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## RECORDS



# DESCRIPTIONS OF NEW SPECIES OF NIPONIDAE AND CERAMBYCIDAE FROM INDIA

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## Descriptions of new species of Niponiidae and Cerambycidae from India.

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#### FOREWORD.

This paper contains the descriptions of sixteen new species belonging to two coleopterous families of economic importance. The biology of the first family, Niponiidx, is somewhat obscure, but it is known that certain species are predaceous on injurious bark-boring Scolytidx: this is almost certain to be true of the whole genus which constitutes the family. The second family, Cerambycidx, contains most of the new species described below, and it is scarcely necessary to comment on the importance of this family as an enemy to forests.

The principle adopted for disposition of types is that where more than one specimen of a species is or becomes available, the type will be sent to the British Museum, otherwise the type will be retained, for the present at least, in the Forest Research Institute.



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#### NIPONIIDAE.

new species of *Niponius* from India are described below. The en will serve to separate the new species as well as those already ed; the characters used for the latter have been obtained from the descriptions by Lewis.

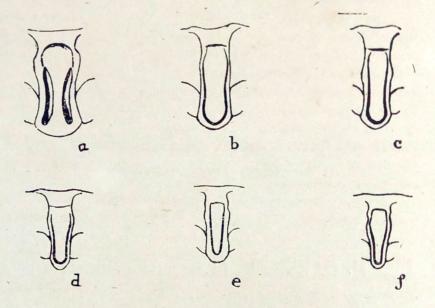


Fig. 1. Prosternal striæ of Niponius spp.: a, andrewesi; b, punjabensis; c, himalayensis; d, canalicollis; e, variabilis; f, substriatus.

### KEY TO SPECIES OF NIPONIUS.

1. Prothorax with distinct rounded foveæ on disc	0
Prothorax without distinct rounded foveæ on disc	2
2 Programme Tounded Toveæ on disc	6
2. Propygidium with distinct medium sized or large im-	F. State
pressions or foveæ	
Propygidium with two very small foveæ or pits near	3
and the two very small love or pits near	
lateral margins	-
3. Propygidium with two foveæ	5
Propogradium with two loves punjabensis sp. n.	
1 topygramm with four fovem	
4. Prothorax with two discal foveæ and with two foveæ	4
need to discar loves and with two fores	
near anterior angles; foveæ on pygidium rearly	
circular in outline (Java) foreicollie Lowis	
Prothorax with the line (Java) foveicollis Lewis.	
with two discal fover only fover on	
PJERUM SUCITORM (Japan)	
· · · · · impressicollis Lewis	

	5.	Elytra each with one short humeral stria (Andamans)	unistrius Lewis.	
		Elytra without dorsal striæ (India : Pombay, U. P.,		
		Assam, Bengal)	andrewesi Lewis.	
	6.	Propygidium without foveæ or sulci (Japan)	obtusiceps Lewis.	
		Propygidium with foveæ or sulci		7
	7.	Propygidium with four impressions *		8
		Propygidium with two impressions		14
	8.	Frons with stria between eyes (Iorneo)	striaticeps Lewis.	
		Without frontal stria		9
	9.	Anterior tibiæ unidentate (Singapore)	unidentatus Lewis.	
		Anterior tibiæ with more than one tooth		10
	10.	Prothorax with deep median channel	himalayensis sp. n.	
9		Prothorax without a median channel		11
	11.	Impressions on propygidium sulciform; cephalic horns		
		long r, divergent (Japan)	furcatus Lewis.	
		Without the above combination of characters		12
	12.	Prosternal striæ nearly straight, converging pos-		
		teriorly (Mysore)	variabilis sp. n.	
		Prosternal striæ otherwise		13
	13.	Foveæ on propygidium nearly equal in size; length		
		3·3 mm. (India : U. P.)	substriatus sp. n.	
		Propygidium with outer fovem distinctly larger		
		than inner ones; length 5.3 mm. (Australia)	interstitialis Lewis.	
	14.	Prothorax with a distinct median channel; length		
		3.5 mm4.5 mm. (India : Punjab, U. P.)	canalicollis Lewis.	
		Prothorax with some of the punctures confluent and		
		forming an irregular median caniculation;		
		length 2 mm. (India: Kanara)	parvulus Lewis.	-
		Prothorax without median channel; length 4.5 mm.		
		(Japan)	osorioceps Lewis.	

