

VIII. *Descriptions of New Scolytidæ from the Indo-Malayan and Austro-Malayan Regions.* By
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The purport of this paper is to describe some of the more important unrecognized species of Scolytidæ from the Tropical Old World, which are in my collection. Thirty-three new species are distinguished, and of these about half were collected by Dr. A. R. Wallace during his travels in the Malay Archipelago. It is greatly to be regretted that his collections of this family, to which he paid some attention, have been broken up before any opportunity offered of their being dealt with as a whole.

The Platypodinae were, it is true, described by Chapuis, and form no small part of the Old World species enumerated in his memoir, but the collections of the remaining subfamilies have been scattered, and I have been able to examine only the small number of specimens which passed into the possession of the late Mr. Wilson Saunders, and subsequently of myself. No attempt has been made to give an exhaustive account of that material. Some examples, especially of doubtful genera, are in an unfit state for critical examination; while species of *Cryphalus* and *Hypothenemus* are best dealt with when reviewing those genera, or any considerable section of them, *en masse*.

The wide range of the forms described, from Southern India to New Guinea, is to be justified partly by the homogeneous character, so far as is known, of the Scolytid fauna of the Eastern Tropics, partly by the fact that considerable collections of these insects are rarely made, and any attempt rigidly to confine descriptive papers to the fauna of limited regions must necessarily result in the multiplication of small papers, containing each descriptions of a very few species, which, though often necessary, are certainly inconvenient.

Among the more interesting novelties, attention may
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be called to *Platypus philippinensis*, *Scolyto-platypus eutomoides*, *Tomicus perexiguus*, *Xyleborus colossus*, *X. globus*, *X. scabripennis*, *X. arcticollis*, and *X. spatulatus*, all of which present considerable differences from any of their known congeners.

Crossotarsus cavifrons, sp. n.

MAS. Elongatus, badius, elytris apice infuscatis; fronte opaca, medio impressa; prothorace oblongo, sparsim punctato, punctis in lateribus sulci aggregatis; elytris punctato-striatis, ad apicem declivibus, pilosis, angulis postero-lateralibus productis, depressione terminali lunata, subtus juxta suturam utrinque dentata. Long. 3.6 mm.

MALE. Rather elongate, bright brown, the elytra becoming gradually blackish towards apex. Front opaque, impunctate save towards the vertex, with a median impression, longitudinally sulcate from the vertex to the middle, its sides subcallose opposite the antennal insertion; vertex irregularly punctate on either side of the median striga and laterally with one or two deep pits. Prothorax a third longer than broad, scantily and irregularly punctate, with a series of deep points along the apical margin, impunctate over the median area anterior to the long and fine sulcus, which has one or two lines of aggregated but not pore-like punctures on either side of its anterior half. Elytra punctate-striate, the striæ impressed as usual at the base, interstices flat throughout, the first and alternate interstices with an irregular single series of finer punctures from the base, the others impunctate; apical fourth gradually declivous, convex, coarsely and irregularly punctate and shortly setose, not striate or granulate; postero-lateral angles produced downwards and backwards, acute, terminal impression lunate, concave, its lower margin with a tooth on each side external to the apex of the suture.

Hab. Gilolo (Wallace).

Two examples. Although the Platypodinae collected by Wallace were described by Chapuis, the present form appears, for some reason, to have been overlooked; all my other specimens from the Wilson Saunders collection have passed through Chapuis's hands and bear his labels.

It is quite probable that the species here described is no more than the other sex of *C. indomitus*, Chap., taken by Wallace in the neighbouring island of Morty. What

has become of the type of that insect I do not know, but without its association of the two forms as sexes is impossible. If this conjecture be correct, the male offers no valid reason for the separation of the species from the *Crossotarsi subdepressi*, as conjectured by Chapuis.

Platypus philippinensis, sp. n.

MAS. Nigro-piceus, nitidus; fronte plana, dense areolato-punctata; prothorace oblongo; elytris versus apicem subangustatis et in processus productis, fortiter punctato-striatis, interstitiis planis, similibus; processu utroque ab altero discreto, longo, acuto, postice producto et inferne curvato, in margine superiore dente acuto armato. Long. 6.3 mm.

MALE. Pitchy-black, shining, subglabrous. Front flat, rugose with very close areolate punctures, finer towards the mouth, their interspaces forming a raised reticulum; vertex with strong substrigose punctures, the median and lateral smooth spaces evident. Prothorax a third longer than broad, the sulcus fine, not reaching the base, the punctuation distinct, sparse, rather closer towards the middle of the disc but absent along the middle line and the margins of the sulcus, strong and close in the hind-angles of the emargination and basal border, but not the apical. Elytra with very strongly punctured striæ, similar at the base, the punctures deep and subquadrate, isolated before the middle, then more or less confluent, the apical portions of the striæ sulcate and curved outwards; interstices flat, shining, similar throughout, closely punctate at the base, the alternate interstices alone with a series of microscopic points throughout, their apical portions much narrowed and subcostate, the 1st sulcate and split, its outer half curved outwards, the 3rd alone seriato-punctate; apices narrowed, produced backwards and somewhat downwards into two long acute processes, separated from each other by a space nearly as deep as broad and widened from the fundus to the apex of the processes, their upper border formed by the conjunction of the outer half of the 1st, and 2nd interstices, armed about the middle with an acute tooth directed backwards and inwards, and thence curved downwards, their lower border continuous with the 8th interstice and sinuate at its junction with the elytra, their inner face concave, continuous with the declivous median terminal portion of the elytra, which is internal to the everted half of the 1st interstice, longitudinally convex and rugose. Underside and legs concolorous; abdomen depressed, rugosely punctured.

Hab. Philippine Is.

One example. This species differs so much from any described *Platypus* as to be referable to no existing division of the genus. Its nearest affinities seem to be with the *Platypi oxyuri*, or perhaps the *P. truncati*, of which not much is known. The abdomen is depressed and ascends somewhat from the base to the apex; but the species does not appear to possess any relationship with *Crossotarsus*, its maxillary structure being that of a normal *Platypus*. Its position in the genus will be much clearer when the opposite sex is known.

Platypus biuncus, sp. n.

Linearis; fronte bilineato-punctata et striga media impressa; prothorace elongato; elytris lineato-punctatis. Long. 2.8 mm.

MAS. Fusco-testaceus; elytris posterius infuscatis, ante apicem constrictis, haud declivibus, depressione postica lunata, angulis productis, emarginatione longiore quam latiore, haud dentata, ambitu superiore ad suturam transverso.

FEM. Pallide testacea; prothorace plaga cribriformi angusta, elongata, circa sulcum munito; elytris postice infuscatis, depressione apicali lunata, margine suturali quam margine inferiore brevior.

Linear, the front nearly flat, more shining in the male than the female, with a short impressed median striga situate between two longitudinal rows of punctures; vertex dull, without a shining space, with a few deep punctures. Prothorax a half longer than broad, the lateral emargination well-marked. Elytra about twice as long as the prothorax, finely lineato-punctate, the interstices scarcely visibly punctured.

MALE. Testaceous-brown, the elytra infusate posteriorly. Prothoracic sulcus rather long, with a group of 3 to 5 large punctures on each side of its anterior extremity, remainder of surface with irregularly mixed large and small punctures, absent round the hind part of the sulcus, apex and base narrowly strigillate. Elytra constricted before the terminal impression, the inner rows of punctures stronger, the 2nd, 4th, 6th, interstices impressed at the base and furnished with one or two granules: apical impression vertical, irregularly ovate, emarginate below to the middle, the emargination widening above and deeper than broad, the fundus biconcave, with prominent margins, transverse above at the suture, the apical processes produced downwards and backwards, closely approximate at the tip, their outer margin subangulate.

FEMALE. Pale testaceous, the head and apex of the elytra infusate. Prothorax with a narrow oblong patch of punctures round the sulcus, a little stronger in front, remainder of surface finely reticulate and feebly punctate. Elytral rows of punctures very feeble, 3rd interstice granulate at the base; apical depression lunate, rounded and not sulcate above, the postero-lateral angles acute, the inferior margin concave, much longer than the sutural margin, the fundus subconcave, rugulose and shortly hairy.

Hab. Sumatra, from tobacco (Grouvelle).

In spite of the examples having been found in tobacco-bales in Paris, there can be no question as to the original locality of this little species, one of the smallest of the subfamily. The male is distinguished from *P. forficula* and allied species by its size, extreme tenuity, and the deep apical emargination, which is narrowed at its mouth by the approximation of the postero-lateral angles. The female resembles that of *P. pallidus*, Chap., but is much more attenuated, and can be separated by the frontal sculpture.

Scolyto-platypus (Tæniocerus) raja.

Blandf. Tr. Ent. Soc., 1893, p. 440.

I have had the opportunity of examining a second specimen of the male from the Hope Collection. The example is brownish-black, and is less pilose than the type, especially on the head, a distinction which may however depend on differences in the length of life of the specimens; it has the elytral interstices more distinctly alternate on the declivity, the second being impressed. The characteristic hairs round the spines are present. I have been able to examine the prosternum, which differs decidedly from that of *S. mikado*, in the chitinous appendages of the prosternal organ. These instead of being incurved are widely divaricate, straight, and either abruptly bent inwards at the tip or furnished on the inner side with a tooth, like the barb of a fish-hook.

If, as is probable, this curious genus is rich in species, it is evident that the structure of this male organ of unknown function is likely to furnish differential characters of great value, and its careful examination is therefore indispensable.

Scolyto-platypus (Tæniocerus) eutomoides, sp. n.

MAS. Breviter oblongus, opacus, fusco-ferrugineus, pedibus testaceis, pube quam brevissima flava pruinosa; fronte ad oculos excavata; prothorace quadrato, angulis posticis acutis, supra rudi, vermiculato-rugoso; ita elytris ad basin, sed ab antica tertia parte convexe subglobose declivibus, late subsulcatis, sulcis lineis carinatis postice oblitteratis separatis. Long. 3 mm.

