

XXX COLEOPTERA, VII: IPIDEN und  
PLATYPODIDEN.

Von HEINR. E. WICHMANN in Waidhofen (a. d. Thaya, Austr.).

Die Zahl der bei der Abor expedition gesammelten Borkenkäfer ist sowohl an Arten als auch an Exemplaren gering. Es sind nur fünf *Xyleborus* in acht Stücken und drei Platypodiden in vier Exemplaren vorhanden. Trotzdem finden sich darunter einige noch unbeschriebene Arten.

IPIDAE.

*Xyleborus Gravelyi*, n. sp.

Gross, fast schwarz, glänzend, spärlich und abstehend behaart, die Haare gelb.

Kopf infolge einer schon bei ungefähr 35 maliger Vergrößerung deutlich erkennbaren Netzung matt, auf der Stirn mit einer undeutlichen Beule, sehr grob und tief eingedrückt-längsrunzelig punktiert, die Punkte gegen die Augen dichter stehend. Ober dem Munde lange gewimpert. Stirn spärlich, starr und abstehend behaart. Vorderrand der Augen ausgebuchtet.

Halsschild fast quadratisch, Seiten flach, gegen die Vorder- und Hinterecken stärker gerundet, an den Vorderecken nicht so breit wie an den Hinterecken, Vorderrand abgeflacht. In der Mitte des Thorax ein breiter Querrücken, vor dem er sich flach zum Kopfe vorwölbt. Dort ziemlich fein und dicht quergekörnelt; vor der Querbeule erlischt die Körnelung und nimmt die Form einer Schuppung an. Zwischen den Höckerchen matt. Rückwärtiger Teil des Halsschildes glänzend, (jedoch auch mikroskopisch fein genetzt) spärlich fein eingestochen punktiert. Die Behaarung ist steif, abstehend und schütter Halsschild kaum länger als breit

Flügeldecken rund zweiundeinviertel mal so lang als breit, hinter dem letzten Drittel beginnend gleichmässig gerundet verschmälert, in klaren Reihen punktiert. Die Punkte rund, scharf eingepägt aber flach. Zwischenräume sehr breit, eben, nur im vorderen Deckenteil undeutlich gewölbt, mit einer Reihe weitabstehender borstentragender Punkte versehen, die mit Ende des ersten Drittels in ebensolche Körnchen übergehen. Absturz flach, im Gegensatz zum vorderen Teil der Elytren matt, von der Seite gesehen allmählich abgewölbt und vor der Spitze auf jeder Decke mit einem angedeuteten Eindruck.

Hinterschienen auf der Aussenkante mit starrer und langer Bewimperung.

Long.: 5.2—5.4 mm.

Patria : Kobo, 400 ft.

Von Kemp im Dezember 11, "under bark in rotten wood" gesammelt.

Es sind zwei Exemplare (♀) mit den Nummern 2706/19 und 2708/19 vorhanden.

Ich widme diese neue Art Herrn Assistant Superintendenten F. H. Gravely am Indian Museum.

### *Xyleborus aplanatus*, n. sp.

♀ : Mittelgross, schwarz, matt, Beine und Fühler rötlichgelb. Stirn flachgewölbt, mattglänzend, schütter mit ungleich grossen, unregelmässigen, eingedrückten Punkten überstreut, ober dem Munde ein flacher Kiel, der über die ganze Stirn reicht, und, besonders seitlich des Mundes mit wenigen langen gelben Haaren.

Halsschild quadratisch, an den Seiten gerade, Vorderrand ebenfalls gerade, beide in starkem Bogen verrundet, Hinterecken angedeutet. In der Mitte des Halsschildes ein noch kenntlicher Querbuckel. Körnchen des Halsschildes mit überwiegender Querstreckung, zu unregelmässigen Runzeln angeordnet, in der Nähe des Buckels zu einer feinen Schuppung reduziert. Hinter dem Buckel matt, mikroskopisch fein gefeldert, mit seltenen Pünktchen versehen.

Flügeldecken so lange als breit, fast parallel, erst im letzten Teile stumpfspitz verrundet, in deutlich geschlossenen Reihen flacher Punkte von kreisrunder Form punktiert, am Absturze die Reihen etwas vertieft. Zwischenräume mit spitzen borstentragenden Körnchen versehen, diese am Absturze kräftiger. Sechster Zwischenraum im Absturze scharf gerandet.

Halsschild nur an den Seiten stark gewimpert, Flügeldecken infolge der zahlreichen haartragenden Körnchen der Zwischenräume dichter behaart.

Long. : 4 mm.

Patria : Upper Rotung.

"Under bark" 1 Exemplar am 1-1-12 gesammelt; trägt die Nummer 2696/19.

♂ : Bedeutend kürzer, nach vorne übergebeugt-hochgewölbt, licht kastanienbraun, stark und dicht behaart.

Kopf in das Halsschild zurückgezogen, Stirn flach, glatt glänzend, sehr spärlich fein punktiert.

Halsschild kaum so lang als breit, annähernd quadratisch, an den Seiten gerade, der Vorderrand flach. Vorderecken stark abgerundet. Die Körnelung viel schütterer als beim Weibchen, die Körnchen einzelnstehend und kürzer. Die geschuppte Region fehlt, an ihrer stelle ein räumlich beschränkter Fleck mit ganz ebenen querstrichelartigen Körnchen. Buckel nur schwach angedeutet, von einer tiefen Längsfurche durchzogen, die nur wenig in den Körnerfleck hineinreicht und auch nicht weit in die glatte Hinterpartie des Halsschildes eindringt. Diese selbst nicht dicht punktuert.

Flügeldecken viel länger als breit, mit vor dem ersten Drittel beginnendem flachem Absturze, Punktierung in wenig geordneten Reihen, die Punkte rund, gedrängt. Reihen im Absturze vertieft; dadurch dass der zweite Zwischenraum etwas tiefer liegt, erscheint der Absturz wie doppelt ausgehöhlt. Die langen starren Borsten sitzen auf den feinen Körnchen des Absturzes.

Long. : 2·3 mm.

Patria : Sadiya, N.E. Assam.

1 Stück von Kemp, "under bark" am 15-xi-11 gesammelt, mit dem Zettel 2702/19 versehen.

Diese Art ähnelt der früher beschriebenen, unterscheidet sich aber durch die Grössen- und Formverhältnisse des Körpers, etc.

### **Xyleborus sp. ?**

Drei Exemplare, die die Nummern: 2703/19, 2704/19 und 2705/19 tragen und wahrscheinlich mit *Xyleborus perforans*, Woll. identisch sind, einem Insekt, das in den Tropen weitverbreitet ist.

Patria: Kobo, 400 ft., leg. Kemp, "rotten wood", am 1-xii-11.

### **Xyleborus sp. ?**

Ahnelt dem *Xyleborus capucinus*, Eichh.

Kemp sammelte ein Exemplar in Upper Rotung "under bark" am 9-1-12.

## PLATYPODIDÆ.

### **Platypus cupulifer, n. sp.**

Aus der Gruppe der *Platypi cupulati*.

Mittelgross, schlank, stark glänzend, hell gelbbraun. Stirn, Schienen und Absturz dunkler. Fast unbehaart.

Stirn eben, glanzlos, unregelmässig stark punktiert, zwischen den Augen mit angedeuteter runder Grube, deren vorderer Rand von einem scharfen Längsstrichel durchzogen wird, gleich lang, wenig dicht und kurz behaart.

Halschild einundeinviertel mal so lang als an der Basis breit, nach vorne kennbar verschmälert. Vorderecken angedeutet, Hinterecken gerundet. Die Seiten nicht stark geschwungen, die Ausrandung, die der Grube zur Aufnahme der Vorderbeine entspricht, liegt dicht hinter der Mitte und ist nicht ausgeprägt. Vorder- und Hinterrand gerade, an letzterem in der Mitte eine kleine vorspringende Ecke. Der Vorderrand wird von einem schmalen verloschen punktierten Streifen begleitet, dahinter bis Ende des ersten Viertels dichtere und gröbere Punkte auf stark glänzendem Grunde, die allmählich in zerstreute längsgerichtete Pünktchen übergehen. Am Hinterrand verdichten sich die Punkte wieder und werden gröber. Hinter der Halsschildmitte beginnt eine scharf eingerissene, sich nach rückwärts verschmälernde Längsfurche, an ihrem Vorderende jederseits ein kleiner Punktflck.

Flügeldecken an der Basis etwas schmaler als der Halsschild, sich in sehr sanftem Bogen bis zur Mitte erweiternd, von da ab sich ebenso verschmälernd, mit deutlich breit-schüsselförmig gerandetem Absturz. Die Punktstreifen sehr schmal und scharf eingerissen, vor der, den hervortretenden Absturz von den Flügeldecken abtrennenden Abschnürung erlöschend, im ersten Achtel bedeutend verbreitert, vertieft und netzige Punkte zeigend. Die ungeraden Zwischenräume an der Basis zu zweien verbunden, dort ebenso wie die geraden Interstitien etwas kielartig erhöht. Von der dritten Punktreihe an nur mehr reihige Punkte. Zwischenräume mit wenigen entfernten Pünktchen. Die Einschnürung des Absturzes nicht sehr dicht aber stark punktiert, die Absturzrandung spärlich punktuert. Absturz steil, am scharfen Rande kurz gewimpert, kreisförmig. Die Decken klaffen im Absturze in ihren Spitzen; der freibleibende Spalt ist an den Spitzen breit, verschmälert sich in breitem Dreieck bis etwa zur Mitte und erreicht schmal spaltförmig fast den oberen Rand des Absturzes. Im breiten Teile des Spaltes ist der Rand der Elytren schneidenförmig erhaben und trägt in der Mitte ein dreieckiges schief nach innen weisendes Zähnchen. Der Grund des Absturzes selbst ist glatt, spiegelglänzend.

Long. : 4·7-5·0 mm

Zwei Exemplare. Eines aus Rotung, 1400 ft. leg. Kemp 2-i-12 " rotten wood " (No. 2699/19) und eines " at light " gesammelt in Dibrugarh, N.E. Assam, 9-xi-11 durch Kemp (No. 2700/19).

Es ist von hohem Interesse, dass es in den Tropen Ipiden gibt, die Nachtschwärmer sind. Eine solche Art ist auch *Cladoctonus eggarsi*, Wichm. Hier hat die Forschung noch manches zu klären.

#### **Platypus sp. ?**

Ein Exemplar " under bark " in Rotung leg. Kemp am 2-i-11 (No. 2698/19)

#### **Platypus sp. ?**

Von Kemp ein einzelnes Stück in Sadiya, N.E. Assam, 25-xi-11 " under bark " gesammelt (No. 2701/19).



XXXI ORTHOPTERA, III: MANTIDAE ET  
PHASMIDAE.

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Rendo vivissime grazie al Direttore dell' " Indian Museum " di Calcutta per avermi usato la cortesia e fatto l'onore di affidarmi lo studio dei Mantidi e Fasmidi raccolti durante l'Abor Expedition.

Le specie raccolte sono le seguenti :

MANTIDAE.

1. *Amorphoscelis annulicornis*, Stal.
2. *Theopompa servillei*, de Haan.
3. *Statilia haanii*, Saus.
4. *Tenodera aridifolia*, Stoll.
5. *Hierodula crassa*, Giglio-Tos.
6. *Iridopteryx irina*, Saus.
7. *Acromantis japonica*, Westw.

PHASMIDAE.

1. *Phyllium celebicum*, de Haan.
2. *Clitumnus ablutus*, Brun.
3. *Clitumnus operculatus*, Brun.
4. *Clitumnus aboricus*, n. sp.
5. *Cuniculina rotungina*, n. sp.
6. *Cuniculina perfida*, n. sp.
7. *Menexenus rotunginus*, n. sp.
8. *Myronides baucis*, Westw.
9. *Myronides dawnanus*, n. sp.
10. *Calvisia fusco-alata*, Redt.

Delle 7 specie di Mantidi nessuna è nuova. Ma delle 10 specie di Fasmidi ben 5 sono nuove ed una (*Cuniculina perfida*) presenta speciale interesse, perchè essa fu da Wood-Mason disegnata, ma confusa con un'altra specie di Westwood, e Brunner von Wattenwyll più tardi la confuse ancora con un'altra specie.

