bushes in the gardens of the Alwand Refinery on 27th May and 29th June.

Family AESHNIDAE
Sufamily Aeshninae
Genus *Aeshna* Fabr.

Aeshna mixta Latreille. Hist. Nat. Crust. Ins. 13:7. 1805.

A female was taken, and other seen, at artificial hollows by the Ruz Canal near Shahroban on 7th December, 1918. This species may well be only a migrant to Iraq. Its range is primarily Mediterranean, but it extends from Palestine and Asia Minor to Kashmir and Tibet.

Subfamily Anactinae
Genus *Anax Leach*

Anax parthenope Selys. Bull. Acad. Belg. (2) 6:389. 1839.

Morton recorded this large hawker dragonfly from palm gardens at Masharra, at Pindi Point, and by the Tigris at Amara and Abusidra, and also at Basra. It was taken from March to May and in September. Teneral examples were found in March and September which suggests a spring and autumn generation. In addition to date palm gardens, it was found in marshes, grassy ditches by the Tigris, and on scrubby ground near fields by the river.

At Khanaqin it was never very numerous and was not seen at all until late August when a few were seen hawking over isolated pools of water in the dry bed of the Khirr—i—Pika River. On 20th August one appeared over the swimming pool at the Alwand Refinery. and later another crashed into outside electric lights.

Genus *Hemianax* Selys

Hemianax ephippiger (Burmeister). Handb. Ent. 2:840. 1839.

This hawker dragonfly has a strong rapid flight and is a well known migrant. However, it certainly breeds in the marshes south of Baghdad as Capt. Evans noted a large emergence from 27th October to 2nd November, 1918, by the Tigris. Morton's notes show that specimens were taken from date palm gardens at Masharra, Amara; from scrubby ground near fields by the Tigris, and in the large marshes below Amara. Recorded in March, April, May, June, July, October and

November. They are said to be fond of resting among dead *Acacia* and also on the bare ground. I did not find this species in the Khanaqin area.

This species ranges from southern Europe and the Sahara to India.

Family MACRODIPLACTIDAE

Genus *Selysiothemis* Ris.

Selysiothemis nigra Van der Linden. Mon. Lib. Eur. Spec. p. 16. 1825.

Morton had long series of this species from Amara and Basra taken in April, May, June, August and September. Immature examples were in evidence in April and August and September, so that there is evidently a spring and an autumn generation. According to Morton (1919) individuals of the latter generation are smaller then those emerging in the spring.

At Khanaqin I first noted this species on 6th June when some were seen on dessicated grass in the open undulating foothills at least one mile from the nearest water. I took immature specimens in September and noted it on the wing until mid-October.

This species occurs also in the Algerian Sahara, Greece, Turkestan, the Caucasus, Iran and Afghanistan.

Family LIBELLULIDAE

Subfamily Libellulinae

Genus *Orthetrum* Newman

Orthetrum sabina (Drury). Ill. Exot. Ins. 1:114-115. 1770.

First noted at Khanaqin in mid-August when it was quite numerous in gardens and in scrub by the Alwand River, it remained numerous until September but had become scarce by late October.

Morton recorded it from Amara, Basra, and the Ruz Canal near Shahroban in the Jebel Hamrin, in May, June, August, September and October to December. According to Capt. Evans's notes this dragonfly rests on the stems of reeds and grasses growing in shallow flooded parts of the canal margins.

This species has a very wide range reaching India and the Far East, it occurs in Cyprus and Syria.

Orthetrum taeniolatum (Scheider). Stett. ent. Z. 6:111. 1845.

Morton's material contained only three males of this species, all taken from rocks on Table Mountain in the Jebel Hamrin near Shahroban on 14th and 20th November, 1918. All these specimens were rather immature.

At Khanaqin many males were noted on 3rd June, 1958, and it was last seen on 25th October. Teneral specimens were not found until August. Throughout the period in which it was seen, males appeared to outnumber females by 2:1. The habitat in which it was found was mainly narrow dried up stony watercourses in the hills, and bare stony banks by the Khirr-i-Pika River. Not known from south of Shahroban and may be a montane species only in Iraq.

Subfamily Sympetrinae
Genus *Diplacodes* Kirby

Diplacodes lefebvrei Rambur. Ins. Névr. p. 112. 1842.

Morton had material from Amara taken from 5th — 10th September; a male from Basra on 22nd October; and a pair from the Jebel Hamrin on 23rd November, 1918.

At Khanaqin I did not find it until 12th August, and from then until the end of September it was in evidence but never numerous. It favoured very low vegetation in the Alwand Refinery gardens and by the Alwand River and was very hard to see when at rest.

Crocothemis erythraea chaldaeorum Morton. Ann. & Mag. Nat. Hist. series 9 vol. 5: 298-300. 1930.

Known only from Amara and Basra where it was taken in March, April, and May. It was from this material that Morton described the race *chaldaeorum*. It seems likely that this endemic race is restricted to the marshes of Amara and Basra

Crocothemis servilia Drury. Ill. Exot. Ins. 1. pl. 74. fig. 6 pp. 112-113. 1770.

This species is evidently very numerous in Iraq, Morton's material contained long series collected from April-June and from September-December. The localities were Amara, Basra, Qurna, Long Island in the Tigris, the Jebel Hamrin near Shahroban, and Kizil Robat near the Persian border. Capt. Evans's notes state that this insect was found chiefly about gardens at Amara, being particularly partial to long grass beside irrigation ditches on the outskirts of palm groves. On one occasion he found hundreds on four acres just below Amara. It also seems that the late autumn generation is smaller and paler in colour than the spring generation.

At Khanaqin this was the most numerous dragonfly in the area, noted first on 3rd June and still abundant when I left the area at the end of October. There appeared to be no preference for any particular type of habitat. It was common on banks of dried mud by irrigation ditches, on the stony beds of dried up watercourses, and in scrub by

the Alwand River. Teneral specimens were taken in June and October, and the differences in size and colour mentioned above were noticeable.

As both *C. erythraea chaldaeorum* and *C. servilia* are sympatric in the Amara and Basra area, it is desirable that their comparative ecology be studied in detail.

Brachythemis fuscopalliata (Selys). Ann.: Soc. ent. Belg. 31:23. 1887.

Morton had a series from Amara and Qurnah on the Tigris taken in April and May, and some from Basra in July. A single female was taken near Amara on 1st October, 1918. On 3rd May, Capt. Evans stated that there were "scores" about, mostly males; but on 5th May on the Masharra Canal both sexes were abundant.

At Khanaqin it first appeared in early June when there were a few, mostly males, by the Alwand River at a place where grass and sedges grew in the water. They were much more numerous in July, August, and the first half of September, being particularly fond of deep slow-running irrigation ditches with plenty of vegetation. At all times males were far more numerous than females.

This species was described by de Selys from specimens collected in Iraq and was placed by him in the genus *Trithemis* at the time. He refers to it as follows — "Euphrate inférieur (Mésopotamie) en janvier et février."

Sympetrum decoloratum (Selys). Ann. Soc. ent. Belg. 28:35 1884.

Recorded by Morton from Amara in May, June, October and November; Basra in May, June, October and November; from Qurnah in May, and from the Jebel Hamrin near Shahroban in November. On 4th May, 1918, Capt. Evans found hundreds of these dragonflies in fields lying between some date palm gardens and the Masharra Canal near Amara, he estimated that the sexes were about equal.

At Khanaqin I took it first on 27th May and on a few occasions in June, but it was rather scarce. It was generally found along the smaller overgrown irrigation channels where it was fond of perching on the bare stems of plants projecting above the surface of the water. It is rather odd that there are no records from July—September.

Sympetrum depressiusculum (Selys). Rev. Zool. p. 244. 1841.

The status of this species in Iraq requires investigation. It was not recorded by Morton, but I took an adult male by the Alwand River at Khanaqin on 19th October.

The Khanaqin record is apparently the first for Iraq and the insect may have been a migrant. It occurs in Europe, Russia, the

Mediterranean, and Turkestan.

Sympetrum fonscolombei (Selys). Mon. Lib. Eur. pp. 29, 49, 208. 1840.

Morton had a small series of both sexes from Amara taken from June to September 1918. A male taken on 5th July and a female on 27th August were rather teneral, so that the species may well breed in Iraq. It is however a species with very marked migratory tendencies, its breeding range extends from South Africa to India and Kashmir, China, Russia, Western Europe, Spain and Portugal, the Canary Islands and Madeira; occurs also in Algeria, Tunisia, Egypt, and has been taken in Syria.

Sympetrum striolatum striolatum (Charpentier). Dibell. Eur. p. 78. 1840.

Capt. Evans took two females from the slope of a dry watercourse at Ruz, near Shahroban, in the Jebel Hamrin Hills, on 23rd November, 1918. Its status in Iraq is unknown and should be investigated.

This *Sympetrum* is primarily a Mediterranean species so far as Europe is concerned, but it has a wide range and reaches North Africa, South Russia, Palestine, Iran, and Kashmir.

Subfamily Tritheminae

Genus *Trithemis* Brauer

Trithemis annulata (Palisot de Beauvais). Ins. Afr. Amér. p. 69. 1842.

Recorded by Morton from Basra in March, May, June and October.

At Khanaqin this was a numerous species, first noted in July when teneral specimens were taken. Teneral examples were again encountered in mid-September. This species appears to like the vicinity of vegetation of some sort and avoids open places. It was found plentifully in riverain scrub by the Alwand River, among dense stand of *Scirpus* by the Khirr-i-Pika River, and in the gardens of the Alwand Refinery. It was still quite numerous when I left the area at the end of October.

Trithemis festiva (Rambur). Ins. Névr. p. 92. 1842.

Capt. Evans took a male from a dry watercourse in the Jebel Hamrin Hills on 29th November. 1918.

In the Khanaqin area I did not see this distinctive species until 27th September, and it was quite numerous throughout October. It was found in marginal scrub by the Alwand River, it also came into the Alwand Refinery gardens where it could be seen in numbers sitting on the telegraph wires.

Subfamily Pantaliinae
Genus *Pantala* (Fabr.)

Pantala flavescens (Fabricius). Suppl. Ent. Syst. p. 285. 1798.

Taken at Amara in August and recorded by Morton (1920). This is another species whose status in Iraq is obscure, it is a widely distributed tropical species which extends to Japan, but has occurred in Asia Minor, Egypt and Syria.

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الخلاصة

ملاحظات عن رتبة اليعاسيب في العراق

للسيد بريان ل. سيج

جمع الكاتب خلال اقامته في خانقين عام ١٩٥٨ مجموعة من اليعاسيب (Dragonflies) درسها في قسم الحشرات التابع للمتحف البريطاني ووجد انها تمثل ١٧ نوعا ، اربعة منها لم تسجل في التقارير السابقة . وقد كانت فترة الجمع من ايار الى تشرين الاول .

ويشير الكاتب (في ص ٩) الى ٢١ جنسا من اليعاسيب ممثلة في العراق وفي انحاء أخرى من العالم . كما يسجل ملاحظاته عن وضعية ٢٦ نوعا من اليعاسيب توجد في العراق ، ومنها ما ذكر في تقارير غيره من الباحثين .

