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avives@eresmas.net

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Razowski, J.

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# The Old World Hilarographini (Lepidoptera: Tortricidae)

J. Razowski

## Abstract

A previous synonymization of *Thaumato-grapha* Walsingham, 1897 with *Hilarographa* is confirmed. The systematic list of the Old World species of Hilarographini is provided; *Embolostoma* Diakonoff, 1977 and *Nexosa* Diakonoff, 1977 are excluded from this tribe. Thirty three species of *Hilarographa* Zeller, 1877 from the Oriental and Australian regions are examined of which twenty-nine are described as new: *H. pahangana* Razowski, sp. n., *H. celebesiana* Razowski, sp. n., *H. baliana* Razowski sp. n., *H. perakana* Razowski, sp. n., *H. ancilla* Razowski sp. n., *H. meekana* Razowski, sp. n., *H. soleana* Razowski, sp. n., *H. gentinga* Razowski, sp. n., *H. johibradleyi* Razowski, sp. n., *H. fergussonana* Razowski, sp. n., *H. auroscripta* Razowski, sp. n., *H. hainanica* Razowski, sp. n., *H. marangana* Razowski, sp. n., *H. buruana* Razowski, sp. n., *H. bosavina* Razowski, sp. n., *H. sipiroca* Razowski, sp. n., *H. rampayoha* Razowski sp. n., *H. uthaithani* Razowski, sp. n., *H. tasekia* Razowski, sp. n., *H. emburonga* Razowski, sp. n., *H. muluana* Razowski, sp. n., *H. shehkonga* Razowski, sp. n., *H. gunongana* Razowski, sp. n., *H. renonga* Razowski, sp. n., *H. khaoyai* Razowski sp. n., *H. uluana* Razowski, sp. n., *H. obinana* Razowski, sp. n., *H. robinsoni* Razowski, sp. n., *H. calyx* Razowski, sp. n. Nine new combinations are proposed (see the list of taxa).

KEY WORD: Lepidoptera, Tortricidae, Hilarographini, Oriental and Australian region.

## Los Hilarographini del Viejo Mundo (Lepidoptera: Tortricidae)

## Resumen

Se confirma la sinonimia previa de *Thaumato-grapha* Walsingham, 1897 con *Hilarographa*. Se proporciona la lista sistemática de los Hilarographini del Viejo Mundo; se excluyen de esta tribu a *Embolostoma* Diakonoff, 1977 y *Nexosa* Diakonoff, 1977. Se examinan treinta y tres especies de *Hilarographa* Zeller, 1877 de la región Oriental y Australiana de las que veintinueve se describen como nuevas: *H. pahangana* Razowski, sp. n., *H. celebesiana* Razowski, sp. n., *H. baliana* Razowski sp. n., *H. perakana* Razowski, sp. n., *H. ancilla* Razowski sp. n., *H. meekana* Razowski, sp. n., *H. soleana* Razowski, sp. n., *H. gentinga* Razowski, sp. n., *H. johibradleyi* Razowski, sp. n., *H. fergussonana* Razowski, sp. n., *H. auroscripta* Razowski, sp. n., *H. hainanica* Razowski, sp. n., *H. marangana* Razowski, sp. n., *H. buruana* Razowski, sp. n., *H. bosavina* Razowski, sp. n., *H. sipiroca* Razowski, sp. n., *H. rampayoha* Razowski sp. n., *H. uthaithani* Razowski, sp. n., *H. tasekia* Razowski, sp. n., *H. emburonga* Razowski, sp. n., *H. muluana* Razowski, sp. n., *H. shehkonga* Razowski, sp. n., *H. gunongana* Razowski, sp. n., *H. renonga* Razowski, sp. n., *H. khaoyai* Razowski sp. n., *H. uluana* Razowski, sp. n., *H. obinana* Razowski, sp. n., *H. robinsoni* Razowski, sp. n., *H. calyx* Razowski, sp. n. Se proponen nueve nuevas combinaciones (véase la lista de taxa).

PALABRAS CLAVE: Lepidoptera, Tortricidae, Hilarographini, región Oriental y Australiana.

## Introduction

The most complete studies on the Hilarographini are by DIAKONOFF (1977b dealing with the Oriental and Australian regions; 1986 - Palaearctic region) who excluded them (DIAKONOFF 1977b)

from Glyphipteridae. Then HEPPNER (1982) published a synopsis of the Hilarographini of the World. Both authors included in Hilarographini the representatives of three different subfamilies, Chlidanotinae, Tortricinae and Olethreutinae. To this last belong a few genera provisionally placed (RAZOWSKI 2009) in Archipini.

To the genuine Hilarographini belonged only *Charitographa* Diakonoff, 1979, *Hilarographa* Zeller, 1877, and *Thaumatographa* Walsingham, 1897. All these genera exhibit only slight differences between them. According to the original description *Charitographa* differs from *Thaumatographa* to which it is similar externally in a broad ductus bursae, lack of signa and the dense asteroid sculpture of the corpus bursae. Only this last character has not been found in other Hilarographini. Its facies, the venation and the male genitalia do not differ from those in the mentioned genus. The remaining characters mentioned by DIAKONOFF (1977b) in the descriptions of genera refer to the tribe or even to the subfamily Chlidanotinae.

Meyrick sunk *Thaumatographa* and African *Idiothauma* Walsingham, 1897 as synonymies of *Hilarographa*. As concerns the former I am following Meyrick's point of view.

The monobasic *Embolostoma* Diakonoff, 1977 described to comprise *E. plutostola* Diakonoff, 1977 from Java, known from a single female, does not belong in this tribe, as shown by the shape of the labial palpus illustrated by its author. Another genus usually included (HEPPNER 1982, CLARKE 1969) in Hilarographini, *Irianassa* Meyrick, 1905, is transferable to Enarmoniini (HORAK 2006). Apart from its type species (*I. sappiropa* Meyrick, 1905 from Sri Lanka) and the Australian *I. aetheria* (Turner, 1946) three species are included in this genus by BROWN (2005). *I. poecilaspis* Meyrick, 1923 certainly belongs to Hilarographini but requires re-examination. Two species, *Grapholitha speciosana* Pagenstecher, 1900, Bismarck Archipelago (= *Irianassa alcyonopa* Meyrick, 1926, New Ireland) and *I. uranopa* Meyrick, 1927, Samoa are unknown to me.

*Nexosa* Diakonoff, 1977 known from the Oriental and Australian regions with its four species belongs to the Archipini.

## Material

The paper is based on the collection of the Natural History Museum, London.

## Systematics

Preliminary list of the Old World Hilarographini

*Hilarographa* Zeller, 1877

*zapyra* Meyrick, 1886, New Guinea  
*pahangana* Razowski, sp. n., Malaysia  
*celebesiana* Razowski, sp. n., Celebes  
*oenobapta* (Diakonoff, 1977), **comb. n.**, Java  
*crocochorista* (Diakonoff, 1983), **comb. n.**, Java  
*phlox* (Diakonoff, 1977), **comb. n.**, Java  
*cladara* (Diakonoff, 1977), **comb. n.** Borneo  
*ceramopa* Meyrick, 1920, Assam, India  
*baliana* Razowski, sp. n., Bali Island, Malaysia  
*perakana* Razowski, sp. n., Perak, Malaysia  
*caminodes* Meyrick, 1905, Sri Lanka  
*calathisca* Meyrick, 1909, Assam, India  
*mechanica* Meyrick, 1909, Assam, India  
*hermatodes* Meyrick, 1909, Sri Lanka  
*ancilla* Razowski, sp. n., Bombay, India

*meekana* Razowski, sp. n., Fergusson Islands  
*machaerophora* Diakonoff & Arita, 1976, Honsyu, Japan  
*dolichosticha* (Diakonoff, 1977), **comb. n.**, Java  
*tornoxena* (Diakonoff, 1977), **comb. n.**, Java  
*soleana* Razowski, sp. n., Seram, Indonesia  
*merinthias* Meyrick, 1909, Assam, India  
*gentinga* Razowski, sp. n., Malaysia  
*tornoxena* (Diakonoff, 1977), **comb. n.**, Java, Indonesia  
*johnibradleyi* Razowski, sp. n., Thailand  
*ferox* Meyrick, 1921, Java, Indonesia  
*fergussonana* Razowski, sp. n., Fergusson Islands  
*undosa* (Diakonoff, 1977), **comb. n.**, New Guinea  
*auroscripta* Razowski, sp. n., Ambon Island, Indonesia  
*excellens* (Pagenstecher, 1900), Bismark Island, Papua New Guinea  
*hainanica* Razowski, sp. n., Hainan Island, China  
*marangana* Razowski, sp. n., Sumatra, Indonesia  
*buruana* Razowski, sp. n., Buru Island, Indonesia  
*spermatodesma* Diakonoff, 1955, New Guinea  
*macaria* (Diakonoff, 1977), **comb. n.**, Java  
*bosavina* Razowski, sp. n., Papua New Guinea  
*sipiroca* Razowski, sp. n., Sumatra, Indonesia  
*rampayoha* Razowski, sp. n., Brunei  
*eremnotorna* Diakonoff & Arita, 1976, Honsyu, Japan  
*aurosa* Diakonoff & Arita, 1976, Yakushima Island, Japan  
*uthaithani* Razowski, sp. n., Thailand  
*decoris* Diakonoff & Arita, 1976, Kuril Islands, Russia  
*tasekia* Razowski, sp. n., Perak, Malaysia  
*druidica* (Meyrick, 1909), Assam, India.  
*ludens* Diakonoff, 1948, Buru, Indonesia  
*temburonga* Razowski, sp. n., Brunei  
*muluana* Razowski, sp. n., Sarawak  
*leucopyrga* Meyrick, 1912, Kyushyu Island, Japan  
*shehkonga* Razowski, sp. n., Hong Kong  
*cymatodes* (Diakonoff, 1983), **comb. n.**, Sumba Island, Indonesia  
*opistocapna* (Diakonoff, 1977), New Guinea  
*gunongana* Razowski, sp. n., Sarawak  
*renonga* Razowski, sp. n., Thailand  
*khaoyai* Razowski, sp. n., Thailand  
*obinana* Razowski, sp. n., Obi Major Island, Moluccas  
*uluana* Razowski, sp. n., Obi Major Island, Moluccas  
*robinsoni* Razowski, sp. n., Brunei  
*citharistis* Meyrick, 1909, Assam, India  
*mesostigmatias* (Diakonoff, 1977), **comb. n.**, Taiwan  
*calyx* Razowski, sp. n., Taiwan  
*tetralina* Meyrick, 1930, Solomon Islands