MALE. Short, oblong, quite dull, fusco-ferruginous, covered with extremely short yellow pubescence, imperceptible unless seen sideways. Front impressed and concave to the eyes, with an incised line from the vertex to the middle, the pubescence a little longer round the upper margin but not strong; antennæ with the characters of *Tæniocerus*, brown-testaceous, the club infusate, not very elongate, pubescent, with a few long hairs towards the tip. Prothorax quadrate, broader than long, the lateral emargination of the sides scarcely present, the hind-angles acute, prominent and directed outwards, apical border very obtusely rounded, with no median emargination; surface dull and finely scabrous with an irregular corroded sculpture. Scutellum absent. Elytra a very little wider than the prothorax at its base and scarcely longer, subtruncate at the base, with very finely elevated margins, the shoulders rectangular, but somewhat rounded, the sides exactly parallel, the apex rather obtusely rounded; surface cylindrical for rather less than the basal third and sculptured like the prothorax, then declivous and convex, the declivity subspherically rounded, its upper half with six very shallow wide rough sulci, separated by fine carinate lines, obsolete behind, the lower half uniformly roughened. Underside concolorous, shortly pubescent, the abdomen dull and rugulose, with the first two segments completely connate; anterior flexed surface of the prothorax wide, prosternum with a raised carina crossing the flexed surface and becoming more elevated at the tip, below which the anterior margin is produced forwards, at its extremity are two short obliquely placed lobes, subquadrate, with the outer apical angle rounded and the inner acute. Anterior coxæ with a pencil of very long thick yellow hairs; anterior tibiæ coarsely scabrous externally, middle and posterior tibiæ slender; tarsi slender, elongate, somewhat less so than in *S. mikado*.

Hab. Celebes.

The colour, which is perhaps that of a somewhat immature example, and sculpture give the insect a

certain resemblance to the species of *Eutomus* or *Rhipidandrus*; the main structural characters agree well with those of *S. mikado*, Blandf. I have received two specimens from Mr. O. E. Janson.

Hylesinus wallacei, sp. n.

MAS. Oblongo-ovalis, nigro-piceus, opacus; fronte impressa; prothorace grosse foveolato-punctato, apice et angulis anticis tuberculatis; elytris crenato-striatis, interstitiis uniseriatim, ad basin modo subirregulariter tuberculatis, et quam minutissime setosis. Long. 4.2 mm.

MALE. Oblong-oval. Head black, opaque, front and rostrum widely impressed, subnitid, punctured and with a few minute appressed hairs; mouth reddish; antennæ brown-testaceous, the club elongate. Prothorax moderately transverse, widest about the base, the hind-angles rounded, the sides gently and regularly incurved to the apex; surface regularly and not strongly convex, piceous-black, opaque, subglabrous, with large deep foveolate punctures, close and in parts confluent; median impunctate line finely elevated behind, anterior margin with a row of tubercles, larger on the apical angles, the sides submuricate. Scutellum convex, transverse. Elytra twice as long as the prothorax, wider at the base, their basal margins crenate and elevated but not strongly rounded, the sides curved throughout, obliquely behind the middle; the apex not conjointly rounded; surface piceous, with strong crenately punctured striæ; interstices convex, uniseriately tuberculate, the tubercles stronger, closer and transverse at the base, smaller and rounder on the declivity, apex of the 2nd interstice a little depressed; elytral pubescence subsquamous, very short and difficult to observe.

Hab. Mysol (Wallace).

Hylesinus despectus, Walk.

I must refer to this Ceylonese species, with which I have previously identified *H. scobipennis*, Chap., four examples taken by Wallace, in Sarawak, Celebes, Batchian, and Dorey in New Guinea, respectively. The specimens show some differences, both in the depth of the thoracic punctuation and the shape of the prothorax, which, in all, except the Batchian example, is somewhat trapezoidal, with a rather distinct muricate

tubercle at the anterior angles. In the absence of long series, it can only be said that there are no present reasons for doubting the substantial identity of all these forms; the differences in the shape of the prothorax appear to be sexual, the trapezoidal shape existing in the female, although the New Guinea example, apparently a male, as its front is impressed, offers some difficulty towards the acceptance of this supposition.

Phlæosinus cribratus, sp. n.

FEM. (?) Oblongo-obovata, picea, antennis pedibusque rufescentibus; prothorace semielliptico, subglabro, subnitido, fortiter punctato, linea media subelevata lævi; elytris crenato-striatis, interstitiis transverse rugosis, in declivitate, 2°, 4° exceptis, seriato-tuberculatis et brevissime setosis. Long. 2 mm.

FEMALE. (?). Oblong-obovate. Head pitchy-black, the front shining, rather strongly but not rugosely punctured, above convex, with a median tubercle, impressed below and smoother, scantily and shortly hairy, the mouth with a very short yellowish fringe; eyes bipartite, the emargination just reaching the posterior border of the eye; antennæ yellow-testaceous, normal, the club finely and closely pubescent. Prothorax as long as broad, narrowed from the base, the sides and apex rounded in a conjoint ellipse, the basal border bisinuate, forming an obtuse angle in the middle; surface reddish piceous, shining, subglabrous, strongly but not rugosely punctate, the median line smooth, subelevated. Elytra a little wider than the prothorax, and three-fourths longer, their basal margins oblique, narrowly elevated and crenate, the sides sinuate and subampliated behind, the apex broadly rounded; surface piceous, reddish posteriorly, crenate-striate, the striæ deep but not wide, subequal throughout, interstices subconvex, more strongly on the declivity, closely and transversely rugulose, with very short uniseriate squamiform bristles (probably from base to apex in fresh examples), and behind the middle with small uniseriate tubercles, absent towards the apex of the 2nd and 4th interstices, the bristles irregularly biseriate on the apex of the other interstices. Under-side and legs rufescent; 3rd tarsal joint simple.

Hab. Sumatra, from tobacco (Grouvelle).

The nearest ally of this species appears to be *P. deterrentus*, Chap., from Ceylon, which is very much larger, with the prothorax more finely and remotely punctate, the

interstices less closely rugose, and much more shining. The complete division of the eyes in *P. cribratus* is remarkable, but is not of sufficient importance to indicate generic separation.

Phlæosinus vilis, sp. n.

Oblongo-ovalis, subdepressus, piceus, elytris rufescentibus, prothorace longitudine paullo brevior, antice constricto, apice sat late rotundato, dorso punctato, linea media et plaga in utroque latere lævibus; elytris punctato-striatis, interstitiis rugis transversis et setis brevibus uniseriatim ornatis, in declivitate tuberculatis. Long. 1.5–1.6 mm.

MAS. Fronte impressa.

Oblong oval, somewhat depressed. Head black, rugulose, subnitid, very shortly pubescent; front (♂) with a not sharply-defined circular impression; front (♀) subconvex; eyes narrow, deeply emarginate; antennæ brown-testaceous, the club oval, not elongate. Prothorax rather broader than long, widest at the base and constricted towards the apex, the sides slightly rounded behind and sinuate in front the apex rather broadly and obtusely rounded, the base bisinuate, but scarcely produced backwards in the middle; surface piceous, lighter at apex, moderately shining, subglabrous, strongly punctured, the median line smooth, subelevated throughout, on either side behind the middle is a subelevated impunctate oblong space external to a shallow impression. Scutellum small, rounded, black. Elytra as wide as the prothorax, and fully one-half longer, their basal margins rounded internally, nearly transverse externally, narrowly raised and crenate, the sides parallel, the apex broadly rounded; surface piceous-red, finely punctate-striate, the interstices narrow, subconvex, with uniseriate very short bristles and transverse raised rugæ, weaker at the base, tuberculiform on the declivity (a little more strongly in the male), and absent at the apex of the second interstice, which is smoother and flatter in the male. Underside piceous, moderately strongly punctured; legs brown, the 3rd tarsal joint simple.

Hab. Sumatra, from tobacco (Grouvelle).

I have received, from the same source, four or five specimens of this insect, one of the smallest species of the genus and of the Hylesinides. It is unusual in the genus to meet with so little sexual difference in the structure of the elytral apex.

CRYPTARTHURUM, g. n.

Cryphalo affine, discedens prothoracis basi et angulis posticis marginatis, dorso haud evidententer asperato: tarsorum articulo 1° minuto, 2° majore, compresso, 3° parvo.

Head concealed, not rostrate. Eyes oval, emarginate. Antennæ with very short 4-jointed funiculus, the three distal joints transverse, widened apically, club ovate, compressed, the sutures curved on the inner, straight on the outer face, and ciliate. Prothorax short, much narrowed in front and obtusely subacuminate at apex, the hind-angles and base finely margined, surface without evident asperities. Elytra not overlapping the prothorax at base. Anterior coxæ contiguous, the prosternal process short. Anterior tibiæ widened from base to apex, and obliquely truncate, the upper margin sinuate, obsoletely toothed; middle and posterior tibiæ with the upper margin rounded, serrate. Tarsi short, the 1st joint very small, the 2nd rather large, compressed and trigonate, the 3rd small, the apical joint not so long as the preceding.

The single species more nearly resembles a *Cryphalus* than the species of any other genus. The available examples were too few to permit of dissection, and the examination of the tarsal joints proved unexpectedly difficult, as the underside and legs were matted together with some adhesive substance, probably derived from the food-plant.

Cryptarthrum walkeri, sp. n.

Breviter oblongo-ovale, opacum, pallide fusco-testaceum, pilis brevibus flavo-cinereis vestitum, antennis et pedibus testaceo-ferrugineis; prothorace alutaceo-ruguloso, anterieus obsolete granulate; elytris dense multipunctatis et seriatim setosis. Long. 1.4-1.6 mm.