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NOTES ON A COLLECTION OF LIZARDS AND SNAKES FROM IRAQ

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The present collection deals with 159 lizards of 19 species and 182 snakes of 11 species, collected in the years 1953-1959, by the author and his students, from Baghdad and other regions of Iraq, and preserved in the College of Education Museum. A very small number of specimens were present in the college before that period. These are also included in this work. They were without label and referred to as such in the present paper.

An interesting part of the collection, is a total of over 80 specimens of *Natrix tessellata tessellata* (Laur.), all collected in the same day from the limits of Baghdad city, in March 28, 1954, with the flood water. This, although preserved in the beginning for over a year in formalin, will be interesting in an age-growth study on this species.

GEKKONIDAE

Hemidactylus persicus Anderson, 26 specimens:

Baghdad, 25 (Dec. — June); Mousaiab, 1 (April 24/1958).

Upper labials 9-12; with or without one or two smaller, distinct granules behind; the cleft of the mouth extends beyond this limit, bordered by still smaller granules. Lower labials 8-10. 7-9 preanals, 10 in one case. The transverse bands, in our preserved material, were not distinct.

Hemidactylus flaviviridis Ruppell, 9 specimens:

Baghdad, 9 (Oct. — Feb., and April).

Upper labials 13-15. Lower labials 9-12. Femoral pores 5-7 on each side. Some have typical coloration.

Gymnodactylus scaber (Heyden), 33 specimens:

Baghdad, 17 (Oct., Dec., Feb., — May, June); Hindiya, 4 (Feb. and March/1958); Mousaiab, 1 (April 24/1958); Haditha, 1 (Oct. 19/1958); Ana, 4 (June 12/1958); Rawa, 3 (July and Aug./1958); Arbil, 1 (Summer/1958); Basra, 2 (Feb./1959).

Upper labials 11 or 12, rarely 10. Lower labials 8 or 9; but one specimen from Ana possessed 10. Preanal pores 6, sometimes 5. The markings were usually well represented.

Phyllodactylus elisae Werner, 29 specimens:

Baghdad, 22 (Jan., March and April); Ana, 3 (June 12 / 1958); Arbil, 1 (Summer/1958); Mosul, 3 (Feb./1959).

Upper labials 11-14. Lower labials 8 or 9, rarely 10 or 11. Two pairs of chin shields. No preanal or femoral pores. Young specimens, with dark spots and cross bars on the head and body; the tail with dark rings, the last two or three of which are the darkest. Of these colors, those of the distal half of the tail are the most preservative. With age, the markings tend to diffuse, becoming wide bars, and finally the dorsum becomes only cloudy, without definite markings. Only the last two or three rings persist in original (not regenerated) tails.

Ptyodactylus hasselquisti (Donndorff), 2 specimens;

Haditha, 2 (Oct. 19/1958).

Upper labials 12 or 13. Lower labials 11 or 12.

AGAMIDAE

Agama stellio stellio (L.), 2 specimens:

Sheikhan region, 2 (Summer/1958).

Agama ruderata Olivier, 2 specimens:

Rawa, 2 (Sept. 20/1958).

Uromastix microlepis Blanford, 1 specimen:

Tharthar, 1 (May 27/1956).

VARANIDAE

Varanus griseus (Daudin), 2 specimens:

Baghdad, 2 (March and May/1954).

AMPHISBAENIDAE

Diplometopon zarudnyi Nikolsky, 1 specimen:

Hindiya, 1 (May 5/1958).

LACERTIDAE

Acanthodactylus boskianus asper (Audouin), 2 specimens:

Ana, 1 (Sept. 24/1958); Rawa, 1 (Sept. 6/1958).

Supralabials, 4 to beneath the center of the eye. Femoral pores 22 or 23. Scales under the base of the tail smooth.

Ophisops elegans elegans Menetries, 12 specimens:

Sa'dia, 2 (May 3/1953); Haji Umran, 5 (Aug. 7/1958); Sakran, 4 (1958); Makhmoor, 1 (Dec. 20/1958).

Upper labials anterior to the subocular 4, with the exception of one specimen having 5 on one side. Subocular always bordering the mouth. Interparietal, which is sometimes divided, in contact with the occipital with the exception of one case. Frontal touching the first three supraoculars, or, sometimes, the second and third only. Superciliaries 4, sometimes 5, and in one case, they were 6 on one side. Prefrontals never separated by an azygos shield. Six pairs of chin shields, the anterior three pairs in contact in the middle. Femoral pores 9-13 on each side.

Ophisops blanfordi Schmidt, 1 specimen:

Baghdad, 1 (Nov. 3/1955).

Subocular reaching the labial border. Interparietal divided. Femoral pores 10.

SCINCIDAE

Mabuya vittata (Olivier).

Mabuya aurata aurata (L.), 1 specimen:

Shaklawa, 1 (July/1953).

Parietals separate. Without dorsal series of spots.

Mabuya aurata septemtaeniata (Reuss), 25 specimens:

Baghdad, 22 (Jan. — June); Mosul, 1 (Aug./1955); Hindiya, 1 (Feb. 21/1958); without label, 1.

The last two supralabials, in one specimen, were united, and their number was six. The first loreal in one, fused with the frontonasal on one side. In another, there was an additional scale in front of the fifth supralabial, and they became eight in number, the sixth was subocular. Deviations in the supraoculars include: the presence of an additional scale on one side, in one specimen; and the fusion, in part, of the first and second supraoculars on one side, in another.

Ablepharus kitaibellii (Bibron and Bory); 8 specimens:

Baghdad, 8 (Sept., Oct., and April).

In one specimen, the frontonasal touches the rostral but separated from the frontal. In some, the nuchals were four, at least on one side.

Eumeces schneiderii princeps (Eichwald), 1 specimen:

Arbil, 1 (Dec. 30/1958).

The interior of lower eyelid scaly but semitransparent. Anterior border of ear with four pointed lobules. Supraciliaries 4/5. The sixth upper labial, only, below the eye. Four pairs of nuchals. 27 scales around the body. Colors typical.

Scincus scincus conirostris Blanford, 2 specimens:

Hindiya; Najaf, 2 (Feb./1956).

In the last two specimens there were eight supralabials.

TYPHLOPIDAE

Typhlops vermicularis Merrem, 2 specimens:

Ana, 2 (July 7/1958).

LEPTOTYPHLOPIDAE

Leptotyphlops macrorhynchus (Jan), 5 specimens:

Baghdad, 1 (April 18/1953); Mosul, 1 (June/1953); Shaklawa, 2 (July/1953); without label, 1.

BOIDAE

Eryx jaculus (Linn.), 8 specimens:

Baqouba, 1 (April 23/1953); Hindiya, 2 (May 5/1958); without label, 5.

Supralabials 9-11, the first 4, 5, or 6 high. The first 3, 4, 5, or 6 infralabials deep. Five scales between the eyes, sometimes 6. Mental groove distinct. Vestiges of hind legs represented by a small pointed tubercle on each side of vent.

COLUBRIDAE

Malpolon monspessulana (Hermann), 1 specimen:

Baghdad, 1 (March 28/1954).

Supralabials 8, the fourth and fifth entering the eye. Preocular semidivided. Postoculars 2. Anterior chin shields shorter than the posterior. Chin spotted.

Natrix tessellata tessellata (Laurenti), 117 specimens:

Baghdad, 107 (88, flood of March 28/1954; 19 in every month except Jan. and the Summer months); Hindiya, 1 (Feb. 21/1958); Rawa, 1 (July 6/1958); Sheikhan region, 1 (Summer 1958); without label, 7.

Invariably, anal divided, nasal semidivided, belly blotched. Loreal often about as long as deep, sometimes a little longer or a little deeper. The state of the preoculars varies greatly as follows: most often two preoculars with one pre-subocular, in two cases only these looked like three preoculars; rarely the subocular is not completely delaminated

from the lower preocular, or looks as a lobe in the lower part of the lower preocular; less often there is no pre-subocular, and the snake then possesses only two preoculars; in few cases there were three preoculars with one pre-subocular; in still fewer specimens a case of two preoculars and two pre-suboculars is met with. The postoculars vary considerably: they are most often either three in addition to one post-subocular or two with two post-suboculars; less often there are three, and two post-suboculars; there were three postoculars only in five cases, two postoculars and one post-subocular in three cases, four postoculars and two post-suboculars in one case, and four postoculars with one post-subocular in one case also. The number of oculars and suboculars is not necessarily the same on the two sides of the body. Almost always, there were 8 supralabials, with the fourth only entering the eye; in rare cases the fifth also; and in one case the third and fourth; in three cases there were 9 supralabials, in one of them the fourth and fifth enter the eye, and in the other two the fifth only; in one case, the suture between the last two supralabials was very partial, and the snake therefore, appeared to possess seven supralabials; the condition of the supralabials is not necessarily the same on both sides.

Coluber najadum (Eichwald), 2 specimens:

Baghdad, 1 (April 30/1957); Hindiya, 1 (Feb. 1/1958).

Both possessed one preocular and one subocular, two postoculars, eight supralabials with the fourth and fifth entering the orbit, and divided anal. In the Baghdad specimen, however, the loreal was nearly as long as deep, the preocular hardly touching the frontal, and the markings on the neck distinct. In the Hindiya specimen the loreal was longer than deep, the preocular in contact with the frontal, but it was badly preserved and no markings could be seen.

Coluber jugularis asianus (Boettger), 2 specimens:

Baghdad, 1 (April 9/1954); Sukreen, 1 (Aug./1953).

In both, the loreal was longer than deep, the postoculars two, the single preocular with one subocular, the supralabials eight, the fourth and fifth enter the eye, the anal divided, and the belly blotched. In the Sukreen specimen, there was an additional small scale between the loreal and the pre-subocular.

Coluber ventromaculatus Gray, 30 specimens:

Baghdad, 16 (Oct. — Jan. and March — June; 5, flood of March 28/1954); Naseriya, 1 (July 14/1953); Diwaniya, 1 (July/1957); Rawa, 1 (Sept. 24/1958); Ana, 1 (Aug. 17/1958); without label 10.

Invariably the anal was divided and the posterior chin shields completely separated by scales medially. All possessed the particular color of the species with the exception of five cases where the light interspaces, at least anteriorly, were narrower than the vertebral blotches or bars. Always there were one preocular with one pre-subocular, the former sometimes scarcely touching the frontal. Postoculars always two. The loreal about as long as deep or very little longer or deeper. In the loreal region, in three specimens, there was an additional small scale between the pre-subocular and the loreal on one side only. Almost always there were nine supralabials with the fifth and sixth entering the eye. In four cases, one of the anterior supralabials was missing and the snake therefore, possessed eight supralabials with the fourth and fifth entering the eye. In one case only there was an additional anterior supralabial and the snake possessed ten supralabials with the sixth and seventh entering the eye.

Coluber ravergieri Menetries, 2 specimens:

Mosul, 1 (Aug. 24/1953); Shaklawa, 1 (Aug. 5/1953).

