

The specimen now described, whilst it agrees in family characteristics with the genera mentioned above, differs considerably in those less important peculiarities which constitute their generic features. In each instance the size and ornamentation of the scales is distinct from this one, and the specimen now described is also more especially divergent from *Thrissonotus* and *Cosmolepis* in the non-extension of the anal fins. There are no intermediate small teeth, as in *Centrolepis* and others; and the deeply forked caudal fin, with its long upper lobe invested to its extremity with scales, is a character which readily distinguishes *Oxygnathus*, and separates this specimen from that genus. Hence there appears to be no alternative but to form a new genus under the title *Lissolepis*, with the specific designation *serratus*.

Locality. Lias, Lyme Regis.

EXPLANATION OF PLATE XVI.

Fig. 1. *Lissolepis serratus*, Davis. Natural size.

Fig. 1 a. Scales, enlarged.

L.—On the Neuroptera collected during the recent Expedition of H.M.S. 'Challenger.' By W. F. KIRBY, Assistant in Zoological Department, British Museum.

THE Neuroptera collected during the voyage of the 'Challenger' were not very numerous, but included several interesting species. With the exception, however, of a small series from the Philippines, which were sent home in papers, the greater number were destroyed by having been placed in spirit—a means of preserving insects which is just as ill adapted for large-winged insects, like dragonflies, as it is for soft-bodied or hairy insects, which should always be preserved dry.

I have only ventured to describe one new species from Tongatabu.

NEUROPTERA.

ISOPTERA.

Termitidæ.

1. *Termes fatalis* (?).

Termes fatale, Kön. Schrift. Berl. nat. Freunde, iv. p. 1, pl. i. figs. 1-9 (1771).

Termes fatalis, Hag. Linn. Ent. xii. p. 143 (1858).

Philippines.

The head is darker and more deeply impressed in front than in other specimens of *T. fatalis* in the British Museum.

2. *Eutermes fumipennis*.

Termes fumipennis, Walker, List Neur. B. M. iii. p. 525 (1853).

Wellington, New Zealand.

A well-known Australian species.

ODONATA.

Libellulidæ.

LIBELLULINÆ.

3. *Pantala flavescens*.

Libellula flavescens, Fabr. Ent. Syst. Suppl. p. 285 (1798).

Malamani, Philippines, Feb. 1875; Tongatabu, July 1874; Queensland.

An almost cosmopolitan species out of Europe, although its claims to be considered European rest solely upon a single reputed British specimen of very doubtful origin (*cf.* M'Lachlan, Ent. Monthly Mag. xx. p. 256, April 1884).

4. *Neurothemis palliata*.

Polyneura palliata, Ramb. Névr. p. 129 (1842).

Amboina, Oct. 1874; Pasananca, near Zamboanga, Philippines, Feb. 1875.

5. *Neurothemis apicalis*.

Libellula apicalis, Guér. Voy. Coq., Zool. (2) ii. p. 194 (1830).

Polyneura apicalis, Ramb. Névr. p. 127 (1842).

Aru.

6. *Neurothemis elegans*.

Libellula elegans, Guér. Voy. Coq., Zool. (2) ii. p. 194, pl. x. fig. 3 (1830).

Philippines; also Ki Dulan, Sept. 25, 1874.

One specimen from the Philippines exactly agrees with *N. elegans*. A second is reddish brown, nearly to the pterostigma, which is reddish, the tips of the wings and the whole border of the hind wings being hyaline.

The best authorities regard the three forms of *Neurothemis* here mentioned as hardly entitled to the rank of distinct species.

7. *Agrionoptera pectoralis*.

Libellula pectoralis, Brauer, Verh. zool.-bot. Ges. Wien, xvii. p. 19 (1867).

Philippines.

Agrees very fairly with the description, except that Brauer gives 17-19 antecubital and 12 postcubital nervures. This specimen has only 14 antecubitals on both fore wings, and 11 postcubitals on the right fore wing and 12 on the left.

8. *Leptthemis sabina*.

Libellula sabina, Drury, Ill. Ex. Ent. i. pl. xlviii. fig. 4 (1773).

Philippines.

A rather small specimen.

9. *Diplax pacificus*.

Male.—Exp. al. 1 unc. 10 lin.; long. corp. 1 unc. 1½ lin. Wings hyaline, rounded; fore wings rather narrow; hind wings slightly stained with yellow at the base, and considerably expanded between the base and the nodus. Nervures black, pterostigma yellowish brown. Fore wings with 8 antecubital nervures of the costal series and only 7 of the subcostal series, and 7 postcubital nervures of the costal series and 4 of the subcostal before the pterostigma; hind wings with 6 antecubital and 7 postcubital nervures; in the second series only the last 4 of the latter; triangles ordinary, that of the fore wings with the basal side rather shorter than the outer; the dividing line slightly oblique. Body testaceous yellow. Head: middle ocellus red, placed in a deep depression; epicranium emarginate above, vertex convex; clypeus (which is semicircular and with two indentations in front), labrum, and sides of epicranium paler yellow than the rest of the head; prothorax quadrifid, the frontal lobes transverse, each marked with a large black spot, the hinder ones contiguous, being less distinctly separated; mesothorax rather long, with two large black spots in front, almost concealed by the junction with the prothorax; a deep longitudinal depression, with a narrow keel in the middle; the lateral sutures slightly marked with black at two or three points. Abdomen with a longitudinal keel on the back, which is reddish brown beyond the second segment, and marked somewhat irregularly with a series of square spots, chiefly towards the ends of the segments; there is also a dark line on the ventral surface, and a series of 4 or 5 irregular long and partly connected reddish-brown spots on the sides of the middle segments. Legs yellowish, the four hinder ones black above; spines strong; claws very large and slightly bifid.

Anal appendages as long as the two preceding segments, pointed; lower appendages broad and a little shorter.

Tongatabu, July 1874.

Agrionidæ.

AGRIONINÆ.

10. *Ischnura aurora*.

Agrion (Ischnura) aurora, Brauer, Verh. zool.-bot. Ges. Wien, xv. p. 510 (1865).

Waihiri, Tahiti, Sept. 1875.

CALOPTERYGINÆ.

11. *Vestalis melania*.

Vestalis melania, De Selys, Bull. Acad. Belg. (2) xxxv. p. 474 (1873), (2) xlvii. p. 360 (1879).

Philippines.

The brilliant blue of the male (sometimes shading into greenish, especially towards the base) and the rich purplish violet of the more highly coloured females render this species, which was not previously in the British-Museum collection, one of the most beautiful of the Odonata.

PLANIPENNIA.

Myrmeleontidæ.

12. *Myrmeleon variegatus*.

Myrmeleon variegatus, Klug, Symb. Phys. pl. xxxv. fig. 4 (1834).

Common in July and August at St. Vincent and St. Jago, Cape Verdes, along with its larva from the former locality. It was previously known from S. France and Arabia.

LI.—On the *Diptera* collected during the recent Expedition of H.M.S. 'Challenger.' By W. F. KIRBY, Assistant in the Zoological Department, British Museum.

THE collection of *Diptera* formed was not very extensive, but contained several interesting species, three of which are here described as new. The capture of a species of *Tachinina*, originally described from the Red Sea, in the Cape-Verde Islands is very remarkable.



Kirby, W. F. 1884. "On the Neuroptera collected during the recent expedition of H.M.S. 'Challenger.'" *The Annals and magazine of natural history; zoology, botany, and geology* 13, 453–456.

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