Short oblong-oval, pale fusco-testaceous, dull, with short moderately close cinereous-yellow pubescence mingled with longer setæ. Front darker, impressed, rugulose, thinly hairy; antennæ pale ferruginous. Prothorax a half broader than long, subbisinuate and finely margined at the base, the margin continued along the subacute hind-angles to the middle of the sides, the latter rounded throughout, strongly incurved and constricted anteriorly, so that the apex appears obtusely angulate in the middle; surface uniformly and not strongly convex from base to apex, alutaceous,

with close rugulose punctuation, and towards the apex with minute scattered granules, the anterior margin crenate, pubescence decumbent except for the scattered setæ, and partly concealing the sculpture. Scutellum scarcely distinguishable. Elytra closely applied at base to the prothorax, as wide and about a third longer, the sides gently rounded towards the base, more strongly behind, apex rounded; surface slightly rounded to the middle, thence more convex and declivous, with very close fine subrugulose punctures, bearing short decumbent and sometimes squamiform hairs, the punctures of the striæ not separable from those of the interstices, and with regular uniseriate erect setæ. Underside more deeply infusate, pubescent. Legs ferruginous.

Hab. Damma I. (J. J. Walker).

Two examples. The British Museum Collection presumably contains others, as it received the first series of Mr. Walker's captures. Mr. Walker informs me that the insect was found probably in a species of *Urostigma* (a genus allied to *Ficus*); this would account for the glutinous material which entangled the undersides of the specimens.

Tomicus perexiguus, sp. n.

Elongatus, cylindricus, testaceus, rarissime pilosus; antennarum clava transverse suborbiculata, suturis subrectis; prothorace oblongo, lateribus parallelis, apice rotundato, disco post medium sat distincte punctato; elytris lineato-punctatis, punctis ad basin obsoletis, ad apicem profundis dilatatis, interstitiis subimpunctatis, apice subverticaliter retuso vel excavato, fundo subcirculari, punctato, infra marginato, supra utrinque bidentato.

MAS. Apice elytrorum excavato, infra elevato-marginato, superne valide dentato. Long. 1.9 mm.

FEM. Apice modo retuso-impreso, margine inferiore parum elevato, dentibus ad tuberculos minutos reductis. Long. 1.6 mm.

Elongate, narrow, cylindrical, testaceous, moderately shining, scantily and finely pilose. Front slightly convex, closely and rugosely punctate over the mouth, subnitid towards vertex (at least in ♀), glabrous, mouth fringed with a few short hairs; eyes large, broad oval, little emarginate, coarsely granulate;

antennæ testaceous yellow, the club suborbicular, broader than long, with transverse sutures, the basal joint ample, occupying more than half the surface, corneous on both faces. Prothorax oblong, parallel-sided behind the middle, slightly narrowed in front, broadly and strongly rounded at the apex, hind-angles rounded, the base subbisinuate; surface feebly elevated before the middle, in front obliquely and not strongly declivous, asperate with fine imbricate rugæ, stronger in the male, and with a few fine erect hairs towards the apex, behind cylindrical, slightly impressed on either side about the middle, moderately shining, with fine but evident punctuation, absent over the middle line and a spot on either side, interspaces (♂) smooth, (♀) finely reticulate. Scutellum triangular, shining, infusate. Elytra about as wide as the prothorax and rather more than a third longer, truncate at base, with subrectangular shoulders and parallel sides; surface cylindrical, lineato-punctate, the punctures very minute at the base, gradually becoming large and deep towards the declivity, interstices flat, shining, remotely and microscopically punctate in single rows, thinly hairy towards the apex, the 2nd and 4th subelevated behind and furnished each on the margin of the declivity with a strong acute tooth (♂), a small pointed tubercle (♀); apex (♂) not narrowed, subcircularly excavate, the excavation limited to the posterior fourth, its fundus concave, shining, very strongly punctured, with a raised crenate lateral and inferior margin; apex (♀) narrowed, retuse, with a deeply punctured impression on each side of the suture, wider below, the sides above callose and bearing the two tubercles, inferior margin well-defined but little raised. Underside concolorous, very scantily pubescent; prosternum with a distinct antecoxal process; tibiæ very slender and weakly spined.

Hab. Damma I. (J. J. Walker).

Two specimens. Widely separated as this species is by its minute size from the other members of the genus, it appears in every respect to be a true *Tomicus*, and the male is not unlike an extremely small and elongate *T. erosus*, Woll. Though the genus *Pityogenes*, Bedel, differs from *Tomicus* in characters dependent merely on degradation and small size, this species cannot well be referred to it. It has a most distinct prosternal process, and its elytral structure is that of the *Onthotomicus* group.

Dryocætes taprobanus, sp. n.

Oblongus, niger, nigro-piceus vel ferrugineus, subnitidus, longius pilosus; prothorace subovato, per totum, postice rarius, granulato; elytris subtiliter lineato-punctatis, interstitiis uniseriatim setosis, apice fortiter declivi, subdeplanato. Long. 3-3·8 mm.

Oblong, varying in colour from deep ferruginous to black, usually black with the elytra piceous, with rather long fine erect fulvous pubescence. Front subconvex, impressed over the mouth, dull, closely aciculate below, punctate above, towards the vertex with a median shining elevation, pubescence moderately thick; eyes oblong, with a rather shallow emargination; antennæ ferruginous, the club as in *D. autographus*. Prothorax a little longer than broad, forming an incomplete oval, widest about the hinder third, the sides behind little rounded, and very slightly constricted in front, base truncate, hind-angles obtuse but not rounded, somewhat distinctly margined above the pleural impression; surface regularly convex from base to apex, pilose with erect hairs and asperate with elevated granules, weaker behind and replaced along the hind-margin by punctures, median line smooth, subelevated, extending to the middle. Scutellum rounded trigonate, smooth, shining. Elytra wider than the prothorax at its base and about a half longer, exactly truncate at the base, with subrectangular shoulders, the sides subparallel to the hinder third, thence obliquely incurved; surface subcylindrical to about the middle, or somewhat pulvinate, thence obliquely declivous, and convex above, finely lineato-punctate, the punctures shallow, weaker at the sides, the two first striæ subimpressed, the sutural the more distinctly, interstices nearly flat, the inner pair very feebly convex, subnitid, with regular single series of erect hairs arising from minute elevated points; declivity flattened from side to side and weakly impressed on each side of the suture, obsoletely lineato-punctate, the interstitial hairs a little longer. Underside piceous, thinly pilose; legs ferruginous, the tibiæ stout, dilated towards the apex, and rather strongly serrate.

Hab. Ceylon (Thwaites: in Mus. Oxon.).

The Hope Collection possesses a good series of the species, which in size nearly equals *X. autographus*. No well-marked sexual differences appear to be present.

The three following species of *Dryocætes* show certain divergences from the common type of the genus in the shape of the prothorax, which is less elongate than usual, being in two of the species nearly semielliptical, and tends to become gibbous near the base. This form of prothorax, which approaches that of *Xyleborus*, is not associated with other marked differences; the mentum is rather more oblong than usual, and the first joint of the labial palpi is very large and tumid, as in *Xyleborus*, the second and third being quite minute; the maxillary armature, as is customary in *Dryocætes*, is spinous and not setose. This latter point appears decisive as to placing the species in the present genus rather than in *Xyleborus*, with which they appear to form an osculant group. It would be premature to establish a fresh genus for them without undertaking a revisional examination of the mental structure in other species of *Dryocætes*.

Dryocætes rugatus, sp. n.

Oblongus, niger, parum nitidus, fusco-pilosus, antennis pedibusque ferrugineis; prothorace vix æque longo quam lato, lateribus et apice conjunctim semielliptice rotundatis, dorso subæqualiter rugoso-asperato; elytris striato-punctatis, interstitiis rugosis, et punctis piliferis confertis uni-vel biseriatim munitis, apice fortiter oblique declivi, retuso, rugoso-punctato. Long. 5 mm.

Oblong, black, little shining, with fine fuscous-yellow pubescence, the legs and antennæ deep ferruginous. Head shortly subrostrate, the front slightly convex, subnitid, closely and rugosely punctured, feebly impressed between the eyes, finely carinate over the mouth, pubescence not dense, rather long, the mouth fringed; eyes narrow oblong, flat, anteriorly sinuate; antennal club normal. Prothorax scarcely as long as broad, widest before the base, the sides and apex conjointly rounded and a little exceeding a half-ellipse, the hind-angles obtuse, the base subtruncate; surface convex from side to side, declivous but not strongly convex from the basal limb to the apex, pilose with uniformly scattered hairs, short over the disc, longer at the sides and apex, and covered with close small imbricate asperities, rather weaker behind, the median line smoother and subelevated from the base to the middle, but very indistinct. Scutellum rounded triangular, shining. Elytra truncate at the base, a little wider than the prothorax and not quite double as long,

the shoulders rounded rectangular, the sides subparallel, narrowed and incurved behind, the apical margins oblique ; surface cylindrical to the hinder third, thence strongly declivous and subretuse, punctured in scarcely impressed rows, the sutural row not deeper, the punctures rather large but not conspicuous, owing to the transverse rugæ extending between them on to the interstices, the latter scarcely convex, with close piliferous punctures or punctiform elevations, in single series, except on the 3rd and 5th interstices, where they are irregularly biseriate, the hairs fine and short, longer at the side-margins ; declivity somewhat flattened, impressed along the 2nd interstice, dull, rugosely punctured, not more strongly hairy, or tuberculate. Underside black ; tibiæ strongly serrate.

Hab. Borneo, Sarawak (Wallace).

The rugosity of the elytra is a characteristic feature, and one which renders the details of the sculpture hard to examine. The head is slightly but still perceptibly prolonged in front, although the entire absence of any rostrum is supposed to be one of the distinguishing features of this and allied genera.

Dryocætus sumatranus, sp. n.