## Unplaced species:

*cirrhocosma* Meyrick, 1930, Solomon Islands  
*pampoecila* (Turner, 1913), Queensland, Australia

*Charitographa* Diakonoff, 1979

*micadonis* (Stringer, 1930), Japan

*Idiothauma* Walsingham, 1897

*africanum* Walsingham, 1897, Republic of Congo

*malagassicum* Viette, 1958, Madagascar

*rigatiellum* (Ghesquiere, 1940), Zaire

## Descriptions

### *Hilarographa pahangana* Razowski, sp. n. (Fig. 57)

Holotype male: "Malaysia: West Pahang, Genting Tea Estate, 2000 ft, 4-VIII-1987; coll. by day"; GS 31830. Paratypes: Two males and two females labelled similarly as above but dated: 11-IX-1983, 6-20-XI-1985, 8-XII-1985 and 22-X-1985; one with the collector name: H. S. Barlow.

Description: Wing span 20 mm. Head brownish, frons and labial palpus whitish; thorax brownish with two submedian orange lines. Forewing slightly expanding terminad; costa almost straight; termen weakly convex and oblique. Ground colour orange represented by two basal stripes, transverse lines (four dorsal) and spots in dorso-postmedian half of wing, three oblique lines beyond costal divisions, and two weak terminal lines; divisions and their lines white; dorso-terminal area orange with two brown spots. Cilia damaged. Hindwing dark brown with white fascia along median cell; cilia rubbed.

Male genitalia (Figs 1, 2): Uncus slender, moderate, tapering apically; hamus broadening, rounded terminally; socius large, broad; gnathos well developed, broad terminally; vinculum moderate, tapering terminad; valva broad; costa and sacculus broadening postbasally; caudal edge convex; outer split large; median part of transtilla large, slightly concave apically; aedeagus broad, tapering in distal third terminally, with inner sclerite and small coecum penis.

Female genitalia (Fig. 41): Papilla analis slender; apophyses very slender; apophyses anteriores twice as long as apophyses posteriores; eighth segment elongate; sterigma small, submembranous, with two spiny lobes flanking ostium; ductus bursae very long, slender; antrum not sclerotized; signum consisting of long spines and small base; accessory bursa originating near this last; ductus seminalis extending from posterior part of corpus bursae.

Biology: As other species of this genus *pahangana* is a day flying moth.

Diagnosis: This species is close to *celebesiana* but has a longer hamus, shorter uncus, broader valva, and much longer, slenderer ductus bursae and membranous antrum.

Etymology: The name refers to the type locality.

### *Hilarographa celebesiana* Razowski, sp. n. (Fig. 58)

Holotype male: "S. Celebes (low country) Doherty, 1886"; GS 31858. Paratypes: 1 male and 3 females with identical labels (two dissected, GS 31857, 31859).

Description: Wing span 16 mm. Head brownish; frons white-grey, labial palpus paler. Thorax brownish with two submedian pale orange lines. Forewing weakly expanding terminally; costa somewhat curved in distal third, concave beneath apex. Costal area orange rust, in terminal third to vein M<sub>2</sub>; lines orange, more yellow towards base; costal strigulae whitish, in distal part of wing rather refractive; divisions brown costally; area of speculum orange with 2 or 3 brown inner spots. Cilia brownish, more rust in apical area. Hindwing dark brown with yellowish white (in females yellowish orange extending into the anal field) median cell; cilia yellowish cream.

Male genitalia (Figs 3, 4): Uncus slender, rounded apically; hamus slender; socius large, broad;

gnathos present; valva oval with costa convex postbasally; sacculus simple, slender; outer slit large; median part of transtilla broad with almost straight terminal edge; aedeagus moderately broad.

Female genitalia (Fig. 42): Papilla analis fairly large; eighth segment not elongate; apophyses slender; sterigma membranous; sclerite of antrum weak, fairly large; small membranous, terminally bilobed sac at base of the latter; ductus bursae moderately long and broad; accessory bursa and ductus seminalis as in *pahangana*.

Diagnosis: Comparable with *oenobapta* from West Java and very closely related to *pahangana* but *celebesiana* distinct by weak median part of transtilla and aedeagus; female with ductus bursae shorter than in *pahangana*; hindwing with orange or yellowish (in male) median cell which in *oenobapta* is brown suffused whitish. In the latter the median part of transtilla is broad, close to the base of valva.

Etymology: The species is named after its native island, Celebes.

Remarks: Three similar specimens from Almahera (Gilolo) slightly differing externally and in the length of the uncus from the Celebes specimens are not included in the type series.

***Hilarographa baliana* Razowski, sp. n. (Fig. 59)**

Holotype male: "Bali Id. Malaysia, Doherty, 1896"; GS 31854. Paratypes: two females with identical labels (GS 31855, 31856).

Description: Wing span 14 mm (female 18 mm). Head and thorax (rubbed) brownish. Forewing as in *celebesiana*. Ground colour orange brownish suffused along edges of lines with brown; specular area also suffused brown. Hindwing dark brown with orange median cell and, in females, anal field. Cilia orange yellow.

Male genitalia (Figs 5, 6): Uncus rather short, broad basally; hamus moderately and uniformly broad, rounded apically; socius very broad, weakly sclerotized, short hairy; vinculum with small apical part; valva oval; sacculus short; median part of transtilla large; aedeagus rather slender, tapering terminally.

Female genitalia (Fig. 43): Papilla analis moderately broad; apophyses posteriores short; sterigma submembranous except for lateral arms; sclerite of antrum median, weak medially; small sac at base of the latter; ductus bursae long, slender; corpus bursae elongate opposite to signum.

Diagnosis: Closely related and very similar to *celebesiana* but the *baliana* uncus is short, aedeagus slenderer, the antrum less sclerotized, and the ductus bursae shorter. Female genitalia also similar to *dolichosticha* and *oenobapta* both from East Java but differ in the shapes of the sterigma and antrum.

Etymology: This species is named after the Island of Bali.

Remarks: There is one specimen from Mergui, Tenasserim (GS 31853) which slightly differs from the types in the paler colouration and somewhat longer ductus bursae. It is not included in the type-series.

***Hilarographa perakana* Razowski, sp. n. (Fig. 60)**

Holotype female: "Perak, Doherty 1890, No. 40982"; GS 31850.

Description: Wing span 16 mm. Head and thorax yellowish brown. Forewing weakly expanding terminally; costa bent subapically; termen weakly oblique, concave beneath apex. Ground colour pale orange in form of three lines extending from before mid-dorsum followed by some rows of spots; three basal lines tinged reddish, long; costal lines edged brown; apex and termen pale orange, the latter with row of four brown spots; refractive markings rather weak, typical. Cilia (worn) orange with brown parts. Hindwing brown, median cell yellowish cream; cilia (worn) whitish.

Male not known.

Female genitalia (Fig. 44): Papilla analis rather uniformly broad in median part; apophyses moderately long; sterigma with cup-shaped rounded part and slender latero-posterior plates; sclerite of antrum fairly long, weak, concave at ostium bursae; ductus bursae very long, slender; spines of signum long.

Diagnosis: Facies similar to that of *celebesiana* but forewing markings arranged similarly to *buruana*. Female genitalia resemble those of *celebesiana* but *perakana* differs from it and other known species in bulbous proximal part of sterigma.

Etymology: The specific name refers to the terra typica, Perak.

*Hilarographa mechanica* Meyrick, 1909 (Fig. 61)

Material examined: One female from Khasias Hills, Assam (India).

Female genitalia (Fig. 45): Papilla analis slender; sterigma small, membranous proximally; sclerite of antrum similar to that in three preceding species; ductus bursae moderately long, with small sac at base of antrum; spines of signum long.

Remarks: This species was described from the same locality and the holotype is housed in the NHML.