MANTIDAE.

Gen. *Amorphoscelis*, Stål.

*A. annulicornis*, Stål.

*Amorphoscelis annulicornis*, Stål, *Öfvers. Vet. Akad. Förh.* XXVIII, p. 401 (1872). Wood-Mason, *Journ. As. Soc. Bengal*, LI, Part II, p. 21 (1882); *Cat. Mant.*, p. 4, fig. 1, 2, 3 (1889). Bolivar, *Ann. Soc. ent. France*, LXVI, p. 303 (1897). Giglio-Tos, *Gen. Ins. Orth.* 144 fasc., p. 8 (1913).

Un ♂ Dibrugarh, N. E. Assam.

Specie, secondo Wood-Mason, abbondante in Calcutta sul tronco degli alberi.

*Habitat.* India (Stål), Nazeerah, Assam, Calcutta, Khurda, Orissa (Wood-Mason), Assam, Darjeeling, Madura (Bolivar).

Gen. **Theopompa**, Stål.**T. servillei**, de Haan.

*Mantis (Mantis) servillei*, de Haan, *Bijdr. tot de Kenn. Orth.*, p. 81, tab. 16, figs. 5, 6 (1842).—Saussure, *Mitth. Schweiz. ent. Gesells.* III, p. 62 (1869). *Mém. Soc. Phys. Hist. Nat. Genève*, XXI, p. 24 e 274 (1871) (*Humbertiella*). Stål, *Bihang till sv. Vet. Akad. Handl.* IV No. 10, p. 48 (1877) (*Theopompa*).

Una larva ♀ Thingannyinaung to Myawadi, Lr. Burma, ca. 900 ft.

*Habitat.* Specie diffusa dalla Birmania, a Siam, Giava, isole della Sonda, Ceram.

Gen. **Statilia**, Stål.**S. haanii**, Saus.

*Mantis (Mantis) maculata*, de Haan, *Bijdr. tot de Kenn. Orth.*, p. 77, pl. 18, fig. 5 (1842).

*Pseudomantis haanii*, Saussure, *Mém. Soc. Phys. Hist. Nat. Genève*, XXI, p. 37, e 276 (1871).

*Pseudomantis maculata*, Saussure, *ibidem*, XXIII, p. 23 (1872).

*Statilia maculata*, Bolivar, *Ann. Soc. ent. France*, LXVI, p. 309 (1897).

*Statilia haanii*, Giglio-Tos, *Bull. Soc. ent. ital.* XLIII, p. 6. (1911).

Una ♀.—Kobo, 400 ft.—Un ♂ Dibrugarh, N. E. Assam.

*Habitat.* Specie molto diffusa e comune in tutta l' Asia orientale da Ceylon alle isole Filippinee Giapponesi e alla Nuova Guinea.

Gen. **Tenodera**, Burm.**T. aridifolia**, Stoll.

*Mantis aridifolia*, Stoll, *Spectres, Mantes, etc.*, p. 65, pl. xxii, fig. 82.—Serville, *Ins. Orth.*, p. 178 (1839).

*Mantis chloreudeta*, Burmeister, *Handb. Ent.* II, p. 535 (1838).

*Tenodera aridifolia*, Saussure, *Mittheil. schweiz. ent. Gesells.* III, p. 69 (1869). *Mém. Soc. Phys. Hist. Nat. Genève*, XXI, p. 97. var. *a*, e pag. 294. Giglio-Tos, *Bull. Soc. ent. ital.* XLIII, p. 37 (1911).

*Paratenodera*, Rehn, *Proc. Acad. Nat. Sc. Philadelphia*, p. 705 (1903).

Una ♀.—La-ai R., Kalem V., Mishmi Country.

*Habitat.* Anche questa specie è comune e diffusa dall' India a tutta l' Asia orientale fino alle isole della Sonda, alle Filippine, al Giappone.

Gen. **Hierodula** Burm.**H. crassa**, Giglio-Tos.

*Hierodula crassa*, Giglio-Tos, *Bull. Soc. ent. ital.* XLIII, p. 93 (1911).

Un ♂ e una ♀. La-ai R., Kalem V., Mishmi Country.

*Habitat.* Specie, a quanto pare, propria dell' India e già da me segnalata a Darjeeling.

Gen. **Iridopteryx**, Saus.**I. irina**, Saus.

*Gonypeta irina*, Saussure, *Mittheil. Schweiz. ent. Gesells.* III, p. 244 (1870). *Mém. Soc. Phys. Hist. nat.* XXI, p. 56, pl. 6, fig. 42 (1871).

Un ♂ Thingannyinaung to Myawadi, Lr. Burma, ca. 900 ft.

*Habitat.* Specie dell Amboina.

Gen. *Acromantis*, Saus.? *A. japonica*, Westw.

*Acromantis japonica*, Westwood, *Rev. Mant.*, p. 43 (1889). Jacobson et Bianki, *Prem. i Lozhn. Ross. Imp.*, p. 153 (1902).

Una ♀.—Thingannyinaung to Myawadi, Lr. Burma, ca. 900 ft.

*Habitat.* Specie segnalata finora solo al Giappone. Nelle collezioni del Museo civico di Storia naturale di Genova ne trovai un esemplare proveniente da Formosa.

## PHASMIDAE.

Gen. *Phyllium*.*P. celebicum*, de Haan.

*Phyllium celebicum*, de Haan, *Bijdr. tot de Kenn. Orth.*, p. 111 (1842). Gray, *Zoologist*, I, p. 121. Westwood, *Cat. Phasm.*, p. 173, pl. xi, fig. 6 (1859). Wood-Mason, *Fourn. As. Soc. Bengal XLIV*, Part II, p. 218, pl. xvi (1875).

Quattro ♀.—Tra Kobo e Janakmukh. Yambang a 1100 ft.; Sirpo, Rotung a 1400 ft.

*Habitat.* Specie diffusa dalle isole Seychelles a tutta l'Asia orientale fino alle isole Filippine ed all'Amboina.

Gen. *Clitumnus*, Stål.*C. ablutus*, Brun.

*Clitumnus ablutus*, Brunner, *Insektenfam. Phasm.*, p. 190 (1908).

Un ♂ e due larve ♂ Sukli. E. Side of Dawna Hills, Lr. Burma, ca. 2100 ft.

*Habitat.* Specie segnalata finora solo all'isola di Ceylon.

*C. operculatus*, Brun.

*Clitumnus operculatus*, Brunner, *Insektenfam. Phasm.*, p. 192 (1908).

Un ♂ Parong a 2200 ft.

*Habitat.* Specie dell' Assam.

*C. aboricus*, n. sp.

♀.—Pallide olivaceus vittis duabus contiguis a vertice ad apicem abdominis perductis vix fuscioribus ornatus. Caput elongatum, depressum, retrorsum nonnihil angustatum, occipite utrinque sulcato, antennis brevissimis parte attenuata femorum anticorum vix longioribus. Pronotum laeve. Mesonotum et metanotum minime obsolete granulosa, utrinque ad margines laterales granulis 3-5 majoribus fuscioribus instructa, carinula media tenuissima. Sterna fusco marmorata. Abdomen tenuiter pluricarinulatum, segmento ultimo apice bilobo, lamina supraanali minutissima, carinata apposita. Operculum naviculare,

haud inflatum, apicem abdominis subattingens. Cerci brevissimi, conici. Pedes longi. Femora antica triquetra, carina supera acute serrato-dentata, carinis coeteris muticis. Femora intermedia superne carina antica in lobum tridentatum humilem, sed plus quam tertiam partem medianam nuncupatim elevata, carina media infera apicem granulis minimis 4-5 instructa. Femora postica carinis muticis vel fere muticis. Tibiae anticae et intermediae superne spinulis 2-3, tibiae posticae apicem versus superne spinulis 3-4 armatae.

Long. corp.	mm. 71
„ capit.	„ 6
„ pron.	„ 3
„ meson.	„ 12.5
„ metan.	„ 8.5
„ segm. med.	„ 3
„ femor. ant.	„ 23
„ „ interm.	„ 14
„ „ post.	„ 18.5

Due ♀ senza indicazione di località.

### Gen. *Cuniculina*, Brun.

#### *C. rotungina*, n. sp.

♀.—Gracillima, parva, pallide straminea. Caput nonnihil depressum, retrorsum angustatum, vertice griseo, inter antennas carinulis duabus divergentibus instructo, summo vertice inter oculos in carinam transversam medio ab incisura angulata in lobos duos triangulares divisa instructo. Antennae brevissimae, capite cum pronoto subaeque longae, articulo apicali vix infuscato. Pronotum laeve margine postico utrinque medio nigro subillime signato, utrinque ad angula postica verruca minuta fusca signatum. Mesonotum et metanotum laevia. Meso-et metapleurae supra insertionem coxarum infuscaetae. Meso-et metasterna minutissime granulosa. Femora antica superne basi spinis nigris 4 minutis, dehinc spinula minuta in medio et ante apicem fuscis. Femora intermedia mesonoto aequae longa, nonnihil incurvata, superne carinis obsolete undulatis, inferne utrinque spinulis infuscatis obtusis instructa. Femora postica uti intermedia constructa. Tibiae omnes subtus utrinque spinulis obtusis fuscis nonnullis remotis instructae. Segmentum anale apice truncato, vix emarginato, lamina supraanali triangulari apposita. Cerci breves conici, acuminati, lamina supraanali aequae longi. Operculum gracile, compressum, carinatum, acutum, apicem abdominis superans.

Long. corp.	mm. 50
„ capit.	„ 3.5
„ pron.	„ 2
„ meson.	„ 11
„ metan.	„ 5

Long. segm. med.	mm.	2
„ fem. ant.	„	17
„ „ interm.	„	11.5
„ „ post.	„	13.5

Una ♀ Rotung, alt. 1300 ft.

Specie alquanto affine a *C. detrectans* Br. ma differente per la forma speciale della cresta del vestice, e per la struttura dei piedi.

### *C. perfida*, n. sp.

*Bacillus (Baculum) artemis*, Wood-Mason, *Fourn. As. Soc. Bengal*, XI, II, Part II, p. 51, pl. vi, fig. 2, 2a, 2b, 2c, 2d, var. (1873); (nec Westwood, *Cat. Phasm.*, p. 10, pl. xxvi, fig. 9, 9a (1859); nec Wood-Mason, *loc. cit.*, pl. vi, fig. 1).

♀ —Terrea, undique dense granulosa. Caput retrorsum angustatum, vertice pone antennis utrinque cornu brevi compresso armato, sparse acute granoso. Antennae brevissimae, articulo primo laminato-ampliato, flagello capiti cum pronoto aequo longo. Segmentum 6 (7) ventrale margine postico in medio spina depressa triangulari procumbenti armato. Segmentum anale apice late bilobo, incisura medio angulata, lamina supraanali apposita minuta, apice truncato, carinata. Cerci breves, conici. Operculum naviculare, compressum, apice carinato, apicem abdominis haud attingens. Femora antica superne densius subtus remote serrata. Femora intermedia subtus pone basim carina postica spina lobulari triangulari rotundata instructa, ante apicem bispinosa, carina media apice quadridentata, superne carina media spinis 3-4 remotis armata. Femora postica subtus spina lobulari basali nulla, carina media apice quadridentata, carina postica 5-6 remote spinosa, carina antica 3-5 spinosa, superne carina media remote 4 spinosa. Tibiae anticae superne spina unica pone basim armatae. Tibiae intermediae superne carina media pone basim dentibus lobularibus triangularibus acutis 2, spinisque 2 ante apicem armata, subtus mutica, carina media tantum ad basim elevato ampliata. Tibiae posticae superne 6 spinosae, subtus muticae, carina media tantum ad basim elevata.

Long. corp.	mm.	110
„ capit.	„	6.5
„ pron.	„	4
„ meson.	„	21
„ metan.	„	14
„ segment. med.	„	4
„ fem. ant.	„	33
„ „ interm.	„	20
„ „ post.	„	25

Una femmina adulta. Upper Rotung, alt. ca. 2000 ft.

Una femmina giovane. Rotung, alt. 1300 ft.

Questa specie somiglia assai all'esemplare figurato da Wood-Mason e da lui ritenuto come varietà di *Bacillus artemis*, Westw. dal quale invece è ben distinta.