Oblongus, badius, subnitidus, erecte fulvo-setosus ; prothorace longitudine subbreuiore, fere semielliptico, antè basin subconstricto, dorso ante basin transverse gibbo, per totum aspero, granulis in parte postica subtilioribus ; elytris punctis magnis striatis, interstitiis transverse rugulosis alternatim uni-vel irregulariter biserialiter setosis, declivitate obliqua, subretusa, interstitiis convexioribus, 2º impresso. Long. 5·7 mm.

Oblong, not very shining, testaceous-brown, pilose with rather strong erect fulvous hairs. Head large, the front oblong, subconvex, closely and rather strongly punctured, subrugose, with scanty long pubescence ; eyes oblong-oval, sinuate in front ; antennæ yellow-testaceous, normal, outer face of the club spongy apically, with nearly straight sutures. Prothorax rather broader than long, widest just before the base, the sides and apex conjointly rounded, save for a slight constriction about the anterior third, hind-angles subrectangular, the base truncate ; surface gibbous and elevated into an obtuse transverse nodus at the hinder fourth, anteriorly convex, posteriorly declivous from the nodus to the base, thinly pilose, asperate with close imbricate rugæ, finer posteriorly, and granular, especially towards the middle of the base. Scutellum triangular

moderately shining. Elytra truncate at the base, rather wider than the prothorax and twice as long, with rectangular shoulders, the sides parallel, and not narrowed behind, broadly rounded at the apex; surface cylindrical to beyond the hinder third, and impressed along the suture, thence subabruptly declivous, with substriate rows of large round punctures, separated by transverse elevated rugæ continued across the interstices, the latter slightly convex, moderately shining, with erect hairs, uniseriate on the 2nd and succeeding alternate interstices, irregularly biseriate on the others; declivity oblique, subretuse and flattened, the striæ less strongly punctured, appearing deeper on account of the greater convexity of the interstices, the sutural interstice being more and the second less elevated, the hairs arising from elevated points. Underside and legs testaceous; the tibiæ strongly dentate, the anterior pair subtruncate at apex, the other pairs rounded.

Hab. Sumatra, Singalang Mts. (Beccari).

My single specimen has an impression along the suture from near the base to the summit of the declivity, which is rather more rugose; but this is perhaps an individual feature. The sutural stria is not deeper than the rest.

Dryocætes gravidus, sp. n.

Oblongo-obovatus, subnitidus, fusco-brunneus, breviter pilosus; prothorace fere semielliptico, dorso post medium gibbo, toto granulato, linea media basali lævi; elytris sat subtiliter lineato-punctis, interstitiis planis æqualiter irregulariter punctatis, apice fortiter declivi, juxta suturam subimpresso, interstitio 3° subconvexo. Long. 4.8 mm.

Oblong, widened from the front of the thorax to the hinder third of the elytra, fuscous-brown, the antennæ and legs brown-testaceous, with short fine fuscous pubescence. Front oblong, scarcely convex, shining, obsolete punctate, thinly pilose with long hairs, above mouth with a fine sharp carina; eyes broad, oblong-oval, anteriorly emarginate. Prothorax broader than long, the sides rounded and rather sharply narrowed from before the base to the apex, the latter more broadly rounded, hind-angles obtuse, base truncate; surface gibbous just before the base, the elevation not markedly transverse, and, together with the apex, of darker colour, thinly pilose, the marginal hairs longer, and granulate, the granules weaker along the basal limb, which has an ill-defined median smooth line extending to the summit of the elevation.

Scutellum rounded triangular, shining. Elytra wider than the prothorax, and nearly twice as long, truncate at base, the humeral angles rounded, the sides straight and divergent to the hinder third, then broadly incurved to the apex, the margins of the latter somewhat oblique and not conjointly rounded; surface subnitid, cylindrico-convex to behind the middle, thence declivous, darker posteriorly, lineato-punctate, the punctures moderately fine and not easily distinguishable from those of the almost flat interstices, which are punctured irregularly in alternate single and double rows; apex less flattened than in the preceding species, strongly declivous, slightly impressed on each side of the suture, obsoletely punctured, the interstices feebly convex, with minute piliferous points. Underside concolorous, tibiæ strongly serrate.

Hab. Borneo, Sarawak (Wallace).

Both my specimens have lost the antennal clubs; those of one example disappeared in process of cleaning, but not before I had been able to observe that they were of *Dryocætes*-like character. The shape of the prothorax is similar to that of *D. sumatranus*, but the species is rather more depressed, widened behind, with the hairs much finer and the punctures on the elytra fine and ill-marked, so that the surface appears at first sight to be tolerably closely and confusedly punctate.

Xyleborus colossus, sp. n.

FEM. Oblonga, cylindrica, nigro-picea, prothoracis antica parte et elytrorum basi dilutioribus; prothorace transverso, lateribus et apice conjunctim rotundatis, angulis posticis postice productis, apice medio prominulo, dorso post medium transverso elevato, postice subopaco, subtiliter granulato; elytris indistincte lineato-punctatis, interstitiis multipunctatis, apice oblique excavato-retuso, retusione per totum elevato-marginata, superne prorsus producta, longitudinaliter convexa, striato-punctata, interstitio 2^o seriato-tuberculato. Long. 8.5 mm., lat. 4.5 mm.

FEMALE. Oblong, cylindrical. Head piceous, front subconvex, irregularly and subobsoletely punctate, scantily pubescent, epistoma with a median patch of thick cilia; eyes large, oblong, emarginate, coarsely granulate; antennæ ferruginous, the club large, of normal structure. Prothorax transverse, widest just before the base, the sides and apex conjointly rounded, the former but slightly behind the middle, margin of the latter prominent, everted and crenate in the middle, hind-angles produced backwards, the base bisinuate;

surface piceous-black behind, piceous-red in front, with long fulvous pubescence round the margins, transversely elevated behind the middle, the anterior half convex, asperate with elevated transverse rugæ, smaller and closer posteriorly, their interspaces with minute granules, posterior part declivous from the elevation to the base, subopaque, with fine granules, not close, and obsolete on the hind-margin, the median line fine, shining, raised and extending to the elevation. Scutellum small, subtriangular, piceous-black. Elytra scarcely as wide at base as the prothorax, and one-half longer, their basal margins slightly curved, the shoulders rounded, the sides straight and subdivergent, the apical margin subtruncate when seen from above; surface cylindrical, obliquely retuse at apex, piceous, lighter towards the base, tolerably shining, remotely lineato-punctate, the interstices quite flat, finely multipunctate, their punctures bearing fine fulvous hairs, and subrugose towards the apex, all the punctuation feeble at the base, and becoming stronger posteriorly; apical retuse surface beginning at the basal third, its margins meeting at an acute angle above, and circularly rounded below, prominent but not acute, their upper third subtuberculate; fundus depressed below the margins, convex from before backwards, subnitid, pubescent with decumbent yellowish hairs, striato-punctate with shallow large punctures, 2nd interstice elevated and callose, 5-tuberculate, the three superior tubercles strong, conical. Underside piceous; legs deep ferruginous, the tibiæ very broad, strongly rounded and finely serrate on the upper margin; tarsal claws toothed at the base.

Hab. New Guinea, Humboldt Bay (Doherty).

This species, of which I have seen no second example, is by far the largest of the genus, and in bulk of all the Tomicidæ yet known, though it is exceeded slightly in length by one or two species of *Amphicranus*, and perhaps by exceptionally large individuals of some species of *Tomicus*.

Xyleborus globus, sp. n.

FEM. Curta, subovalis, convexa, subnitida, nigra, longe fusco-pilosa, pedibus testaceis; prothorace transverso, lateribus postice subrectis, antice cum apice conjunctim rotundatis, margine apicali medio bituberculato, dorso postice subasperate punctulato et in margine medio dense hirta; elytris semiovalibus a basi ipsa convexe declivibus, confuse punctatis, post medium perindistincte striatis. Long 5 mm.

FEMALE. Short, convex, black, slightly shining, with long fuscous pubescence. Front subconvex, with not very close piliferous granules, and a median smooth space, epistoma thickly fringed with yellow cilia; eyes small, emarginate; antennæ ferruginous, with infusate club. Prothorax transverse, subbisinuate at base, the hind-angles subobtuse, the sides feebly rounded to before the middle, thence broadly rounded with the apex, of which the margin is prominent and bituberculate in the middle; surface very convex, with a small median transverse elevation, in front declivous, asperate, with small granules in the interspaces, behind cylindric, subnitid, with fine and mostly subasperate punctures, the median line indistinct, pubescence long, dense round the margins, the middle of the basal border with a thick fringe of erect hairs. Scutellum absent. Elytra about as wide as the prothorax and scarcely longer, truncate at base, the humeral angles obtuse, the sides elliptically rounded to the apex; surface declivous and very convex from the base, behind the shoulders with an indistinct callus indicating the junction of the declivity with the horizontal portion, which persists at the sides only, irregularly and finely punctate, the punctures subasperate and bearing long hairs, the sutural stria and part of the lateral striæ just traceable, particularly towards the apex, which has a raised inferior margin. Legs testaceous, tibiæ broad and finely serrate.

Hab. New Guinea, Dorey (Wallace).

In this species the encroachment of the declivous retuse surface so often found in *Xyleborus* on to the horizontal portion of the elytra is carried to its very furthest limits, the latter being practically nonexistent. Described from one example; there is another in the British Museum Collection.

Xyleborus papuanus, sp. n.

FEM. Oblonga, cylindrica, nigro-picea, antennis pedibusque ferrugineis, subnitida, brevissime sparsim pilosa; prothorace subgloboso, disco medio transverse elevato, postice sat conferte punctato; elytris dense irregulariter punctatis, apice retuse declivi, impresso, immarginato, subtiliter lineato-punctato. Long. 3 mm.