***Hilarographa ancilla* Razowski, sp. n. (Fig. 62)**

Holotype male: "Castle Rock, Bombay, brea[d], RM 16-8-[19]17; *ancilla* n. sp.", "E. Meyrick det. in Meyrick Coll."; GS 31842.

Description: Wing span 19 mm. Head brownish tinged orange; thorax brownish with diffuse dirty orange lines. Forewing slightly expanding terminally; apex broadly rounded; termen rather short, convex. Ground colour yellow orange reduced to apical area, specular field darker with two dark brown spots; trace of orange dots arranged in curved lines in posterior and median parts of wing and at base; costal strigulae indistinct except for one subterminal; refractive markings reduced. Remaining surface blackish brown. Cilia pale blackish brown, creamish at apex. Hindwing dark brown with orange cream median cell. Cilia cream with brown basal line.

Male not known.

Female genitalia (Fig. 46): Papilla analis with slender posterior portion; apophyses long, slender; sterigma similar to that in *mechanica*; sclerite of antrum weak; sac of posterior part of ductus bursae moderate; ductus bursae long; spines of signum long.

Diagnosis: Closely related to *mechanica* and *baliana* but with quite different facies, with dark brown forewing and yellow orange apex. Female genitalia very similar to *mechanica* but the *ancilla* signum much smaller and the ductus bursae shorter.

Etymology: I am following the name proposed by Edward Meyrick; Latin: *ancilla* - a servant.

***Hilarographa meekana* Razowski, sp. n. (Fig. 63)**

Holotype female: "Fergusson Id. d'Entrecasteaux Is. 7-20-XI-1894, Meek"; GS 31834.

Description: Wing span 18,5 mm. Head and thorax brownish; labial palpus brownish cream. Forewing expanding terminally; costa curved terminally; termen concave at M2, then convexly oblique. Ground colour greyish white suffused brownish represented by diffuse lines extending from dorsum except for basal area and five costal lines; divisions in form of rust brown edged lines; postmedian part of termen rust with two brown spots. Remaining area suffused brown-grey with some darker parts. Cilia worn; basal part dark brown. Hindwing transparent with dark brown periphery and scaled veins of pale parts. Cilia white with broad brown basal line.

Male not known.

Female genitalia (Fig. 47): Posterior part of papilla analis broadly rounded; sterigma with helmet-shaped medio-posterior, finely sculptured sclerite and slender lateral arms; antrum long, membranous; ductus bursae moderately long; signum fairly large. Eighth tergite with extending proximal corners.

Diagnosis: This species is close to *oenobapta* as the shape of the female genitalia shows but *meekana* has medio-posterior sclerite of sterigma and whitish, transparent median part of the hindwing (in *oenobapta* the latter is reddish-bronze with greyish white median part).

***Hilarographa soleana* Razowski, sp. n.** (Fig. 64)

Holotype male: "Indonesia: Seram, Operation Releigh, J. D. Holloway, D. T. Jones *et al.*, Aug.-Sept. 1987, Dipterocarp forest; Solea, 75 Dipterocarp forest"; GS 31831.

Description: Wing span 17,5 mm. Head pale orange with vertex brownish; labial palpus orange, brownish terminally; thorax brownish, base of tegula brown. Forewing weakly expanding terminally; costa gradually convex; apex broad, rounded; termen weakly oblique, indistinctly concave beneath apex. Ground colour creamish slightly mixed orange in form of usual lines extending from dorsum, subternal perpendicular line to wing edge; costa and apical area suffused rust; lines from costal strigulae more orange, in part refractive; divisions brown at costa; apex area orange yellow; ocellus orange with five brown spots; refractive marking along basal part of costa; remaining area brown in form of lines and spots. Cilia brownish, shining pink, cream at apex, with brown basal line. Hindwing brownish with broad, dark brown apical third; cilia whitish.

Male genitalia (Figs 7, 8): Uncus broad with slender medio-posterior half; hamus very long, broad in basal fourth, slender otherwise; socius long; gnathos well developed; valva broad, oval, with well developed outer slit; spiny lobe near middle of disc; sacculus simple, convex postbasally; transtilla with broad median part; aedeagus rather slender, tapering, granulate distally; coecum penis small.

Female not known.

Diagnosis: Facies similar to that of *pahangana* but without distinct orange lines, with cream orange yellow apex of forewing. The *soleana* valva short, oval with peculiar spinose lobe of disc, and the uncus with broad basal half and slender terminal half. Shape of valva somewhat resembling that of *tornoxena* from West Java.

Etymology: The specific epithet refers to the type locality.

***Hilarographa gentinga* Razowski, sp. n.** (Fig. 65)

Holotype male: "W. Malaysia: W. Pahang, Genting Tea Estate, 2000 ft, 11-29- XI-1981; Netted by stream 9.30 am - 12.30 pm"; GS 31832.

Description: Wing span 16 mm. Head dark brown, labial palpus brownish, pale basally; thorax brown with black brown, glossy proximal part. Forewing expanding terminally; costa rather straight; apex broadly rounded; termen not oblique, incised beneath apex. Ground colour brownish cream in form of usual lines divided by parallel, oblique, almost straight brownish lines extending from dorsum; apex and termen to end of M3 orange with two brown spots; costa suffused brown with three whitish strigulae; two last strigulae white connected with one another terminally. Cilia brownish, orange in apex area. Apex of hindwing very broad, rounded; basal half of wing pale brownish; periphery brown. Cilia whitish with weak pale brownish basal line.

Male genitalia (Figs 9, 10): Uncus strong, tapering terminally; hamus long, broad basally; socius slender, as long as hamus; attachment sclerite of muscle 2 very large; gnathos distinct; valva oval without trace of outer slit; sacculus simple; median part of transtilla broad; aedeagus large, proportionally slender, with inner sclerite terminating in a thorn.

Female not known.

Diagnosis: Related to *tornoxena* but distinguished by shorter uncus and long aedeagus.

Etymology: The specific name refers to the collecting place.

***Hilarographa johnbradleyi* Razowski, sp. n.** (Fig. 66)

Holotype male: "N. Thailand Doi Suthep Pui, 26-28-VII-1989, J. D. & D. J. Bradley & Angoon Kewvanich"; GS 31835.

Description: Wing span 15 mm. Head brownish; labial palpus cream, brown terminally; thorax brown; end of tegula yellowish. Forewing broad, strongly expanding terminad; costa slightly concave towards middle; apex short, pointed; termen weakly oblique, incised beneath apex. Ground colour in



distal third of wing and series of spots across the middle orange brick; a few whitish spots above the latter; two brown spots at tornal part of termen; median area of wing brown; basal third brownish with yellow and golden yellow hues marked with whitish line and diffuse spots; costal strigulae whitish, last two clear white, very distinct; refractive markings weak. Cilia brown, in tornal third more grey cream. Hindwing with broad, rounded apex, pale brownish, dark brown on peripheries; apex finely edged rust. Cilia white cream, in apical third mixed brown.

Male genitalia (Figs 11, 12): Uncus broad, tapering terminally; hamus strong, pointed; socius slender, half the length of the latter; gnathos wanting; valva broad to beyond middle, pointed dorso-caudally; outer slit atrophied; sacculus simple, fairly broad; median part of transtilla broad, thorny, rounded dorso-laterally; aedeagus stout, minutely thorny posteriorly.

Female not known.

Diagnosis: A broad-winged species resembling *excellens* from Papua New Guinea in the shape of forewing, but *johnibradleyi* with brick orange posterior part of the forewing and dark brown hindwing and very broad, thorny median part of transtilla.

Etymology: This name is a patronym devoted to my late friend and collector of this species Dr. John D. Bradley, London.

*Hilarographa excellens* (Pagenstecher, 1900), **comb. n.** (Fig. 67)

Material examined: Two specimens from Talesea, 3. 25; *Hilarographa pyranthis* Meyr.; E. Meyrick det. In Meyrick coll.; one with genitalia on slide 31824.

Description of male genitalia (Figs 13, 14): Uncus very long; hamus and socius large, long; gnathos preserved; valva elongate with remnants of outer slit, straight costa and rounded caudal edge; sacculus slender, convex terminally; median part of transtilla large, well sclerotized with pointed dorso-lateral corners; aedeagus small, slender terminally.

Remarks: DIAKONOFF (1977b) redescribed this species and illustrated its female genitalia. This species and its synonym were described from New Guinea.

***Hilarographa fergussonana* Razowski, sp. n.** (Figs 68)

Holotype male: "Fergusson Id. d'Entrecasteaux Is. 7-20-XI-1894, Meek"; GS 31825. Paratype: a female with identical label.

Description: Wing span 13 mm. Head brownish, labial palpus cream slightly tinged brownish; thorax brownish with orange yellow lines. Forewing broad, distinctly expanding terminally; costa straight, curved in terminal portion; apex rounded; termen incised beneath apex, then somewhat oblique. Ground colour orange in form of radial strips at base, transverse lines and spots near middle; costal strigulae orange except for two subapical ones which are white; specular area yellow orange; spots along termen brown; refractive elements golden and pink. Cilia brown. Hindwing pale orange with row of brown subterminal spots, brown apical edge, and brownish anal field. Cilia pale orange with brown parts.