Brunner von Wattenwyll nella sua Monografia dei Fasmidi riconobbe giustamente questa distinzione e designò col nome di *Clitumnus porrectus* l'esemplare suddetto figurato da Wood-Mason, dandone una descrizione in parte desunta dalla figura del Wood-Mason ed in parte, ma soprattutto, fatta su un esemplare della collezione Pantel raccolto a Kurseong nell' India settentrionale, che egli credette uguale a quello figurato da Wood-Mason. Ma il Brunner incorse in un errore. Dalla figura del Wood-Mason, per quanto imperfetta, risulta però evidente che il vertice non è privo di sporgenze, carattere distintivo del gen. *Clitumnus*, ma munito di appendici cornute lamellari (nella figura sopra citata mal rappresentate perchè somigliano quasi ad una cresta trasversale) carattere distintivo del gen. *Cuniculina*. L'esemplare dunque della collezione Pantel, descritto da Brunner ha il vertice privo di corna e quindi è un vero *Clitumnus* e ben distinto da quello figurato da Wood-Mason. Anche le figure date dal Westwood per *Bacillus Artemis* sono prive di corna al vertice, quindi appartengono al gen. *Clitumnus*.

Si tratta quindi di tre specie distinte :

1. *Clitumnus artemis*, Westwood, *Cat. Phasm.*, p. 10, pl. xxvi, fig. 9, 9a (1859)—Wood-Mason, *Journ. As. Soc. Bengal*, XLII, Part II, p. 51, pl. vi, fig. 1 (1873)—Brunner, *Insektenfam. Phasm.*, p. 195 (1908) (*nec* Wood-Mason, *loc. cit.* var. pl. vi, fig. 2, 2a-d).

2. *Clitumnus porrectus*, Brunner, *Insektenfam. Phasm.*, p. 196 (1908) (synom. *Cl. artemis*, Wood-Mason *excludenda*).

3. *Cuniculina perfida*, Giglio-Tos, ? *Bacillus (Baculum) artemis*, Wood-Mason, *loc. cit.*, p. 51, var. pl. vi, fig. 2. 2a-d (*nec* Westwood, *nec* Brunner, *nec* *Clitumnus porrectus*, Brunner).

Che l'esemplare da me descritto corrisponda precisamente alla figura del Wood-Mason non si può dire. I femori mediani portano presso la base un lobo da ciascuna parte al di sotto, mentre nell'esemplare da me osservato il lobo non si trova che dalla parte posteriore. Tutte le spine che armato i piedi sono poi nella figura citata molto esagerate, ma forse ciò è stato fatto appositamente da Wood-Mason per far risaltare meglio, come egli dice appunto a p. 51, i caratteri differenziali della specie tipica. "A variety found in all the districts mentioned above with the exception of the Bhután Doars is figured side by side with the typical form on the same plate as showing the value of the armature of the legs unsupported by other characters in making a species" Ma in tutti gli altri caratteri risultanti dalla figura e dei particolari: granulosità del corpo, proporzioni delle parti, forma dell' opercolo e dei cerci, forma del segmento anale e della lamina sopraanale e soprattutto poi la spina del settimo segmento ventrale, caratteristica di questa specie, vi corrispondono esattamente.

Le località menzionate da Wood-Mason sono : Sikkim, Cachar, Samagooting in Naga Hills.

Gen. *Menexenus*, Stål.*M. rotunginus*, n. sp.

♂ ♀.—Fuscoterreus, rugosus et granulosus. Caput pone antennis utrinque spina antrorsum versa, acuta, armatum, in ♀ pone spinas dense granosum, in ♂ sublaeve. Antennae longae, setaceae, articulis omnibus flavo-testaceis apice infuscato, qua de re antennae fusco-annulatae. Pronotum in ♀ grosse in ♂ obsolete granosum. Mesonotum in ♀ tectiformiter compressum, carinatum, sparsim granosum et rugulosum, ad latera et in carina media granulis nonnullis majoribus, margine postico medio bituberculato, in ♂ sparsim minute granulosum, subcylindricum, carina media nulla, margine postico tuberculis binis minoribus. Metanotum in ♀ uti mesonotum constructum, in ♂ sublaeve, margine postico granulo unico minutissimo instructum. Segmentum medianum metanoto dimidio brevius, margine spina armato, in ♀ depressa, procumbente, in ♂ conica, erecta. Abdomen in ♀ depressum, pluricarinulatum grosse granosum, segmentis 1-5 margine postico spina media procumbenti armatis, segmento 8° in lobum compresso-cristatum triangularem, acutum, retrorsum nutantem elevatum, segmento anali brevi, grosse granoso, tricarinato, apice truncato, lamina supraanali brevi, transversa, carinata apposita. Abdomen ♂ subcylindricum, nodosum, obtuse granosum, segmentis 1-5 ante marginem posticum spina conica, acuta, erecta, armatis, segmentis 6-8 ante apicem tuberculo medio obtusissimo instructis, segmento anali compresso, apice profunde fisso, lobis lateralibus intus minute denticulatis. Pectus et venter in ♂ minute in ♀ grosse granosa. Cerci in utroque sexu brevissimi, crassi, deplanati apice truncato. Operculum naviculare, ampliatus, carinatus, apice rotundato. Segmentum ventrale 8 ♂ cucullatum, globosum, margine postico rotundato, apice carinato. Femora antica ♀ margine supero irregulariter undulato, ♂ subrecto. Femora intermedia ♀ metanotum cum segmento mediano superantia, utrinque superne dentibus lobatis, rotundatis 4 instructa, 2 intermediis majoribus, subtus utrinque lobo praeapicali triangulari rotundato instructa. Femora intermedia ♂ superne utrinque minute et obtuse quadridentata, subtus utrinque dente praeapicali triangulari acuto armata. Femora postica ♀ superne utrinque irregulariter minute undulata, subtus ante apicem utrinque dente triangulari armata. Femora postica ♂ superne subteretia, subtus utrinque dente praeapicali armata. Tibiae omnes ♀ superne pluriondulato-lobatae, lobis in tibiis anticis majoribus in posticis minimis, in ♂ subteretes.

		♂	♀
Long. corp.	mm.	58	69
„ capit.	„	4.5	6
„ pron.	„	4	4.5
„ meson.	„	13.5	16
„ metan.	„	6	6
„ segm. med.	„	3	4

		♂	♀
Long. fem. ant.	mm.	18	17
„ „ interm.	„	13	13
„ „ post.	„	17	19

Un ♂ ed una ♀ adulti. Rotung alt. 1500 ft.

Una larva ♀ Below Damda, 3000 ft.

Un'altra larva ♀ Kobo, alt. 400 ft.

Specie somigliante alquanto a *M. semiarmatus*, Westw., ma distinta per la struttura dei piedi e soprattutto per il lobo triangolare che si eleva sull' 8° (9°) segmento dell'addome nella femmina.

Il maschio somiglia alquanto a quello di *Medaura Austeni* figurato da Wood-Mason in Journ. As. Soc. Bengal, XLVI, Part II, p. 343, pl. iii, fig. 4, 4a, 4b ma ne differisce per le spine del capo, mancanti in quest'ultima, per la struttura dei piedi e per la mancanza di spina al margine posteriore del meso- e del metanoto

### Gen. *Myronides*, Stål.

#### *M. baucis*, Westw.

*Bacteria Baucis*, Westwood, *Cat. Phasm.*, p. 21, pl. viii, fig. 8 (1859). ♀  
*Lopaphus Baucis*, Wood-Mason, *Journ. As. Soc. Bengal*, XLVI, Part II, p. 349, pl. ii, fig. 2 (1877) ♂.

*Myronides Baucis*, Brunner, *Insektenfam. Phasm.*, p. 254 (1908).

Tre ♂ che corrispondono esattamente alla figura del Wood-Mason. La-ai R., Kalem V., Mishmi country.

Wood-Mason dice che questa specie è abbondante nei dintorni di Sibságar nell'Assam.

#### *M. dawnanus*, n. sp.

♂ Gracillimus, cylindricus, fusco-olivaceus, laevis. Caput laeve, muticus. Antennae corpore longiores. Mesonotum utrinque punctis tribus nigris subobsoletis signatum, angulis posticis elytris minimis squamiformibus albis instructis. Metanotum angulis posticis alis minimis squamiformibus albis ut in mesonoto instructis. Segmentum anale fornicatum in lobos duos acuminatos intus denticulatos angulatim divisum. Cerci breves, crassi, apice incurvo, rotundato. Lamina subgenitalis brevis, cucullata, apice late rotundato truncata. Pedes gracillimi, longissimi, mutici. Femora omnia ante apicem subtus carina media spina triangulari armata.

Long. corp.	mm.	81
„ meson.	„	21
„ metam.	„	8
„ segm. med.	„	4'5
„ fem. ant.	„	28
„ „ interm.	„	21
„ „ post.	„	29

Un solo ♂ Third Camp to Misty Hollow, Dawna Hills, Lr. Burma, 400-2400 ft.

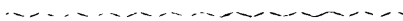
Somiglia assai a *M. baucis* ma è assai più piccolo, manca di linea nera lungo il dorso, è più gracile e presenta agli angoli posteriori del meso-e del metanoto dei rudimenti degli organi del volo che appaiono a mo, di due piccole squamette bianche.

Gen. *Calvisia*, Stål.

*C. fusco-alata*, Redt.

? *Calvisia fusco-alata*, Redtenb., in: *Insektenfam. Phasm.*, p. 567 (1908).

Un individuo solo molto guasto. La-ai R., Kalem V., Mishmi country. Sono quindi assai incerto sulla esattezza della determinazione.





## XXXII. TERMITIDAE

By F. SILVESTRI (*in Portici, Italy*).

The Termitidae here recorded were collected either by Mr. F. H. Gravely in Lower Burma or by Mr. S. W. Kemp in the Abor country and belong to eleven species, of which seven are described as new.

### 1. *Schedorhinotermes magnificus*, sp. n.

*MILES MAJOR*. Corpus subluteum mandibulis nigris.

Caput (fig. i) subaeque longum<sup>1</sup> atque postice latum, antrorsum gradatim aliquantum angustatum, labio subtrapezoideo, paullum latiore quam longiore, mandibulis robustis, quam caput magis quam dimidium brevioribus, dentibus consuetis magnis. Antennae 18-articulatae, articulo tertio quam quartus aliquantum longiore, articulo quarto quam quintus parum brevior (in exemplo uno antenna altera 17-articulata, articulo tertio quam quartus vix longiore et articulo quarto quam quintus etiam vix longiore).

Pronotum (fig. i) quam caput multo angustius, angulis late rotundatis margine postico paullum sinuato; meso-et metanoto lateribus late rotundatis.

Abdomen ovale elongatum segmentorum margine postico setis sat numerosis brevibus et paucis longiusculis instructum. Cerci sat elongati. Pedes longi, breviter setosi, tibiae spinis apicalibus elongatis.

Long. corp. mm. 7.6; long. capitis cum mandibulis 3.9, ejusdem lat. 2.6, long. antennarum 3, mandibularum 1.55, tibiae III 2.

*MILES MINOR*. Corpus flavescens, mandibulis nigris.

Caput (fig. ii) parum minus quam  $\frac{1}{3}$  longius quam latius, lateribus parallelis, antice parum angustatum, postice late rotundatum, labio subrectangulari mandibulas vix superante, parum minus quam duplo longiore quam latiore, mandibulis dentibus consuetis instructis. Antennae 16-articulatae, articulo tertio quam quartus aliquantum longiore, articulo quarto quam quintus paulum brevior.

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<sup>1</sup> Capitis longitudo a margine postico ad labii basim mensa est.

Long. corp. mm. 5; long. capitis cum mandibulis 2.22, ejusdem lat. 1.05, long. antennarum 2.05. mandibularum 0.94, tibiae III 1.18.

*OPERARIUS*.—Corpus stramineum, capite cremeo.

Caput paullum latius quam longius, clypeo parum convexo. Antennae 18-articulatae, articulo tertio quam quartus parum longiore, articulo quarto quam quintus brevior.