#### NIPONIUS HIMALAYENSIS Sp.n.

#### Plate I, fig. 2.

Length 4 mm. Cylindrical, elongate, rather narrow, black and shining, antennæ and legs dark castaneous, tarsi reddish brown. Head sulcate between cephalic projections which resemble those of *Niponius canalicollis* in being rather short, widely separated at the base and transversely carinate; the area behind projections with fine transversed sculpture; punctuation somewhat irregular and not very close, punctures

<sup>\*</sup>In variabilis sp. n. the pair of foveæ on one or both sides of the propygidium may fuse,

mostly very small; on the median area in front of the base a few larger punctures. Prothorax longer than wide, with a conspicuous median channel which is deeper than that of Niponius canalicollis, and does not reach the apex but nearly reaches the base of the prothorax; on each side of the median channel and separated from it by a narrow smooth space is a coarsely punctate area, the punctures irregularly spaced with a tendency to linear confluence; the lateral areas of the pronotum with sparse rather small punctures; the interstices with sparse minute punctures; there are no foveæ on the prothorax. Elytron with the sutural stria smooth and very distinct; lateral to the sutural stria are three fairly distinct punctured striæ, the first two reaching to near the apex, while the outer one is less distinct and fades near the middle into a row of punctures; outer area of elytron with lines of small punctures. Propygidium with four distinct nearly equal rounded foveæ; minutely punctured. Pygidium minutely punctured with two very large rounded foveæ. Prosternum with two slightly sinuate marginal striæ which join posteriorly. Meso- and meta-sternum with a common median groove which is very shallow on meso-sternum; sparsely and finely punctate. Abdominal sternites with small sparse punctures. Anterior tibiæ bidentate.

Described from five specimens: two ex *Picea Morinda*, C. F. C. Beeson, 17. IV. and 23. IV. 1924; one ex *Abies Webbiana*, C. F. C. Beeson, 18. VI. 23; two ex *Picea Morinda*, S. K. Pillai, 6. VI. 23.

All are from Chakrata, U. P., elevation about 9,000', and taken in association with species of *Polygraphus*, *Ips* and *Dryocoetes*.

Type in British Museum; paratypes in Forest Research Institute.

#### NIPONIUS PUNJABENSIS SP. N.

#### Plate I, fig. 1.

Length 4.3 mm. Cylindrical, elongate, stouter than Niponius himatayensis, shining and black, tarsi red brown. Head sulcate between the cephalic projections which are widely separated, short and distinctly bicarinate; punctures of head fairly regular, close and small, except along the base where they are larger. Prothorax wider than long (11:9), with a small but distinct median Y-shaped impression at the middle; punctuation fairly close and varying in size, a few large punctures along the median line; with a fovea on each side behind the middle. Elytra slightly impressed laterally behind shoulder; with sutural stria distinct and with some punctures, remaining striæ indicated by rows of punctures; basal margin raised. Propygidium and pygidium each with two

large rounded foveæ, those of the latter somewhat larger and with their inner margin not sharply defined; propygidium and pygidium finely punctured. Prosternum (text fig. 1b) with slightly sinuate marginal striæ which join posteriorly. Meso- and meta-sternum rather widely canaliculate. Abdominal sternites punctate. Anterior tibiæ bidentate.

Described from a single specimen collected by O. H. Walters from Polygraphus major galleries. Kangra Division, Punjab 1917.

Type in Forest Research Institute.

#### NIPONIUS SUBTRIATUS SP.N.

Length 3.3 mm. Cylindrical, black, shining, cephalic horns and anterior margin of prothorax reddish, antennæ and legs reddish brown. Head sulcate between projections which are rather short, parallel and have two transverse carinæ, posterior to which there is some transverse sculpture; head regularly and fairly closely covered with small punctures. Prothorax smooth, non-foveolate, fairly closely punctured, the punctures rather small, varying in size but coarser than those of the head; longer than wide (8:7). Elytron with basal margin raised; sutural stria rather indistinct, punctate, remaining striæ obsolete; along the smooth area between the suture and sutural stria is a line of minute punctures; rather closely punctate, punctures smaller than those of thorax. Propygidium with four rather small distinct and circular foveæ which are all of the same size (or very nearly). Pygidium with two fairly large circular and rather deep foveæ which are about their own width apart. Prosternum (text fig. 1f) with two somewhat sinuate marginal striæ which anteriorly are wider apart and posteriorly are narrowly separate and more or less parallel; the striæ join posteriorly. Meso-sternum with two small lateral foveæ and a narrow median canaliculation which is continuous with that of the meta-sternum. The ventral surface of the body is uniformly but not closely punctate. Propygidium and pygidium distinctly punctate. Anterior tibiæ bidentate.

Two specimens ex *Alnus nitida*, Arakot, Chakrata, U. P., C. F. C. Beeson 4. VI. 24. in association with *Cryphalus* sp. nov.

Type in British Museum; paratype in Forest Research Institute.