Variation: Wing span in paratypes 12-26 mm. Lines of ground colour orange to orange yellow, brown lines and other markings more or less broad. In one specimen ground colour in postbasal area much paler than adjacent parts. Hindwing with broad or even confluent subterminal spots and pale anal field.

Male genitalia (Figs 15, 16): Uncus long, broadest medially; hamus long; socius long, broad; valva fairly broad without outer slit; sacculus convex terminally; median part of transtilla broad with small latero-dorsal tips; aedeagus fairly long, slender, with dorso-subterminal finely thorny prominence.

Female genitalia (Fig. 48): Papilla analis slender; apophyses rather long; proximal lobes of eighth tergite protruding, pointed; sterigma membranous; sclerite of antrum well developed, slender; ductus bursae moderately short; ductus seminalis extending from basal part of the latter; signum, a transverse finely thorny sclerite.

Diagnosis: Similar and closely related with *excellens* but *fergussonana* distinguished chiefly by

broad markings of postmedian half of forewing and the long aedeagus; from *undosa* it differs in the presence of the sclerite of antrum.

Etymology: The name refers to the Islands of Fergusson.

***Hilarographa auroscripta* Razowski, sp. n.** (Fig. 69)

Holotype female: "Amboyna, Doherty, 1892, No. 41366"; GS 31822.

Description: Wing span 12 mm. Head and thorax brown cream, labial palpus more cream, lines of thorax pale orange. Forewing as with two preceding species. Ground colour orange consisting of three basal streaks and three transverse postbasal lines (the median atrophied costally); postmedian line divided into short parts; three lines before specular field; termen orange brown edged, with two brown spots in median part; costal strigulae indistinct, two subapical strigulae white embracing small orange strip. Hindwing rubbed, probably orange with brown parts. Hindwing orange edged brown, with subapical brown strip. Cilia damaged.

Male not known.

Female genitalia (Fig. 49): Papilla analis with long posterior parts; apophyses anteriores long; sterigma membranous; sclerite of antrum short; ductus bursae long, slender; corpus bursae membranous; signum a small dentate transverse plate.

Diagnosis: Facies of *auroscripta* resembles that of *excellens* but *auroscripta* with brown postmedian part of forewing; female genitalia close to *hainanica* but this last with well developed signum.

Etymology: The specific name refers to colouration of the moth; Latin: *aureus* - golden, *scripta*-written.

***Hilarographa hainanica* Razowski, sp. n.** (Fig. 70)

Holotype female: "Porten, Hainan July 1904"; GS 31823.

Description: Wing span 12 mm. Head brownish ochreous, labial palpus whitish cream; thorax browner than head. Forewing as with *auroscripta* but with termen less oblique, somewhat convex. Ground colour orange, glossy, consisting of three basal streaks, three complete postbasal transverse lines followed by broad dorso-median brownish area with six orange spots; subtornal and tornal lines fine; terminal field with two brown spots near middle; four costal strigulae in postmedian area, last two white, not connected with one another terminally. Cilia concolorous with markings, paler at tornus, marked with white streak before apex. Hindwing pale orange with brownish, diffuse peripheries and anal field slightly mixed brownish. Cilia cream with some brownish suffusions and brown basal line in the apex area.

Male not known.

Female genitalia (Fig. 50): Papilla analis slender (broken posteriorly); sterigma membranous; sclerite of antrum short; ductus bursae long except for basal portion; signum with long spines.

Diagnosis: Female genitalia closely similar to those of *auroscripta*; facies similar to that of the mentioned species and its allies.

Etymology: The specific name refers to the terra typica, the Island of Hainan, China.

***Hilarographa marangana* Razowski, sp. n.** (Fig. 71)

Holotype male: "Marang (sea level) S. W. Sumatra, VIII-IX, Doherty, 1890, No. 40975"; GS 31828.

Description: Wing span 15 mm. Head brownish cream, thorax darker (labial palpus missing). Forewing as with three preceding species. Ground colour orange: three basal streaks (the subdorsal minute); two fine postbasal lines broader costally, parallel to dark basal area; dorso-median area with some five orange spots followed by fine subtornal line and tornal line extending towards costa; two terminal spots present; costal strigulae indistinct, orange except for last two whitish ones, all edged

dark brown. Cilia brown. Hindwing pale orange without any markings; cilia orange, brown at apex where basal line black.

Male genitalia (Figs 17, 18): Uncus long, slender with somewhat broader basal third; hamus long; socius broad, sparsely hairy; medio-terminal part of vinculum strongly elongate; valva oval without slit; sacculus simple; median part of transtilla elongate, weakly sclerotized, rounded terminally; aedeagus long, very slender.

Female not known.

Diagnosis: Facies similar to that of three preceding species, especially to *hainanica*; related with *spermatodesma* from New Guinea but *hainanica* with much longer aedeagus and slender uncus.

Etymology: The name refers to the type locality.

***Hilarographa buruana* Razowski, sp. n.** (Fig. 72)

Holotype male: "Buru (below 1000 ft.) Doherty 1892, No 41269"; GS 31852. Paratypes: two females from Ambon Island ("Amboyna. Doherty, 1892", Nrs 41369, 41370, one with genitalia on slide 31851).

Description: Wing span 12 mm. Head and thorax brownish ferruginous. Forewing rather weakly expanding terminad; costa curved in terminal fourth; apex broad, rounded; termen convex beneath apex. Ground colour orange with slight brownish admixture consisting of typical basal streaks and transverse lines bent inside median cell, separated one from the other by brownish lines; dorso-terminal area orange with two black spots. Cilia (worn) brownish, orange towards tornus. Hindwing brown; cilia (worn) more cream.

Male genitalia (Figs 19, 20): Uncus strong, slender, moderately long; hamus large; socius small, slender; vinculum with very long, slender ventral termination (saccus); valva suboval with costa weakly developed; sacculus convex postbasally, with terminal bristles; median part of transtilla weak, flat; aedeagus very long, slender, protruding ventro-terminally.

Female genitalia (Fig. 51): Papilla analis slender; eighth tergite short; sterigma membranous except for two small median elements posterior to pair of shallow sacks; antrum sclerite long, slender; ductus bursae long; signum spines short.

Diagnosis: Male genitalia most similar to those of *spermatodesma* but *buruana* uncus slender, the aedeagus very long, and ventral part of vinculum extremely long. The female genitalia of *buruana* resemble those of *pahangana* and *perakana* but *buruana* sclerite of antrum long and signum small.

Etymology: The specific name refers to the terra typica: Buru.

Remarks: One female from Sanguir is most probably conspecific with this species but it is not included in the type series. It has an almost twice longer sclerite of antrum, shorter ductus bursae and larger signum.

***Hilarographa bosavina* Razowski, sp. n.** (Fig. 74)

Holotype female: "Papua New Guinea Southern Highlands, Bosavi 2300 ft. 7-I-1986, D. J. L. Agassiz"; GS 31862.

Description: Wing span 19 mm. Head and thorax olive brown, labial palpus paler basally, brownish in posterior third; end of tegula cream. Forewing expanding terminally; costa straight to before apex where curved; termen incised beneath apex, then oblique. Ground colour dark yellow forming a broad postbasal fascia extending between dorsum to before costa; dorso-posterior fourth of wing orange marbled brown; dorsal part of termen yellow; no specular spots; basal strip long, slender situated subcostally on large dark brown basal blotch; costal strigulae: two submedian yellow, two postmedian white, subapical pair white; divisions olive brown edged with dark brown. Cilia olive brown, yellow in tornal part. Hindwing yellow orange, dark brown on peripheries, terminally pale orange; anal field brownish. Cilia orange cream tinged brown in apical area, with distinct, brown basal line.

Male not known.

Female genitalia (Fig. 52): Papilla analis small; apophyses anteriores fairly long; sterigma membranous with half-moon-shaped proximal part; antrum rather long, in major part membranous; ductus bursae very long, slender; signum like sclerite at base of ductus bursae thorn-shaped.

Diagnosis: Externally somewhat resembling *auscripta* and *hainanica* but *bosavina* with large postbasal yellow interfascia; the hindwing similar to the species close to *celebesana*; the ductus bursae and antrum similar to those in *H. dolichosticha* but the signum like sclerite resembles that in *Embolostoma plutostola* Diakonoff, 1977. From *Embolostoma* this species differs also in the slender, hilarographine labial palpus which in the mentioned genus is broad.

Etymology: The specific epithet refers to the type locality.

***Hilarographa sipiroca* Razowski, sp. n. (Fig. 75)**

Holotype female: "Sumatra Utara, Sipirok, 1400 m, E. I. 1995, on Day"; GS 31827.

Description: Wing span 27 mm. Head and proximal part of thorax brownish black, labial palpus grey scaled blackish; posterior part of thorax blackish grey, end of tegula paler. Forewing very broad, strongly expanding terminally; costa straight; apex broad, rounded; termen incised beneath M1. Ground colour creamish slightly suffused ferruginous in form of transverse lines, in costal area pale orange ferruginous, browner at mid-costa and in basal area of wing; costal strigulae extending into lines, cream in basal third otherwise whitish suffused brown, edged blackish brown; basal strigula weak, subcostal; row of black white centred spots along dorsal half of termen. Cilia blackish brown (rubbed). Hindwing yellow orange; cilia paler, in median part creamer, in apical part of wing tinged brown where dark brown basal line present.

