

ODONATA FROM THE SINAI PENINSULA, SUEZ AND PALESTINE,
INCLUDING A NEW SPECIES OF *MESOGOMPHUS*.

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In view of the appearance of a fully illustrated and useful paper by Mr. Adolf Andres on 'the Dragonflies of Egypt' (Mem. de la Soc. Royale Ent. d'Egypte, 5 plates, Cairo, 1928), a copy of which the author has kindly sent to me, it is desirable to publish a short account of the *Odonata* collected by an expedition to the Sinai Peninsula and at Suez, forwarded to me by Dr. Bodenheimer, to whom I am much indebted for the opportunity of examining this interesting material. Owing to the exigencies of travel, the specimens were preserved with difficulty, and are mostly much broken. However, all of them could be determined. A species of *Mesogomphus* is included, which I have failed to identify with any of the regional species of the genus or with any of the African species with whose descriptions I have been able to compare it.

The following is a list of the species taken :—

Suez, 1.VII.

Ischnura senegalensis, 2 ♂♂.

Crocothemis erythraea, 5 ♂♂, 2 ♀♀.

Trithemis annulata, 4 ♂♂, 1 ♀.

Orthetrum farinosum, 1 ♀.

Brachythemis leucosticta, 1 ♂.

Wadi Isle, 5.VII.

Trithemis arteriosa, 4 ♂♂, 2 ♀♀.

Mesogomphus n. sp., ♀.

Wadi Tarfa, 6.VII.

Sympetrum fonscolombei, ♂.

Anax imperator, ♂.

Wadi Nasib, 7.VII.

Sympetrum fonscolombei, ♂, ♀.

Trithemis arteriosa, ♂.

Wadi Feiran, 12.VII.

Mesogomphus n. sp., ♂.

Crocothemis erythraea, 2 ♀♀.

Sympetrum fonscolombei, ♂, ♀.

Orthetrum chryso stigma, 4 ♂♂, 1 ♀.

Orthetrum anceps, 1 ♂, 2 ♀♀ (all teneral).

Mesogomphus sinaiticus, n. sp.

♂. Labium whitish, base of lateral lobes marked with ferruginous. Apical part of mandibles blackish piceous. Face whitish, shining, narrow trace of diffused brown on margin of labrum and anterior margin of post-clypeus; a broad pale-brown band covering most of anterior part of frons; frons above whitish; vertex with a blackish band across the ocelli encroaching slightly on the frons in the middle; basal joint of antennae pale; vertex behind the ocelli

pale, a brownish band separating it from the occipital plate, which is pale, slightly raised in the centre, the outer margin straight with fine pale cilia. Back of head mostly whitish, upper part brownish.

Prothorax mostly pale, transverse depression blackish.

Thorax heavily marked with dark brown or blackish stripes, the intervening pale parts greenish above, tending to bluish on the sides. Mesothoracic collar pale; dorsal carina narrowly pale, on either side the dark median stripes expand anteriorly and continuing more narrowly downwards meet the antehumeral slightly outward-curved stripes, which are also connected above, at the antealar sinus, with the median stripes, a lanceolate pale spot being thus enclosed. Humeral stripes complete, broad, united below with a broad stripe on the first lateral suture. A broad stripe on second lateral suture connected inferiorly with a narrow one on the hind margin of metepimeron. Posterior part of sternum entirely pale.

Legs bluish-green marked with brown; anterior pair pale at base, femora mostly dark-brown above, tibiae lined with brown, tarsi brown. Other legs with brown coxae, otherwise very similar, the brown markings rather more extensive.