#### NIPONIUS VARIABILIS SP. N.

Length 3-4 mm. Black, with antennæ and legs castaneous, the tarsi somewhat paler. Body cylindrical, rather slender. Cephalic projections not divergent, about as long (in proportion to body length) as those vi Niponius andrewesi; with two distinct carinæ posterior to which there is some transverse sculpture with a weak anterior carina. Head distinctly

and fairly closely punctured, a few larger punctures behind the middle. Prothorax slightly longer than wide (1.1:1.0), weakly impressed on each side before the middle; punctuation fairly close and varying in size; a few larger punctures on and near the lateral impressed areas; there is a tendency for a few of the larger punctures to form a subdistinct median row. Elytra each with sutural stria fairly distinct and punctured, lateral to this are several weaker striæ represented by rows of minute punctures; the basal margin distinctly elevated. Propygidium with four shallow foveæ of variable shape; these foveæ may be small and separate, or each pair of foveæ may fuse more or less completely; in some cases this fusion occurs on one side only. Pygidium with two large deep and oval foveæ which are slightly longer than wide. Propygidium and pygidium both with fairly close distinct punctures. Prosternum (text fig. 1e) with two lateral nearly straight strize which converge and join posteriorly, the junction narrowly curved. Meso-sternum with a rather deep median channel and two small lateral impressions near anterior margin. Meta-sternum with a rather narrow deep median channel; with two lateral oblique striæ. Under side of body distinctly but not very closely punctate, the intercoxal part of first abdominal segment with close rather large punctures. Anterior tibiæ bidentate.

Described from eight specimens taken on bark of *Pongamia glabra* attacked by *Hylesinus* sp. nov. C. F. C. Beeson, Bangalore, Mysore,

20. VIII. 1925.

Type in British Museum; paratypes in Forest Research Institute.

#### CERAMBYCIDAE.

#### HOPLOCERAMBYX CICATRICATUS SP. N.

Length 29 mm. Brownish black covered with dull tawny pubescence which is dense over the whole body but more so on the elytra where the derm is almost concealed. Head with eyes rather narrowly separated above, the intervening space with a narrow groove which is continued forward as a shallower groove between the antennal tubercles; between the lower lobes of the eyes on the ventral surface is a single transverse ridge anterior to which is a larger shallow transverse pubescent depressed area. Antennæ slightly longer than body; first joint with an incomplete apical cicatrice and carina; third and fourth joints subnodose at apex; joints five to ten each with a posterior apical spine, sixth to tenth angulately produced and canaliculate anteriorly. Prothorax about as long as wide, with transverse sinuate and not very strong ridges; there is no

median smooth space but the corrugations are weaker behind the middle. Elytra slightly elevated a short distance behind the scutellum; apex truncate, the sutural angle spinose, the external angle only very slightly produced.

One specimen from Kanara, Bombay T. R. D. Bell collection.

Type in Forest Research Institute, Dehra Dun.

This species differs from other species of Hoplocerambyx in the third and fourth joints being without spines.

#### PACHYDISSUS BIRMANICUS SP.N.

Length 35 mm. Breadth 9.5 mm. Brownish black with a very short yellowish pubescence which is not dense enough to hide the derm. above with a short distinct groove between the eyes which extends from a short distance from the anterior margin of the eyes to a little distance behind them; antennal supports separated by a shallow groove; the front with an area, limited by impressions, which is subcircular and only slightly transverse. Antennæ about as long as the body; joint third to fifth subnodose at the apex; third joint longer than the first, fourth or fifth; fourth joint shorter than the first. Prothorax somewhat protuberant at the middle of each side, narrowed towards apex and slightly towards base; rather strongly rugose, the disc with about four fairly distinct longitudinal rugæ which cross some weak transverse rugæ; about as long as wide. Elytra more or less parallel sided anteriorly, narrowing near apex; apex obliquely truncate, the external angle produced into a blunt tooth, the sutural angle with a spine. Femora weakly fusiform. Prosternal process bituberculate.

Habitat: S. Toungoo, Burma, C. F. C. Beeson coll. 18. v. 18; one specimen found under bark of Xylia dolabriformis.

Type in Forest Research Institute, Dehra Dun.

This species is more robust than P. parvicollis and the elytral pubescence does not show wavy reflexions.

#### OBRIUM RANDIÆ SP.N.

Length 7.5 mm. Shining, fulvous, except for the anterior part of the head, the apex of the elytra, and the tibiæ and tarsi which are piceous; the antennæ have the first four joints piceous and the remaining joints dull reddish brown.

