

Nadat dan niemand meer het woord verlangde, sloot de voorzitter deze vergadering onder dankzegging aan de sprekers en aan allen die verder tot haar wel-slagen hadden bijgedragen.

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## Description of a new genus of Tortricidae from Asia (Lepidoptera)

by

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Several years ago the first author described a new species of Tortricidae from Western Java which he tentatively placed in *Cacoecia* Hb., because the shape of the uncus was quite unusual for that genus, deciding to separate the genus at a later opportunity. Now that the second author recently discovered that another species of "*Cacoecia*", from China, is apparently congeneric, it seems justifiable to erect the following new genus for these two species.

### Chiraps gen. nov.

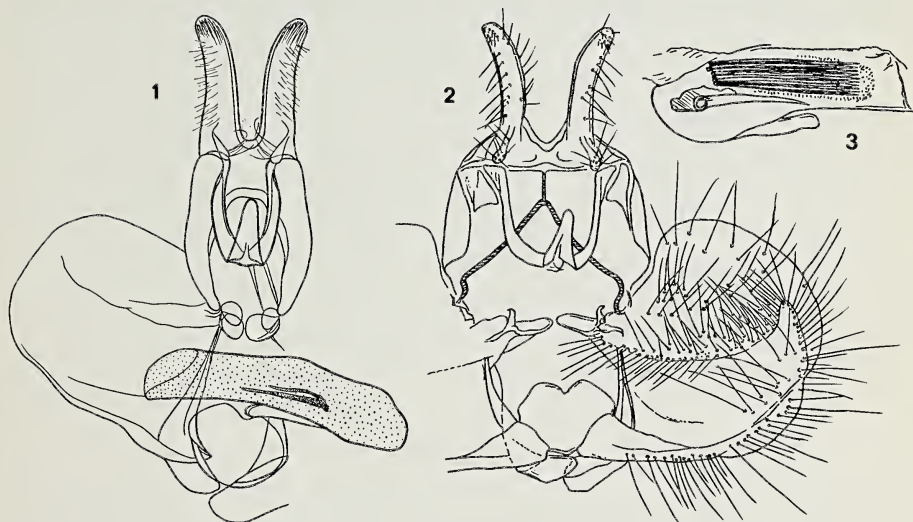
Head with loosely appressed scales. Ocellus posterior, subinferior. Proboscis rather short. Antenna in male moderately thickened, densely short-ciliate below. Labial palpus moderate, somewhat less than twice diameter of eye, subporrected, with closely appressed scales, median segment gently dilated posteriorly, apex roughish, terminal segment exposed or fairly long, top rounded. Thorax without a crest. Posterior tibia normally scaled, slightly thickened with closely appressed scales. Abdomen with rather long, appressed scales at the sides.

Fore wing dilated, broad and subtruncate, with a costal fold, to middle, or to before middle; costa sinuate, apex more or less produced, termen long, sinuate, broadly rounded below; without tufts of scales. Vein 1b (1A+2A) furcate to 1/3 or less, 1c (CuP) distinct to about middle of vein 2 (CuA2), or still longer, 2 from about 3/4, 3 (CuA1) from angle, 4 (M3) separate, slightly closer to 5 (M2), 7 (M1) separate, to termen, 9 (R4) from 1/4, 10 (R2) from 1/2 distance 8—11, 11 (R1) from slightly before middle of cell, chorda and median branch absent (*alloica*) or apparently present and chorda unusually long, from beyond base of 11 to below base of 6 (M2) (*chlorotropa*).

Hind wing without a cubital pecten, slightly under 1, semioval, pointed, termen subconcave below apex, gently rounded-prominent in middle. Vein 2 (CuA2) from beyond middle (*alloica*) or beyond 1/3 (*chlorotropa*), 3 (CuA1) and 4 (M3) connate from angle, 5 (M2) curved and approximated at base, 6 (M1) and 7 (R5) closely approximated towards base, 7 to apex or just above apex.