Abdomen slender; two basal segments slightly dilated, 3-7 cylindrical, 8-10 dilated in lateral and dorso-ventral dimensions; lateral margins of 8-9 foliate. Dorsum of 1-7 pale-greenish-yellow (with a slightly bluish tinge towards the ventral surface) marked with dark brown or blackish; segment 1 dark on more than one half of dorsum, the dark colour extending to the entire length of segment laterally on the upper part, the lower half pale. Segment 2, dorsum brownish, with a median lanceolate pale spot the whole length of the segment; brown half-way down sides, with three narrow brownish projections (the median one shortest) on the pale lower portion, the auricles entirely pale. On segments 3-6 a mid-dorsal dark-brown narrow spindle-shaped marking crossed in its middle by the dark transverse carina; apical third of these segments dark (some-what suffused and ferruginous anteriorly), the dark colour extending at the extreme apex as far as the ventral carina and joining a broad latero-ventral stripe running to the transverse carina where it is broadest, this stripe on 3-4 extending slightly beyond that carina. Segment 7 similar to 5-6, excepting the mid-dorsal spindle-shaped marking, which is absent. Terminal segments yellowish on dorsum, partially suffused with ferruginous, on the sides passing into brown and lower down again becoming more yellowish; foliaceous expansions of 8-9 ferruginous without dark margin. Connecting membranes at apex of segments 7-9 yellow, with a black thickening low down on the sides.

Appendages ferruginous; viewed from above they are narrow parallel, their inner upper margin shallowly concave in their basal half; from the side they are curved downwards and slightly inwards, the apex blunt and bearing on either side a very short, blunt, black tooth or spine (it is neither split, as represented by Hagen's figure of *O. genei* (Mon. pl. 3, fig. 4e), nor truncate and slightly excised, as in McLachlan's note on that species (E.M.M., Vol. xxxiii, 1897)). Inferior appendage, viewed from side, strongly curved in its basal half, the outer half nearly straight and blunt at the apex, with a very short ante-apical black spine; about the middle there is a black scabrous patch on the lateral margins.

Wings hyaline, scarcely tinged; costa light-yellowish to the pterostigma, venation blackish, cross veinlets in anterior spaces proximal to nodus pale. Pterostigma ochraceous between strong black nervures, covering 3½-4 cells. Ante-nodals, forewing 7-8; hindwing 7-8; post-nodals, forewing 8-7, hindwing 7-7. Length of abdomen (cum apps.) 39; hindwing 29; pterostigma 3 (fully mm).

♀. Head crushed. Prothorax and thorax very similar to the ♂. Legs with the darker colour reduced, the markings on femora of 2nd and 3rd pairs only about one-third of their length.

Abdomen: Segment 1 damaged; dorsum of 2 with a pale elongate marking like that of the ♂; on 3-6 the mid-dorsal spindle-shaped markings are less distinct, the apical band narrow, preceded by two dark spots, the space between the band and the spots on either side of dorsal carina ferruginous (the reduction of the dark colour here in comparison with the ♂ very likely due to the less advanced age of the ♀); segment 7 with a brown triangle based on distal margin and reaching transverse carina; dark latero-ventral line on segments 2-7 with rather shorter interruptions than in the ♂. Segments 8-10 with scarcely dilated margins, dorsum pale excepting posterior half of 8 and posterior fourth of 9, which are dark brown; lower parts pale, but indications of suffused darker latero-dorsal lines on 9-10; connecting membranes as in ♂. Appendages longer than segment 10, very slender and acute ferruginous. Vulvar scale large (fig. 4), with a square excision on distal margin and a shallow median channel; ridge bounding the area on segment 9 occupied by vulvar scale, thick laterally and reduced in middle.

Ante-nodals in forewings 11-12; post-nodals 6-6; in hind wings, ante-nodals 9-9, post-nodals 7-7.

Length of abdomen about 36; hindwing 31; pterostigma 3.25 mm.

♂, Wadi Fieran, 12.vii; ♀, Wadi Isle, 5.vii.