Head sparsely punctate, the punctures small and rather deep. Antennæ with first joint curved, punctate; with short yellowish pubescence which is denser on the distal joints. Prothorax with a blunt rounded tubercle near the middle of each side; constricted near the base with

a sinuate groove across the dorsum; with a weaker transverse groove behind the apex; the disc is somewhat flattened with the lateral margins slightly swollen and elevated and with a median slightly raised non-punctuate median line which develops into a very weak tubercle posteriorly; the prothorax is very sparsely but distinctly punctate each puncture deep with a rather long reddish hair.

Elytra distinctly and rather densely punctate the punctures regularly spaced and each with a recumbent reddish hair. Legs with yellowish

hairs which are sparse on femora and denser on the tibiæ.

The 3 with abdominal sternites smooth shining and with sparse yellowish hairs which form a weak fringe on the last sternite. The 2 has the second abdominal sternite widely emarginate and rather closely covered with small fine hairs except for the posterior margin which is densely clothed with long reddish hairs.

Closely allied to *Obrium posticun* Gah. according to the description of the latter but may be at once distinguished by the wholly fulvous femora.

Seven beetles (1 \, 2, 6\, 5) taken from the wood of Randia dumetorum

Jhajra, Dehra Dun, U. P., N. C. Chatterjee, 13. VI. 1911.

Type (3) in British Museum; paratypes in Forest Research Institute.

#### EPANIA.

#### KEY TO NEW INDIAN SPECIES.

1. Prothorax black		2
Prothorax reddish laterally		of calophylli sp. n.
2. Elytra wholly black		♀ assamensis sp. n.
Elytra not wholly black		3
3. Prothorax strongly constricted	at middle; hind	
femora not strongly clavate	/	♀ calophylli sp. n.
Prothorax shallowly constricted	at middle; hind	
femora more strongly clavate		∂ ♀ amooræ sp. n.

#### EPANIA AMOORA SP.N.

#### Pl.I, fig. 7.

J Length 7 mm.-8.8 mm. Head, except near mouth and prothorax, black, elytra testaceous brown with the outer margin and the sutural margin at the base broadly fuscous; legs with femora and tibiæ black or nearly black distally; posterior femora and tibiæ yellowish proximally. Body and legs with numerous rather long erect pale hairs. Antennæ

filiform, rather more than twice length of body; the first four joints shining red-brown, with a few shallow punctures and sparsely fimbriated ventrally; remaining joints dull and blackish with a very short close pubescence; the first joint is somewhat shorter than the third. Head with a few deep punctures on the glossy frons, posteriorly more closely and coarsely punctate.

Pronotum longer than wide (1·4:1·0), subcylindrical, the sides rather shallowly constricted at the middle; a shallow groove behind apex and a marked basal constriction each furnished with pale silky hairs at the sides; area between subapical and basal constrictions coarsely punctate reticulate or alveolar, the alveolæ being rather smaller at the middle of

the disc and deeper than in Epania calophylli.

Elytra broadly oval, set with rather widely spaced punctures, each puncture with an oblique hair and with its anterior margin raised; lateroapical area smooth; somewhat depressed along the middle. Scutellum with close yellowish pubescence. Posterior femora rather strongly but not abruptly clavate, glossy with sparse shallow piliferous punctures. Posterior tibiæ rugose, the inner margin subserrate. Prosternum punctate-rugulose. Abdominal segments each with a patch of yellowish pubescence on each side of the ventral surface, subnitid medially; pygidium with close yellowish pubescence.

Antennæ more robust, about two thirds length of body.

Described from 26 specimens bred at Dehra Dun, U. P. from wood of *Amoora Rohituka* collected by Dr. C. F. C. Beeson at Okyi, Shwegu, Burma, 4. VI. 1919.

Type in British Museum; paratypes in Forest Research Institute. Another 34 specimens were bred from the same source and these differ only in having the elytra uniformly testaceous brown or with traces only of fuscous near the margins. It is probable that the latter specimens were killed before complete pigmental development had occurred.

#### EPANIA CALOPHYLLI SP.N.

#### Plate I, fig. 6.

3 Length 6 mm.-7 mm. Head red-brown, somewhat darker posteriorby; prothorax reddish-brown laterally and ventrally, disc with a broad blackish vitta for its length; antennæ with first two joints reddish-brown, the third joint darker and the remaining joints very dark brown; elytra testaceous brown with apex fuscous; legs with expanded portions of femora castaneous and with peduncle of middle and hind femora yellowish. Body and legs with numerous fine, erect and rather short hairs. Head with first five joints sparsely fimbriated ventrally, first and third nearly equal, first sparsely punctate. Pronotum (fig. 6) longer than wide (1·3:1·0); sides with a marked constriction at the middle behind which they are sub-angulate; a slight subapical transverse groove is furnished with yellowish hairs at the sides; a strong basal constriction is present; the area between subapical and basal grooves alveolar, the alveolæ with flat bottoms and the reticulate walls shallower than in Epania amooræ; prosternum punctate-rugulose. Legs with hind femora gradually and not very strongly clavate, with numerous small punctures; hind tibiæ rugulose. Elytra sparsely covered with piliferous punctures, the margins of punctures elevated on one side. Abdominal segments each with a patch of yellowish pubescence on each side ventrally; median area of each with a few piliferous punctures.