Male not known.

Female genitalia (Fig. 53): Papilla analis slender; apophyses moderately long; sterigma membranous; antrum sclerotized in posterior half; ductus bursae fairly broad and long; signum, an agglomeration of thorns across middle of corpus bursae.

Diagnosis: Arrangement of transverse lines of forewing ground colour as in *excellens* and its allies but a series of black spots along dorsal half of termen. The shape of antrum resembles slightly that of *mechanica* and *oenobapta* but the signum of this species is quite different.

Etymology: The name refers to the type locality.

***Hilarographa rampayoha* Razowski, sp. n. (Fig. 76)**

Holotype male: "Brunei: 150" Rampayoh R., LP 291B GR951801. Lowland dipterocarp forest; G. S. Robinson"; GS 31843.

Description: Wing span 14 mm. Head olive brownish, whitish laterally; labial palpus whitish with grey marks; thorax olive brown, tegula whitish laterally. Forewing distinctly expanding terminally; costa straight; apex broadly rounded; termen incised, somewhat oblique beneath incision. Ground colour cream partly suffused ochreous consisting of two postbasal fasciae (first incomplete) and a submedian fascia divided by olive brownish lines concolorous with basal and costo-posterior areas; remaining, dorso-posterior area extending towards radial stem of median cell cream densely strigulated with brownish olive; costal strigulae small, whitish, two subapical ones followed by ochreous lines, apical white; row of black partly confluent and white centred terminal spots extending dorsally. Cilia similar to markings. Hindwing olive brownish, creamer based; cilia whitish, in apical area tinged with brown.

Male genitalia (Figs 21, 22): Uncus fairly broad, pointed, one third the length of hamus; socius long, broad basally, slender towards the end; hamus slender, long; valva broadening and rounded terminally; sacculus simple; median part of transtilla large, broad, rounded laterally; aedeagus as long as costa of valva, slender, with inner finely thorny plate and slender coecum penis.

Diagnosis: Facies similar to that in *uthaithani* and *temburonga*, with terminal black spots arranged as in *eremnotorna*; valva, aedeagus and transtilla as in *rampayoha*.

Etymology: The name refers to the type locality.

***Hilarographa uthaithani* Razowski, sp. n.** (Fig. 77)

Holotype male: "W. Thailand, Uthai Thani, 500 m, Huai Kha Khaeng, Khao Nang Ram, 30-31-X-1991; I. J. Kitching & A. M. Cotton"; GS 31863. Paratype: male, same label.

Description: Wing span 14 mm. Head olive brown, labial palpus white with pale brownish median mark; thorax blackish with bluish refraction and olive brownish tegula. Forewing expanding terminally; costa slightly depressed before apex; apex rounded; termen oblique, incised beneath apex. Ground colour olive ochreous with brownish suffusions in form of two postbasal interfasciae separated by olive brown parallel fascia with bluish refraction; basal shades more cream; apical area pale orange brownish divided by two white costal strigulae and two blue marks; remaining costal strigulae small, strongly suffused; dorso-posterior area white densely reticulated with blackish brown; terminal black spots confluent, with white dots and two ochreous strips. Cilia whitish with blackish suffusions and broad black divisions. Hindwing brown, darker on peripheries; cilia whitish with brownish suffusions and brown basal line.

Variation: Paratype (wing span ca 12 mm) much paler than the holotype with more olive grey hue.

Male genitalia (Figs 23, 24): Uncus fairly large, slightly tapering terminally; socius and hamus long, the latter broadening postbasally; valva broadening postmedially; sacculus to before its middle; aedeagus moderately long, slender; large plate in vesica; coecum penis slender.

Female not known.

Diagnosis: Very closely related with *rampayoha* but *uthaithani* uncus twice larger and broader.

Etymology: The name refers to the type locality.

***Hilarographa tasekia* Razowski, sp. n.** (Fig. 78)

Holotype male: "W Malaysia, Perak, Tasek, Temenggor, Sungei Halong, XI-XII-1993, MNS Belum Exped.; K. R. Tuck"; GS 31833.

Description: Wing span 15 mm. Head olive brownish, labial palpus paler; thorax paler than vertex, more cream brown medially. Forewing strongly expanding terminally; costa bent in apical fourth; apex broad, rounded; incised near M2 then oblique. Ground colour white preserved as a subtornal marking followed by broad whitish, strigulated and dotted medio-subterminal area; transverse fasciae indistinct, suffused olive brownish, marked with refractive bluish fasciae similarly as weak basal strips; costal strigulae grey olive, white at costa and subcostally, edged with blackish brown; apical strigula white; termen and subapical area orange olive; terminal black dots confluent, formed in two rows, with white and rust dots; remaining area dark brownish olive. Cilia brown olive. Hindwing brown with median area (chiefly inside median cell) white. Cilia white.

Male genitalia (Figs 25, 26): Uncus rather short, broad, tapering apically; socius long, rounded terminally; hamus almost as long as socius; gnathos large but rather weakly sclerotized; vinculum broad terminally; valva broad, straight dorsally; sacculus convex, with small termination; median part of transtilla large, elongate; aedeagus long, slender, weakly bent.

Female not known.

Diagnosis: Related to *ludens* but distinguished by short uncus, longer median part of transtilla and very long aedeagus. Belonging to the group of species with black spotted dorso-terminal area of the forewing, most similar to *uthaithani*.

Etymology: The specific epithet refers to the type locality.

***Hilarographa temburonga* Razowski, sp. n.** (Fig. 79)

Holotype male: "Brunei: 300 m, Ulu Temburong, LP298, GR 838892, 26-30-IV-1989; M. G. Allen & K. R. Tuck"; GS 31862.

Description: Wing span 16 mm. Head whitish, vertex densely scaled brown; labial palpus white, brownish grey basally and subterminally. Thorax blackish, tegula pale brownish grey, creamer

terminally. Forewing strongly expanding terminally; costa straight basally, hardly concave medially; apex broad, rounded; termen incised beneath M1. Ground colour white cream forming two transverse fasciae in basal half of wing divided by parallel olive ochreous fasciae concolorous with basal blotch and broad, brown edged costal divisions; dorso-posterior area cream tinged ochreous and pale orange (at tornus) marbled with olive brownish; costal strigulae whitish; row of four black centred white spots along dorsal half of termen. Cilia brownish cream with browner parts. Hindwing white mixed pale orange and dotted brownish in apical third. Cilia white tinged brownish in apical area, with brownish basal line.

Male genitalia (Figs 27, 28): Uncus long, slender; hamus long; socius broad postbasally, tapering terminally; gnathos weak; valva broadening and rounded terminally, with strong costa; sacculus broad basally; transtilla with large dorso-lateral processes; dorso-lateral processes of juxta long, slender; aedeagus slender with dorso-terminal process and small ventro-terminal thorn.

Female not known.

Diagnosis: This species is externally similar to *muluana* and other species with the dorso-terminal series of forewing black spots e.g. *eremnotorna* from Japan. From the latter this species differs in having large processes of the transtilla.

Etymology: The specific epithet refers to the type locality.

***Hilarographa muluana* Razowski, sp. n. (Fig. 80)**

Holotype male: "Site 8. February Camp 1. Mulu 150 m. 385470 Mixed dipt. for.[est], mainly canopy; Sarawak: Guanong, Mulu Nat. Park, R. G. S. Exped., 1977-8, J. D. Holoway et al."; GS 31844.

Description: Wing span 15 mm. Head and thorax olive brownish; labial palpus whitish tinged grey dorsally; tegula creamy terminally. Forewing broad, expanding terminally; costa hardly depressed before middle, convex subapically; apex broadly rounded; termen long, weakly oblique, straight. Ground colour whitish; basal streak long, cream; postbasal lines fine, postmedian lines irregular, suffused brownish reaching tornus, rust orange edged brown black near end of median cell and subapically; costal strigulae white two last ones large, divisions brownish edged with brown; no terminal spots. Other areas olive brown. Cilia (worn) brown. Hindwing brown, paler basally; cilia white mixed brownish at M1-M2, with brown basal line in apical area.

Male genitalia (Figs 29, 30): Uncus very broad, oval, constricted basally; socius small; hamus well sclerotized, broad basally, curved terminally, with a small subterminal lobe; valva broad to before middle, then tapering terminally; costa weak; sacculus simple, long, slender; ventral part of vinculum slender; transtilla with dorso-lateral, heavily sclerotized, hook-like processes; aedeagus moderate, slender, minutely thorny terminally.

Female not known.

Diagnosis: Facies similar to that of *temburonga* and *rampayoha* but rust orange marking at end of median cell present; male genitalia with peculiar uncus and curved processes of transtilla never found in this tribe.

Etymology: The specific name refers to the type locality.

*Hilarographa leucopyrga* Meyrick, 1912

Material examined: One female from Talawa, Java collected in January.

Remarks: This species was described from Kyusyu Island, Japan. DIAKONOFF (1977) already recorded it from Java. Differences in female genitalia to the Japanese population are really slight.