In both, the loreal was as long as deep; the preoculars two, the upper one in contact with the frontal, with one pre-subocular; the postoculars two; the supralabials ten with the fifth and sixth entering the eye, the eighth very small, in Shaklawa specimen this small eighth labial was missing on one side and the snake possessed on this side therefore nine supralabials but still the fifth and sixth entering the orbit; an additional small scale was present over the fourth supralabial between the loreal and the pre-subocular; the infralabials ten; the anal divided; the keels of the scales become distinguishable at a distance behind the neck.

Spalerosophis cliffordi (Schlegel), 11 specimens:

Baghdad, 3 (March and May/1954); Haditha, 1 (Oct. 23/1958); Rawa, 1 (Sept. 2/1958); without label, 6.

Preoculars 2; in one specimen, the two preoculars were united on one side. Postoculars 2 or 3. Suboculars 3 or 4. Supralabials 11 or 12; sometimes the ninth, tenth, or eleventh not quite entering the labial border; in one case only, there were 10 supralabials. Infralabials 11 or 12; in one case only, there were 13. Loreals two, one behind the other, sometimes the anterior one very much smaller than the posterior; in one specimen, there was only one loreal on one side. Anal entire; in one case, it looked as if it was partly divided at base. The faint keels become distinguishable further back, especially near the tail.

Lytorhynchus diadema (Dumeril and Bibron), 2 specimens, no label.

Pupil round. Loreal about as long as deep. One pre- and one subocular. Two postoculars. Eight supralabials, the fifth enter the orbit. Nine or ten infralabials. Anterior and posterior chin shields subequal.

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الخلاصة

ملاحظات عن مجموعة من العظايا والحيات جمعت من العراق

للدكتور كامل خلف

الاستاذ المساعد في كلية التربية – بغداد

يتناول هذا المقال مجموعة من العظايا يبلغ عددها ١٥٩ تنتمي الى ١٩ نوعا ، ومجموعة أخرى من الحيات يبلغ عددها ١٨٢ تنتمي الى ١١ نوعا – وجميعها جمعت بين سنتي ١٩٥٣ – ١٩٥٩ من قبل المؤلف وطلابه من منطقة بغداد وبعض المناطق الاخرى في العراق ، وهي محفوظة في متحف قسم الاحياء بكلية التربية . وقد تناول البحث مجموعة أخرى من النماذج كانت موجودة في الكلية قبل ذلك التاريخ .

وفي كثير من الاحوال وصفت الانواع وصفا علميا دقيقا ، كما ذكرت المناطق التي جمع منها النوع وتاريخ الجمع .

Iraq Natural History Museum
Publication No. 18, Feb. 1960

THE FAMILY CUSCUTACEAE IN IRAQ

EMIL HADAC
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The family Cuscutaceae is relatively rich in species in Iraq. Most of them have been described and indicated from this territory already by Boissier in his classical work Flora Orientalis, and several authors have afterwards contributed to our knowledge of their distribution in this region. Difficulty in accurate delimitation of some species, especially from the group of the subgenus *Eucuscuta*, caused in recent time some trouble to several authors, since there is no accessible key to the Iraqi Cuscutas. For this reason I have tried to revise all the material of Cuscutaceae in the Herbarium of the Dept. of Botany, College of Science in Baghdad, and of the Herbarium of the College of Agriculture in Abu Ghuraib; I have got a very interesting material also from Prof. Dr. R. Wheeler Haines, Baghdad. The results of this revision are given here.

It is not necessary to emphasize that this paper is not a definite monograph of Cuscutaceae of Iraq; I have had no opportunity to check the types of the species in question, or to work on the herbaria of other countries, containing Iraqi material, but I hope that this little contribution will give some help to the students of the Iraqi Flora.

Most Iraqi Cuscutaceae resemble each other by their habit, one species excepted, the "*Cuscuta Lehmanniana*" or "*C. monogyna*" of most authors. This species, by its robust appearance and by the difference in the flower structure (having one style only etc.) as well as by its parasitising mainly on trees and shrubs, stands apart from all other plants of this group. I, therefore, agree with Des Moulins in his treatment of the monogynous Cuscutaceae as a separate genus *Monogynella*. Thus, the Family Cuscutaceae has in Iraq two Genera: *Monogynella* and *Cuscuta*.

The key to them is very simple:

Style but one. Parasitic on trees and shrubs ..... *Monogynella*

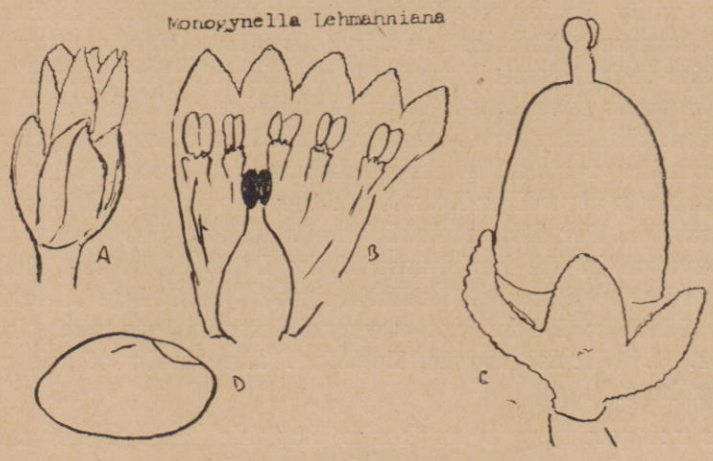
Styles two or two separate sessile stigmas.
In herbs, seldom in shrubs ..... *Cuscuta*

Monogynella (ENGELM. pro subgen.) DES MOULINS, Etudes org. Cusc. 1853, 65. Style one, with 2 capitate stigmas. Corolla remaining on the capsule. Capsule opening by a lid.

Monogynella Lehmanniana (BUNGE. Pl. Lehm.) m., comb. navo.

Flowers violaceous, 5 — 5,5 mm long. Corolla tube twice as long as the calyx.

Parasitic on *Populus euphratica*, *Quercus infectoria*, *Rhus coriaria*, *Malus* sp., *Prunus persica*, *Rubus sanctus* etc. Flowering from July to September.



(Fig. 1) Monogynella Lehmanniana

(A) flower, (B) pistil and corolla with authers, (C) fruit, (D) seed.

DISTRIBUTION :

Abu Ghuraib (Rustam), on *Populus euphratica*, 24 Sept. 1932, leg. Guest (cf. Blakelock 1949).

Baghdad, on a peach tree, July 1920 (leg. S.R.V. Mudaliar).

Zawita, on *Quercus* sp., ca 1330 m, 30/7/1933 (leg. Guest) (cf. Blakelock 1949).

Dohuk, 1300 m, on *Malus* sp., 20/9/1956 (leg. Al Hilaly).

Sarsank, ca 1170 m, on *Quercus infectoria*, 9 Aug. 1959 (R.W. Haines).

Bole village, SW Rust, 1400 m, 5/9/1957 (leg. Rawi et Serhang).

Pushtashan, 15 km NE of Ranya, lowerslope of Qandil range, 1150 m, on *Rhus coriaria*, 29/7/1957, and on *Quercus* sp., 1050 m (Ali Al-Rawi).

Shirwan Mazin, on *Rubus sanctus*, 7/8/1947 (leg. Gillet).

near Haruna, 700 m, on *Quercus* sp., 8/8/1947 (Gillet).

M. ZOHARY (The Flora of Iraq and its Phytogeographical Subdivisions, Baghdad. 1950) does not mention this species as present in the Flora of Iraq. May be his concept of *Cuscuta monogyna* is covering

also this species, as by Handel-Mazetti or Nábelek. It may be therefore not unnecessary to point out the differences between these two species:

Monogynella monogyna (VAHL) m. has smaller flowers (4-5 mm) and the corolla tube is as long as the calyx, not twice as long as in *M. Lehmanniana*.

I have seen no specimen of this species from Iraq. It would be therefore better to exclude *M. monogyna* from the Flora lists of this region.

M. monogyna has been indicated from Iraq by Handel-Mazetti (1913) (Mosul, on *Populus euphratica*), by Nábelek (1926) (in the valley of Zab near Kochane in the district of Julamerik, on *Rosa* and *Prunus monticola*, 2000 m, 6/9/1910), by Zohary (1950) etc. These localities may be probably added to those of *M. Lehmanniana*.

Cuscuta (TOURN.) L., Sp. Pl. 1753, emend.

Styles two or two separate sessile stigmas. Stem filiform, slender. Parasitic on herbs, seldom on shrubs.

Key to Iraqi species:

1. Stigmas sessile 2

1x. Distinct styles present 3

2. Flowers sessile or nearly so. Corolla mamillose, stem, anthers stigmas yellow ..... *C. Kotschyana* BOISS.

2x. Flowers pedicellate, pedicels as long as calyx or longer. Corolla not mamillose. Stigmas whitish ..... *C. arabica* FRESEN.

3. Stigmas globose. Capsule opening irregularly. Flowers pedicellate, pedicels as long as the calyx. Anthers orange yellow, stigma ochraceous ..... *C. chinensis* LAM.

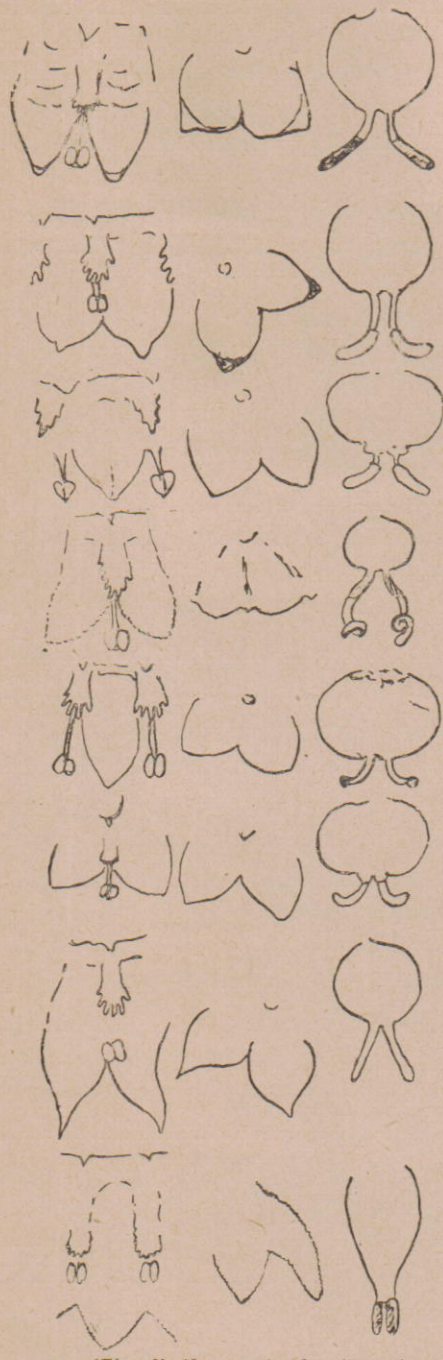
3x. Stigmas thread like, elongated. Capsule opening with a lid 4

4. Flowers pedicellate, pedicels as long as calyx or longer. Calyx shorter than corolla, only to 1/6 of its length lobate, corolla mamillose ..... *C. babylonica* AUCH.