Q Differs from 3 in having head and prothorax totally black and elytra uniformly piceous. The antennæ are shorter (about two-thirds

length of body) and the two basal joints are dark castaneous.

Coorg: Mawkut, 11 3 and 7 Q-Bred at Dehra Dun U. P. from Calophyllum Wightianum sent by Range Officer on request from timber seasoning experimental area.

Type in British Museum; paratypes in Forest Research Institute.

#### EPANIA ASSAMENSIS sp.n.

#### (Plate I, fig. 8.)

Q Length 7.5 mm. Entirely black except (1) first two joints of antennæ very dark castaneous, (2) peduncles of hind femora straw coloured, (3) tarsi dark castaneous. The erect hairs on body and legs rather short. Antennæ with first joint longer than third, glossy, sparsely punctate and with a few fairly long hairs; third to eleventh joints dull with short close pubescence; antennæ about two-thirds body length. Head with frons punctate reticulate and with a fairly distinct median sulcus; clypeus posteriorly with numerous smaller punctures. Pronotum longer than wide (1.3:1.0); a slight transverse subapical groove is furnished with a continuous band of short pale hairs, the marginal band in front of this groove glossy and smooth; a strong basal constriction is also furnished with pale hairs; the area between subapical groove and base regularly alveolar, the alveolæ larger than head punctures and with flattened bottoms; the sides of prothorax very slightly narrowed at the middle. Elytra closely set with sub-asperate punctures except near scutellum where punctures are sparse; slightly depressed along

the middle; more asperate apically than *E. amoorae*. Hind femora gradually and not very strongly clavate, glossy. Abdominal segment with lateral patches of pale pubescence ventrally.

Assam, Cachar, Jiri forests. One Q, S. N. Chatterjee coll. 12. IV. 24.

Type in Forest Research Institute.

#### PROTHEMA BELLI sp.n.

(Plate I, fig. 5).

Length 11.5 mm. Black, opaque; frons with very sparse yellowish pubescence; anterior margin of pronotum with a small triangular spot of yellow pubescence on each side, posterior margin of pronotum with a dense band of yellow pubescence which has a slight cephalad extension on each side at the level of the anterior spots; scutellum with yellow pubescence; each elytron with three patches of pubescence: (1) a nearly circular spot of dense yellowish pubescence in the anterior fourth of the elytron which nearly touches the suture and is distant by about its own width from the outer margin; (2) a post-median slightly curved band of dense yellow pubescence which is rather wider near the suture which it nearly touches and extends obliquely caudad towards the epipipleurum which it does not reach; (3) a sparser patch of yellow pubescence at the apex. The ventral surface with fairly dense yellow pubescence.

Antennæ longer than the body, covered with faint pubescence which is denser on the five distal joints; joints 6-10 flattened and angulate anteriorly; third joint longer than first or fourth; fourth joint shorter than fifth; the apical joint subequal to third and more or less appendiculate; scape rugosely punctured. Head with frons and vertex rugulosely punctured, the posterior area granulate.

Prothorax with notum closely and rather coarsely punctured, the margins of the punctures reticulate; approximately equilateral, the sides narrowed anteriorly and rounded posteriorly; with a weak transverse subapical depressed line and a more marked basal constriction; a very

slight nodosity on each side with sparse pubescence.

Elytra closely and reticulately punctate, the punctures somewhat smaller than those of pronotum; the epipleurae very distinct and very nearly parallel-sided for their whole length; apex of each elytron bidentate. The posterior femora slender although gradually thickened towards the apex, slightly sinuate and extending well beyond the apex of the elytra. All the femora have fine longitudinal carinae. First joint of hind tarsi laterally compressed and longer than remaining joints together. First visible abdominal sternite elongate.

Two beetles (33) collected by T. R. Bell but without locality labels. Almost certainly taken at Kanara, Bombay.

Type in British Museum; paratype in Forest Research Institute.

#### EPIPEDOCERA.

The following table will serve to separate five known species of *Epipe-docera* from British India: the descriptions of four are given in Gahan's volume in the *Fauna of British India* while the fifth is a new species and is described below.