Male genitalia very characteristic by the unusually broad uncus being bifid

almost to the base. *Socius* small, free (*chlorotypa*) or parietal and vestigial (*alloica*), gnathos large, hooked, pending. Valva short and broad, in *alloica* almost circular, with membranous costa, plicate cucullus occupying the upper half, while the lower half is smooth; this species also has a moderate, smoothly rounded labis. Aedeagus little curved, moderate, hardly narrowed, being of almost



Figs. 1—3. Male genitalia of *Chiraps* species. 1, *Ch. alloica* (Diak.), holotype; 2, *Ch. chlorotypa* (Meyr.), holotype; 3, aedeagus of the same. (Fig. 1, after Diakonoff, 1948.)

equal breadth along its whole length; with a peculiar additional cornutus, in *chlorotypa* being shaped as a large plate, beside one strong cornutus, with the base coalescent with the plate and 12 slender cornuti; in *alloica*, an indefinite, rounded body, two long and slender unequal cornuti and some six bases of smaller, closely set (broken off) cornuti.

Females are unknown.

Type-species, *Cacoecia alloica* Diak. (Java).

The gender of the generic name is feminine. The name is an anagram of *Archips* Hb.

The genus comprises two species slightly differing in minor features of the genitalia and neuration, but with the same peculiar bifid uncus, unique in this genus and with a similar general facies. Its position is uncertain without the evidence of the female genitalia, but apparently it belongs in the large *Archips* Hb. group of genera, being its considerably specialized member.

#### Key to the species of *Chiraps*

1. Fore wing with a subobtuse short apex; suffused ochreous-whitish-grey towards base, costa, and termen; a dark transverse fascia at 1/3, an oblique-transverse blotch in disc . . . . . *chlorotypa*

— Fore wing with a produced, longer apex; no such light suffusion; markings limited to costa, no discal markings at all . . . . . *alloica*

*Chiraps alloica* (Diakonoff, 1948) comb. nov.

*Cacoecia alloica* Diakonoff, 1948: 509, fig. 24.

♂ 20 mm. Head, palpus, thorax pale tawny-ochreous, median segment of palpus slightly infuscated towards apex. Antenna pale tawny-ochreous, scape suffused

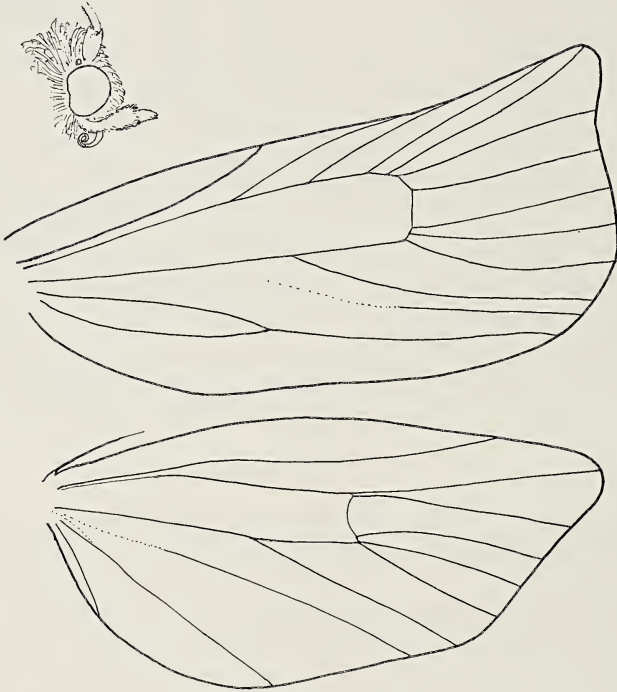


Fig. 4. *Chiraps alloica* (Diak.), head and wing neuration.