***Hilarographa shehkonga* Razowski, sp. n. (Fig. 81)**

Holotype male: "Kadoorie Agric. Research Centre, Shek Kong N. T., Hong Kong, UTM 50Q KK 029832, alt. 200 m, 6 June 1998/27, 125W MBF, leg. R.C. Kendrick"; GS 31846.

Description: Wing span 10 mm. Head and proximal part of thorax, labial palpus white, outer edge

of tegula yellowish. Forewing weakly expanding terminally; costa straight; termen hardy concave beneath apex. Ground colour in form of large white submedian dorsal blotch accompanied by concolorous spot at middle of basal blotch; basal streak long, yellowish; remaining area rust orange, paler dorso-posteriorly with numerous brown fasciae; costal strigulae paler than ground colour; divisions brown edged dark brown; refractive pattern bluish; apex and termen rather concolorous with ground colour, the latter with long row of brown spots. Cilia olive brown, basal line dark brown, streak whitish. Hindwing creamy brown with brown subterminal fascia along terminal part of wing. Cilia ochreous cream with weak brownish suffusion at median part of wing and brown basal line.

Male genitalia (Figs 31, 32): Uncus long, slender, bulbously expanding postbasally; socius small, slender, well sclerotized; hamus very broad with broad ventral lobe followed by a sharp process and large subtriangular termination; valva slender basally, oval postmedially; sacculus simple, weak; transtilla slender; vinculum broad terminally; aedeagus slender postmedially; coecum penis broad.

Female not known.

Diagnosis: Very closely related to *leucopyrga* but distinguished by postbasal broadening of uncus, large processes of the hamus, and slender aedeagus.

Etymology: The specific epithet refers to the type locality.

#### ***Hilarographa gunongana* Razowski, sp. n.** (Fig. 82)

Holotype male: "Sarawak: Gunong Mulu National Park, R. G. S. Expedition Base Camp; 25-V / 1-VII-1978, J. M. Marshall"; GS 31869. Paratypes: 2 males: "Rian Kiwa 500-1000 ft., S. E. Borneo, Doherty, 1891"; GS 31871.

Description: Wing span 8,5 mm. Head and thorax olive brown; labial palpus grey, brown terminally. Forewing weakly expanding terminally; costa straight; apex broad, rounded; termen slightly oblique, convex. Ground colour pale, dirty orange in form of three lines extending from tornus to before costa; three orange lines from tornus and terminal area marked with two black-brown spots; basal strip median, more cream; costal strigulae cream, two submedian and two postmedian. Remaining area incl. apex brown. Cilia brown. Hindwing brownish, median cell cream; cilia pale brownish, whiter in anal field.

Male genitalia (Figs 33, 34): Uncus strong, moderately long; socius ill-defined; hamus large, pointed terminally, with latero-terminal process; gnathos developed; end of vinculum rounded; valva broad with caudal edge slightly convex; sacculus simple, reaching mid-length of valva; median part of transtilla broad, rather short aedeagus rather slender, broadened and minutely thorny before the end, with slender terminal process.

Female not known.

Diagnosis: Facies and size similar to those of *renonga*; male genitalia resembling (similar uncus, hamus, aedeagus) those of *opistocapna* from West Java but *gunongana* aedeagus longer, with large thorny area and socius slender.

Etymology: The specific epithet refers to the type locality.

#### ***Hilarographa renonga* Razowski, sp. n.** (Fig. 83)

Holotype male: "Renong (low country forest), W. Siam, Doherty, 1891, No. 41135"; GS 31867.

Description: Wing span 10 mm. Head and thorax pale brownish olive; labial palpus long, with blackish terminal third. Forewing expanding terminally; apex broad, rounded; termen weakly oblique, tolerably straight. Ground colour creamy in form of fine lines extending from dorsum to subcostal area, three lines from costa, and indistinct basal strips; posterior third of wings orange; two spots at median part of termen. Cilia (worn) brown. Hindwing brown; cilia pale brownish.

Male genitalia (Figs 35, 36): Uncus long, rather slender; hamus long, broad at base, slender, curved terminally; socius slender, fairly long; valva elongate-oval; sacculus simple slightly concave

postbasally; vinculum large, triangular; median part of transtilla broad, short; aedeagus large, moderately broad.

Female not known.

Diagnosis: Externally similar to *gunongana* but with orange apex and absent dorsal pale marking; shape of hamus similar to that in *uthaithani* but aedeagus long.

Etymology: The name refers to the type locality.

***Hilarographa khaoyai* Razowski, sp. n. (Fig. 84)**

Holotype male: “C. Thailand: 1200 m, Khao Yai Nat. P[ar]k, 7-II-1986; M. G. Allen”; GS 31848.

Description: Wing span 8 mm. Head brown, labial palpus brownish grey, white in distal half; thorax brownish. Forewing slender rather not expanding terminally costa almost straight; apex rounded; termen incised beneath apex, then oblique. Ground colour greyish suffused and diffusely strigulated grey-brown; costal strigulae whitish; apex and costal half of termen orange; apex with white dark edged streak. Cilia brownish. Hindwing slender, brownish; cilia greyer and paler.

Male genitalia (Figs 37, 38): Uncus long, broadening, rounded terminally; hamus slender, curved terminally; socius moderately short; valva broadening postmedially, rounded terminally; vinculum slender; dorsal part of transtilla convexly rounded medially flanked by two long, curved processes; aedeagus moderately broad, simple.

Female not known.

Diagnosis: Shape of forewing resembling that of European glyphipterigid moth *Glyphipterix thrasonella* (Scopoli, 1763); male genitalia as in *temburonga* but *khaoyai* hami much shorter and aedeagus broader.

Etymology: The name refers to the type locality of this species.

***Hilarographa uluana* Razowski, sp. n. (Fig. 85)**

Holotype male: “Brunei: 300 m, Ulu Temburong, LP 298. GR 838892, 26-30-IV-1989; M. G. Allen & K. R. Tuck”; GS 31865.

Description: Wing span 12 mm. Head greyish cream with slight admixture of brownish. Forewing weakly expanding terminally, very slightly convex; apex very short, pointed; termen rather long, hardly sinuate and oblique. Ground colour whitish in form of 8 transverse lines extending from dorsum parallelly; costal strigulae ill-defined; large subapical blotch, apex, and postapical strigula white cream; terminal area beneath the latter more cream with two blackish spots. Cilia (worn) brownish. Hindwing grey tinged brownish; cilia white with some grey marks.

Male genitalia (Figs 39, 40): Uncus very long, broad terminally; socius fairly long, rather slender; hamus long, sharp; vinculum not extending ventrally; valva very broad with weak costa and dorsal part separated from the ventral part by means of a caudal incision; sacculus simple, convex, terminating in a row of bristles; median part of transtilla broad, slightly concave apically; aedeagus slender, protruding ventro-terminally.

Female not known.

Diagnosis: This species differs from all other known species of this genus both in facies and male genitalia. Shape of forewing slightly resembles that in *obinana* but end of costa is not curved and lines are whitish not orange. The valva is very broad as with *pahangana* but without terminal bristles and caudal incision. The systematic position is unclear but one could include *uluana* in the group with the slender aedeagus and long, acute hami.

Etymology: The name refers to the type locality, Ulu, Brunei.

***Hilarographa obinana* Razowski, sp. n. (Fig. 86)**

Holotype female: “Obi Major Id., Moluccas, IX-1897, Doherty”; GS 31836.



Description: Wing span 11 mm. Head and thorax olive brown; labial palpus creamer. Forewing strongly expanding terminally; costa straight to beyond 3/4 then bent; apex pointed; termen weakly oblique, concave beneath apex. Ground colour orange cream, more cream in dorso-median part of wing, more orange in posterior third; termen finely suffused brown, marked by brown spot at apex and two spots postmedially; remaining area brownish olive. Cilia (worn) brown. Hindwing brownish, creamer basally; cilia damaged.

Male not known.

Female genitalia (Fig. 54): Papilla analis broadest postmedially; anteostial sterigma extending laterally, with shallow cup-shaped part and large median sclerite with sublateral ear-shaped folds of the postostial part; antrum broadening posteriorly where weakly sclerotized; ductus bursae slender.

Diagnosis: Shape of the forewing resembling that of *fergussonana* and its allies but the colouration is more brown; dorsal lines arranged as in *obinana* but the latter is whitish grey. Female genitalia differ from all known species of this genus but the cup-shape reminds of that of *calyx*.

Etymology: The specific name refers to its native Obi Major Island.

#### *Hilarographa robinsoni* Razowski, sp. n. (Fig. 87)

Holotype female: "Brunei: 400 m, Rampayoh R. (north) LP 19, lowland for., 1-3-III- 1982; G. S. Robinson"; GS 31839.

Description: Wing span 19 mm. Head pale orange with vertex and end of labial palpus dark brown, the latter not tapering terminally, broad. Thorax brownish, darker proximally, with two orange yellow submedian lines and short lateral line at tegula. Forewing slightly expanding terminad; costa, except for base, straight; apex broad, rounded; termen gently concave beneath apex, then weakly oblique. Ground colour dull orange cream with some greyish and brown lines; basal area dark brown with reddish subcostal, very long ochreous and postmedian more cream strips; costal strigulae atrophied, divisions large, broad, brown; dorsal blotch brown divided with ground colour; termen paler with row of brown spots and brown anterior line; apex pale orange cream edged brown; refractive pattern typical. Cilia brownish cream in dorsal half brown, with pinkish refraction. Hindwing brown, more cream in median and basal part; cilia cream with brown basal line.