4x. Flowers sessile or nearly so 5

5. Anthers cordate acuminate, purplish. Flowers shortly pedicellate; pedicels shorter than calyx, winged. Stigmas usually longer than styles, orchraceous or reddish; corolla purplish ..... *C. kurdica* ENGELM.

5x. Anthers ovate or elliptic, ochraceous or reddish. Flowers sessile. Corolla ochraceous or whitish 6



(Fig. 2) Key to the Iraqi species of **Monogynella** and **Cuscuta.**

6. Corolla about 1,5 mm long, about as long as the calyx. Filaments usually shorter than anthers. Stigma whitish .... *C. palaestina* BOISS.

6x. Corolla about 2,0 — 2,5 mm long. Filaments longer than anthers. Stigma red ..... *C. planiflora* TEN.

Cuscuta Kotschyana BOISS., Diagn. Ser. I.7 (1846-29)

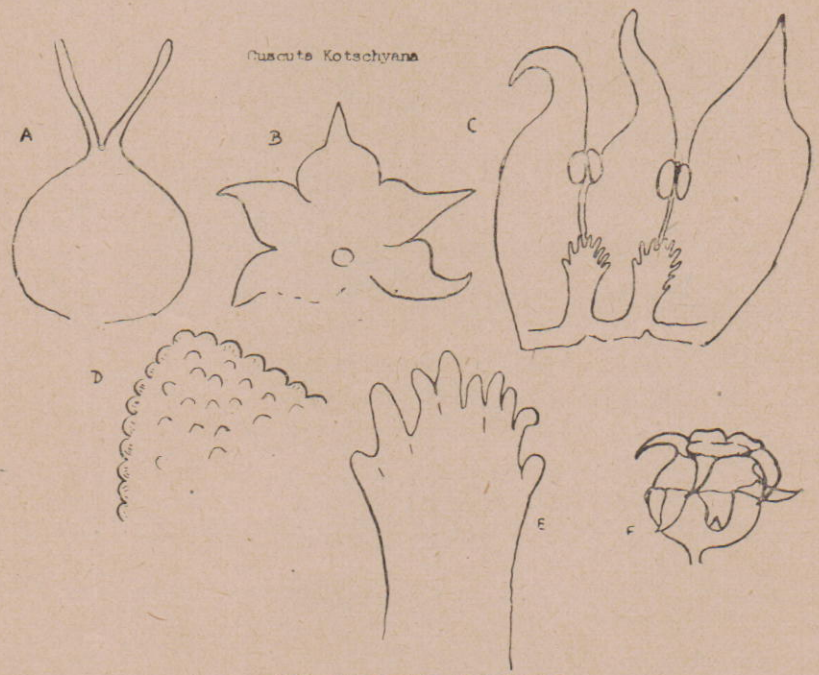
Stem filiform, clear yellow. Flowers sessile or nearly so, pentamerous. Calyx about as long as the globular corolla tube. Corolla lobes triangular, acute, somewhat longer than the tube, coarsely mamillose. Scales spatulate, deeply fimbriate. Stigmas cylindrical, sessile, about half as long as the ovary, yellow. Anthers yellow, shorter than filaments.

Flowering from March (in lowlands) to July (in mountains). Rare. Northern Iraq.

DISTRIBUTION:

Qandil Mts., rocky slopes above Goam-e-Kirmoseran lake, 3000 — 3200 m, on *Pyrethrum* sp. 31/7/1957 (leg. Rechinger).

Jabal Darwishka near Khanaqin, ca 200 m, on *Phlomis*, 22/3/1955 (leg. Guest).



(Fig. 3) Cuscuta Kotschyana.
(A) pistil, (B) calyx, (C) corolla with stamens and scales, (D) part of the corolla enlarged, (E) scale, (F) flower.

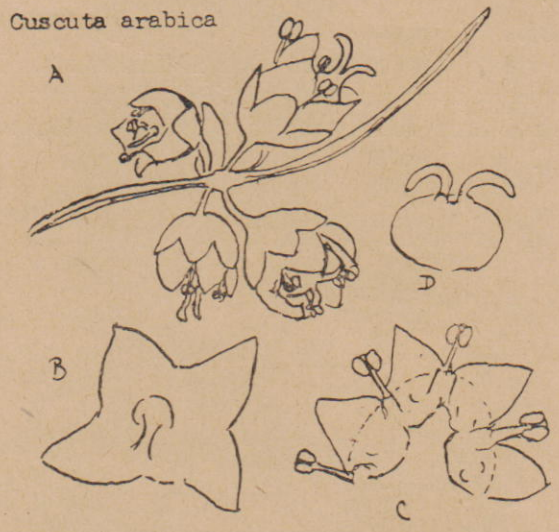
Between Byiara and Avraman, on grasses and composits, 1400 m, 7/6/1948 (l. Gillet).

Mt. Avroman, on *Phlomis* and *Marrubium* (according to Boiss., Fl. Orient.).

Cuscuta arabica FRESEN. (1834).
(*C. nedicellata* LEDEB., teste Täckholm).

Stem richly branched, ochraceous. Inflorescences few-flowered. Flowers pedicellate, pedicels as long as, or longer than calyx. Calyx lobed to the middle, calyx lobes ovate, somewhat fleshy. Corolla subglobose, nearly twice as long as calyx, its lobes ovate acute, not papillose. Scales small, dentate. Anthers ochraceous. Stigmas sessile, shorter than ovary, whitish.

Flowering in April and May. Rare. In the south only.



(Fig. 4) Cuscuta arabica.
(A) inflorescence, (B) calyx, (C) corolla with stamens, (D) pistil.

DISTRIBUTION:

Southern desert (according to Zohary 1950).

Southern desert, 42 km SE of Salman, 180 m, 14/4/1955, on *Zilla spinosa* (l. Ali Al-Rawi).

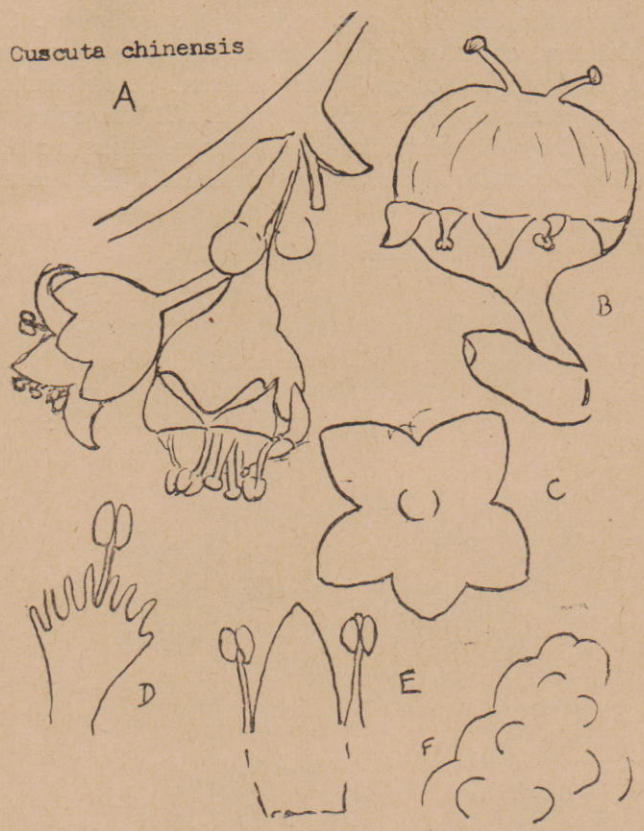
Basra, near airport, 21/5/1957, on *Chenopodium* sp., *Spergularia*, *Malva* etc. (R.W. Haines).

Cuscuta chinensis LAM.

(*C. ciliaris* Hohenacker in KOTSCHY, Pl. Assyr. exs., BOISS. Diagn. 11.3.1856).

Stem thin, ochraceous, branched. Flowers pedicellate, pedicels about as long as calyx. Calyx lobed to the middle, with triangular-ovate lobes.

Corolla twice as long as the calyx, lobed to one third or more, lobes oblong obtuse; scales deeply fimbriate. Anthers orange. Styles somewhat shorter than ovary. Stigmas globose, ochraceous. Capsule irregularly opening. Flowering in Nov. and Dec. Rare.



(Fig. 5) Cuscuta chinensis.

(A) inflorescence, (B) fruit, (C) calyx, (D) scale and stamens, (E) corolla lobe and stamens, (F) corolla lobe enlarged.

DISTRIBUTION :

At Mosul, on *Alhagi* (Kotschy sec. Boissier 1856).

Baghdad : Waziriya, at the College of Education, on *Petunia* sp. (leg. Lawand 1958, ibid. on *Alhagi* (leg. Hadac 23/11/1959).

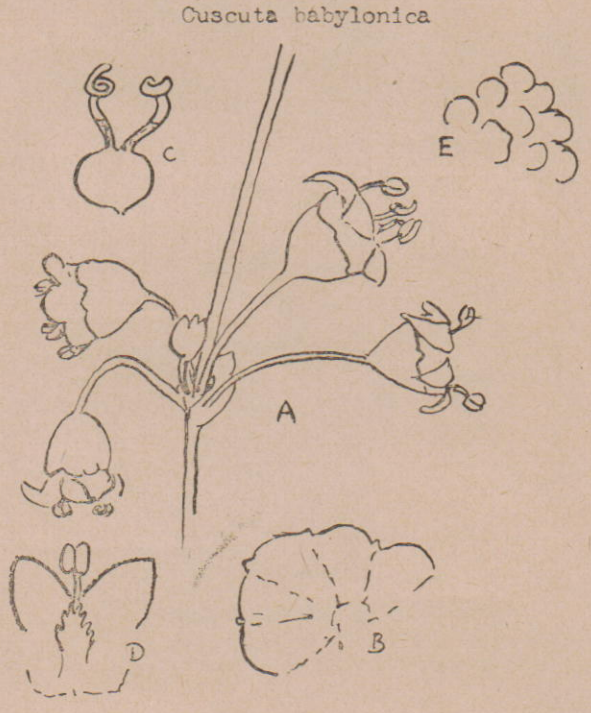
On the left bank of Tigris near the New Parliament House, on *Alhagi* and *Glinus lotoides* (leg. Hadac 11/12/1959).

Huriah near Baghdad, on *Alhagi* and *Prosopis* (R.W. Haines 16/12/56). Hawayah farm, on *Ammi visnaga* (Rawi 5/6/1955).

Cuscuta babylonica AUCH. ms., CHOISY, Mém. soc. phys. Gen. IX. 270.

(inclus. *C. viticis* HANDEL-MAZETTI 1913).

Stem ochraceous, dry brown. Flowers pedicellate, pedicels as long as, or longer than calyx. Flowers in few-flowered inflorescences (4)-5 merous. Calyx shorter than corolla, to 1/6 only lobate. Corolla tube inflated, globular, about as long as lobes. Lobes ovate obtuse, coarsely mamillose. Flowers white, ca 3 mm in diam. Scales dentate. Anthers young yellow green, ripe ochraceous. Styles filiform, ochraceous or yellow brown, as long as, or shorter than stigmas. Stigmas red. Flowering from April to December. Not rare, on shrubs (in most cases on *Vitex*) and herbs.