with grey except apex. Abdomen dark brown, venter and legs pale yellowish-ochreous, anterior suffused with brownish, tarsus dark fuscous, ringed with tawny-ochreous. Fore wing broad, considerably dilated, costa with a rather narrow fold to beyond middle, gradually slightly curved anteriorly, sinuate posteriorly, apex prominent, termen distinctly sinuate above, prominently rounded beneath, vertical. Reddish-brown, slightly suffused with lilac-greyish in disc, basal 1/3 paler: ochreous-tawny, finely transversely strigulated with sparse vertical ferruginous minute lines, markings dark brown. Basal patch scarcely indicated by some ferruginous transverse suffusion in 1/4 of disc and along 1/3 of dorsum; central fascia ill-defined, edged with ferruginous, from below middle of costa to beyond 2/3 of dorsum, narrow, anterior edge tolerably straight, posterior with a strong rounded prominence in middle of disc; costal patch: a conspicuous well-defined equilateral triangle, occupying fourth fifth of costa, top on base of vein 8,



reddish-ferruginous, with two longitudinal blackish-brown streaks along costa, followed by two small longitudinal blackish-brown marks on costa before apex, alternating with small patches of whitish-ochreous colour: narrow ferruginous transverse lines: a straight one before apex, a minute interrupted one before upper part of termen and a broader one from before the latter to termen above tornus, thence marginal to tornus. Cilia (imperfect) coppery-ferruginous, base darker. Hind wing bronze-brown, rather pointed, elongate-subtrapezoid, cilia dark bronze-brown, dorsal cilia brownish-grey.

Tegumen moderate, broadest in middle. Uncus bipartite almost to base, halves slightly curved outwards towards end, tops rounded. Socius vestigial, parietal: a short row of fine bristles. Gnathos robust, with strongly curved long hook. Transstilla absent. Valva broad, rounded, sacculus narrow. Aedeagus thick, curved (in figure seen from above). Cornuti, two unequal spines (Genit. slide no. 630 D).

West Java, near Sukabumi, 600—1200 m, 1938—1940, 1 ♂, holotype. Mt. Gede-Pangrango, Tjibodas, 1400 m, at light, X.1948 (M. A. NEERVOORT), 1 ♂ (without tip of abdomen). Suggesting a female Tortricid by the shape of the fore wing. Narrow long costal fold, sinuate costa and termen and projecting apex make this species easy of recognition. The type and paratype specimens in the collection of the Leiden Museum.

#### *Chiraps chlorotypa* (Meyrick, 1934) comb. nov.

*Cacoecia chlorotypa* Meyrick, 1934: 30.

Labial palpus about twice as long as diameter of the eye, pale brownish creamy, with base of the third joint and spot on the second joint brownish. Head browner than palpus; abdomen brownish grey, pale. Forewing expanding posteriorly; costa rather straight to middle, then weakly concave; costal fold to beyond middle; apex short, somewhat protruding, and prominent costad; termen delicately concave at vein M1 (7), then weakly convex, rounded. Ground colour pale brownish grey tinged creamy especially in apical, costal and terminal areas of the wing. Costal fold browner, somewhat darker strigulated. Pattern brown, pale edged\*. Base dark, irregularly spotted to 1/3 dorsally. This area limited posteriorly by an almost straight, creamy, weakly oblique line terminating before costal fold. Median fascia extending from before middle of costa, where it is ill-defined, to 2/3 of dorsum, limited anteriorly by an arched, concave creamy line, broadest from beyond costa to middle, mixed there with pearly colour. The area between basal blotch and median fascia brown, but paler than the pattern. Similar suffusion on the ground colour above median fascia reaching tornus and vein M3 (4). Subapical blotch extending from 2/3 to 4/5 of costa, subquadrate, followed by an arched elongate marking located between M2 (5) and Cu2 (2). Two brown strigulae at costa subapically. Fringes vivid brown, brown-creamy at tornus. Hindwing brown, hardly tinged rust apically, with short apex and distinct angulation at vein cu1. Fringes concolorous with wing. Length of forewing 8 mm.