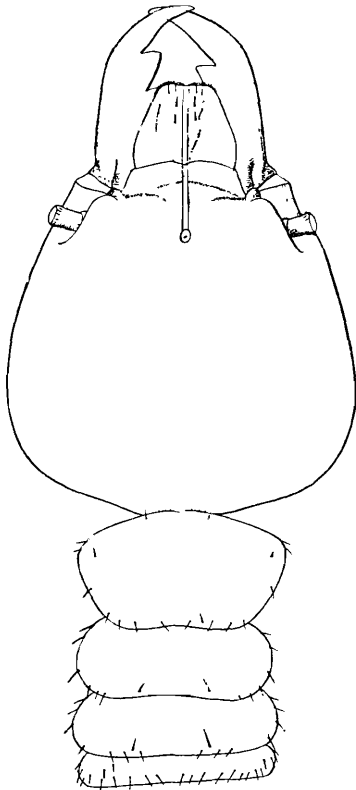


FIG. i.—*Schedorhinotermes magnificus*, miles major: caput, thorax et urotergitum primum prona.

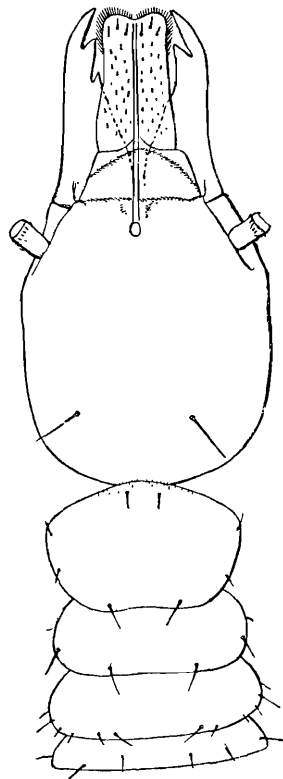


FIG. ii.—*Schedorhinotermes magnificus*, miles minor: caput, thorax et urotergitum primum prona.

Pronotum lobi anteriori margine late rotundato, medio indistincte sinuato. Abdomen setis numerosis brevibus instructum.

Long. corp. mm. 5; long. capitis 1.70; lat. cap. 1.85; long. antennarum 2.10, tibiae III 1.62.

Habitat. Misty Hollow, W. side of Dawna hills, Lr. Burma, ca. 2200 ft. (F. H. Gravely—22-30. xi. 1911).

Observatio. Species haec ad *S. malaccensis* Holmgr. proxima est, sed magnitudine et antennarum articularum numero distincta est.

2. *Termes annandalei*, sp. n.

*MILES MAJOR*. Corpus capite sublatericio, mandibulis nigris, cetero supra badio, subtus sordide fulvescente.

Caput (fig. iii, 1) partem anticam versus paullum angustatum, paullum longius quam postice latius, parum convexum, fontanella multo longe a clypeo, parum ante dimidium caput, sita, labro antice subtriangulari et albicante, mandibulis robustis apice bene arcuato. Antennae 17-articulatae, articulo tertio quam secundus *ca.* 1-3 longiore et quam quartus *ca.* 1-6 longiore, articulo quarto quam quintus vix longiore.

Pronotum (fig. iii, 2) quam capitis dimidia latitudo paullum latius, antice et postice late, parum profunde sinuatum, lateribus angustatis margine rotundato. Pedes tibia infra setis subspini-formibus sat numerosis et spinis apicalibus consuetis 3,2,2 armata.

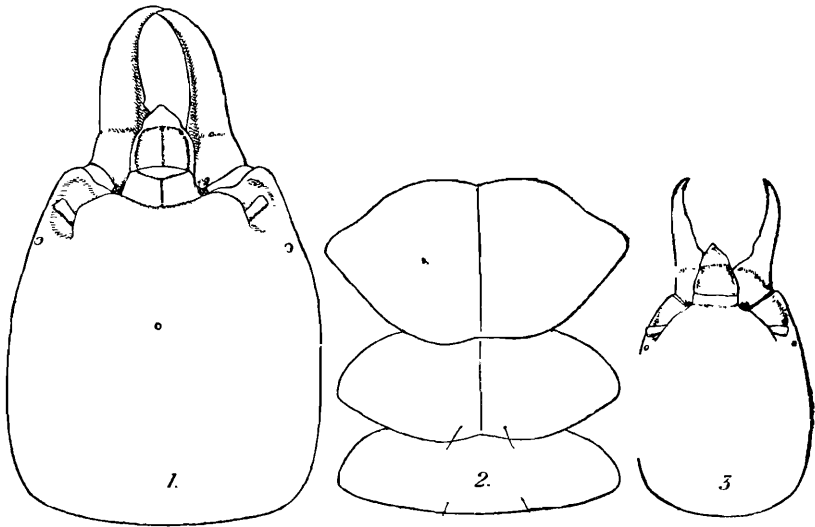


FIG. iii.—*Termes annandalei*: 1. militis majoris caput. 2. ejusdem thorax (magis ampliatus); 3. militis minoris caput.

Abdomen tergitis et sternitis setis sat longis, 2-3 seriatis, instructis.

Long. corp. mm. 12; long. capitis sine mandibulis 5, ejusdem lat. 4.3; long. mandibularum 2.6, tibiae III 3.5.

*MILES MINOR*. Militi majori similis est sed differt mandibulis (Fig. iii, 3) magis attenuatis, antennarum articulo secundo quam tertius vix brevior.

Long. corporis mm. 7.5; long. capitis 3, ejusdem lat. 2.6; long. mandibularum 2, tibiae III 2.5.

*OPERARIUS MAJOR*. Corpus capite badio macula subcirculari mediana albicante ornato, clypeo fulvo-castaneo, cetero supra fulvo-castaneo, subtus fulvescente, pedibus isabellinis.

Caput subcirculare, clypeo sat inflato. Antennae 17-articulatae, articulo tertio quam secundus vix brevior et quam quartus fere 1-5 longior, articulo quarto quam quintus paulum longior.

Pronotum lobi antici margine medio haud sinuato.

Abdomen tergitis setis 2-3-seriatis, sternitis setis sat longis 2-3 seriatis et aliis brevibus instructum.

Long. corp. mm. 7; lat. capitis 2.3; long. antennarum 3.5, tibiae III 2.5.

*OPERARIUS MINOR* operario majori similis est, sed capitis colore parum pallidior, antennarum articulo tertio quam secundus parum et quam quartus paulum brevior.

Long. corp. mm. 4.6; lat. capitis 1.5; long. antennarum, 2.5, tibiae III 1.9.

Habitat. Moulmein (Lower Burma).

Observatio. Species haec, Calcuttae Musei Directori Prof. Annandale dicata, ad *Termes malaccensis*, Hav. proxima est, sed militis majoris statura et militum fontanella cephalica multo magis a clypeo remota praesertim distinctissima est.

### 3. *Odontotermes assamensis*, Holmgren.

Specimens collected by the Abor Expedition at Sadiya, Dibrugarh and Yembung.

### 4. *Odontotermes microdens*, Holmgren.

A few specimens, collected by the Abor Expedition in rotten wood near Kobo at 400 ft. alt., agree with co-types received by Dr. N. Holmgren and collected by Fletcher at Chaumahani. Other specimens, collected at Gurdaspur, are a little smaller than those from Kobo.

### 5. *Odontotermes feae* (Wasm.)

The Abor Expedition collected at Sadiya a few specimens of *Odontotermes* that differ from the typical form of *O. feae* in their smaller size, having the soldiers with the head, without mandibles, mm. 2.40 long, and 1.88 wide, and the mandibles 1.45 long.

### 6. *Odontotermes gravelyi*, sp. n.

*MILES*. Corpus cremeo—flavum capite ferrugineo mandibulis nigris.

Caput (fig. iv, p. 429) parum longius quam latius, partem anticam versus paulum angustatum, supra parum convexum, labro antice parum angustato rotundato, fontanella oblecta, mandibulis robustis apice bene arcuato. Antennae 17—articulatae, articulo secundo quam tertius ca. 1-4 longior, articulo quarto quam tertius vix longior.

Pronotum (fig. iv) lobi anteriori margine medio paululum sinuato, margine postico parum sinuato, marginibus lateralibus late rotundatis. Mesonotum quam pronotum paullo minus latum, metanotum quam mesonotum parum latius.

Pedes longi, setosi, tibiae spinis apicalibus consuetis robustis.

Abdomen tergitis et sternitis setis brevibus et setis brevioribus numerosis instructis.

Long. corp. mm. 8, long. capitis cum mandibulis 4.8, sine

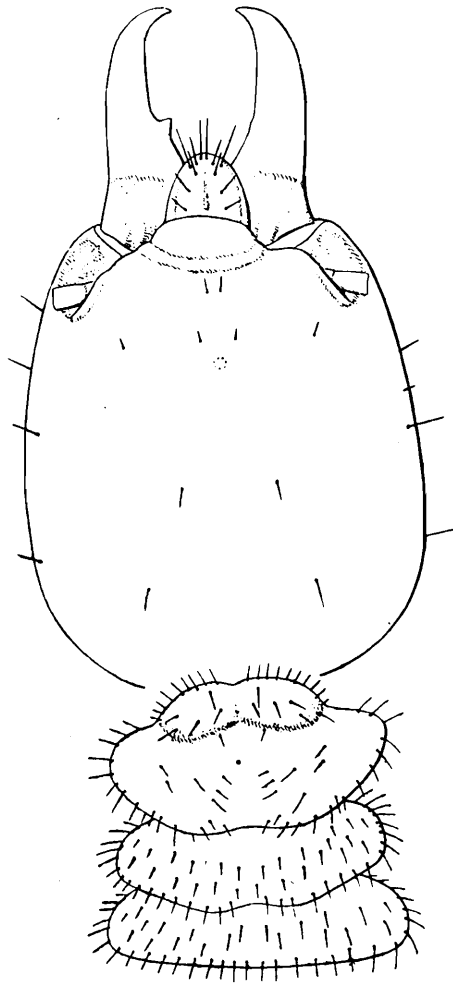


FIG. iv.—*Odontotermes graveleyi*: militis caput et thorax prona.

mandibulis 3.2; lat. cap. 2.6; mandibularum 1.60, antennarum 3.5, tibiae III 2.4.

*OPERARIUS MAJOR*.—Corpus cremeum capite fulvo-ochroleucum, fontanella ochroleuca magna, macula mediana parva fulvescente instructa.

Caput subrotundatum, clypeo sat inflato. Antennae 19-articulatae, articulo secundo quam tertius duplo longiore, articulo quarto quam tertius crassiore et parum longiore, articulum quinto subaequante.

Pronotum lobi anteriori margine medio vix sinuato.

Long. corp. mm. 6; lat. capitis 2; long. antennarum 2.5; tibiae III 1.9.

Habitat. Sukli, E. side of Dawna Hills, Lr. Burma ca. 2100 ft.

Observatio. Species haec ad *O. feae* proxima est, sed militis capitis magnitudine et ejusdem mandibulis apice parum magis arcuato et operarii majoris antennarum articulo tertio quam quartus brevior saltem distincta est.

7. *Eutermes roboratus*, sp. n.

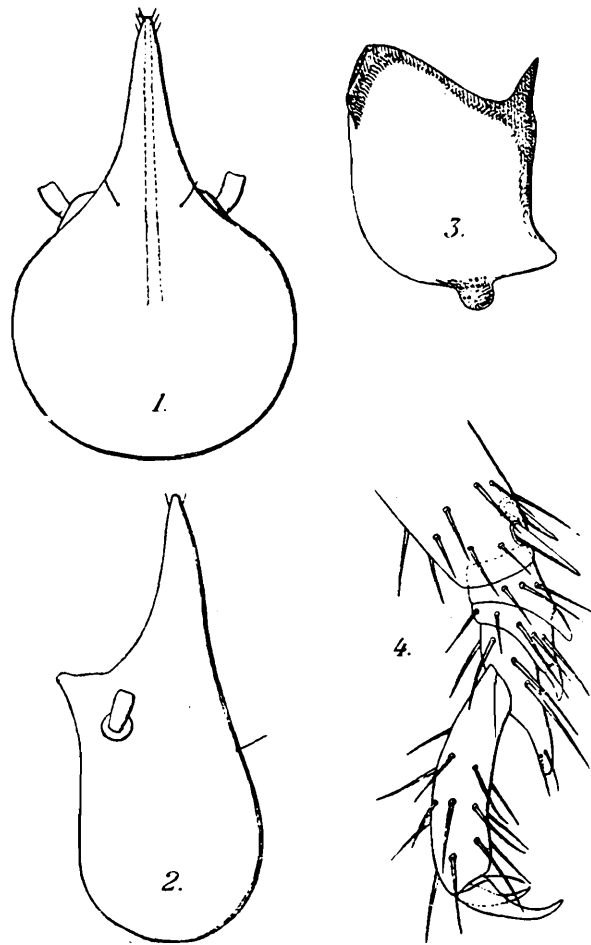


FIG. v.—*Eutermes roboratus*: 1. nasuti caput primum; 2. idem lateraliter inspectum; 3. mandibula; 4. pedum tertii paris tibiae apex, tarsus et praetarsus.