FEMALE. Oblong, cylindrical, rather dull, pitchy-black, with scanty and extremely short greyish pubescence, antennæ and legs ferruginous. Front subconvex, strongly punctate, with an indistinct subelevated median line; eyes moderately large, deeply emarginate. Prothorax broader than long, nearly globose, the

sides very slightly rounded behind, strongly rounded in front conjointly with the apex, hind-angles rectangular, scarcely rounded, base truncate ; surface with a median transverse elevation, convex and declivous anteriorly with rather fine granular asperation, posteriorly cylindric, rather strongly punctured, the punctures deeper and subasperate at the sides, finer towards the middle, the median line obsolete, the interspaces not very shining. Scutellum rounded, black, subopaque. Elytra scarcely as wide as the prothorax and one-half longer, truncate at base, the shoulders rounded subrectangular, the sides subparallel, very slightly convergent behind and strongly incurved at apex, the hind margin obtusely rounded ; surface cylindric, subnitid, closely and strongly punctured, the punctures of the striæ and interstices indistinguishable before the middle, apical third strongly but gradually declivous and subretuse, not margined, subcircularly and weakly impressed, subopaque, finely lineato-punctate, the interstices with rows of very fine short hairs springing from minute subasperate points, and distinguishable before the summit of the declivity. Under-side piceous, very shortly pubescent.

Hab. New Guinea (Wallace).

One example ; easily distinguished by its confusedly punctate elytra, subretuse at the apex, and unarmed.

Xyleborus semirudis, sp. n.

FEM. Oblonga, subcylindrica, ferruginea, parce tenuiter pilosa ; prothorace transverso, apice rotundato, disco medio transverse elevato, posterius sat nitido, sublævi ; elytris punctato-striatis ante medium nitidis, post medium opacis, convexe declivibus, interstitiis uniseriato-granulatis, declivitate infra marginata. Long. 3 mm.

FEMALE. Oblong, subcylindrical, bright ferruginous, finely and very scantily pubescent. Frontal surface slightly flattened, somewhat irregular, scantily punctured at the sides, smooth and elevated in the middle ; eyes small, deeply emarginate. Prothorax broader than long, the sides scarcely rounded behind the middle, gradually more strongly rounded and incurved in front, the apex broadly rounded, hind-angles rectangular, the base transverse ; surface with a transverse median elevation, in front convex, and asperate with imbricate rugæ, which become weak and very close on the elevation, behind cylindric and subdeclivous to the base moderately shining, with minute close reticulation and scattered

punctures. Scutellum obtuse triangular, shining. Elytra as wide as the prothorax and less than a half longer, truncate at base, the shoulders nearly rectangular, the sides subparallel to near the apex, then strongly incurved; surface pulvinate and convex from the base, obliquely declivous and somewhat less convex behind the middle, the basal half not deeply punctate-striate, the punctures shallow and rather large, the sutural stria not impressed, interstices flat, shining, subimpunctate, the sutural interstice with a few small granules; apical half opaque, less distinctly striate, the interstices with a single series of rather remote small elevated points; declivity acutely carinate below, the carina not crenate. Underside and legs testaceous.

Hab. Borneo (Wallace).

Allied to *X. semiopacus*, Eichh., but differentiated from it and the following species by the distinct striae and subimpunctate interstices of the basal half of the elytra. The prothorax is rather obtuse at the apex, and thus approximates somewhat in shape to that of *X. validus*, Eichh. One example.

Xyleborus semigranosus, sp. n.

FEM. Oblonga, subnitida, rufo-ferruginea, prothorace æque longo quam lato, lateribus leniter, apice fortius rotundato, disco obtuse transverse gibbo, post medium subtiliter punctato; elytris prothorace vix tertia parte longioribus, ante medium subtiliter quasi confuse punctatis, post medium convexe declivibus, opacis, granulatis et erecte seriato-pilosis. Long. 2.4 mm.

FEMALE. Oblong, slightly shining, ferruginous-red, rather darker posteriorly. Front subconvex, subnitid, rather strongly punctured, thinly hairy, the mouth fringed with pale hairs; eyes oval, emarginate, tolerably large; antennæ pale testaceous. Prothorax as long as broad, strongly rounded at the apex, the sides very slightly curved and subparallel from the middle to the base, hind-angles obtuse but not rounded, the base truncate; surface with a very slight median transverse elevation, scantily but uniformly pubescent with fine hairs, in front convexly declivous, with granular asperities, somewhat irregular and scattered towards the apical margin, behind the middle cylindrico-convex, subnitid, finely but evidently punctured, the punctures stronger over the middle portion, median smooth line absent. Scutellum triangular,

infusate, shining. Elytra as wide as the prothorax and about a third longer, with truncate base, and rounded rectangular shoulders, the sides parallel, abruptly inflexed at apex, the apical margins sharply bordered below and forming an obtuse angle with each other when seen from above; surface pulvinate-convex from base to apex, before the middle subnitid, very finely and apparently confusedly punctate, the seriate and interstitial punctures being similar; declivity beginning before the middle, somewhat depressed, opaque, without evident striation, very closely and finely granulate, and set with single series of rather long upstanding hairs. Under-side rather darker; legs brown-testaceous, the tibiae rounded above and finely serrate.

Hab. Sumatra, from tobacco (Grouvelle).

A near ally of *X. semiopacus*, Eichh., which it closely resembles in colour and sculpture. It is a rather smaller insect, and is best distinguished by the much shorter elytra, which are barely one-third longer than the prothorax, and present, when viewed from the side, a uniform dorsal curvature from base to tip; in *X. semiopacus* the elytra are rather more than a half longer than the prothorax, and are nearly cylindrical to behind the middle, and not uniformly curved from base to apex. In *X. semigranosus* the prothorax is longer in proportion to its width, and is less ample before the middle; the elytral punctuation is finer and the traces of the striae are even more indistinct than in its congener. My type has a short impressed line on the base of the prothorax anterior to the scutellum, but this may be an individual characteristic.

Xyleborus fraternus, sp. n.

FEM. Oblonga, picea, pedibus antennisque pallide testaceis, parce pilosa; prothorace late semi-elliptico, lateribus postice leniter rotundatis, dorso gibbo, posterius sublævi; elytris striato-punctatis, interstitiis uniseriatim setosis, in declivitate obliqua, infra acute marginata, seriato-tuberculatis. Long. 2.7 mm.

FEMALE. Oblong, piceous (perhaps black when mature), moderately shining, scantily hairy, the antennæ and legs pale testaceous-yellow. Head subconvex in front, rather sparsely and strongly punctured, with a supraoral shining median elevated space, hairs

scanty ; eyes oval, emarginate. Prothorax a little broader than long, widest at the base, the sides rounded in a gradually-increasing curve from the base to the apex, the apical margin broadly rounded and erenate, hind-angles slightly obtuse, the base subtruncate ; surface convex, with an obtuse post-median transverse gibbosity, strongly declivous in front, and asperate with imbricate rugæ, behind subnitid, obsoletely punctured, obliquely impressed within the hind-angles. Elytra as wide as the prothorax and scarcely a half longer, with subrectangular shoulders, parallel-sided to the middle, slightly narrowed behind, broadly rounded and sharply margined at apex ; surface convex from base to apex, punctured in subimpressed rows, interstices transversely rugulose, with seriate hairs from the base to the apex, arising from small points, elevated and tuberculiform on the posterior declivous portion.

Hab. Ceylon (G. Lewis).

Intimately allied to *X. fornicatus*, from which at first I was unable to separate it. Having now seen both the type and a long series of the latter species, I am able to distinguish between them. The present species is rather larger and broader than its ally, with the elytra relatively rather shorter ; the prothorax is widest at the base, and the sides quite regularly rounded to the apex, while in *X. fornicatus* the thorax is as wide at the anterior third as at the base, and the sides are more parallel. *X. xanthopus*, another allied species, has the elytra relatively longer than those of *X. fornicatus*, and the prothorax more nearly orbicular.

Xyleborus fornicatus.

X. fornicatus, ♀, Eichh., Berl. ent. Zeitschr., 1868, p. 151 ; Rat. Tom., p. 327.

MAS. Minutus, oblongus, testaceus vel piceo-fuscus, longius parce pilosus ; prothorace transverse quadrato, antice rarius granulato ; elytris ab antica tertia parte obliquissime declivibus, striato-punctatis, interstitiis seriato-setosis. Long. 1·4 mm.

MALE. Very small, oblong, rather shining, varying from pallid testaceous to pitchy-fuscous, with long sparse erect setæ. Front somewhat flattened, with an indistinct longitudinal elevation, shining, obsoletely punctate, scantily hairy ; eyes small, narrow

Prothorax much broader than long, subrectangular, the sides subparallel, the apex very obtusely rounded, hind-angles subrectangular, the base transverse ; surface strongly convex from base to apex, somewhat flattened in front from side to side, the apical half with very scattered granules, weaker behind, the basal half finely reticulate, feebly punctured at the sides only. Elytra as wide as and nearly a half longer than the prothorax, with gently curved sides, narrowed behind and broadly rounded at the apex ; surface pulvinate, obliquely declivous and somewhat flattened from the anterior third, at the base lineato-punctate, with scattered piliferous punctures on the interstices ; declivity weakly striate, the interstices subconvex, with elevated piliferous points. Antennæ and legs light testaceous.

Hab. Ceylon.

I have received a fair series of this species, partly from the Indian Museum, Calcutta, partly from Mr. E. Ernest Green, and have been able to compare the female with Eichhoff's type. The insect has lately made itself conspicuous in Ceylon as a destroyer of the tea-plant. Some twigs accompanying the specimens are about a quarter of an inch in diameter, and show several ramifying burrows, similar to those made by *X. dispar*, without any very special features. The diameter of the holes, an important point in diagnosis of these injuries, is about 1·1–1·2 mm.

Xyleborus pruinosus, sp. n.

FEM. Oblonga, cylindrica, subopaca, ferrugineo-picea, capite et prothoracis apice ferrugineis, opaca, pube brevi appressa sat dense pruinosa ; capite magno, fronte convexa, rudi, punctata, linea media carinata ; prothorace suboblongo, lateribus vix, apice fortiter rotundato, dorso haud evidententer umbonato, postice subtilissime punctulato ; elytris quasi confuse punctatis et granulis minutis elevatis posterius magis distinctis aspersis, apice convexe declivi. Long. 4 mm.