(Fig.6) Cuscuta babylonica.

(A) inflorescence, (B) calyx, (C) pistil, (D) part of corolla with stamens and scale, (E) part of corolla enlarged.

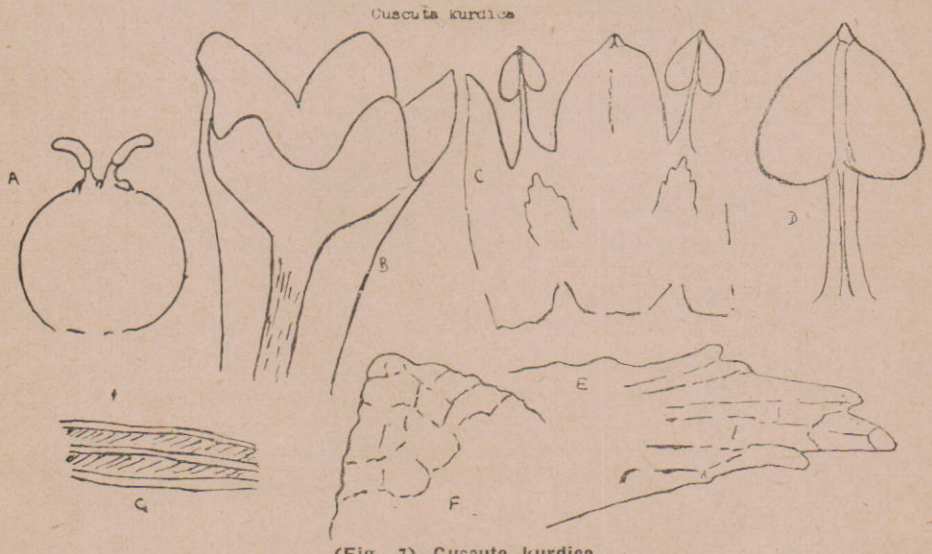
DISTRIBUTION:

Baghdad (Aucher sec., Boissier, Fl. Or.).

Hurriya, near Tigris, on *Prosopis* (R.W. Haines 16/12/1956).

Old bed of Tigris on road from Mahmudiya to Suwaira, on annuals (Zahra Challabi, 30/4/1958).

Karadat, on *Prosopis Stephaniana* (H.P. Parasian 23/6/1920).
pass 8 km S of Zakho, on *Vitex agnus castus* (Rechinger 2/7/1957).
between Zakho and Sharanish (Rechinger 4/7/1958).
10 km N of Zakho, 400 m, on *Vitex* (Rawi 4/7/1959).
Dohuk, 800 m, on *Cytisus* sp.? (Rawi 13/5/1947).
85 km NW from Mosul, 700 m, on *Vitex* (Rawi 3/7/1957).
between Zakho and Amadia, 650 m, on *Hedysarum varium* (Nábelek 23/6/1910, cf. Náb. 1926).
in the valley of Rusor near Dohuk, 500 m, on *Vitex pseudonegundo* Náb. 1926).
Sulaimanya, on herbs (R.W. Haines and Agnew, 20/6/1959).
between Erbil and Rowanduz (Bornmueller, sec. Boissier, Fl. Or.).
Rowanduz (Handel-Mazetti 1913).
Gali Ali Beg, 780 m, on *Vitex agnuscastus* (Guest 24/7/1932, cf. Blakelock 1949).
Zab near Aski Kallak, 300 m, on *Vitex* (Gillet 11/5/1947).
Shaik wa Shaikhan valley, 1100 m, on *Vitex* (Rawi 5/9/1954).
at Tigris near Kut on *Acacia* sp. (Noe sec. Boiss. Fl. Or.).
foot of Avraman, on *Vitex agnus castus* (Haussk n. sec. Boiss. Fl. Or.).
on the Hill Gara (Kotschy sec. Boiss. Fl. Or.).



(Fig. 7) Cuscuta kurdica.

(A) pistil, (B) calyx and winged pedicel, (C) part of corolla with stamens, (D) stamen, (E) scale, (F) corolla lobe enlarged, (G) winged stem.

Cuscuta kurdica ENGELM. (1859).

Stem purple, sometimes winged. Flowers nearly sessile, pedicels shorter than calyx, winged. Flowers 4-5 merous in small heads. Calyx purple, cleft to the middle or deeper, calyx lobes oblong, sometimes longer than corolla tube. Corolla white and purple, transparent, its lobes ovate-lanceolate about as long as tubus. Scales lanceolate, dentate, small. Styles shorter than capsule, stigmas longer than styles, ochraceous or purplish. Anthers cordate acuminate, purple. Flowers in July and August. In the mountains of the North, rare.

DISTRIBUTION:

Chia-i-Mandali (nr. Walza), 2100 m, on *Eryngium billardieri* ssp. *nigromontanum* and *Campanula syspirensis* (leg. Guest 18/7/1932), on *Galium kurdicum* (Guest 19/7/1932, cf. Blakelock 1949).

Arl Gird Dagh, 2700 m, on *Cousinia* sp. (Guest 24/7/1932, cf. Blakelock 1949).

on the hill Gara, on *Daphne* sp. (Kotschy sec. Boisseier, Fl. Or.).

Warshanka: Magar range, 2200 — 2500 m, on *Eryngium* sp. (Rawi and Serhang 25/8/1957).

Halqurid (B.R. Haley 15/8/1956), ibid. 1500 m, on *Thymus* (Rawi).

Bardanas, Qandil range, 2500 m, on *Eryngium* (Rawi 29/8/1957).

Mergan n. Bardanas, 2500 — 2600 m, on *Cirsium* sp. (Rawi and Serhang 25/8/1957).

Cuscuta palaestina BOISS., Diagn. Pl. Orient. Ser. 1.XI. (1849).

Stem yellow, capillar, intricate. Flowers 4-5merous, sessile, very

(Fig. 8) Cuscuta palaestina.

(A) pistil, (B) calyx, (C) corolla with stamens and scales, (D) scale, (E) stamen.

small, ca 1,5 mm long, in small heads (about 3 mm in diam.). Calyx lobed to the middle, as long as the corolla tube, its lobes obtuse, cucullate. Corolla small, lobes as long as the tube. Anthers ovate, ochraceous or whitish, longer than their filaments, Styles as long as the ovary, stigmas whitish, somewhat shorter than styles. Scales sinuate-laciniate. Flowering in May and June. Rare.

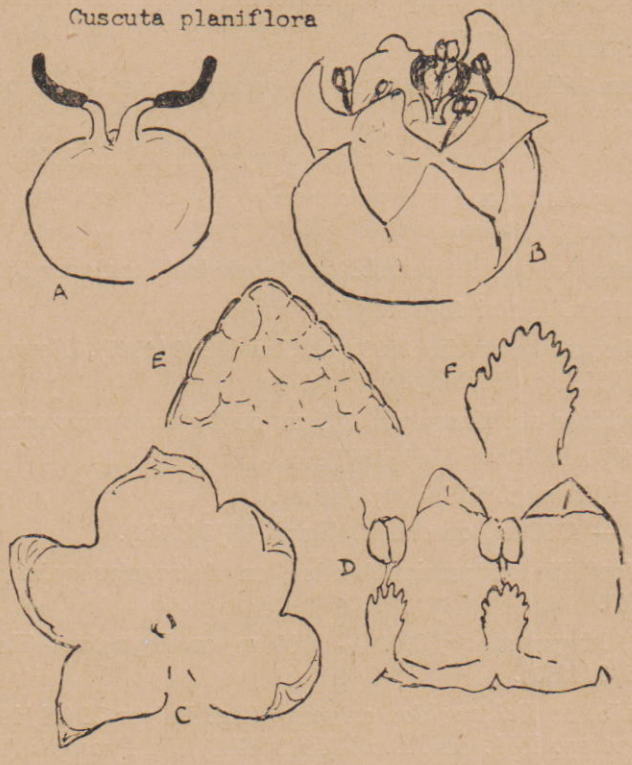
DISTRIBUTION:

Abu Ghuraib, experimental farm, on *Tragopogon*, *Gundelia* and *Ammi*. (BAG. 24/5/1950).

Jabal al Muweila, E. of Jabal Hamrin, 70 m, on *Helianthemum Lippii* (Guest, Rawi, Rechinger 28/3/1957).

Cuscuta planiflora TEN. Fl. Nap. (1831).
(inclus. *C. brevistyla* A.BR. et *C. approximata* BAB.).

Stem branched, reddish. Flowers sessile, about 2-2,5 mm long. Calyx as long as, or longer than corolla tube, lobed to the middle or



(Fig. 9) Cuscuta planiflora.
(A) pistil, (B) flower, (C) calyx, (D) part of corolla with stamens and scale, (E) corolla lobe enlarged, (F) scale.

more in ovate, mostly cucullate lobes. Corolla transparent, with ovate, often cucullate lobes. Anthers ochraceous or reddish, scales sinuate-dentate. Styles shorter than capsule, stigmas filiform, red. Flowering from February to November. Common.

A very variable species. I am not able to see any specific difference between *C. planiflora* and *C. brevistyla;* thus, I agree fully with D. Hooker, who in his Flora of British India (1855) says: "*C. brevistyla* is not merely "to near" *C. planiflora*, as both Engelmann and Boissier suggest, it is the same thing".

Blakelock (1949) determined a Cuscuta from Arl Gird Dagh (BAG. n. 2865) as *C. approximata* BAB., but I cannot see any specific difference between this plant and *C. planiflora;* its flowers are for example, only 2,5 mm long and not about 4 mm, as in *C. approximata*.

In the whole material of BAG. and BUH. I have found no sheet, which could be referred to this species. I think it safer to exclude both *C. brevistyla* and *C. approximata* from the Flora list of Iraq.

DISTRIBUTION:

Kani Dolman hills, Kirkuk, 390 m, on *Onobrychis* aff. *squarrosa* (Blakelock 1949).

Zawita, 1230 m, on *Teucrium chamaedrys* (Blakelock 1949).

Arl Gird Dagh, 1800 m, on *Equisetum* sp. (leg. Guest 4/8/1947, Blakelock 1949 as *C. approximata*).

Jabal Khantar, above Sharanish, on *Asperula* (Rechinger 5/7/1957).

Tawela, 1190 m (Rawi 18/8/1957).

Helgurd, Goum Tawerah, 2800 m (Rawi 1/9/1957), Nowanda valley 2000 — 2600 m (Rechinger).

Jabal Darwishka nr. Khanaqin, 200 m, on *Linum mucronatum* (Guest).

Khormel, 1000 m (Rawi 21/4/1947).

Eski Kallek (Rawi et Gillet 23/3/1948).