Tegumen broad; uncus with long terminal processes, minutely spined apically; socius slender; gnathos rather delicate with well developed terminal hook. Valva broad, almost semicircular, with large, rounded dorsal portion and with well

\* Weak violet hue developed.

sclerotized dorso-anterior corners resembling transtilla; sacculus broadest basally, rounded in terminal half of ventral edge. Aedeagus tolerably straight; sclerites in vesica (Genit. slide: 10305 [Raz.]: 12 slender and one broader, provided with a basal plate.

Holotype, ♂, without locality label, in the collection of the Museul "Grigore Antipa", Bucharest.\*\*

\*\* The apparently lost label has been cited in Meyrick's original description (p. 30) thus: "Dr. 7.6." and refers to the locality, indicated on p. 126 vol. 47, of the same Journal: "Lung-ta-shan (Dr.) oder Drakenkopf, etwa 230 km nördlich von Kanton, up to 1170 m".

#### References

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Bursell, E., *An introduction to insect physiology*. Academic Press, London and New York, 1970. 276 pagina's, 92 figuren, 7 tabellen. Prijs gebonden £ 3.50.

Dit goed verzorgde boek is volgens de auteur, professor in de zoölogie aan de universiteit van Salisbury, Rhodesië, bedoeld als inleiding in de insektenfysiologie voor studenten in de entomologie. Het geeft begrijpelijkerwijs een minder gedetailleerd overzicht van de insektenfysiologie dan het ongeëvenaarde „The principles of insect physiology” van WIGGLESWORTH, maar doordat ruime aandacht is gegeven aan nieuwe technieken en ontwikkelingen die de laatste twintig jaar de insektenfysiologie een sterke groei hebben doen doormaken, zoals elektronenmicroscopie, neurofysiologie en biochemie, is het een modern leerboek geworden dat op heldere wijze de belangrijkste hoofdstukken uit de insektenfysiologie behandelt. Voor goed begrip van het boek is echter een vrij ruime basiskennis van fysiologie en biochemie vereist. Het aantal genoemde insekiesoorten is bewust beperkt gehouden en bedraagt nog geen honderd, terwijl ook het aantal anatomische en morfologische bijzonderheden tot het hoogst nodige is beperkt. Vooral die onderwerpen krijgen de aandacht, die kenmerkend geacht kunnen worden voor insekten in het algemeen, zoals het landleven, dat vragen oproept over waterhuishouding en warmteregulatie, de geringe grootte van insekten en de consequenties daarvan, het vliegvermogen, en het uitwendige skelet en daarmee de functies van de cuticula. De vier secties waarin het boek is verdeeld behandelen achtereenvolgens de stofwisseling, neuromusculaire fysiologie, waarbij een hoofdstuk over gedrag, de fysiologie van voortplanting en ontwikkeling met een uitgebreide behandeling van insektenhormonen, echter zonder een hoofdstuk over de genetische aspecten van de reproductie, en tenslotte enkele fysiologische aspecten van de oecologie. De figuren zijn bijna alle uit origineel onderzoek overgenomen, hetgeen de behandelde onderwerpen wel een experimentele achtergrond geeft, maar soms iets afdoet aan de duidelijkheid wanneer de figuren weinig geschematiseerd zijn en/of te klein zijn gereproduceerd. Van alle figuren zijn volledige literatuurverwijzingen achter in het boek te vinden. Behalve deze referenties naar een aantal belangrijke bronnen voor verdere studie zijn ter afsluiting van het boek een lijst van de wetenschappelijke namen van de in de tekst genoemde insekiesoorten, een auteursindex en een index op onderwerp aanwezig. — A. VEERMAN.

#### Vacature

Gevraagd voor spoedige indiensttreding bij het Laboratorium voor Toegepaste Entomologie (Universiteit van Amsterdam), Linnaeusstraat 2 B, Laborante wier taak zal bestaan uit het assisteren bij biologisch onderzoek in verband met insektenplagen in land- en tuinbouw.

Gegadigden met middelbare opleiding en met belangstelling voor biologisch onderzoek kunnen een telefonische afspraak maken met bovengenoemd laboratorium (020-56282).

Salariëring naar ervaring en opleiding.