FEMALE. Oblong, cylindrical, rather dull, entirely covered with very short fine appressed hairs. Head large, obscure ferruginous, dull, convex in front, rugulose punctured, with a fine sharp median carina not reaching the mouth, epistoma thickly fringed ; eyes small, deeply emarginate ; antennæ fusco-ferruginous. Prothorax a little longer than broad, broadly rounded and subbisinuate

in front, the apical margin crenate and everted but not projecting, the sides scarcely rounded behind the middle, hind-angles sub-obtuse but not rounded, the base transverse; surface cylindrical behind the middle, declivous and convex in front but with no evident gibbosity at the junction, reddish-pitchy, lighter anteriorly, uniformly pubescent, with a few erect hairs round the margins, the anterior half asperate with small scattered transverse rugæ, intermixed with granules, the posterior half very finely and rather closely punctured, with no evident median line. Scutellum rounded, subconvex, shining, black. Elytra scarcely as wide as the prothorax and less than a half longer, truncate at base, the shoulders rounded, the sides subparallel, rounded and inflexed behind the middle, the apical margins oblique and not conjointly rounded; surface convex from base to apex, rather strongly declivous behind the middle, piceous, with short appressed cinereous hairs, closely punctured and except over the basal third covered with scattered granules (with microscopic examination only, the punctures of the true striæ can just be differentiated from those of the interstices); declivity not acutely margined below, convex, very faintly striate. Underside piceo-ferruginous, pubescent; legs brown-testaceous, all the tibiæ rounded and finely serrate above.

Hab. Borneo, Sarawak (Wallace).

Evidently related to *X. pelliculosus*, Eichh., and like that insect, with the prothorax of the type of his Division III. *X. pruinus* is a much larger and stouter insect, differently proportioned, with the elytra pulvinate, more strongly punctate as well as granulate, and not impressed at apex.

Xyleborus puberulus, sp. n.

FEM. Oblonga, cylindrica, fusco-picea, subopaca, pube brevi vestita; fronte haud carinata; prothorace manifeste oblongo, apice rotundato, lateribus postice rectis, dorso antice dilutiore, postice subtiliter punctulato; elytris prothorace vix longioribus, indistinctissime striatis, interstitiis mox pone basin granulis elevatis sine ordine instructis, apice fortiter declivi, haud impresso. Long. 2·3 mm.

FEMALE. Oblong, cylindrical, dull, clothed with short rather dense pubescence, relatively longer than in *X. pruinus*. Head pitchy, front subconvex, dull, shortly hairy, not evidently punctate, not carinate; eyes moderate, deeply emarginate; antennæ testa-

ceous. Prothorax manifestly oblong, strongly rounded behind, parallel-sided from before the middle to the base, the latter truncate, the hind-angles rounded, anterior opening bisinuate; surface with a very indistinct ante-median transverse elevation, in front convex, declivous, fusco-ferruginous, finely granulate-asperate, behind cylindric, subopaque, alutaceous, feebly and scantily punctured. Scutellum large, rounded oblong, black, subrugulose. Elytra as wide as but scarcely longer than the prothorax, parallel-sided, the apical margins oblique, and scarcely conjointly rounded; surface cylindric, strongly declivous for the hinder fourth, fusco-piceous, the base and apex obscure reddish, pilose and very faintly striate, the punctures of the striae visible at the base in the substance, the interstices at the base subnitid, rugulose and multipunctate, thence covered with elevated granules and quite opaque; declivity subconvex, not impressed, dull, not sharply margined beneath. Underside concolorous, pubescent, legs brown-testaceous.

Hab. Borneo, Sarawak (Wallace).

A very much smaller insect than *X. pruinus*, with the elytra only about as long as the more elongate prothorax, and much rougher with elevated granules.

Xyleborus scabripennis, sp. n.

FEM. Oblonga, cylindrica, subopaca, nigra, capite, prothoracis apice, elytrorum declivitate obscure rufescentibus, pedibus fusco-testaceis, breviter pilosa; prothorace latitudine longiore, apice rotundato, disco haud umbonato, antice convexo, postice cylindrico, ad basin obscure nitido, sublævi; elytris brevibus, subsulcatis, interstitiis ad basin subnitidis, ad medium grosse granulato-tuberculatis, declivitate obliqua, retusa, dense subtiliter seriato-granulata et breviter pilosa. Long. 2.3 mm.

FEMALE. Oblong, rather short, cylindrical. Head large, deep fuscous, the front black, convex, with short hairs arising from small asperate granules, and with a fine median carina, mouth fringed; eyes not large, oblong, deeply emarginate; antennae brown-testaceous, the funiculus short, the club orbicular, normal. Prothorax a little longer than broad, the sides and apex rounded, the former very slightly behind the anterior third, the hind-angles rounded, the base truncate; surface declivous before the middle, cylindrical behind, with no evident median nodus, black, the apex rufescent, very finely and shortly pilose, in front with small granular asperities, fine and rugulose over the median third, the

basal portion obscurely shining, closely reticulate, obsolete punctate. Scutellum large, rounded triangular, black, rugose. Elytra about as wide as the prothorax, and only one-fifth longer, truncate at base, with subrectangular shoulders, the sides parallel, abruptly inflexed behind, the apical margins obtuse and scarcely conjointly rounded when seen from above; surface cylindrical for a little more than the anterior half, then strongly but obliquely declivous and subretuse, black, the declivity obscurely reddish, above subsulcate, the sulci obliterated at the base, evident towards the declivity, interstices subnitid at the base, finely multipunctate, then uniseriate-tuberculate and shortly pilose, the tubercles close, the four or five preceding the declivity being strong, erect, and spinous; the latter slightly convex, dull, closely but more finely seriato-granulate, the rows of granules separated by sulci, and pilose with short hairs, not sharply margined below. Underside piceous, thinly hairy, the abdomen with strong rugose punctuation; legs brown-testaceous, the tibiæ slender, curved, and finely serrate above.

Hab. Borneo, Sarawak (Wallace); Sumatra, from tobacco (Grouvelle).

The shape of the prothorax differs a little in my two examples, being more uniformly curved from base to apex in that from Borneo, whereas the Sumatra specimen has a slight apical constriction. The species, though quite peculiar in sculpture for a *Xyleborus*, and somewhat suggesting a *Hylocurus*, is normal in generic characters, and is related to *X. puberulus*, of which the elytral sculpture is destitute of the coarse tubercles margining the declivity in the present species.

Xyleborus arcticollis, sp. n.

MAS. Elongatus, subnitidus, tenuiter erecte pilosus, fusco-ferrugineus; prothorace valde elongato, post medium constricto, apice utrinque rotundato, medio leniter emarginato, dorso depresso ad apicem convexe declivi, antice granulato-asperato, postice subtiliter punctato; elytris prothorace subbrevioribus, subtiliter confuse punctatis et pilosis, apice convexe declivi obsolete striato. Long. 4.8 mm.

MALE. Elongate, slightly shining, fusco-ferruginous, thinly covered with fine erect hairs. Front convex and subpulvinate over the mouth, closely rugose, carinate along the middle, thinly hairy, impressed on the middle of the fringed epistoma, above with

an arcuate impression below the vertex, rather closely punctured, and with the carina replaced by a non-elevated smooth line; vertex opaque, impunctate; eyes small, emarginate; mandibles very prominent; antennæ brown-testaceous, normal. Prothorax fully one-half longer than wide, constricted behind the middle, thence amplified, and widest behind the apex, the anterior angles broadly rounded with the outer parts of the apical margin, which is almost bilobed, being separately rounded on either side with a very shallow median indentation, hind-angles broadly rounded, the base truncate in the middle; surface moderately convex from side to side, depressed longitudinally and (in side view) appearing flat from just before the base to the anterior fourth, where it becomes declivous and convex, apical margin tuberculate, the anterior half asperate with rather coarse granules, and pilose with fine erect hairs, posterior half moderately shining, more thinly hairy, weakly punctured, the punctures closer in front than at the base, which is somewhat callosely thickened. Scutellum minute. Elytra as wide as the prothorax, but scarcely so long, subparallel-sided, not narrowed behind, and broadly rounded at the apex; cylindrico-convex to the middle, thence convexly declivous, coriaceous, finely and confusedly punctured and moderately densely clothed with fine hairs; declivity rugulose, obsoletely striate, not margined below. Coxæ and underside, except the abdomen, darker, thinly hairy; the latter short. Legs ferruginous, the knees and tibiæ darker; femora very stout, inflated; tibiæ rounded externally, the anterior pair narrow, weakly armed, the remaining pairs dilated in the middle, and more strongly serrate above; tarsi very long, the first three joints somewhat stout and compressed.

Hab. Sumatra, from tobacco (Grouvelle).

This form is one of the most singular among the many remarkable male forms of the genus. The great length of the prothorax, and its peculiar shape, are quite characteristic; its apical indentation is only such as results from the conjunction of the two curves formed by the independently rounded sides of the anterior margin, and there is no dorsal sulcus leading to it. In spite of its great length, the prothorax is not, as in many males, produced into a peak in front of the head.

Xyleborus spatulatus, sp. n.

FEM. Oblonga, sat lata, haud cylindrica, castanea, prothorace et elytris ad apicem obscurioribus, subnitida, pilis brevissimis pruinosa; prothorace transverso semiovali, dorso

post medium umbonato, postice dense fortiter punctato; elytris a basi pulvinatis, postice gradatim valde oblique declivibus, lineato-punctatis, interstitiis multipunctatis, declivitate utrinque late impressa, juxta suturam elevata, ad apicem subexplanata, subtus marginata. Long. 5.4 mm.