*MILES*. Corpus fulvo-ferrugineum capite fulvo-latericio nasi apice paululum obscuriore, pedibus fulvo-isabellinis.

Caput (fig. v, 1-2) ca.  $\frac{3}{10}$  longius quam latius, fronte subplana, naso<sup>1</sup> recto quam caput ceterum parum brevior, gradatim attenuato. Antennae 13-articulatae, articulo tertio quam secundus  $\frac{1}{3}$  longiore et quam quartus duplo longiore, articulo quinto quam quartus  $\frac{1}{3}$  longiore. Mandibulae vide fig. v, 3.

Pronotum lobi anterioris margine medio vix sinuato. Pedes omnes tibiae apice (fig. v, 4) spinis duabus internis armato.

<sup>1</sup> Nasus semper ab antennarum foveae margine anteriori mensus est.

Abdomen tergitis subnudis, a quinto setis 1+1, a sexto setis 2+2 posticis sat longis instructis, sternitis setis brevibus sat numerosis et setis nonnullis posticis longis vel sat longis instructis.

Long. corp. mm 4; long. capitis 1.94, ejusdem lat. 1.24, long. antennarum 1.64, tibiae III 1.30.

*OPERARIUS*. Corpus ochraceo-isabellinum, capite badio, suturae medianae parte antica sat lata et suturis lateralibus, antennis pedibusque avellaneis.

Caput parum latius quam longius, clypeo parum inflato. Antennae 14-articulatae, articulo tertio secundum longitudine aequante et quam quartus fere duplo longiore, articulo quinto quam quartus c. 1-3 longiore.

Pronotum lobi antici margine antico medio parum sinuato.

Pedes et abdomen eisdem militis similia.

Long. corp. mm 4.5; lat. capitis 1.45; long. antennarum 1.43; tibiae III 1.36.

Habitat. Moulmein (Lr. Burma).

#### 8. *Eutermes moratus*, sp. n.

*NYMPHA*. Straminea oculis nigrescentibus appendicibus alaribus fumosis. Antennae 15-articulatae, articulis 3° et 4° brevioribus.

Long. corp. mm. 7; append. alarium 1.

*MILES*. Corpus stramineum capite pallide ochraceo, naso testaceo-latericio.

Caput (fig. vi, p. 432) parum magis quam 1/3 longius quam latius, lateribus paullum arcuatis, lineo dorsuali subrecta, naso attenuato, mandibulis processu externo sat longo, antennis 13-articulatis, articulo tertio quam secundus 1/3 longiore et quam quartus fere duplo longiore, articulo quinto quam quartus aliquantum longiore.

Pronoti lobus anticus margine medio vix sinuato. Pedes sat setosi, tibiae calcaribus longis.

Abdominis tergita setis minimis sat numerosis et setis nonnullis posticis sat longis, sternita setis brevioribus et brevibus sat numerosis et setis nonnullis posticis longis instructa.

Long. corp. mm 4, long. capitis 1.69, ejusdem lat. 1, long. nasi 0.78, antennae 1.43, tibiae III 0.98.

*OPERARIUS* ignotus est.

Habitat. Yambung. Alt. 1100 ft. (Abor Expedition). S. W Kemp.

Observatio. Species haec ad *E. ceylonicus* Holmgr. et *E. fletcheri* Holmgr. proxima est, sed magnitudine et militis capitis forma saltem distincta est.

#### 9. *Speculitermes cyclops*, Wasm.

Some specimens (workers) collected at "Third camp to Misty Hollow, Dawna Hills, Lr. Burma."

10. *Globitermes audax*, sp. n.

*MILES*. Corpus cremeum capite ochraceo-luteo, mandibularum dimidia parte distali fusco-sufa.

Caput (fig. vii, p. 433) subaeque longum atque latum, subrotundatum, dorso convexiusculo et setis nonnullis instructo, labro pullum longo quam postice lato, antice angustato, apice pallido, parum rotundato. Antennae 14-articulatae, articulo tertio secundum longitudine subaequante et quam quartus *ca.*  $\frac{1}{3}$  longiore, articulo quarto quam quintus *ca.*  $\frac{1}{5}$  brevior. Mandibulae quam

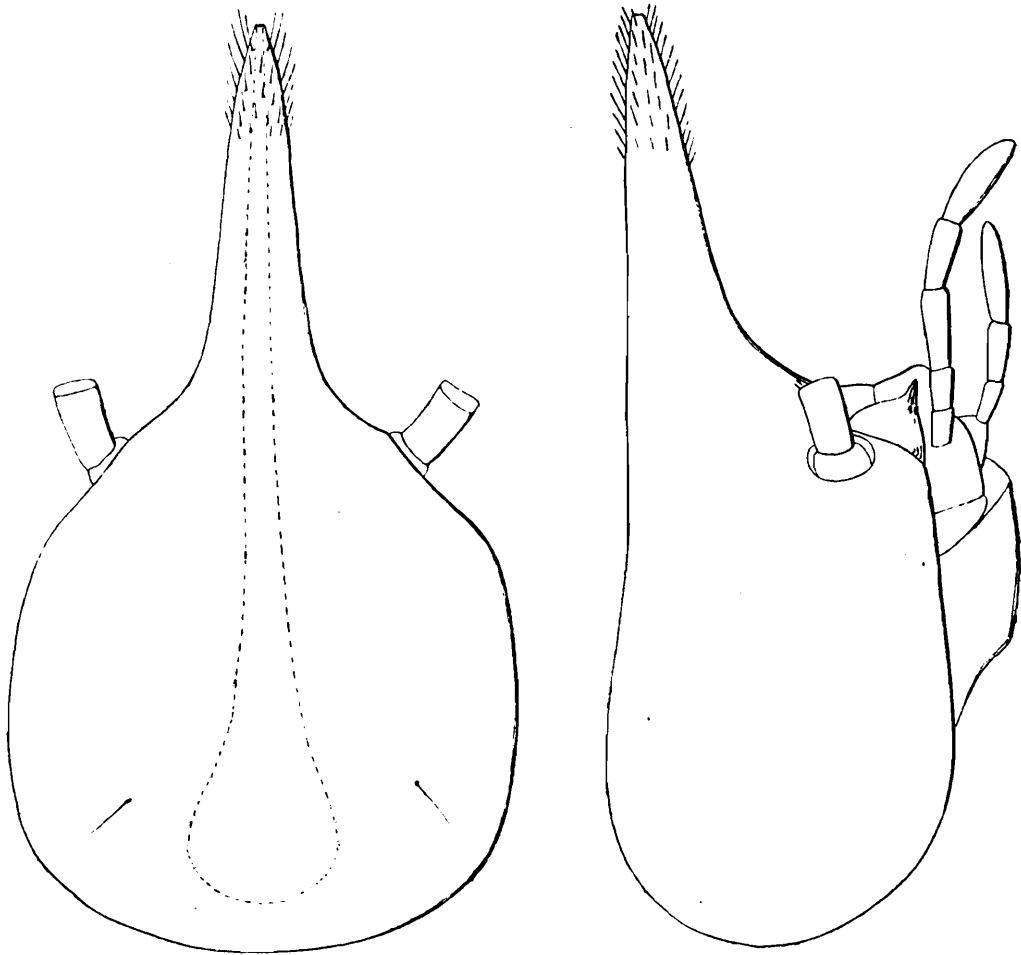


FIG. VI.—*Eutermes moratus*: 1. militis caput pronum; 2. idem lateraliter inspectum.

caput parum breviores, dente submediano robusto, parte apicali valde arcuata apice attenuato acuto.

Pronoti lobus anticus sat magnus, margine antico medio aliquantum inciso.

Abdomen setis brevioribus numerosis et setis brevibus nonnullis instructum.

Pedes tibiae spinis apicalibus (fig. viii, 2, p. 433) brevibus armati.

Long. corp. mm 5; long. capitis sine mandibulis 1.17, ejusdem lat. 1.20; long. mandibularum 1.06, tibiae III 1.18.

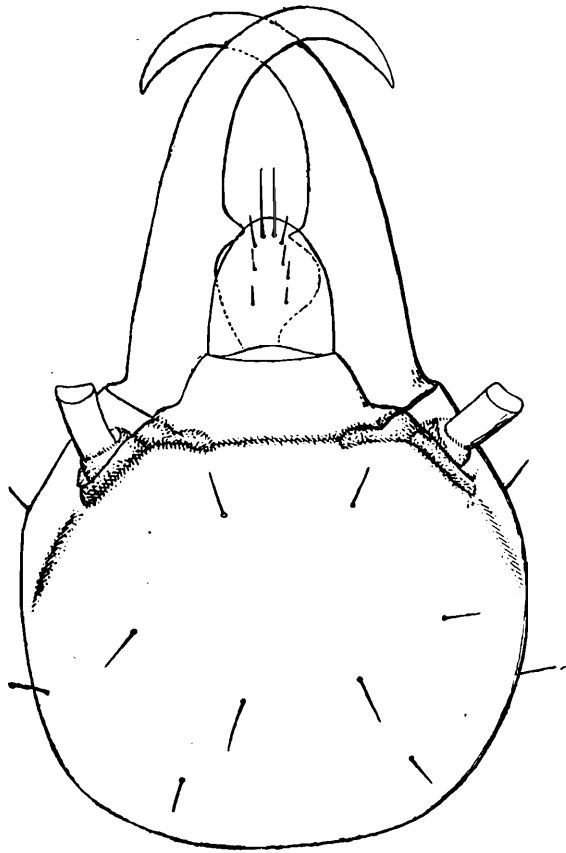


FIG. vii.—*Globitermes audax*: militis caput.

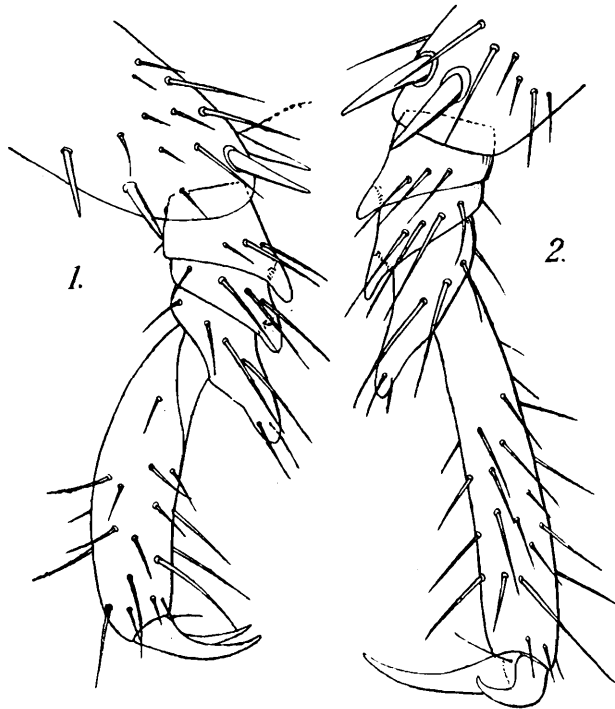


FIG. viii.—*Globitermes audax*: 1. operarii secundi paris tibiae apex, tarsus et praetarsus; 2. militis tertii paris tibiae apex, tarsus praetarsus.

*OPERARIUS.* Corpus stramineum capite cremeo.

Caput paullum latius quam longius, clypeo bene inflato, antennis 14-articulatis, articulo secundo quam tertius aliquantum longiore, articulo tertio quam quartus aliquantum longiore, articulo quarto quam quintus aliquantum brevior.

Pronoti lobus anticus sat magnus, medius paullum incisus.