#### TABLE.

1.	Prothorax black; elytra spinose or dentate at the	
	apex	2
-	Prothorax dark red; elytra unarmed	undulata Hope.
2.	Prothorax with narrow glossy band at the base	3
	Prothorax without basal glossy band, the punctua-	
	tion continued up to basal margin	4
3.	First three abdominal sternites with narrow lateral	
	bands of dense white pubescence. Prothorax	•
	with width very slightly greater than length	
	along the middle and very nearly equal to basal	
	width of elytra	zona Chevr.
	Second and third abdominal sternites without	
	lateral bands of dense pubescence. Prothorax	
	distinctly wider than long; width equal to or	
	slightly greater than basal width of elytra	laticollis Gah.
4.	Elytron with transverse ivory band not reaching	
	outer margin; closely punctate. Femora	
V	pitchy brown to black	affinis Chevr.
	Elytron with the ivory band reaching outer margin	The least the
	and expanding along it; not very closely	1
	punctate. Femora reddish	assamensis sp. 11.

#### EPIPEDOCERA ASSAMENSIS sp. n.

#### (Plate I, fig. 4.)

Length 8.5 mm. to 9.3 mm. Black, femora testaceous red; elytra each with a transverse ivory-white raised band just behind the middle, this band curves outwards and slightly backwards from its inner end which does not reach the suture, and is expanded along the outer margin of the elytron; the expanded portion is punctate; tibiæ and tarsi piceous. The integument has a matte appearance owing to the presence of minute

granules on the interstices of the punctures of the pronotum and elytra; a region anterior to the white band of the elytron is still more opaque.

Antennæ with first six joints piceous (the first sometimes with a reddish tinge) and punctate, the first more closely; with a few minute setæ; the last five joints are expanded, angulate apically, and covered with greyish pubescence; the first joint more than twice as long as second. Head with frons closely punctate, the punctures smaller than in Epipedocera zona; vertex with somewhat obscure reticulate punctures which are partly hidden by whitish pubescence; posteriorly some fine transverse sculpture; the transverse ridge between the antennæ with a small tubercle at each end. Prothorax with its greatest width equal to or slightly greater than its length along the middle and less than the basal width of the elytra; protuberant and evenly rounded at the middle of each side, strongly constricted at base and weakly at apex; covered with fairly large shallow punctures the intervals of which are reticulate; this punctuation reaches the basal margin; there is no basal glossy band as in Epipedocera zona; the basal emargination rather deep, the lokes with whitish pubescence. Elytron (pl. 1, fig. 4, b, c) covered with rather small deep punctures each with a minute seta, these punctures somewhat oblong on the basal half and smaller than the corresponding punctures in Epipedocera zona (pl. 1, fig. 3, b, c); the intervals between the punctures as wide as or wider than the punctures themselves; the punctures are somewhat smaller on the apical part of the elytron; each elytron bidentate apically. Body beneath black, with fairly dense whitish pubescence on the following areas: along the postero-lateral margins of the pronotum, along the posterior margin of meso-episternum, a small posterior spot on the meta-episternum, also on the prosternum, meso-sternum, lateral part of meta-sternum and on the lateral angles of the first abdominal segment; the first three abdominal segments have each a weak median patch of silvery pubescence. sternites rather closely punctured. Femora rather closely punctured.

Four specimens from Haflong, Assam, C. F. C. Beeson, 15.V.25. In two specimens, which I take to be males, the three apical joints of the antenna project beyond the ivory band on the elytron, in the other two (females) the antennæ are shorter.

Type in British Museum; paratypes in Forest Research Institute.

#### HALME.

Four species of Halme are listed by Aurivillius (Col. Cat. Junk. 1912); these and the new species described below may be separated by the following key:—

[ 205 ]

#### KEY TO SPECIES OF HALME.

1.	Third antennal joint with a short spine at pos	ters-	
	apical angle (Sumatra)		viridana Gah.
	Third antennal joint spineless		2
2.	Elytra brown		3
	Elytra blackish blue or blackish green		4
3.	Elytra dark brown; no band of white pubesce	ence	
	at base of prothorax (Ceylon)		cinctella Gah.
	Elytra brown slightly tinted with metallic	blue	
	prothorax with greyish pubescence at		
	(Andamans)		coerulescens Gah.
4.	Punctures on head smaller than those on proth	orax	
	(Assam)		chatterjeei sp. n.
	Punctures on head and prothorax equally coa	arse	
	(Sarawak)		cleriformis Pasc.

#### HALME CHATTERJEEI Sp. n.

Length 5-7 mm. Black, tinted with metallic blue, the prothorax and shoulders of the elytra tinted with metallic green; legs with femora red brown and with tibiæ piceous; antennæ black; prothorax and elytra with erect reddish hairs.