FEMALE. Oblong, broad and somewhat depressed, not cylindrical, moderately shining, castaneous-brown, the prothorax before the discal elevation, the sides and apex of the elytra darker. Front somewhat flattened, subimpressed on either side over the mouth, rather strongly punctured, pilose; eyes not large, reniform; antennæ testaceous, normal. Prothorax broader than long, semi-oval, widest behind, the sides and apex conjointly rounded, hind-angles obtusely rounded, the base slightly curved; surface transversely gibbous behind the middle, strongly convex from side to side, pubescent with extremely short appressed hairs, anteriorly rough with an admixture of granules and rather remote larger transverse rugæ, posteriorly closely and strongly punctate with a smooth median line. Scutellum rather large, rounded trigonate, shining. Elytra wider at the base than the prothorax, and nearly double as long, the sides gently curved throughout, widest behind the base, subangulately inflexed at apex, the hind-margins obliquely rounded; surface rather depressed from side to side, convex and pulvinate from the base to the middle, thence obliquely declivous, rather indistinctly lineato-punctate, the interstices multipunctate, the punctures bearing small appressed hairs and a few short erect bristles in irregular rows; declivity broadly impressed and subexplanate at apex, with the suture elevated, the sides of the impression oblique and somewhat tumid above, and the inferior margin acute, more clearly striate. Underside testaceous, shining and thinly pubescent, sides of the elytra deeply inflexed towards the apex. Legs brown-testaceous, the tibiæ strongly dentate.

Hab. Borneo, Sarawak (Wallace).

The very short and nearly hemispherical prothorax, the broad and somewhat depressed elytra, and the complete absence of armature give the insect an appearance unlike that of any described species of the genus. I have, however, dissected the mouth parts of one of my two examples, and cannot find in them or in other details of structure, sufficient grounds for its removal. The malar armature is fine and setiform.

Xyleborus wallacei, sp. n.

FEM. Elongata, cylindrica, picea vel badia, sat nitida, erecte setosa; prothorace subquadrato, dorso post medium gibboso, postice subasperate punctato; elytris striato-punctatis, interstitiis planis per totum alternatim tuberculis piliferis et punctis uniseriatim instructis, declivitate perobliqua, haud retusa, infra marginata. Long. 5.5 mm.

FEMALE. Elongate, cylindrical, bright brown or piceous, rather shining, with erect scattered long brown hairs. Head impressed above the mouth on either side, with deep sparse piliferous punctures and a median elevated line, mouth fringed; eyes large, broad oval, emarginate, encroaching on the front, antennæ testaceous. Prothorax subquadrate, not longer than broad, the sides and apex separately and feebly rounded, the former slightly contracted before the middle, the anterior angles broadly rounded, the hind-angles subrectangular, the base subtransverse; dorsal gibbosity post-median, rounded and not sharply defined, surface with scanty pubescence at the sides, anteriorly convex, declivous and asperate with small rugæ, fine and close on the gibbosity, posteriorly subopaque, with fine subasperate punctures, the median line narrow. Scutellum small, rounded, convex, shining. Elytra as wide as the prothorax and twice as long, truncate at base, the shoulders obtuse, the sides parallel, somewhat narrowed towards the rounded apex; surface slightly rounded from the base to just behind the middle, thence very obliquely declivous, striate-punctate, the punctures rather large, shallow, the striæ scarcely impressed, the interstices shining, flat, with a single uniform series from base to apex of small setiferous tubercles alternating with punctures, the setæ long and erect; declivity carinate below, very slightly impressed on each side, chiefly over the 2nd interstice, and not evidently retuse or flattened. Underside concolorous, the legs somewhat lighter, the anterior tibiæ subangulate before the apex, the others rounded above, and moderately strongly serrate.

Hab. New Guinea, Dorey (Wallace).

The species is remarkably like the Colombian *X. grandis*, Eichh.; but it has the eyes larger, convex, more strongly granulated and more approximated in front, the prothoracic elevation post-median, the elytra more obliquely declivous, the interstitial setæ springing from tubercles throughout, and the first interstice not narrowed at the apex.

Xyleborus destruens, sp. n.

Elongatus, ferrugineus vel piceus, nitidus, parce setosus, prothorace quadrato, elytris striato-punctatis, interstitiis uniseriatim subtuberculatis et punctatis, declivitate subretusa.

FEM. Quam *X. wallacei* minor, subangustior, prothorace distinctius gibboso, ad basin nitidiore, elytrorum interstitiis rarius tuberculatis et setosis, declivitate distincte impressa et postice subexplanata. Long 4·8–5 mm.

MAS. Brevior, robustior; prothoracis lateribus et angulis anticis distinctius rotundatis, dorso ante umbonem subdepresso et obsoletius asperato; elytris profundius striatis, striis juxta suturam irregularibus rugosis, apice magis retuso.

Long 3·9–4·3 mm.

Elongate, varying in colour from ferruginous-red to piceous, shining, scantily hairy, the hairs erect.

FEMALE. Very similar to that of *X. wallacei*, smaller and narrower. Front less impressed over the sides of the mouth, the median carina less distinct; eyes smaller, not encroaching so far on the front. Prothorax just perceptibly longer than broad, the sides less narrowed in front, the apex somewhat flatter, the anterior and posterior angles rounded; discal elevation not post-median, rather more defined and smoother, the basal half subnitid, with finer scarcely asperate punctures, weak towards the middle. Elytra narrower, the punctures of the striæ a little larger and more remote, the interstitial tubercles and punctures much more remote on the disc, the former feeble on the outer interstices; declivity impressed and very slightly concave towards the tip, very shining.

MALE. Shorter but stouter than the female and more convex. Median elevation of front stronger; eyes very small, with only 4 or 5 ommatidia at their greatest width. Prothorax much more ample, broader than long, the sides more strongly rounded and gradually incurved in front to the apex, which is transverse in the middle; discal elevation situate farther back, less defined, surface depressed in front from the elevation to the apex but still convex, with finer asperation and an irregular smooth median line, posteriorly longitudinally convex, impressed on either side between the elevation and the hind-angles, more shining. Elytra shorter, but variable in length, narrower than the prothorax, more convex, more strongly punctate-striate, the interstices subconvex; surface

with an irregular shallow sutural impression beginning behind the base, rugulose, infusate and more strongly tuberculate; declivity more retuse, beginning subabruptly above, shining, irregular, more obsoletely sculptured.

Hab. Gilolo (Wallace); Java.

I have received a good series from Java, where this species, in association with *Glenea novemguttata*, Cast., and a species of *Helopeltis* has inflicted very grave damage to cacao-plantations.

Xyleborus andamanensis. sp. n.

FEM. Oblonga, subnitida, nigro-picea, parce pilosa; prothorace subquadrato, lateribus et apice leniter singulatim rotundatis, dorso gibboso, postice sublævi; elytris dilutioribus, lineato-punctatis, interstitiis planis, seriato-setosis, declivitate perobliqua, subopaca, subtus acute marginata, striata, striis ad apicem sinuatis, interstitiis granulis elevatis parvis æqualiter notatis. Long 3 mm.

FEMALE. Oblong, moderately shining, scantily hairy, deep piceous, the head and elytra somewhat lighter. Front convex, strongly punctured, impressed on either side over the mouth, the impressions separated by a median raised line; eyes oblong, deeply emarginate; antennæ brown-testaceous. Prothorax as broad as long, subquadrate but with the sides and apex evidently, though slightly, and the anterior angles more strongly rounded, hind-angles obtuse, the base subtruncate; surface transversely gibbous in the middle, anteriorly rather finely granulate-asperate, posteriorly moderately shining, finely reticulate, and obsoletely punctured. Scutellum triangular, subnitid, longitudinally impressed. Elytra scarcely as wide as the prothorax and less than a half longer, subparallel-sided, strongly rounded at the apex, its margin acute and subexplanate; surface cylindrico-convex to the middle, thence obliquely declivous, lineato-punctate, with very shallow variolose punctures, interstices flat, rugulose, with uniseriate erect hairs arising from small points, which become elevated before the middle, declivity convex, subopaque, with feeble striæ towards the apex, the 1st somewhat impressed, the others sinuate outwards, interstices with uniform rows of small granules, obsolete towards the tip of the 1st interstice.

Hab. Andaman Is.

About the shape of *X. interjectus*, Blandf., but smaller, with the prothorax less narrowed towards the apex, though as evidently rounded in front; the elytral sculpture is characteristic and resembles somewhat that of *X. seminitens*, Blandf., which species has not a subquadrate prothorax.

Xyleborus submarginatus, sp. n.

FEM. Elongata, nitida, ferruginea, elytris versus apicem plus minusve infuscatis; prothorace oblongo, lateribus postice subparallelis, apice obtuse rotundato, inde subquadrato, dorso medio nodoso, postice nitido, obsolete punctato; elytris striato-punctatis, interstitiis rarius subtilius uniseriatim punctatis et setosis, declivitate obliqua, convexa, opaciore, interstitio 1° dilatato, utrinque medio tuberculato, et granulis nonnullis ante tuberculum et ad apicem ornato, interstitio 3° obsoletius granulato, margine inferiore sat acuto crenato. Long. 2·4–2·5 mm.

Resembling *X. parvulus*, Eichh., larger, darker in colour, the prothorax more parallel-sided and obtusely rounded at the apex, hence subquadrate. Elytra with the rows of punctures more distinctly expressed, rather deeper, the punctures themselves closer, the interstitial punctures finer, the setæ longer, declivity less shining, the 1st interstice with a stronger tooth, preceded by a few fine granules at the summit of the declivity and one at the apex, the 2nd interstice with two or three granules at the summit, the 3rd with a series on the declivity, its inferior margin distinctly acute and crenate.

Hab. India, Belgaum (Andrewes); Ceylon (Thwaites, in Mus. Oxon.); Celebes (Wallace); New Guinea, Dorey (Wallace).