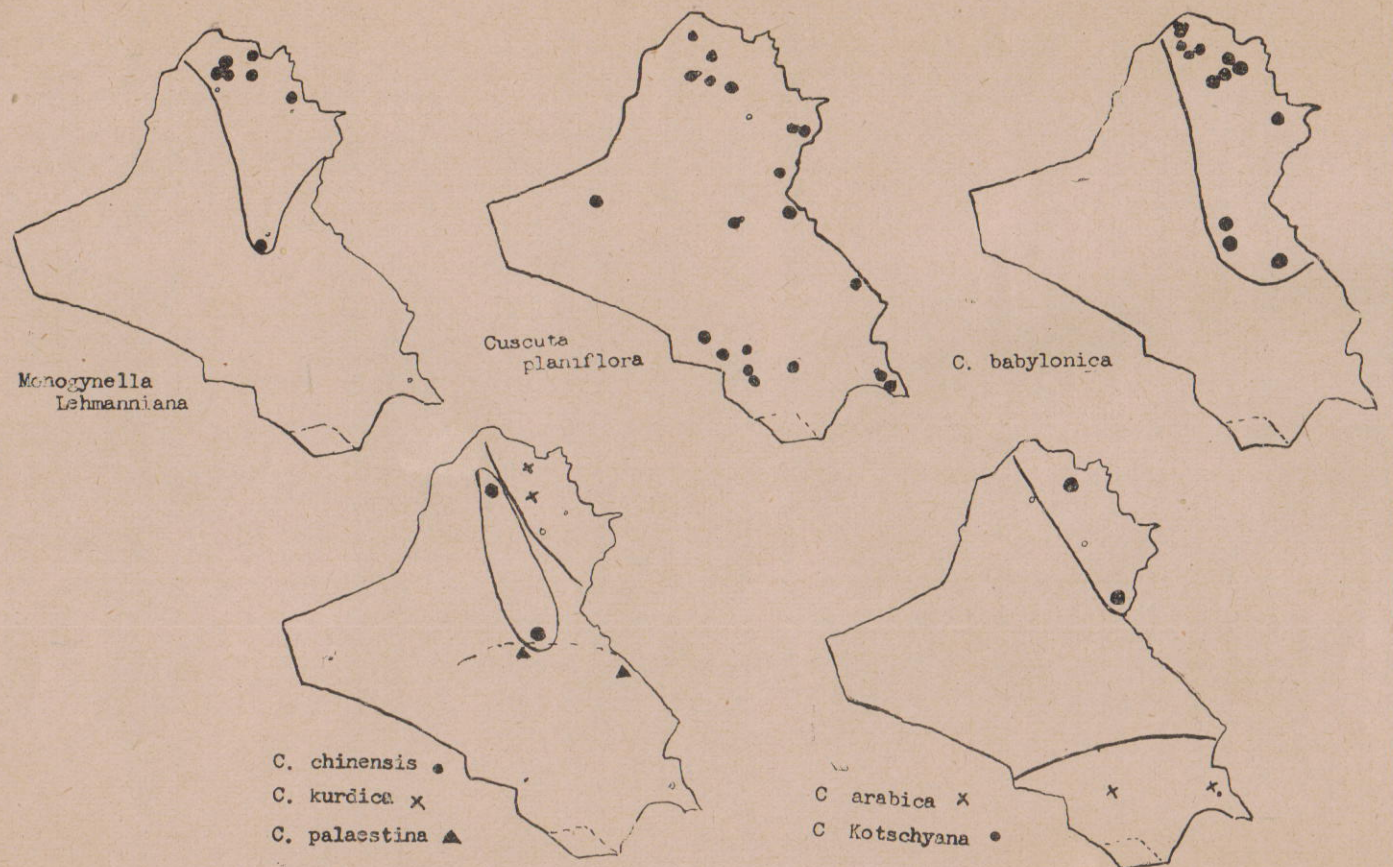
Aqra, 1100 — 1300 m, on crucif. (Rawi 30/5/1948).

Mandali, foothills on persian border, on *Astragalus spinosus* (Haines 1/2/1956).

Warhanka, Magar range, 2200 — 2500 m, on *Eryngium* (Rawi et Serhang 25/8/1957).

Abu Ghuraib, on *Echinochloa colonum* (leg. Baiyar 20/11/1950) and on *Trifolium* sp. ibid. on *Ammi* (15/5/1950), on *Prosopis* (20/11/1950) etc.

near Wadi Tib police station (Rechinger 28/3/1957).



(Fig. 10) Distribution of **Monogynella** and **Cuscuta** in Iraq

Baski Hawran Mts., 1500 — 1820 m on *Eryngium* (Rawi and Serhang 25/8/1957).

hang 25/8/1957).

Southern desert: 12 km NW of Ansab, 143 km S of Salman near Saudi Border (Guest, Rawi, Rechinger 24/4/1957) on *Artemisia herba alba* and *Teucrium oliverianum*.

30 km NE from Buskaiya, 150 m, on *Lycium barbarum* (Rawi),

30 km NW from Shabicha on *Artemisia herba alba* and *Erucaria* (Rawi 13/4/1955).

5 km SE from Zubair, on *Convolvulus oxyphyllus* (Rechinger 23/3/1957). Also on *Astrag. spinosus* at foot of Jabal Sanam (Rechinger 18/3/1957).

between Um Qassr and Safwan, on Kuwait border, on *Rhantherium epapposum* (Rechinger).

25 km SE As Salman, 180 m (Rawi 18/3/1955).

50 km N of As Salman, 180 m (Rawi 14/3/1955).

10 km E of Salman, on *Astragalus spinosus*, *Helianthemum lippii*, *Salvia*, *Artemisia scoparia* (Guest, Rawi, Rechinger 22/4/1957).

Al Ka'rah-Hutba, ca 300 m (Rawi 9/5/1954).

Jabal el Muwaila, foot of Jebel Hamrin, 100 m, on *Erucaria* (Rawi, Guest, Rechinger 28/3/1957) etc.

The revision of the material of Cuscutaceae in BAG. and BUH. has shown, that there are in the whole eight distinct species of this family, which have been found in Iraq: *Monogynella Lehmanniana*, *Cuscuta Kotschyana*, *arabica*, *chinensis*, *babylonica*, *kurdica*, *palaestina* and *planiflora*.

Several species, as: *Monogynella monogyna*, *Cuscuta epithymum*, *C. approximata* etc. should be excluded from the Flora list of Iraq.

I am very much indebted to Dr. A. Agnew for his kind help and suggestions.

(الخلاصة)

فصيلة الكسكوتا في العراق : للدكتور اسميل هادج (قسم النبات في كلية التربية وكلية العلوم) ، درس المؤلف هذه الفصيلة من النباتات الطفيلية في العراق ، معتمدا على المجموعات النباتية المتوفرة في ابي غريب وكلية العلوم وكلية التربية ، وقد وصف في هذا المقال نوعا واحدا من الجنس Monogynella وسبعة أنواع من الجنس Cuscuta وهو كل ما سجل من أنواع هذه الفصيلة في العراق .

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1954. Birds of Arabia. London: Oliver & Boyd.

Two Ringed Birds Recovered in Iraq

Thanks to the growing understanding of our sportsmen, The Iraq Natural History Museum received two more ringed birds (see: *Iraq. Nat. Hist. Mus. Publ.* No. 14, p. 20) shot near Baghdad. The ringing station for both birds was again in Moscow.

Species	Date of Capture	Moscow's No.
Night-Heron (*N. nycticorax*)	5 April 1959	57137
Starling (*Sturnus vulgaris*)	22 Feb. 1960	F 559117

فقط بل هي ايضا لعدد من أفراد القوات البريطانية الهواة الذين عملوا خلال الحرب العالمية الثانية وسجلوا ملاحظات عن الطيور بين سنتي ١٩٤١-١٩٤٥ ٠

(١٩٥٧) **اللوس ، بشير** :- نشر ملاحظات عن مجموعة من الطيور اصطادها السيد ابراهيم رسام من منطقة الموصل خلال سنتي ١٩٥٥-١٩٥٦ وتتناول هذه الملاحظات ٩١ نوعا وقد نشرت في المجلد الثاني من مجلة كلية الآداب والعلوم ٠

(١٩٥٧) **ماكاتش** (Makatsch, W.) :- عالم الماني زار العراق في اوائل صيف عام ١٩٥٧ وسجل ملاحظات عن الطيور التي تفرخ في منطقة العمارة وقلعة صالح ٠ وقد نشرت خلاصة عن هذه الملاحظات في نشرة متحف التاريخ الطبيعي العراقي رقم (١٣) ٠

(١٩٥٧) **بوزويل و نايلر** (Boswell, C. & Naylor P.) :- سجلا اربعة طيور جديدة لم تكن معروفة من قبل في قائمة الطيور العراقية ٠ وقد نشرا ملاحظاتهما في نشرة متحف التاريخ الطبيعي العراقي رقم (١٣) ٠

(١٩٥٨) **نورس** (Norris, A.S.) :- من الهواة البريطانيين في معسكر الحبانية سابقا سجل ما رآه من الطيور في الحبانية بين ٢٤/١٠ - ٣٠/١١/٩٥٧ وقد نشرت ملاحظاته في نشرة متحف التاريخ الطبيعي رقم (١٤) ٠

(١٩٥٨) **جونسون** (Johnson, Lee R.) :- من الهواة الاميركيين ٠ تناولت ملاحظاته ٢٠٢ من أنواع الطيور سجلها بين ٢٣/١٢ - ٢٩/١٢/٥٣ و ١٣/١٠/٥٦ - ٢٠/١١/٥٧ و ١/٣ - ١/٥/٥٨ ٠ وقد نشرت في نشرة متحف التاريخ الطبيعي العراقي رقم (١٦) ٠

(١٩٥٨) **سيج** (Sage, B.L.) :- من الهواة البريطانيين الذين عملوا في منطقة خانقين خلال سنة ١٩٥٨ وسجل ملاحظاته الحقلية عن الهجرة الخريفية لبعض الطيور في تلك المنطقة ٠ ونشرت في نشرة متحف التاريخ الطبيعي العراقي رقم (١٦) ٠

وبالاضافة الى المراجع السابقة الذكر نرشد القارىء المتتبع الى الكتب الآتي ذكرها لتناولها الطيور في البلدان القريبة من منطقتنا :

باللغة العربية

الطيور المصرية : تأليف عبدالله النجومي وحسين فرج زين‌الدين ومحمد عبدالمنعم المنيري ٠ القاهرة : دار الفكر العربي (١٩٤٧) ٠

باللغة التركية

(طيور تركيا) : للدكتورة سعادت ايركيني

ERGENE, S.