Head strongly and rather closely punctate. Antennæ with joints minutely punctate; the first three joints with a few setæ, the remaining joints with a rather faint greyish pubescence which is more closely set on the thickened apical joints; third and fourth joints sub-equal, the second more than half length of third. Prothorax closely and reticulately punctured, the punctures larger than those of the head and somewhat elongate; strongly rounded at the sides and deeply constricted near the base; behind this constriction there is a narrow band of white pubescence; there is a shallower transverse groove on each side behind the apex. Scutellum with white pubescence. Elytra with a smooth elevated narrow ivory band across the middle; this band not quite reaching either sutural or external margin; strongly and reticulately punctured anterior to the ivory band; posterior to this band the punctures are smaller, less impressed and more distant especially towards the apex where they become almost obsolete.

Prosternum punctate-rugulose with whitish pubescence. Metasternum sparsely punctate and glabrous in the middle but somewhat thickly covered with white pubescence laterally; the middle glabrous area with a rather deep longitudinal cleft on posterior half. First four abdominal segments ventrally with a faint white lateral pubescence and glabrous in the middle except for a few scattered piliferous punctures. Femora clavate and pedunculate, glossy.

Described from twelve specimens collected by S. N. Chatterjee in Jiri forests, Cachar, Assam, 12. IV. 24.

Type in British Museum; paratypes in Forest Research Institute.

#### ARTIMPAZA OBSCURA sp. n.

3. Length 9 mm to 10 mm. Head, prothorax and abdomen black and glossy; legs black, the expanded portions of femora piceous and lighter in colour ventrally; elytra pitchy brown with a sordid white stripe of variable length along middle; antennæ longer than body with first two joints nearly black, glossy and somewhat sparsely punctate, remaining joints somewhat less dark and clothed with short pale pubescence. Head with frons rugulose and with sparse pale hairs, vertex somewhat punctate rugulose, transversely rugulose at base. Prothorax longer than wide (1.5: 1.0), with a marked constriction and transverse groove at about one-quarter the distance from the apex, the groove with short whitish pubescence; the area in front of the groove smooth, nearly impunctate; the sides rounded at the middle and constricted near the base, the disc glossy with a group of large punctures on each side behind the middle and a few scattered punctures anteriorly and with a large shallow depression on each side near the middle; the posterior subbasal groove is sinuate and more or less rugose; the prothorax has a few scattered rather long hairs and a curved narrow patch of pale pubescence on each side posteriorly. Scutellum with close whitish pubescence, subcircular, rather longer than wide. Elytra with sutural margin punctate basally and rugulose on distal half, the disc shining with few punctures and the outer margin with more numerous punctures; each elytron narrowed to a subacute point at the apex; with scattered short vellowish hairs. Legs almost impunctate, furnished with sparse, rather long pale hairs; hind femora extending beyond apex of elytra.

There are dense patches of pale silky pubescence on meso-episternum and on posterior half of meta-episternum also narrow bands of similar pubescence on each of the abdominal segments; these bands are continuous and transverse on segments 2, 3 and 4 but not continuous on segment 1.

Q. Antennæ shorter and thicker than in 3. The posterior femora extend a little beyond apex of elytra.

Assam, Naga Hills (2 3, 2 9) S. N. Chatterjee collection. 7. IV. 1924.

Type in British Museum; paratypes in Forest Research Institute. In one specimen the pale stripe on the elytral disc extends nearly to the apex; in two specimens it extends only to the middle, while in the fourth it is very obscure.

#### CLEOMENES ASSAMENSIS sp.n.

Length 13 mm. Head black with golden pubescence laterally on frons; prothorax black on disc and margined laterally and posteriorly by golden pubescence which also forms a transverse band a short distance behind the apex; body ventrally with yellow silky pubescence; legs and antennæ rufous testaceous except for the distal half of the eighth and the whole of the ninth to eleventh joints of the antennæ which are black; elytra testaceous with (1) a narrow fuscous sutural line which runs from the base for about three-fourths of the elytra and then expands to form a wide oblique fuscous band across the elytra, (2) a narrow fuscous line which curves from its junction with the sutural line at the shoulder and then runs along a prominent median longitudinal costa for about two-fifths of its length, (3) an apical fuscous band just anterior to which is a patch of golden pubescence, (4) the exterior margin is very narrowly fuscous except at the middle where the fuscous coloration is somewhat expanded towards the disc.

Head with frons rather sparsely punctate, rather closely punctate posteriorly. Antennæ with scape punctate rugulose with traces of an apical cicatrice; reaching nearly to apex of elytra; last five or six joints

distinctly thickened.

Prothorax with sides rounded; with a slight transverse constriction near apex and a marked transverse sinuate groove in front of the base; dorsal surface closely and rather deeply punctate reticulate. Scutellum subrectangular, longer than wide rather wider at the gently rounded apex; sides shallowly concave, clothed with golden pubescence.