Long. corp. mm 5; lat. capitis 1.23; long. tibiae III 1.04.

Habitat. Exempla nonnulla ad Moulmein (Burma); *Gravely legit.*

Observatio. Species haec ad *G. sulphureus* (Hav.) proxima est, sed magnitudine et mandibularum parte distali magis arcuata praesertim distinctissima est.

## II. *Capritermes laetus*, sp. n.

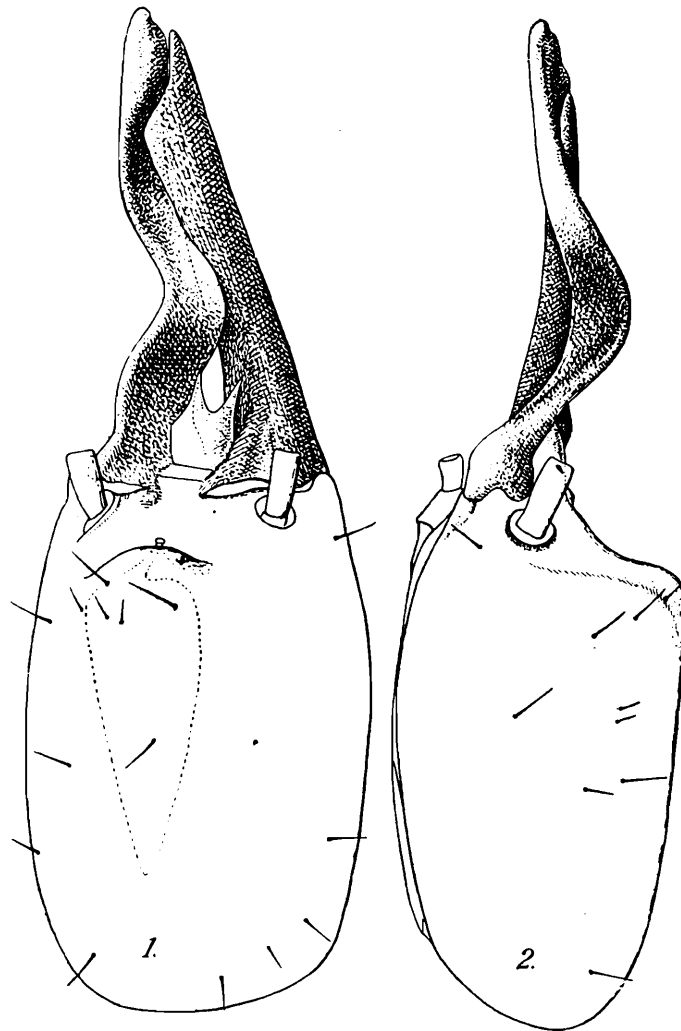


FIG. IX.—*Capritermes laetus*: 1. militis caput pronum; 2. idem lateraliter inspectum.

*MILES.* Corpus stramineum capite cremeo, mandibulis nigrescentibus.

Caput (fig. ix) circa 1/3 longius quam latius lateribus paul-

lum convexis, dorso convexo, fronte super fontanellam rotundatim aliquantum inflata, superficie setis nonnullis instructa, labro profunde inciso et lateribus anticis attenuatis elongatis, acutis. Antennae 14-articulatae, articulo tertio secundum subaequante et quam quartus vix longiore. Mandibula laeva quam caput paullum brevior, minus arcuata quam eadem *C nemorosi*, Hav.

Pronoti lobus anticus sat magnus, haud incisus est.

Abdomen setosum, cercis sat longis.

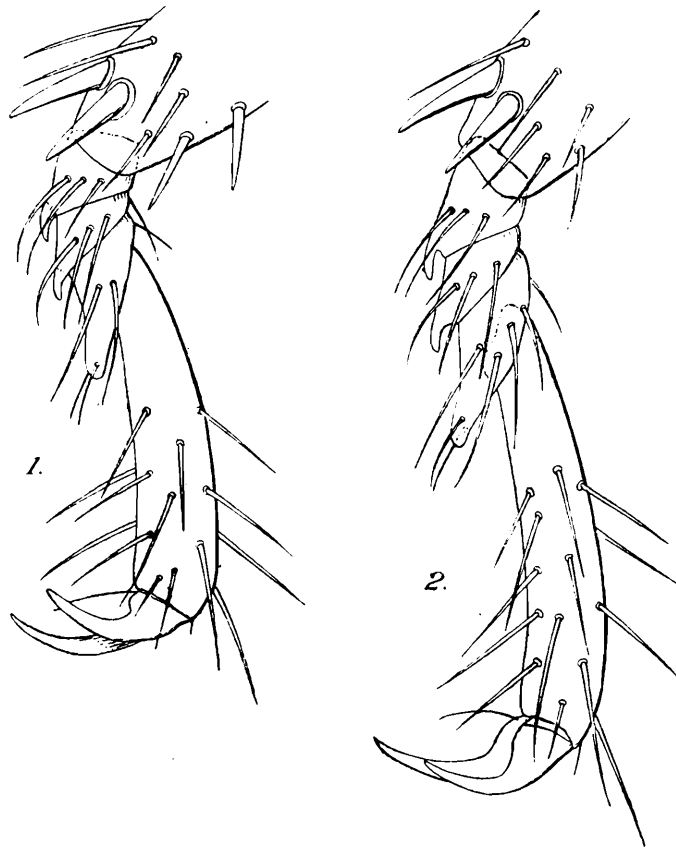


FIG. X.—*Capritermes laetus*: 1. militis secundi paris tibiae apex tarsus et praetarsus; 2. militis tertii paris tibiae apex, tarsus et praetarsus.

Pedes longi, sat robusti, tibiae (fig. x) spinis apicalibus sat longis, tarsi articulis 1-3 postice infra attenuatis et elongatis.

Long. corp. mm 6.5; long. capitis sine mandibulis 2.25; ejusdem lat. 1.45; long. mandibulae laevae 2.08, tibiae III 1.32.

Habitat. Exemplum typicum ad. Sukli, E. side of Dawna hills, Lr. Burma ca. 2100 ft. *Gravelly legit.*

Observatio. Species haec ad *C. incola*, Wasm. proxima, sed magnitudine, antennarum articulo quarto quam tertius vix brevior bene distincta est.



XXXIII LEPIDOPTERA, II. MOTHS.

By GEORGE M. HENRY.

The Moths collected by Mr. Kemp in the Abor country are few in number and mostly of no great geographical interest, being for the most part, species of wide distribution. No new species are described. I have identified the specimens mainly by comparison with specimens in the Dudgeon collection from Sikhim, Bhutan, etc., and the Green collection from Ceylon, both of which are now in the Indian Museum. I have also used the old Indian Museum general collection to a considerable extent.

The nomenclature and classification adopted is that of Sir G. F. Hampson in the Fauna of British India, Moths, and in his supplementary papers on the Moths of India in the Journal of the Bombay Natural History Society.

1. *Saturnia pyretorum*, Westw.

2 specimens. Yambung. March 1912.

The previously recorded distribution of this species is China and Sikhim.

2. *Dilemera arctata*, Wlk.

1 specimen. Rotung. 28-xii-11.

Previously recorded from Sikhim; Khasis; Nagas and Bhutan.

3. *Nyctemera varians*, Wlk.

1 specimen. Sadiya. 27-xi-11.

Previously recorded from Sikhim Bhutan; N. E. India and Burma.

4. *Nyctemera coleta*, Cram.

1 specimen. Kobo. 30-xi-11.

Previously recorded from Assam; Ceylon; Burma; Malacca, Java and Ceram.

5. *Mitochrista perpallida*, Hamp.

1 specimen. Rotung. 20-xii-11.

The Abor specimen is ochreous on head, thorax and abdomen. This species is recorded from Sikhim.

6. *Miltochrista undulosa*, Wlk.

1 specimen. Rotung. 25-xii-11.

Previously recorded from Kángra; Sikhim; Khásis and Moulmein.

7. *Agrotis flavirena*, Moore.

1 specimen. Rotung. 23-xii-11. Caught at light.

Previously recorded from Sikhim.

8. *Prodenia littoralis*. Boisd.

1 specimen. Kobo. 7-xii-11. Caught at light.

This species is widely distributed through the Mediterranean sub-region and throughout the tropical and sub-tropical zones of the Old World.

9. *Amyna selenampha*, Guen.

1 specimen. Dibrugarh. 22-xi-11.

Previously recorded from Natal; Madagascar; China; throughout India and Ceylon; Andamans; Philippines; Borneo and Java.

10. *Sypna quadrisignata*, Wlk.

1 specimen. Margharita. 26-xi-11.

Previously recorded from Dharmsala; Sikhim; Shillong; Tavoy.

11. *Acantholipes pansalis*, Wlk.

1 specimen. Dibrugarh. 22-xi-11.

Previously recorded from Formosa; Andamans; Singapore; throughout India; Ceylon and Burma.

12. *Thermesia rubricans*, Boisd.

1 specimen. Kobo. Undated.

Previously recorded from Africa; throughout the Indian region: Java and the Pacific Islands.

13. *Plusia orichalcea*, Fabr.

1 specimen. Rotung. 10-iii-12.

Previously recorded from the Azores; Madeira; Canaries; St. Helena; Ascension; S. Africa; Mauritius; Arabia; Japan; China; Formosa; throughout India and Ceylon.

14. *Raparna digramma*, Wlk.

1 specimen. Sadiya. 26-xi-11.

Previously recorded from N. W. Himalayas; W and S. India and Ceylon.

15. *Simplicia nippona*, Butl.

2 specimens. Rotung. 27-xii-11. Caught at light.  
1 specimen. Rotung. 22-xii-11.

This species is recorded from Japan; N W Himalayas; Sikhim.

16. *Nodaria externalis*, Guen.

1 specimen. Rotung. 21-xii-11.

The Abor specimen is very pale in colouration. The species is recorded from S. Africa; Mauritius; Japan; Formosa; Borneo; throughout India, Burma and Ceylon.

17. *Nodaria innocens*, Butl.

1 specimen. Yambung. 14-i-12.

Previously recorded from Japan: Dharmśála; Sikhim; Assam; Nilgiris.

18. *Hypena occata*, Moore.

1 specimen. Rotung. 26-xii-11.

This species appears to vary considerably. The Abor specimen is pale compared with Ceylon specimens and some of the Dudgeon collection specimens. It closely resembles specimens in the latter from Bhutan.

The previously recorded distribution of this species is Dharmśála; Sikhim; Bhutan; Khásis; Nilgiris; Ceylon.

19. *Heterolocha falconaria*, Wlk.

2 specimens, one unlabelled. Between Kalek and Mishing.  
4500 ft 17-iii-12. Caught at light.

Previously recorded from the Punjab; N. W Himalayas; Sikhim.

20. *Luxiaria contigaria*, Wlk.

1 specimen. Sireng river, below Kalek. 2000 ft. 15-iii-12.  
Caught at light.

Previously recorded from Dharmśála; Sikhim; Khásis; Mahableshwar; Nilgiris; Ceylon; Sumatra and Borneo.

21. *Macaria emersaria*, Wlk.

1 specimen. Kobo. 6-xii-11.

Distributed throughout India, Ceylon and Burma.

22. *Hyperythra lutea*, Cram.

1 specimen. Sadiya. 28-xi-11.

Distributed throughout India, Ceylon and Burma; China; Andamans; Sumatra; Java; New Guinea.

23. *Boarmia ochrifasciata*, Moore.

1 specimen. Sireng river, below Kalek. 2000 ft. 15-iii-12.  
Caught at light.

Previously recorded from Dalhousie; Dharmśála; Sikhim;  
Khásis.

24. *Eumelia rosalia*, Cram.

1 specimen. Abor country (no precise locality given) undated.

This is a widely distributed species recorded from China;  
Formosa; throughout India, Ceylon and Burma; the Malayan and  
Austro-malayan sub-regions.

25. *Naxa textilis*, Wlk.

1 specimen. Between Kobo and Janakmukh. Undated.

Recorded from Amur; N. W Himalayas; Sikhim; Bhutan;  
Assam; Nilgiris; Ceylon; Burma; Borneo.

26. *Cidaria catenaria*, Moore.

1 specimen. Yambung. 13-i-12.

Previously recorded from Sikhim and the Khasis.

27. *Chloroclystis admixtaria*, Wlk.