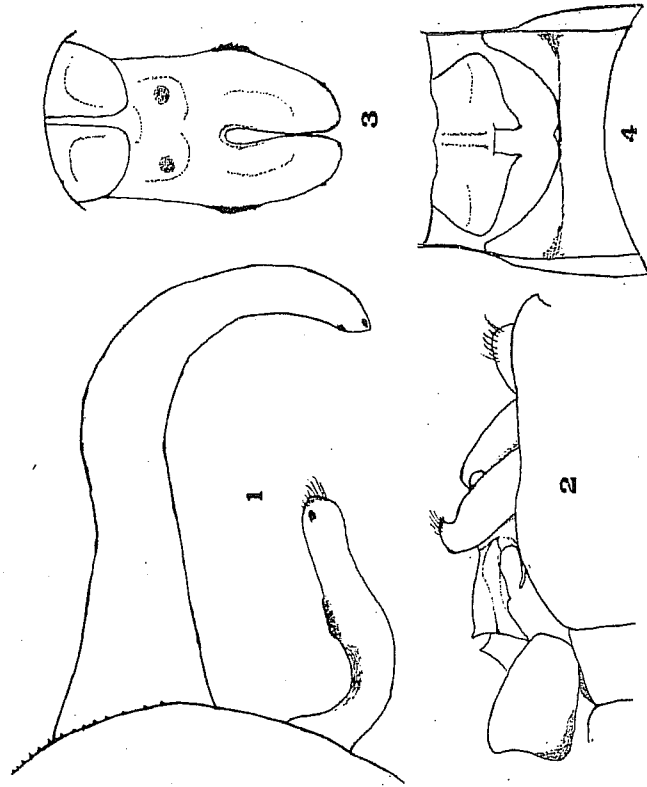


FIG. 1. Appendages of ♂ from side.

- " 2. Genitalia of 2nd abdominal segment from side.
- " 3. Inferior appendage from beneath.
- " 4. Ninth ventral segment of ♀, with vulvar scale.

Although no fresh additions to the Odonata of Palestine fall to be recorded, some further information regarding their distribution has been obtained. The details given below are additions to those published in Trans. Ent. Soc. Lond., 1924, pp. 25-44. The relative specimens were received from Dr. Bodenheimer, but I understand some of them were taken by Mr. Theodor.

Ben Shemen, near Lydda: *Sympetrum fonscolombei* ♀, much damaged, at light-trap, 6 October, 1926.

Huleh: *Orthetrum anceps* and *Platycnemis latipes dealbata*, July, 1923.

Chedera (Khedeira): *Lestes barbarus*, *Ischnura elegans*, *P. latipes dealbata*, *S. fonscolombei* and *Crocothemis erythraea*, 17 June, 1926.

Gisr el Ghoraniye (Jordan, near Jericho): *S. fonscolombei*, *Pseudagrion* sp., 12 September, 1926; *Trithemis annulata* and *Orthetrum chrysostigma* ♂ (sub-juv.), 28 October, 1926.

Another specimen of *Caliaeschna microstigma* has been received from the same source as that referred to in the above mentioned paper, p. 40. This second specimen bears a definite locality label, 'Rehoboth.' The extension of the range of this species to Idumea is interesting. Dr. Bodenheimer tells me that near Rehoboth there is a small perennial stream with large and thick reed-grasses, no doubt the haunt of such dragon-flies as occur there.

An item regarding *Anax parthenope* may be referred to here. When Mr. J. Omer-Cooper and Dr. Hugh-Scott were on their way to Abyssinia in August, 1926, this species was taken aboard ship at electric light, a ♂ in Suez Canal on 24th and a ♀ on 28th in the Southern part of the Red Sea. Dr. Scott suggests that the second specimen may have come on board some days previously either in the Canal or Gulf of Suez.

The *Pseudagrion* mentioned above is the species which I have already recorded from Palestine as *P. acaciae*. Dr. Ris has since sent me specimens of *P. acaciae* from Egypt, which he considers to be the true *acaciae* of Förster. Although allied to the Palestine species, they are not the same. As Ris is at present engaged in a revision of the African species of the genus, I await his final conclusions on the matter.

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