This species was referred to by me (Ann. Nat. Hist. ser. 6, xv., p. 332) as a variety of *X. parvulus*. Having since seen the type of that species and series of both forms from Ceylon, I feel constrained to separate it by the characters given above. It comes close to *X. dilatatus*, Eichh., in many respects, but differs from the description at least in possessing a prothorax which is longer rather than shorter than that of *X. parvulus*,

in the stronger dentation of the elytral apex, and in its decidedly acute and crenate inferior margin; a point in which, as in the shape of the prothorax, it approaches the species of Eichhoff's second division.

Xyleborus subscribrosus, sp. n.

FEM. Subelongata, cylindrica, nitida, castanea, parce longius pilosa; prothorace haud transverso, apice rotundato, disco subaequaliter convexo, post medium fortiter punctato, linea media laevi; elytris fortiter lineato-punctatis, interstitiis planis punctis piliferis remotis notatis, apice fortiter declivi, impresso et longitudinaliter concavo, pernitido, lineato-punctato, interstitiis praecipue in parte superiore subtiliter seriato-tuberculatis. Long. 3.4 mm.

FEMALE. Subelongate, cylindrical, shining, deep castaneous, with long fine scanty pubescence. Front subconvex, shining and rugosely punctured towards the mouth, dull towards the vertex, median line narrow, elevated, shining, pubescence long, erect; eyes broad oval, narrowly emarginate. Prothorax about as long, or a trifle longer, than broad, broadly rounded at the apex, the sides very slightly rounded, the greatest width being at the hinder third, hind-angles obtuse, the base truncate; disc uniformly convex from base to apex and not gibbous, asperate with close imbricate rugae before the middle, behind strongly and closely punctured, the punctures subasperate at the sides, finer towards the middle, median line impunctate, reaching the middle, interspaces shining, pubescence scanty, marginal. Scutellum rounded, convex, shining. Elytra as wide as the prothorax and fully a half longer, truncate at the base, with rectangular shoulders, subparallel-sided and not narrowed behind, rather abruptly and obtusely rounded at apex; surface cylindric, the apical third strongly declivous, with non-impressed rows of strong punctures, the sutural row irregular, interstices flat, subrugulose, shining, with uniseriate remote piliferous punctures, replaced before the declivity by elevated points, declivity strong but not abrupt, broader than long, retuse and concave from base to apex, which is subexplanate, margined subacutely below, very shining, with three rows of shallow punctures, the interstices rather wide, the 1st with one small tubercle near the summit, and traces of others near the tip, the 2nd and 3rd with two or three irregularly-placed small tubercles. Below concolorous, thinly pilose.

Hab. Singapore (Wallace).

The single example has the limbs broken; it is a rather distinct form, with the elytral characters of the species of Eichhoff's second division, though the rounded apex of the prothorax would place it in his third division.

Xyleborus dolosus, sp. n.

FEM. Subelongata, cylindrica, nitida, castanea, parce pilosa; prothorace oblongo, apice fortiter rotundato; dorso post medium sat distincte punctato, linea media lævi; elytris lineato-punctatis, interstitiis planis uniseriatim punctatis, 1°, 3° post medium seriato-tuberculatis; declivitate obliqua, nitida, tenuiter punctata, in linea interstitii 1° utrinque sat valide bituberculata, infra marginata, ad apicem medium subemarginata. Long 2.4 mm.

FEMALE. Subelongate, cylindrical, shining, castaneous-brown, with very scanty, rather long pubescence. Front subimpressed on either side, with an indistinct median longitudinal elevation, subrugosely punctate and pilose; eyes large, broad oval, feebly emarginate; antennæ testaceous-yellow. Prothorax oblong, strongly rounded at the apex, the sides very gently curved from before the middle to the broadly rounded hind-angles, base subtruncate; surface very convex before the middle, cylindrical and slightly flattened posteriorly, the junction not marked by any evident nodus, the anterior half rather finely and closely asperate, the posterior half shining, moderately closely and distinctly punctured, the punctures absent over the median line and a small spot on either side, and coarser at the lateral margins, pubescence scanty, marginal, erect. Scutellum rounded oblong, infusate, shining, subimpressed. Elytra wider than the prothorax at its extreme base, and less than a half longer, truncate at base, with rectangular shoulders, subparallel-sided and slightly narrowed towards the apex, the hind-margins separately rounded, as in many species of *Pterocyclon*, forming a very shallow emargination at the suture; surface subcylindrical at the base, very obliquely declivous from the middle to the apex, moderately strongly lineato-punctate, the interstices flat, remotely and more finely punctured; declivity somewhat flattened behind, shining, indistinctly punctured, rather sharply margined below, 1st interstice with about six, 3rd with about five tubercles, beginning near the middle of the elytra, and becoming strongly posteriorly, the apical pairs of the 1st interstices forming four well-marked tubercles on the declivous area, outer interstices finely tuberculate towards the extremity. Underside concolorous, legs testaceous.

Hab. Borneo, Sarawak (Wallace).

The shape of the elytral apex is like that found in many species of *Pterocyclon*, and the species may be regarded as intermediate between such forms as *X. confusus*, Eichh., and its allies, and *X. fallax*, Eichh.

Xyleborus laticollis, sp. n.

FEM. Subelongata, nitida, badia, elytris piceo-ferrugineis; prothorace amplo, suboblongo, lateribus leniter, apice fortiter rotundato, dorso transverse subelevato, postice subtiliter sparsim punctato; elytris prothorace angustioribus, postice angustatis, striato-punctatis, interstitiis lineato-punctatis, postice tuberculatis, apice fortiter oblique declivi, subimpresso, fundo inermi, lateraliter in linea interstitii 3ⁱ seriato-tuberculato. Long. 2.7 mm.

FEMALE. Subelongate, shining, sparsely pilose. Head bright-brown, front subconvex, dull, punctured, with a fine subelevated median line, mouth thinly fringed. Prothorax a little longer than broad, ample, broadly rounded in front, the sides nearly straight, inflexed slightly towards the rounded hind-angles, base truncate; surface cylindrical behind, convex and declivous at the apex, with a scarcely elevated transverse nodus before the middle, bright-brown with a darker shade towards apex, scarcely hairy, granulate in front, behind shining, finely and sparingly punctured, with a smooth median line. Elytra narrower than the prothorax and a third longer, the shoulders subobtuse, the sides nearly parallel to the middle, thence narrowed, the apical margin truncate in the middle; surface cylindrical, piceo-ferruginous, shining, with thin rather long hairs, rather strongly punctured in substriate rows, the sutural stria markedly impressed shortly after the base, interstices flat, with as strong but more remote uniseriate piliferous punctures, replaced by small tuberculate points before the declivity; the latter beginning at the apical third, oblique, flattened, shining, indistinctly striate, its fundus unarmed, the 3rd interstice callose and tuberculate, the outer interstices less strongly tuberculate. Underside and legs testaceous, the abdomen darker.

Hab. India, Kanara (Andrewes).

This species belongs to the subdivision of which *X. saxeseni*, Ratz., forms part, but is quite different from that species in sculpture and in the much larger and more ample prothorax, which looks almost out of proportion in comparison with the elytra.

Xyleborus andrewesi, sp. n.

FEM. Elongata, piceo-fusca, antennis et pedibus flavis, subnitida, sat breviter erecte pilosa; prothorace oblongo, apice late rotundato, lateribus parallelis, dorso post medium sat conferte punctulato, linea media lævi; elytris post medium gradatim attenuatis, lineato-punctatis, interstitiis seriato-setosis, 1° a medio, 3°, 5° in declivitate tuberculatis, hac obliqua, pruinoso-opaca, interstitio 2° impresso. Long. 2 mm.

FEMALE. Elongate, moderately shining, pitchy-fusca, the base of the prothorax and apex of the elytra somewhat lighter, the antennæ and legs yellow, with short moderately close erect pale hairs. Front subimpressed on either side over the mouth, dull, finely shagreened, not strongly punctate nor hairy; eyes rather large, deeply emarginate. Prothorax oblong, exactly parallel-sided, broadly rounded at the apex, the hind-angles rounded, the base truncate; surface with an ante-median transverse elevation, declivous in front and asperate with imbricate rugæ, behind cylindrical, slightly depressed, subnitid, with moderately close and rather fine punctures, the median line impunctate, the interspaces transversely rugulose, pubescence thin, longer over the apical, shorter but present over the basal half. Scutellum triangular, partly concealed by hairs. Elytra as broad as the prothorax and a half longer, with subrectangular shoulders, parallel-sided to the middle, thence gradually and subacuminately narrowed to the apex, hind-margin seen from above short and transverse; surface subcylindrical to behind the middle, thence gradually declivous and convex, rather finely punctured in rows, the punctures shallow, bearing minute hairs, interstices flat, rugulose, with stronger seriate hairs, the 1st and 3rd seriato-tuberculate, the tubercles beginning on the 1st before the middle, rather remote, and weak towards the apex, on the 3rd about the middle, and strong to the apex, the 5th and outer interstices with finer tubercles towards the tip; declivity opaque, impressed along the 2nd interstice, the 3rd subcallose. Underside concolorous.

Hab. India, Belgaum (Andrewes).

Allied to *X. exiguus*, Walk.; but larger, more elongate, and much more gradually attenuated behind; the first and third interstices alone armed before the declivity with much more remote tubercles, the declivity opaque. One example.

Xyleborus exiguus.

Bostrichus exiguus, Walk., Ann. Nat. Hist., ser. 3, iii.,
p. 260 (1857)¹.

Xyleborus muriceus, Eichh., Rat. Tom., p. 506 (1879)².

Hab. Ceylon¹; Andaman Is.; Burma².

I have a pair from the Andamans, which have been identified by comparison with Walkér's type. Through the courtesy of Herr Schaufuss I have been able lately to compare them with that of Eichhoff, who has published an ample description of the species.



Blandford, Walter F. H. 1896. "Descriptions of new Scolytidae from the Indo-Malayan and Austro-Malayan regions." *Transactions of the Entomological Society of London* 1896, 191–228.

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