1 specimen. Yambung. 13-i-12.

Previously recorded from the Nilgiris and Ceylon.

28. *Trichopteryx sikkima*, Moore.

1 specimen. Rotung. 8-iii-12. Flying in sunshine.

My identification of this species is not very satisfactory as the  
Abor specimen is a very poor one.

*T. sikkima* has hitherto been recorded only from Sikhim.

29. *Sauris abortivata*, Guen (= *lineosa*, Moore).

1 specimen. Yambung. 13-i-12.

Recorded from Sikhim; Khásis; Ceylon; Sumatra.

30. *Ephestia cautella*, Wlk.

1 specimen. Kobo. 9-xii-11.

Recorded from Aden; Bhutan; Ceylon; Sumbawa.

31. *Piletocera ægimiusalis*, Wlk.

1 specimen. Yambung. 14-i-12. At light.

Recorded from Sikhim; Khásis; Margharita; Assam; Anda-  
mans; Borneo; Mysol.

32. ***Sufetula sunidesalis***, Wlk.

1 specimen. Yambung. 17-i-12.

Recorded from Sikhim; Margharita; Assam; Ceylon; Malayan sub-region.

33. ***Syngamia floralis***, Zell.

1 specimen. Abor country. Undated.

This species is distributed through S. Africa; India; Ceylon; Burma; the Malayan sub-region; New Hebrides; Duke of York Island; Tahiti.

34. ***Glyphodes unionalis***, Hubn.

1 specimen. Sireng river below Kalek. 2000 ft. 15-iii-12.  
At light.

Distributed through S. Europe; S. and W Africa; Madagascar; Mauritius; Aden; throughout India and Ceylon; Australia.

35. ***Platyptilia taprobanes***, Feld.

1 specimen. Upper Rotung. 6-i-12.

This species has hitherto been recorded from the Palni Hills; Khási Hills; W Java; Ceylon hills.

36. ***Atteva subaurata***, Dout.

1 specimen taken in thick jungle. Rotung. 1-i-12.

37. ***Atteva niveigutta***, Wlk.

1 specimen. Rotung. 9-iii-12.





XXXIV HYMENOPTERA, V: FOSSORES.  
DIPLOPTERA, CHRYSIDIDAE.

*By Lieut.-Colonel C. G. NURSE.*

With a few exceptions, the specimens obtained belong to species well known as occurring in Burma, Tenasserim, and N. E. India. Our knowledge of the smaller aculeate Hymenoptera still leaves much to be desired, and I have not attempted to describe, except in the case of an *Ampulex* which is undoubtedly unknown, new species from the very insufficient material available. Many of the genera occurring in India badly require revision, and it is quite likely that as more material becomes available, several of the forms now passed over as "sp. inc." may prove to be new.

FOSSORES.

*MUTILLIDAE.*

**Mutilla blanda**, Smith.

One ♀ from E. bank of Dihong River, between Pasighat and Kobo, 15-xii-II.

**Mutilla cassiope**, Smith.

One ♀ from Dibrugarh, N. E. Assam, 26-xi-II.

**Mutilla** sp. inc.

One ♀ from Sadiya, N. E. Assam, 26-xi-II.

*SCOLIIDAE.*

**Tiphia intrudens**, Smith.

A ♂ from Dibrugarh, 17-19-xi-II.

**Scolia**, sp. inc.

A ♀ from Kobo, 9-xii-II.

There is no specimen exactly like this either in the B.M. or in my own collection. It is nearest to *S. floridula* (Bingh.) but I note that Bingham, in arranging the B. M. collection, placed his type of that species under *sikkimensis* (Bingh.) though in his volume I of the "Fauna of India" series, he gives his *floridula* as a synonym of *S. kirbyi*, Magretti. The species of this genus are very variable.

**Elis iris**, Lepel.

Three ♂ ♂ and two ♀ ♀ of this widely spread species, from various localities.

**Elis annulata**, Fab.

A specimen of each sex. This species is common and extends almost throughout the Oriental Region.

**CEROPALIDAE (POMPILIDAE).****Macromeris honesta**, Smith.

One ♀ from Upper Rotung, 21-i-12.

This species, which was described by Smith as a *Pompilus*, and is included by Bingham in the genus *Pseudagenia*, is undoubtedly a *Macromeris*. The specimen is quite typical, and differs in no way from others in the B. M. and my own collection. The generic character must have been overlooked by Bingham, but is quite obvious.

**Pseudagenia tincta**, Smith.

A ♀ from Dibrugarh, 17-19-xi-11.

**Salius praestabilis**, Bingham.

One ♀ from Sadiya, 23-xi-11.

**Pompilus**, spp.

There are four specimens from different localities, belonging to probably three different species. Two of them are in indifferent condition. I cannot identify with certainty either of the others, as this genus badly requires revision. The largest specimen from Kobo (3-xii-11) is very probably undescribed.

**SPHEGIDAE.****Tachysphex**, sp. inc.

One ♀ from Kobo, 400ft., 6-xii-11.

**Notogonia**, sp. inc.

One ♀ from Janakmukh, 600ft., 17-xii-11.

Neither of the above are in sufficiently good condition for accurate determination.

**Liris aurata**, Fab.

Two ♀ ♀ ; one Sadiya, 23-xi-11, and one Kobo, 400ft., 9-xii-11.

There is an error in Bingham's description of this species in Vol. I—Hymenoptera. He says "median segment long, as long as the rest of the thorax and head united." This should read

“as long as the rest of the thorax.” I have compared the specimens with those in the B. M. collection, and the determination is quite certain. It is an extremely widely spread species.

***Liris ducalis*, Smith.**

Six ♀ ♀, five of which are from Sadiya, various dates, and one from Rotung, 1400ft., 25-xii-11.

***Paraliris faceta*, Bingh.**

A ♀ from Dibrugarh, 22-xi-11.

***Trypoxylon*, sp. inc.**

One specimen from Rotung, 1400ft., 24-xii-11.  
Not in sufficiently good condition for certain determination.

***Ammophila atripes*, Smith.**

One ♂ from Sadiya, 27-xi-11.

***Sceliphron madraspatanam*, Fab.**

A ♀ from Dibrugarh, 19-xi-11.

***Sphex umbrosus*, Christ.**

One ♀ of this very widely spread species from Dibrugarh.

***Ampulex aborensis*, n. sp.**

♀ Head with the frontal area sparsely and shallowly punctured, vertex and pronotum almost impunctate; mesonotum with a few large and sparse punctures; mesopleurae somewhat sparsely punctured; abdomen impunctate. Clypeus with a very conspicuous central longitudinal carina, which makes it appear almost rostrate when viewed sideways, this carina produced backward to the anterior ocellus; besides the central carina there are two other carinae, which, starting behind the anterior ocellus, lead towards the base of the antennae, becoming more pronounced as they near the latter. Pronotum nearly half as long again as mesonotum, widening gradually towards it; median segment longer than the mesonotum, transversely striate above, and reticulate at the sides, the reticulations gradually disappearing towards the lower portion of the segment. First abdominal segment with the petiole less than half its length, the apex of the segment not much narrower than the 2nd segment.

Brilliant metallic blue, with greenish reflections, the metallic colour continued to nearly the apex of the femora of all the legs, the tibiae also metallic above; below the tibiae and tarsi are rufescent; mandibles black. Pubescence sparse, greyish; there

are a few strong yellowish hairs on the anterior margin of the clypeus and the tibiae and tarsi are covered with a rufous pile; tarsal claws unidentate. Wings fuscohyaline, with 3 cubital cells.

L. 16 mm.

*Hab.* Kobo, 400 ft., 3-xii-11. "Flying on fallen tree trunk."

This is quite distinct from any described Indian species, most of which have red femora.

***Psenuus*, sp. inc.**

Two specimens from Dibrugarh, which may be a variety of *P. pulcherrimus*, Bingh., but differ somewhat in the colour of the petiole.

***Stigmus niger*, Motsch.**

One ♀ from Kobo, 400ft., 9-xii-11.

***Crabro*, sp. inc.**

One damaged specimen from Kobo, 3-xii-11. Impossible to determine.

**DIPLOPTERA.**

***EUMENIDAE.***

***Eumenes arcuata*, Fab.**

One ♂ from Sadiya, 28-xi-11.

***Labus humbertianus*, Sauss.**

One ♂ from Kobo, 400ft., 3-xii-11.

***Rhynchium argentatum*, Fab.**

One ♂ from Sadiya.

***Odynerus fragilis*, Smith.**

Two ♂ ♂ from Dibrugarh, and 3 ♀ ♀ from Sadiya.

***Odynerus icaroides*, Bingh.**

One ♀ from Sadiya, 28-xi-11.

***VESPIDAE.***

***Polybia orientalis*, Sauss.**

Sixteen specimens, all ♀ ♀, from Yembung and Kobo.

***Polybia indica*, Sauss.**

Eight specimens from Upper Rotung; all ♀ or ♀

***Icaria ornaticeps*, Cam.**

One ♀ from Puding, 3000ft., and one from Sadiya.

***Icaria artifex*, Sauss.**

One ♂ from Sadiya, and 3 ♀ ♀ from Sadiya and Dibrugarh.

***Icaria variegata*, Smith.**

Two ♂ ♂ and several ♀ ♀ from Rotung and Sadiya.

***Polistes hebraeus*, Fab.**

One pair from Sadiya.

***Vespa magnifica*, Smith.**

Two ♀ ♀ and two ♀ ♀ from Rotung, Kobo, Sadiya, and Dibrugarh.

***Vespa ducalis*, Smith.**

One ♀ from Rotung, and one from Dibrugarh.

***Vespa cincta*, Fab.**

One ♀ from Kobo.

***Vespa dorylloides*, Sauss.**

One ♀ from Upper Rotung.

***Vespa basalis*, Smith.**

Four ♀ ♀ from Sadiya and Kobo.

***Vespa bicolor*, Fab.**

Two ♀ ♀ and 3 ♀ ♀ from various localities.

**CHRYSIDIDAE.*****Chrysis durga*, Bingh.**

One ♀ from Sadiya, 23-xi-11.

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XXXV CRUSTACEA AMPHIPODA

By WALTER M. TATTERSALL, D.Sc., Keeper of the Manchester Museum.

(Plate xxviii).

The Amphipoda collected by Mr. Stanley W. Kemp on the Abor expedition may all be referred to a single species, which, after much hesitation, I have described as new to science. They are of further interest inasmuch as they are the first semi-terrestrial Amphipoda which have ever been collected in the Indian Empire, to my knowledge. The species shows very close affinity with those described by Weber from Java and other islands of the Dutch East Indies and in particular, with *Orchestia parvispinosa* from Java.

I desire to express my thanks to Dr. Annandale and Mr. Kemp for the privilege of examining and describing these specimens.

**Talorchestia kempii**, sp. nov.

(Plate xxviii, figs. 1-16).

*Locality of capture:*

Reg. No.  $\frac{8089}{10}$ , Dibrugarh, N. E. Assam, November 1911, under stone, one male, adult, 8 mm.

Reg. No.  $\frac{8133}{10}$ , Rotung, near Sireng stream, eleven females, six adult males and six immature males, 6.5-9 mm. (coll. *M. de Courcy*).

*Body* smooth, without dorsal ridges of any kind; eyes of moderate size, pigment black; postero-lateral angle of the third segment of the pleon (fig. 1) quadrate, with a slightly produced point and the hind margin straight, without serrations.

*First antenna* with the flagellum shorter than the peduncle, three jointed.

*Second antenna* with the third joint of the peduncle longer than the second; flagellum about one fifth as long again as the peduncle and composed of about thirteen joints.

*First gnathopod of the female* (figs. 2 and 3) simple, without any appreciable palm; propodus shorter than the carpus with three or four groups of two strong spines on the inner margin, and a row of about six or seven setae on the inner face just inside the margin.

*Second gnathopod of the female* (figs. 4 and 5) with the usual shagreened lobes on the merus, carpus and propodus, that on the latter extending considerably beyond the short oblique palm; setae very few and short.

*First gnathopod of the adult male* (figs. 6 and 7) with the third joint not widening towards the distal end; merus with a well marked shagreened lobe on its hinder margin; carpus slightly longer than the propodus with a well marked produced shagreened lobe on the distal end of the hinder margin, and a few setae scattered on its inner face; the propodus widens distally to the usual rounded shagreened lobe which itself increases in width distally; the finger not covering the whole apex of the propodus; the arrangement of setae on the limb can best be seen on the figures.