1945. Turkiye Kusleri (Avifauna of Turkey). Istanbul: Kenan Matbaasi.

(١٩١٩) **دونائد** (Donald, C.H.) :ـ من الهواة البريطانيين ايضا وسجل ملاحظات عن بعض الطيور الجارحة في العراق ونشرها في المجلة السابقة الذكر ٠

(١٩٢١ و ١٩٢٢) **تايسهرست ومعاونوه** (Ticehurst, C.B. & others) :ـ من مشاهير الاختصاصيين البريطانيين نشر اربعة مقالات طوال عن الطيور العراقية التي سجلت حتى ذلك الوقت ، وتعتبر من أهم المصادر عن طيور منطقتنا ٠ وقد نشرت في المجلد ٢٨ من مجلة جمعية التاريخ الطبيعي في بومبي ٠ كما جمعت مع غيرها من المقالات التي نشرت في المجلة نفسها عن حيوانات العراق ، وطبعت في كتاب واحد موسوم بعنوان (The Survey of Iraq Fauna) صدر في سنة ١٩٢٣ ـ وهو كتاب نادر في الوقت الحاضر ٠

(١٩٢٦) **تايسهرست** (ايضا) :ـ نشر ملاحظات اضافية عن طيور العراق في المجلد (٣٠) من نفس المجلة ٠

(١٩٥٣) **اللوس ، بشير** (Allouse, B.E.) :ـ قام المؤلف في السنة المشار اليها بنشر كتاب عن طيور العراق باللغة الانكليزية أسماه (The Avifauna of Iraq) ضمنه ملاحظاته الخاصة والملاحظات التي نشرها الهواة من قبل عن طيور العراق ٠ وقد أضاف هذا الكتاب انواعا لم تسجل من قبل في العراق ، كما قدم الانواع بحسب التسمية العلمية الصحيحة والتصنيف العلمي الحديث ٠ والكتاب هو من منشورات متحف التاريخ العراقي (رقم ٣) ٠

(١٩٥٥) **هاريسون** (Harrison, J.M.) :ـ من الهواة البريطانيين الذين عملوا في العراق بعد الحرب العالمية الثانية وقد سجل ضربا جديدا من كاسر البندق الاوروبي أسماه *Sitta europaea davidi* وجده في العراق ، ونشر ذلك في مجلة نادي علماء الطيور البريطانيين (Bull. Brit. Orn. Club) ٠

(١٩٥٦) **جابمان و ماكوش** (Chapman, E.A. & McGeoch, J.A.) :ـ من الهواة البريطانيين في معسكر الحبانية سابقا ، نشرا ملاحظاتهما عن الطيور في الحبانية والشعيبة والعمادية وذلك في مجلة (IBIS) ٠ وقد أضافا ٦ أنواع جديدة الى قائمة الطيور العراقية فضلا عن المعلومات القيمة عن بعض الانواع التي تفرخ في تلك المناطق وهجرة غيرها ٠

(١٩٥٦ و ١٩٥٧) **مور و بوزويل** (Moore, H.J. and Boswell, C.) :ـ من الهواة البريطانيين وكان الاول من ضباط الجيش البريطاني في الحرب العالمية الثانية ، والثاني استاذا في كلية الطب العراقية حتى سنة ١٩٥٩ ، وقد نشرا ملاحظاتهما الحقلية المهمة عن طيور العراق في ٣ أقسام هي من منشورات متحف التاريخ الطبيعي العراقي (رقم ٩ و ١٠) لسنة ١٩٥٦ ورقم (١٢) لسنة ١٩٥٧ ٠ وهذه الملاحظات لا تعود للمؤلفين

(١٩١٢ و ١٩١٣) **فايكولد** (Weigold, H.) :ـ من الاختصاصيين الالمان درس مجموعه من الطيور من جنوب تركيا وعند حدود العراق الشمالية والشمالية الغربية بلغ عددها ١٢٧ نوعا ، ونشر ملاحظاته في مجلة علم الطيور الالمانية · وتلقي هذه الدراسة ضوءا على الطيور التي توجد في المنطقة الشمالية

(١٩١٢) **ساسي** (Sassi, M.) :ـ من الاختصاصيين النمساويين الذين جمعوا نماذج من منطقة الموصل يبلغ عددها ٥٣ نوعا · ونشر ملاحظاته في مجلة متحف التاريخ الطبيعي في فيينا ·

(١٩١٤) **ماينرتزهاكن** (Meinertzhagen, R.) :ـ من مشاهير علماء الطيور البريطانيين في الوقت الحاضر ـ ولا سيما عن طيور الشرق الاوسط ـ وكان في ذلك الوقت برتبة رئيس في الجيش البريطاني · ونشر ملاحظات عن طيور العراق في مجلة (IBIS) .

(١٩١٥) **نيومان** (Neumann, O) :ـ من الاختصاصيين الالمان نشر ملاحظات عن الطيور في منطقة رأس العين وهي في الاراضي التركية ، وكانت تعتبر آنئذ شمال ما بين النهرين · ولهذه الملاحظات التي نشرها في مجلة علم الطيور الالمانية اهمية بالنسبة لطيور المنطقة الشمالية ·

(١٩١٦) **كينيار** (Kinnear, N.B.) :ـ اختصاصي بريطاني نشر ملاحظات عن حيوانات العراق (اللبائن والطيور والزواحف) ذكر فيها ٢١٨ نوعا من الطيور · وقد نشرتها له جمعية التاريخ الطبيعي في بومبي ·

(١٩١٦) **تواملنسون** (Tomlinson, A.G.) :ـ من الهواة البريطانيين في العراق أثناء الحرب العالمية الاولى · نشر ملاحظاته عن طيور منطقة البصرة ونهر الكارون (١٠٢ من الانواع) في المجلة السابقة الذكر ·

(١٩١٨) **كمنك** (Cumming, W.D.) :ـ نشر ملاحظات عن التاريخ الطبيعي لمنطقة الفاو في المجلة السابقة الذكر ·

(١٩١٨) **ليفسي** (Livesay, E.R.) :ـ من الهواة البريطانيين في العراق أثناء الحرب العالمية الاولى · وسجل ملاحظات عن ١٢ نوعا من الطيور تفرخ في منطقة الفرات الجنوبية ونشرها في مجلة (Field) .

(١٩١٨) **ثورنهل** (Thornhill, C.M.) :ـ من الهواة البريطانيين ايضا وسجل بعض الملاحظات عن طيور الصيد في العراق في مجلة جمعية التاريخ الطبيعي في بومبي ·

(١٩١٩) **ماكراث** (Magrath, H.A.F.) :ـ من الهواة البريطانيين ايضا وسجل ملاحظات عن القطا في العراق في المجلة السابقة الذكر ·

(١٩١٩) **بروكنك** (Brooking, H.T.) :ـ من الهواة البريطانيين ايضا نشر قائمة عن الطيور التي لاحظها في وادي نهر الفرات ، في المجلة السابقة الذكر ·

اهم الابحاث التي نشرت عن طيـور العـراق

ان معلوماتنا الحاضرة عن طيور العراق مستقاة من الابحاث التي نشرها نفر من الاختصاصيين في المجلات والكتب العلمية · وقد رأينا من الفائدة أن نسجل ، بحسب التسلسل التاريخي للنشر ، اسماء أهم الاشخاص الذين سجلوا ملاحظاتهم عن طيور العراق ونبذة قصيرة عن محتويات أبحاثهم والمجلات التى نشرت فيها تلك الابحاث أو الملاحظات ·

(١٨٨٢) **ترستـرام** (Tristram, H.B.) :ـ وهو قس بريطـاني قضى شطرا من حياته في فلسطين وقام برحلة في سوريا والعراق وجنوب ارمينيا في عام ١٨٨١ جامعا فيها نماذج من الطيور وملاحظات عنها ونشرها في مجلة اتحاد علماء الطيور البريطانيين المسماة (IBIS).

(١٨٨٦ و ١٨٩١) **شارپ** (Sharpe, R.B.) :ـ من كبار علماء الطيور البريطانيين نشر مقالين مهمين في المجلة نفسها عن مجموعتين من الطيور جمعهما المستر كمنك من منطقة الفاو · ويضم المقال الاول (١٨٨٦) ٩٩ نوعا ، والمقال الثاني (١٨٩١) ٩٥ نوعا مع ملاحظات اضافية عن مجموعة من البيض جمع من نفس المنطقة ·

(١٨٩٩) **كمنك** (Cumming, W.D.) :ـ أحد الهواة البريطانيين كان يعمل في منطقة الفاو (لصلحة المتحف البريطانى على ما يظهر) ويسجل ملاحظات عن الطيور ويقوم بجمع النماذج (راجع شارپ : ١٨٨٦ و١٨٩١) · ونشر في السـنة الموضوعة الذكر اول ملاحظـات عن تفريخ الخناق الرمادي (*Hypocolius ampelinus*) في العراق وذلك في مجلة جمعيـة التـاريخ الطبيعي في بومبي ·

(١٩٠٣ و ١٩٠٧) **ويثربي** (Witherby, H.E.) :ـ من الاختصاصيين البريطانيين قام برحلة لجمع الطيور في جنوب غربي ايران وتناولت ملاحظاته ١٦٣ نوعـا وقد نشرها فى مجلة اتحاد علماء الطيور البريطانيين (IBIS) في سنة ١٩٠٣ · ونشر في المجلة نفسها في عام ١٩٠٧ ملاحظات عن مجموعة مؤلفة من ١٦٨ نوعا جمعت في غربي ايران وارمينيا · ويلقي هذان المقالان ضوءا على الانواع التي توجد في الحدود الشرقية لمنطقتنا ·

(١٩١١) **زارودني** (Zarudny, N.) :ـ من الاختصـاصيين الروس الذين كتبـوا ملاحظـات ضافيـة عن طيور ايران ، وملاحظاته عن طيور منطقة نهر الكارون ذات قيمة بالنسبة لجنوب العراق · وابحاثه هذه منشورة في مجلة علم الطيور الالمانية (Journal für Ornithologie) .

Family MEROPIDAE	الفصيلة الوروارية
Genus *Merops* (3)	جنس الوروار (٣)
Family CORACIIDAE	الفصيلة الشقراقية
Genus *Coracias* (2)	جنس الشقراق (٢)
Family UPUPIDAE	الفصيلة الهدهدية
Genus *Upupa* (1)	جنس الهدهد (١)
Order PICIFORMES (4 spp.)	**رتبة نقارة الخشب (٤ أنواع)**
Family PICIDAE	فصيلة نقار الخشب
Genus *Picus* (1)	جنس نقار الخشب الاخضر (١)
Genus *Dendrocopus* (2)	جنس نقار الخشب المرقط (٢)
Genus *Jynx* (1)	جنس اللواء (١)

Order PSITTACIFORMES (1 sp.)	**رتبة الببغائيات (١ نوع)**
Family PSITTACIDAE	الفصيلة الببغائية
Genus *Psittacula* (1)	جنس الببغاء (١)
Order CUCULIFORMES (2 spp.)	**رتبة الكوكيات ـ أو الوقواقيات (٢ نوع)**
Family CUCULIDAE	الفصيلة الكوكية
Genus *Cuculus* (1)	جنس الكوكو (١)
Genus *Clamator* (1)	جنس الكوكو المرقط (١)
Order STRIGIFORMES (9 spp.)	**رتبة الابوام (٩ أنواع)**
Family STRIGIDAE	فصيلة البوم
Genus *Tyto* (1)	جنس البومة البيضاء (١)
Genus *Otus* (2)	جنس البومة الصغيرة الاذناء (٢)
Genus *Bubo* (1)	جنس البومة النسارية (١)
Genus *Athene* (1)	جنس البومة الصغيرة (١)
Genus *Strix* (1)	جنس البومة الكبيرة السمراء (١)
Genus *Asio* (2)	جنس البومة الكبيرة الاذناء (٢)
Genus *Ketupa* (1)	جنس بومة السمك (١)
Order CAPRIMULGIFORMES (2 spp.)	**رتبة السبديات (نوعان)**
Family CAPRIMULGIDAE	فصيلة السبد
Genus *Caprimulgus* (2)	جنس السبد (٢)
Order APODIFORMES (4 spp.)	**رتبة السمامات (٤ أنواع)**
Family APODIDAE	فصيلة السمام
Genus *Apus* (4)	جنس السمامة (٤)
Order CORACIIFORMES (9 spp.)	**رتبة الشقراقيات (٩ أنواع)**
Family ALCEDINIDAE	الفصيلة السماكية
Genus *Alcedo* (1)	جنس السماك (١)
Genus *Ceryle* (1)	جنس السماك الابقع (١)
Genus *Halcyon* (1)	جنس السماك الابيض الصدر (١)