Male not known.

Female genitalia (Fig. 55): Papilla analis slender; apophyses anteriores about twice longer than apophyses posteriores (with long bases); sterigma submembranous, with shallow cup-shaped, better sclerotized part; sclerite of antrum elongate; ductus bursae long, slender; signum absent.

Diagnosis: Externally somewhat similar to *mechanica* but darker and browner; from *soleana robinsoni* it differs in broader forewing; female genitalia most similar to those of *leucopyrga* but with indistinct antrum and without its sclerite.

Etymology: This name is a paronym devoted to my fellow scientist Dr. Gaden S. Robinson, London, the collector of this species.

#### *Hilarographa calyx* Razowski, sp. n. (Fig. 88)

Holotype female: "Kanshrei, Formosa. 1,000 ft., 20-VIII-1905, A. E. Wileman"; GS 31849.

Description: Wing span ca 14 mm. Head and thorax cream brown, labial palpus paler. Forewing rather weakly expanding terminally; costa slightly bent at middle; apex rounded; termen weakly oblique, straight. Ground colour cream consisting of transverse dorsal lines the postmedian of which swung, weak basal streaks and costal lines; terminal fourth of wing rust orange extending towards end of median cell, apex suffused with brown; speculum well distanced from termen with five brown inner spots. Cilia (worn) cream with brown scales. Hindwing brown, rather cream in proximal half of median cell; cilia damaged.

Male not known.

Female genitalia (Fig. 56): Papilla analis fairly broad; cup-shaped part of sterigma large, well

sclerotized; posterior part of ductus bursae (antrum?) swollen, with transverse sclerite; corpus bursae elongate; signum, a small thorny sclerite.

Diagnosis: Facies somewhat similar to that of *robinsoni* (broad forewing with weakly oblique termen) but *calyx* with spiral subterminal lines of ground colour. Certainly close to *mesostigmatias* from same island but *calyx* sclerite of posterior part of ductus bursae transverse and signum present.

Etymology: The name refers to the shape of anteostial sterigma; Latin: *calyx* - a cup.

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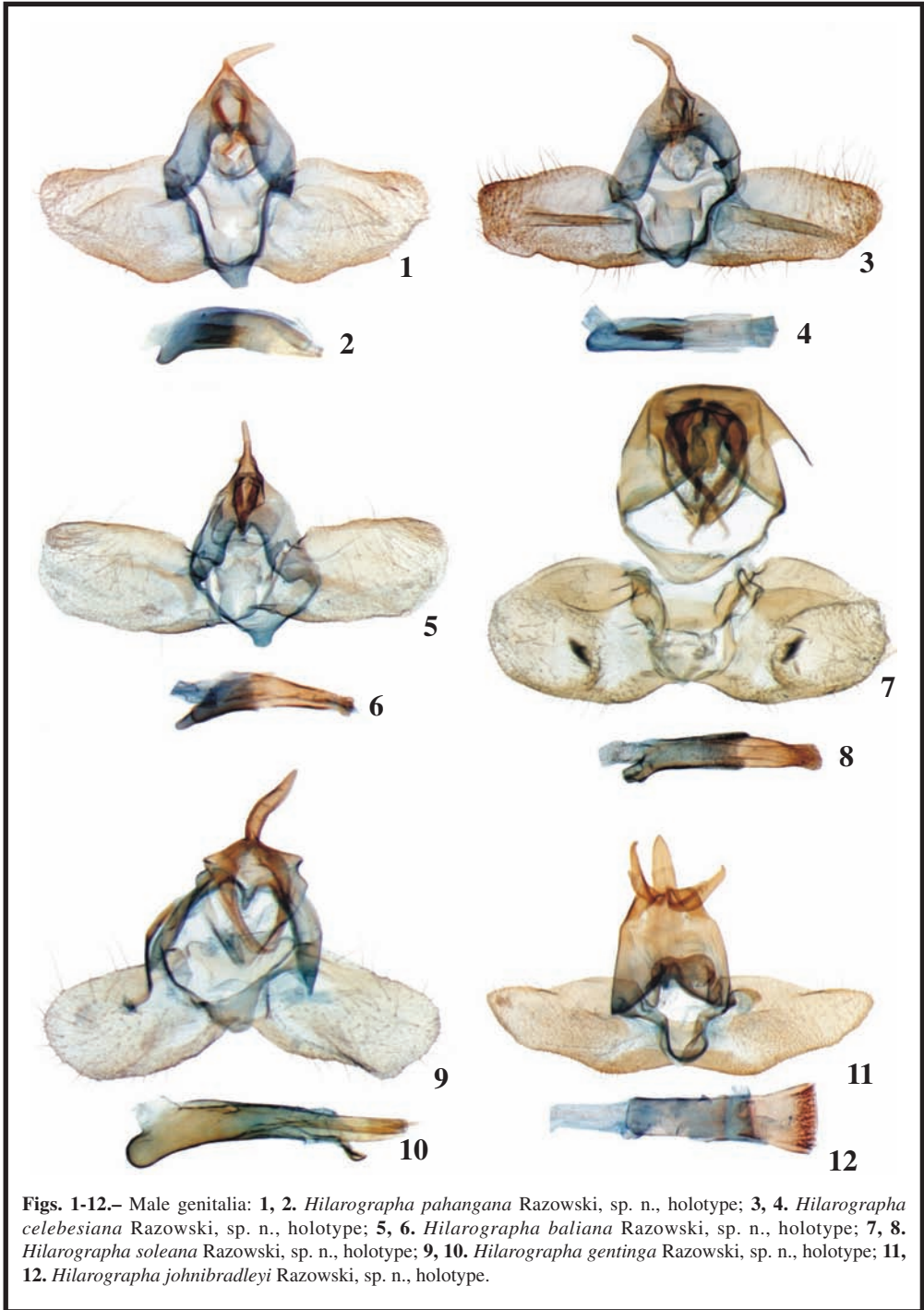
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J. R.  
 Institute of Systematics and  
 Evolution of Animals  
 Polish Academy of Sciences  
 Sławkowska, 17  
 PL-31-016 Kraków  
 POLONIA / POLAND  
 E-mail: Razowski@isez.pan.krakow.pl