In specimens which I take to be immature males, the first gnathopod has the form seen in fig. 10. It is subchelate, but the propodus is much less dilated than in the adult so that the dactylus is at least as long as, or a little longer, than the distal margin of the propodus. The shagreened lobes on the merus, carpus and propodus are also less developed than in the adult.

*Second gnathopod of the adult male* (figs. 8 and 9) with about seven quite small setae on the margin of the side plate; third joint widening somewhat distally; propodus broadly oval, about one and a half times as long as broad, anterior margin convex, without setae, posterior margin convex with the palm slightly oblique, not excavate, not defined by a tooth, fringed with about nine small setae and furnished with a groove or excavation into which the distal end of the finger fits; finger more than half as long as the posterior margin of the propodus, strongly curved and tapering at the end.

The second gnathopods of the immature male (fig. 11) do not differ markedly from those of the adult female.

*Fifth pereopods* (fig. 12) with the second joint slightly broader than long, its anterior margin bearing six or seven spinules in addition to one long and one short spinule on the distal corner, its posterior margin well rounded and bearing about eight minute serrations, a small seta being placed in each serration; fifth joint longer than broad; fourth and fifth joints not expanded or incrassated in any way; the arrangement and number of setae on the limb are shown on the figure.

*First uropods* (fig. 13) with the peduncle longer than the subequal rami and bearing two rows of four spines one row on each ridge of the posterior margin; inner ramus with three lateral spines and one long, one medium and two short spines at the apex; outer ramus with two or three spines at the apex only.

*Second uropods* (fig. 14) with the peduncle longer than the rami and bearing four strong spines on its inner edge; inner ramus with two spines on the margin and two large and three small spines at the apex; outer ramus with two lateral spines and two large and one small spine at the apex.

*Third uropods* (fig. 15) with the peduncle somewhat swollen and slightly longer than the single-jointed ramus; peduncle with one large and one small spine at the centre of the lateral margin and one small spine at the outer distal corner; ramus with one large and two or three small spines at the apex.

*Telson* (fig. 16) triangular in shape, about as broad as long, slightly notched at the apex, a long and a short spine at the tip of each lobe of the apex, a single rather strong spine somewhat distal to the centre of each lateral margin.

*Length* of an adult male and female, 9 mm.

The determination of the generic position of this species has been a matter of some difficulty. The fourth joint of the palp of the maxilliped is distinctly present, but exceedingly small and cannot be called anything more than a vestige. The value of the presence or absence of this joint in the classification of the genera of the Talitridae has never been satisfactorily set forth. Stebbing (1906) separates the genus *Parorchestia* from the *Orchestia* group of genera on the ground that the fourth joint of the palp of the maxilliped is "distinct though very small, conical and having a spine on the truncate apex." In *Orchestia* the same joint is described as an "obscure rudiment." Unfortunately there does not seem to be any published figure of the maxilliped palp of *Parorchestia* and, having no material of this genus at my disposal, I have not been able to form any opinion as to the amount of difference implied in the above two descriptions. I have, therefore, decided that in the present species the fourth joint of the maxilliped palp is "an obscure rudiment" and referred it to the *Orchestia* group of genera. In this group, consisting of *Talitrus*, *Orchestoidea*, *Orchestia* and *Talorchestia*, it seems to belong to the last genus by the combination of the characters of the first and second gnathopods in the two sexes, namely, first gnathopod simple in the female, subchelate in the male, the second gnathopod feebly chelate in the female, strongly subchelate in the male. But, among described species, *T. kempii* comes nearest to *Orchestia parvispinosa* which seems to me to be certainly congeneric with the present form. This species was placed by its describer, Weber (1892), in the genus *Orchestia* and both Stebbing (1906) and Chilton (1912), who examined specimens from the type locality, have retained it in this genus. But the figures of the first gnathopod of the female given by both Weber and Chilton, illustrate, in my opinion, a limb which can only be described as simple and, therefore, of a form which would exclude the species from the genus *Orchestia*. I propose, therefore, to transfer the species *O. parvispinosa*, Weber, to the genus *Talorchestia* and to include the present species in the same genus.

The problem is, however, still further complicated by the form of the first and second gnathopods in the specimens which I have called immature males (figs. 10 and 11). I do not know what other interpretation can be placed on these specimens though it is unfortunate that the sex of immature specimens of the Talitridae is exceedingly difficult to determine, for want of an external label in the form of copulatory organs. We know from the researches of Barrois (1887) that the males of some species, at any rate, of this group of Amphipoda, do not attain the full development of their gnathopoda till the final moults, up till which

stage they resemble more or less closely, those of the female. I, therefore, regard the present specimens as males which have not yet undergone complete metamorphosis. It will be seen from the figures that the first gnathopods of these immature specimens differ from those of the females in being subchelate instead of simple, but they have not yet attained the full subchelate form of the adult male, in that the nail more than covers the palm whereas in adult males, the nail is shorter than the palm. The shagreened lobes on the merus, carpus and propodus, moreover, are not so completely developed. The second gnathopods, on the other hand, resemble those of female specimens almost completely. The interest of these specimens lies in the fact that their gnathopods have the form characteristic of females of the genus *Orchestia*. In other words, if my interpretation of their nature is the correct one, we have here a species of *Talorchestia* in which the male passes through a female *Orchestia* stage during metamorphosis. I do not think it is a question of two species living together. All the specimens were collected together, in the same place, at the same time and agree closely in all details except in the form of the gnathopods. It does seem to me to indicate how very slender are the grounds on which certain genera of Talitridae have been instituted, and how very important it is to have a complete range of specimens before attempting to increase the number of genera. If only the immature and mature males of *T kempii* had been collected, the species would have been referred to the genus *Orchestia*. On the other hand, if only females and mature males had been found, the species would, with equal justice, have been referred to *Talorchestia*. May not the validity of these two genera be justly questioned in the light of the present material and may not one go further and inquire how many species of either genera have been instituted on specimens of the nature of those I have interpreted as immature males?

For the rest, *T kempii* is very closely related to *T parvispinosa* and only differs in the rather different form of the propodus of the second gnathopod of the male and in the armature of the telson. We are indebted to Chilton (1912) for a description of the telson of *T parvispinosa* and his figure depicts three long spines on each margin in addition to the apical spines. In *T kempii* there is but one spine on each lateral margin, and this character is constant in all the specimens in the collection. It may be useful to indicate the position of these two species in Stebbing's key to the genus. They come at the end of the table which may therefore be extended as follows:—

18	}	Gnathopod 2 in the male, palm excavate near finger-hinge ...	18.	<i>T novaehollandiae</i> .
		Gnathopod 2 in the male, palm not excavate near finger-hinge ...	19.	
19	}	Gnathopod 1 in the male, nail longer than the apex of the 6th joint ...	19.	<i>T martensii</i> .
		Gnathopod 1 in the male, nail shorter than the apex of the 6th joint ...	20.	

- 20 { Telson with three spines on the lateral  
 margins ... .. 20. *T. parvispinosa*.  
 Telson with a single spine on the lateral  
 margins ... .. 21. *T. kempii*.

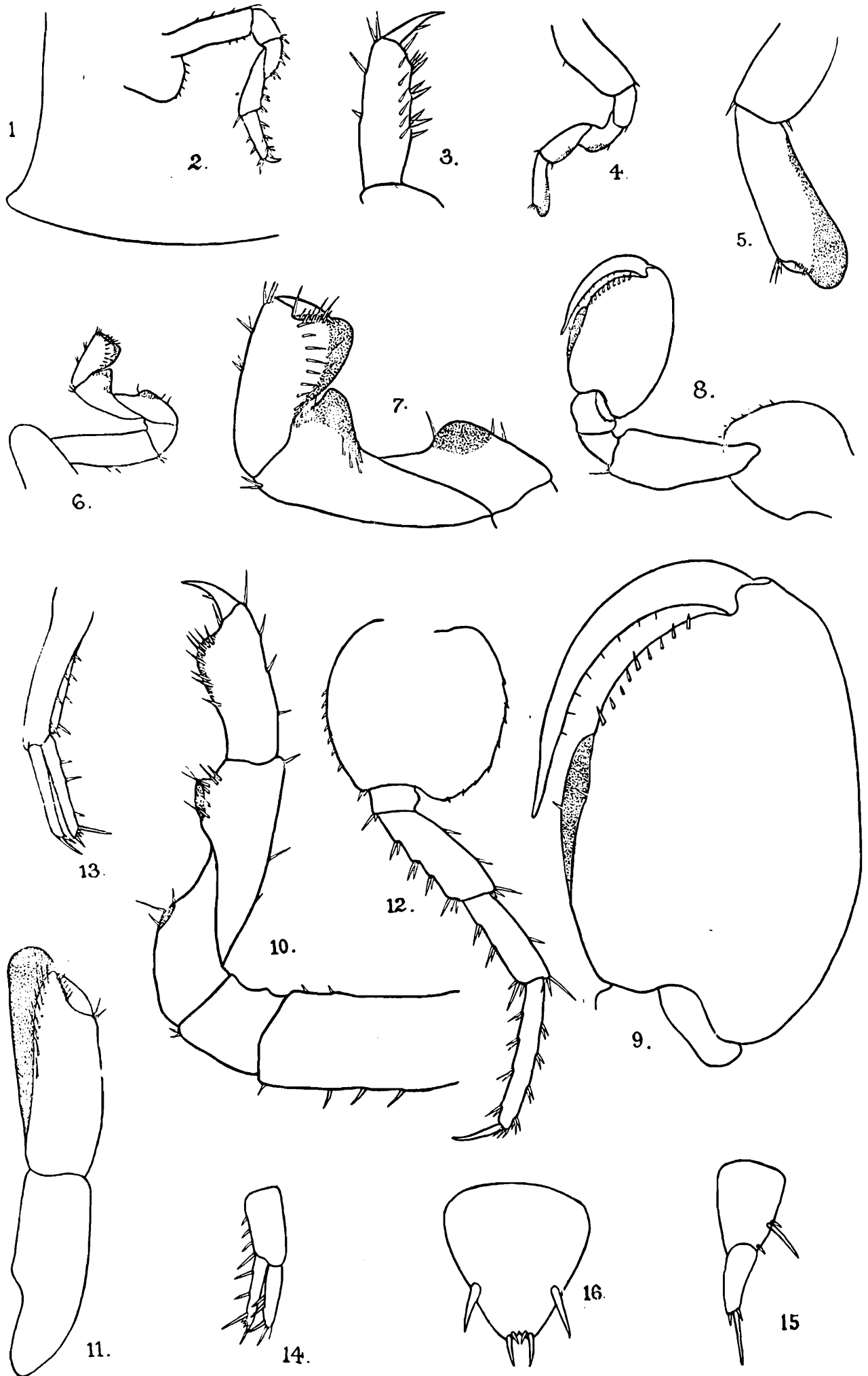
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EXPLANATION OF PLATE XXVIII.

*Talorchestia kempii*, sp. nov.

- FIG. 1.—Epimeral plate of the third segment of the pleon, × 68.  
,, 2.—Gnathopod 1 of the female, × 21.  
,, 3.— ,, ,, ,, ,, , terminal joints, × 68.  
,, 4.— ,, 2 ,, ,, ,, × 21.  
,, 5.— ,, 2 ,, ,, ,, , terminal joints, × 68.  
,, 6.— ,, 1 ,, ,, male, × 21.  
,, 7.— ,, 1 ,, ,, ,, , terminal joints, × 68.  
,, 8.— ,, 2 ,, ,, ,, × 21.  
,, 9.— ,, ,, ,, ,, ,, , terminal joints, × 68.  
,, 10.— ,, 1 ,, of immature male, × 68.  
,, 11.— ,, 2 ,, ,, ,, ,, , terminal joints, × 68.  
,, 12.—Fifth peraeopod of the female, × 21.  
,, 13.—First uropod, × 21.  
,, 14.—Second uropod, × 21.  
,, 15.—Third uropod, × 68.  
,, 16.—Telson, × 68.



**TALORCHESTIA KEMPII, sp. nov.**

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