Genus *Calidris* (4)	جنس القطيرة (٤)
Genus *Crocethia* (1)	جنس المدروان (١)
Genus *Limicola* (1)	جنس الطيطوى عريضة المنقار (١)
Genus *Philomachus* (1)	جنس الحجوالة (١)
Family RECURVIROSTRIDAE	الفصيلة النكاتية
Genus *Recurvirostra* (1)	جنس النكات (١)
Genus *Himantopus* (1)	جنس الكرسوع (١)
Family PHALAROPODIDAE	فصيلة الفالاروب
Genus *Phalaropus* (2)	جنس الفالاروب (٢)
Family DROMADIDAE	فصيلة الحنكور
Genus *Dromas* (1)	جنس الحنكور (١)
Family BURHINIDAE	فصيلة الكروان الجبلى
Genus *Burhinus* (1)	جنس الكروان الجبلى (١)
Family GLAREOLIDAE	فصيلة ابى اليسر
Genus *Clareola* (2)	جنس ابى اليسر (٢)
Genus *Cursorius* (1)	جنس الكروان العسلى (١)
Family STERCORARIDAE	فصيلة الكركر
Genus *Stercorarius* (1)	جنس الكركر (١)
Family LARIDAE	فصيلة النوارس وخطاطيف الماء
Genus *Larus* (7)	جنس النورس (٧)
Genus *Chlidonias* (3)	جنس خطاف البحر الاسود (٣)
Genus *Gelochelidon* (1)	جنس خطاف البحر نورسى المنقار (١)
Genus *Hydroprogne* (1)	جنس خطاف البحر القزوينى (١)
Genus *Sterna* (6)	جنس خطاف البحر (٦)
Order COLUMBIFORMES (11 spp.)	**رتبة الحماميات (١١ نوعا)**
Family PTEROCLIDAE	فصيلة القطا
Genus *Pterocles* (5)	جنس القطا (٥)
Family COLUMBIDAE	فصيلة الحمام
Genus *Columba* (3)	جنس الحمام (٣)
Genus *Streptopelia* (3)	جنس الفاختاء (٣)

Genus *Anthropoides* (1)	جنس الرهو (١)
Family RALLIDAE	الفصيلة المرعية
Genus *Rallus* (1)	جنس مرعة الماء (١)
Genus *Porzana* (3)	جنس المرعة الرقطاء (٣)
Genus *Crex* (1)	جنس مرعة البر (١)
Genus *Gallinula* (1)	جنس دجاج الماء (١)
Genus *Porphyria* (1)	جنس البرهان (١)
Genus *Fulica* (1)	جنس الغر (١)
Family OTIDIDAE	فصيلة الحبارى
Genus *Otis* (2)	جنس الحبرم (٢)
Genus *Chlamydotis* (1)	جنس الحبارى (١)
Order CHARADRIIFORMES (68 spp.)	**رتبة الخواضات (٦٨ نوعا)**
Family HAEMATOPODIDAE	فصيلة آكل المحار
Genus *Haematopus* (1)	جنس آكل المحار (١)
Family CHARADRIIDAE	فصيلة الخواضات الحقيقية
Genus *Chettusia* (2)	جنس الطيطوى البيضاء الذنب (٢)
Genus *Vanellus* (1)	جنس الطيطوى المقنزعة (١)
Genus *Hoplopterus* (1)	جنس الطيطوى الهمزة (١)
Genus *Lobivanellus* (1)	جنس الطيطوى المغببة (١)
Genus *Charadrius* (9)	جنس الزقزاق (٩)
Genus *Arenaria* (1)	جنس قنبرة الماء (١)
Family SCOLOPACIDAE	فصيلة الطيطوات
Genus *Capella* (2)	جنس الجهلول (٢)
Genus *Lymnocryptes* (1)	جنس الجهلول الصغير (١)
Genus *Scolopax* (1)	جنس دجاج الغاب (١)
Genus *Numenius* (3)	جنس الكروان (٣)
Genus *Limosa* (2)	جنس البقويقة (٢)
Genus *Tringa* (7)	جنس الطيطوى (٧)
Genus *Xenus* (1)	جنس الطيطوى المغبرة (١)

Order FALCONIFORMES (35 spp.)	**رتبة الجوارح النهارية (٣٥ نوعا)**
Family AEGYPIIDAE	فصيلة النسور
Genus *Neophron* (1)	جنس الرخمة (١)
Genus *Gyps* (1)	جنس النسر (١)
Genus *Aegypius* (1)	جنس النسر الاسود (١)
Genus *Gypaetus* (1)	جنس النسر الملتحى (١)
Family FALCONIDAE	فصيلة الصقور
Genus *Aquila* (6)	جنس العقاب (٦)
Genus *Hieraaetus* (2)	جنس العقاب المسير (٢)
Genus *Circaetus* (1)	جنس عقاب الحيات (١)
Genus *Haliaeetus* (2)	جنس عقاب البحر (٢)
Genus *Buteo* (2)	جنس العقيب (٢)
Genus *Pernis* (1)	جنس صقر العسل (١)
Genus *Accipiter* (2)	جنس الباشق (٢)
Genus *Milvus* (3)	جنس الحدأة (٣)
Genus *Circus* (4)	جنس المرزة (٤)
Genus *Falco* (7)	جنس الصقر (٧)
Family PANDIONIDAE	فصيلة العقاب النسارى
Genus *Pandion* (1)	جنس العقاب النسارى (١)
Order GALLIFORMES (5 spp.)	**رتبة الدجاجيات (٥ أنواع)**
Family PHASIANIDAE	الفصيلة الدجاجية
Genus *Ammoperdix* (1)	جنس الحجل (١)
Genus *Alectoris* (1)	جنس الدراج الرومى (١)
Genus *Francolinus* (1)	جنس الدراج (١)
Genus *Coturnix* (1)	جنس السلوى (١)
Genus *Tetraogallus* (1)	جنس دجاج الثلج (١)
Order RALLIFORMES (13 spp.)	**رتبة الكركيات والمرع (١٣ نوعا)**
Family BALEARICIDAE	الفصيلة الكركية
Genus *Megalornis* (1)	جنس الكركى (١)

Genus *Ardeola* (2)	جنس الواق الابيض (٢)
Genus *Nycticorax* (1)	جنس غراب الليل (١)
Genus *Ixobrychus* (1)	جنس الواق الصغير (١)
Genus *Botaurus* (1)	جنس الانيس (١)
Family CICONIIDAE	فصيلة اللقالق
Genus *Ciconia* (2)	جنس اللقلق (٢)
Family PLEGADIDAE	فصيلة ابى منجل
Genus *Plegadis* (1)	جنس ابى منجل الاسود (١)
Genus *Geronticus* (1)	جنس ابى منجل الناسك (١)
Genus *Threskiornis* (1)	جنس ابى منجل الابيض (١)
Family PLATALEIDAE	فصيلة ابى ملعقة
Genus *Platalea* (1)	جنس ابى ملعقة (١)
Order PHOENICOPTERIFORMES (1 sp.)	**رتبة النحاميات (نوع واحد)**
Family PHOENICOPTERIDAE	الفصيلة النحامية
Genus *Phoenicopterus* (1)	جنس النحام (١)
Order ANSERIFORMES (26 spp.)	**رتبة الوزيات (٢٦ نوعا)**
Family ANATIDAE	الفصيلة الوزية
Genus *Anas* (8)	جنس البط غير الغطاس (٨)
Genus *Spatula* (1)	جنس ابى مجرف (١)
Genus *Netta* (1)	جنس الونس (١)
Genus *Aythya* (4)	جنس الحمراوى والزرقاوى (٤)
Genus *Bucephala* (1)	جنس البط الذهبى العين (١)
Genus *Oxyura* (1)	جنس ابى مروحة (١)
Genus *Mergus* (3)	جنس البلاقش (٣)
Genus *Tadorna* (3)	جنس الشهرمان (١)
Genus *Casarca* (1)	جنس ابى فروة (١)
Genus *Anser* (3)	جنس الوز (٣)
Genus *Branta* (1)	جنس الوز الاحمر (١)
Genus *Cygnus* (1)	جنس التم (١)

تصنيف الطيور العراقية

عدا (العصفوريات)

بشير اللوس
الاستاذ في كلية العلوم ومدير متحف
التاريخ الطبيعي العراقي

تتمثل في العراق ١٨ رتبة من الطيور ، يتناول هذا التصنيف ١٧ منها وهي تضم أقل من ثلثي انواع الطيور التي سجلت من العراق · أما الانواع الاخرى فتابعة لرتبة كبيرة واحدة هي رتبة العصفوريات (Passeriformes) ·

ويدل الرقم الموضوع بين قوسين بعد كل جنس على عدد الانواع العراقية التابعة لذلك الجنس · فيكون عدد الانواع ٢١٦ نوعا متميزا تنتمي الى ١١٣ جنسا وهذه الى ٣٩ فصيلة والاخيرة الى ١٧ رتبة ·

Order PODICIPITIFORMES (3 species)	**رتبة الغطاسيات (٣ أنواع)**
Family PODICIPITIDAE	الفصيلة الغطاسية
Genus *Podiceps* (3)	جنس الغطاس (٣)
Order PELECANIFORMES (6 spp.)	**رتبة البجعيات (٦ أنواع)**
Family PELECANIDAE	الفصيلة البجعية
Genus *Pelecanus* (2)	جنس البجع (٢)
Family PHALACROCORACIDAE	فصيلة غربان البحر
Genus *Phalacrocorax* (3)	جنس غراب البحر (٣)
Family ANHINGIDAE	فصيلة الوردة
Genus *Anhinga* (1)	جنس الوردة (١)
Order CICONIIFORMES (17 spp.)	**رتبة اللقالق (١٧ نوعا)**
Family ARDEIDAE	فصيلة مالك الحزين
Genus *Ardea* (3)	جنس مالك الحزين الرمادى (٣)
Genus *Egretta* (3)	جنس مالك الحزين الابيض (٣)

جامعة بغداد

كلية العلوم

متحف التاريخ الطبيعي العراقي

شباط ١٩٦٠

نشرة رقم (١٨)

المحتويات

(القسم العربي)

(القسم الانكليزي)

مع خلاصات بالعربية

مطبعة الرابطة – بغداد

١٩٦٠

ERRATUM

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Fig. 2 in page 22 should be turned upside down without changing the names.