Elytra serially punctate for whole length; with a distinct median costa along disc; apices emarginate acutely bidentate and with golden pubes-

cence.

Legs with hind femora not reaching to apex of abdomen. Abdomen evenly and not very closely punctate ventrally.

One specimen from Assam, Naga Hills, S. N. Chatterjee coll. 7.IV.

1924.

Type in Forest Research Institute.

#### NIDA CHAMPIONI sp.n.

Length 9 mm. Head, prothorax, hind legs and under side of body black; peduncles of middle femora and middle tibiæ nearly black; anterior legs (except coxa) and clavate portion of middle femora testaceous red; elytra testaceous red, the sutural margin narrowly infuscate; the outer margin behind the middle and the apex infuscate. Antennæ slightly longer than body with first joints testaceous red, the remaining

joints duller and darker in colour and covered with denser pale pubescence; first joint glossy, sparsely punctate-rugulose; third joint distinctly longer than first or fourth. Head coarsely and rather closely punctate with some transverse sculpture near basal margin. Prothorax with breadth about two-thirds length; sub-cylindrical, slightly narrowed anteriorly and scarcely at all posteriorly; strongly and closely punctured, the interstices tending to form transverse rugulæ; each puncture with a long fine yellowish hair; the disc with a subdistinct smooth median line; with a distinct C-shaped band of white pubescence on each side; scutellum white. Elytra closely and almost uniformly punctate the punctures slightly larger near base, and each with a more or less transverse pale hair. Femora clavate and pedunculate.

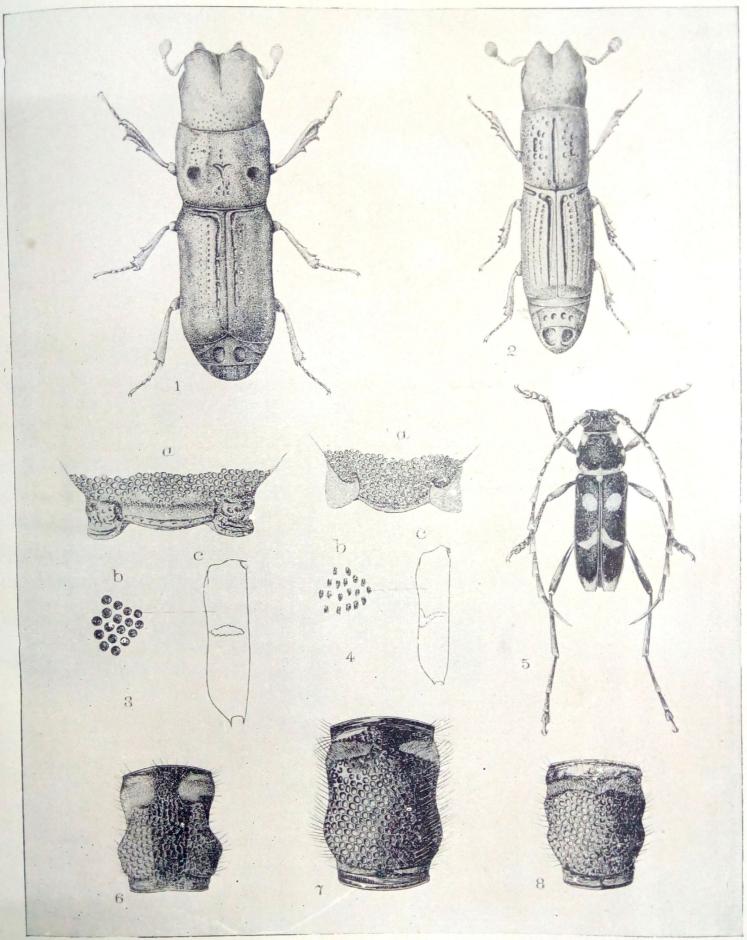
One specimen from Kumaon, U. P., collected by H. G. Champion, June 1918.

Type in Forest Research Institute, Dehra Dun.

This species is easily distinguished from N. flavovittata Pasc. by the anterior and middle legs being partly testaceous-red instead of black.

#### EXPLANATION OF PLATE I.

- 1. Niponius punjabensis sp. n.
- 2. Niponius himalayensis sp. n.
- 3. Epipedocera zona Chevr. a base of prothorax; b portion of punctuation on c, left elytron.
- 4. Epipedocera assamensis sp. n., lettering as in 3.
- 5. Prothema belli sp. n.
- 6. Epania calophylli sp. n., prothorax.
- 7. Epania amooræsp. n., prothorax.
- 8. Epania assamensis sp. n., prothorax.



J. B. Singh del.