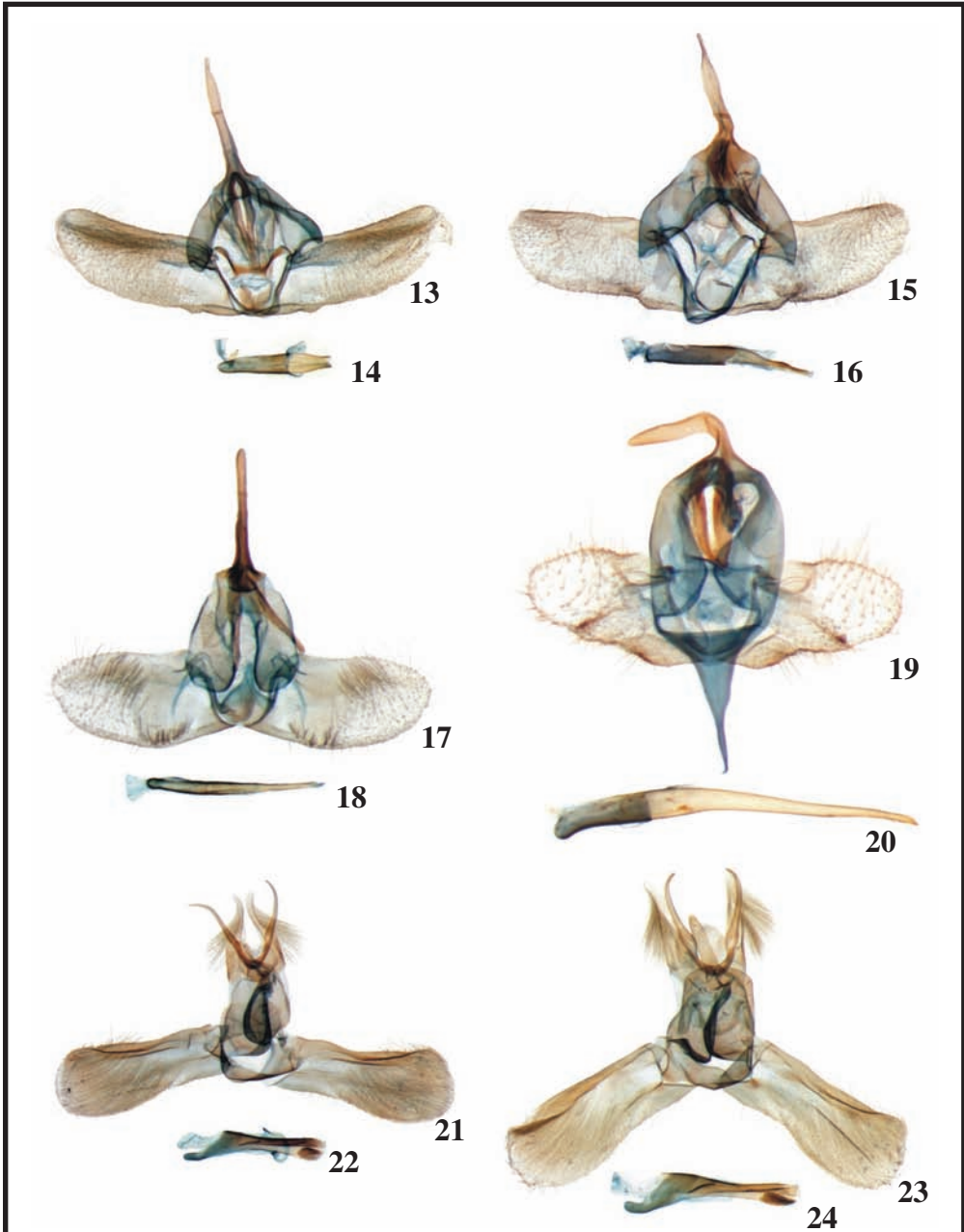
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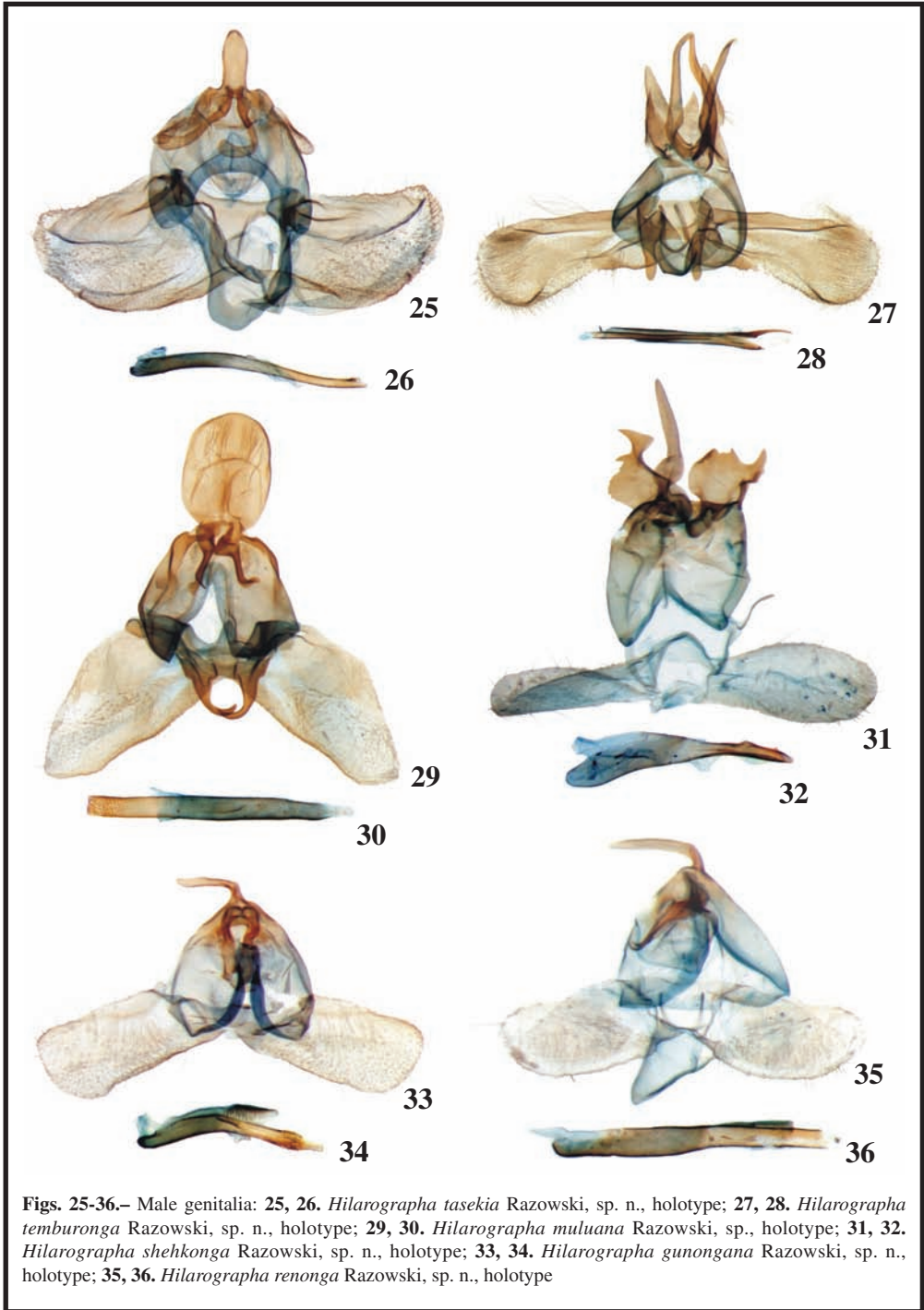
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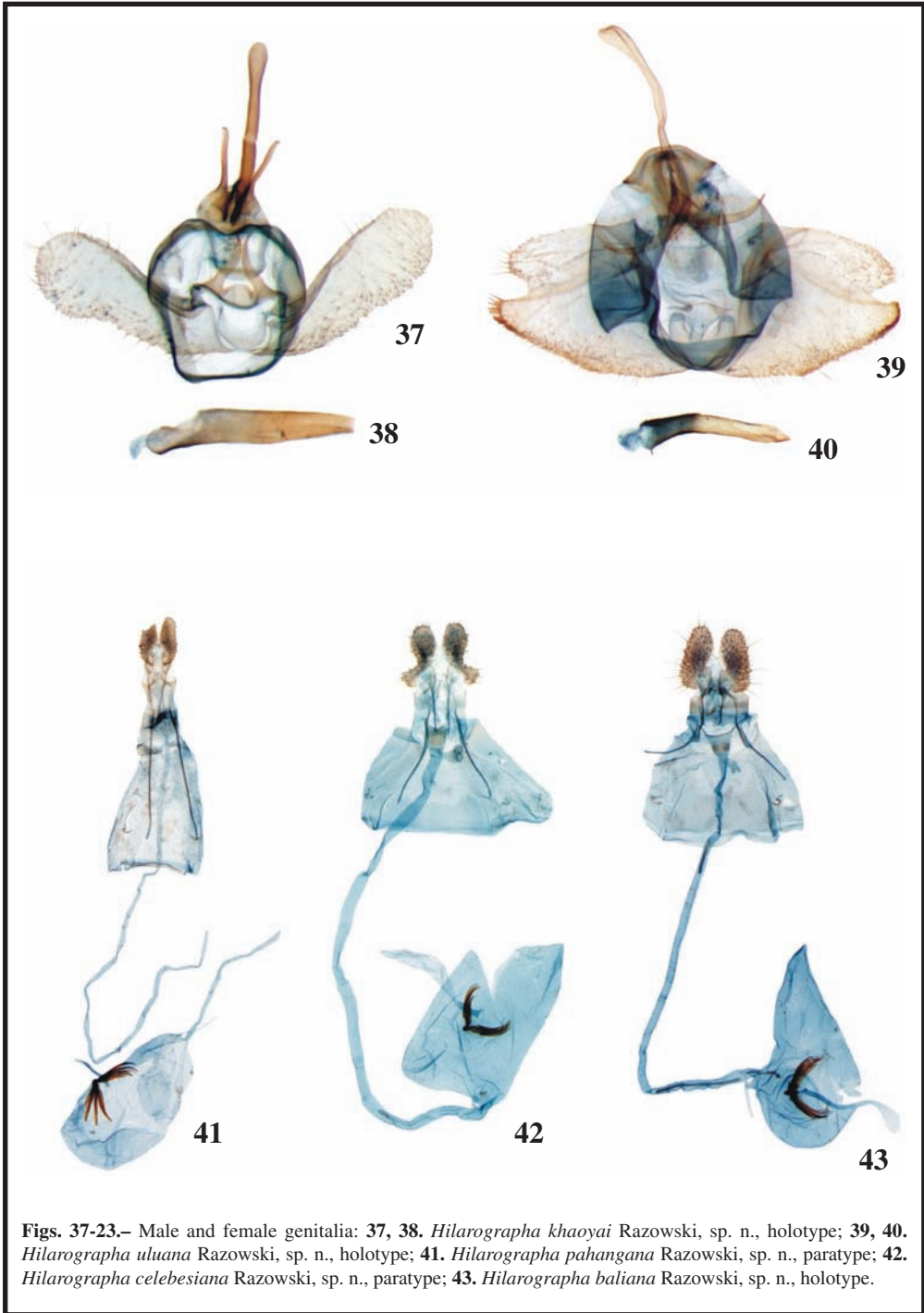
**Figs. 1-12.**— Male genitalia: **1, 2.** *Hilarographa pahangana* Razowski, sp. n., holotype; **3, 4.** *Hilarographa celebesiana* Razowski, sp. n., holotype; **5, 6.** *Hilarographa baliana* Razowski, sp. n., holotype; **7, 8.** *Hilarographa soleana* Razowski, sp. n., holotype; **9, 10.** *Hilarographa gentinga* Razowski, sp. n., holotype; **11, 12.** *Hilarographa johnbradleyi* Razowski, sp. n., holotype.



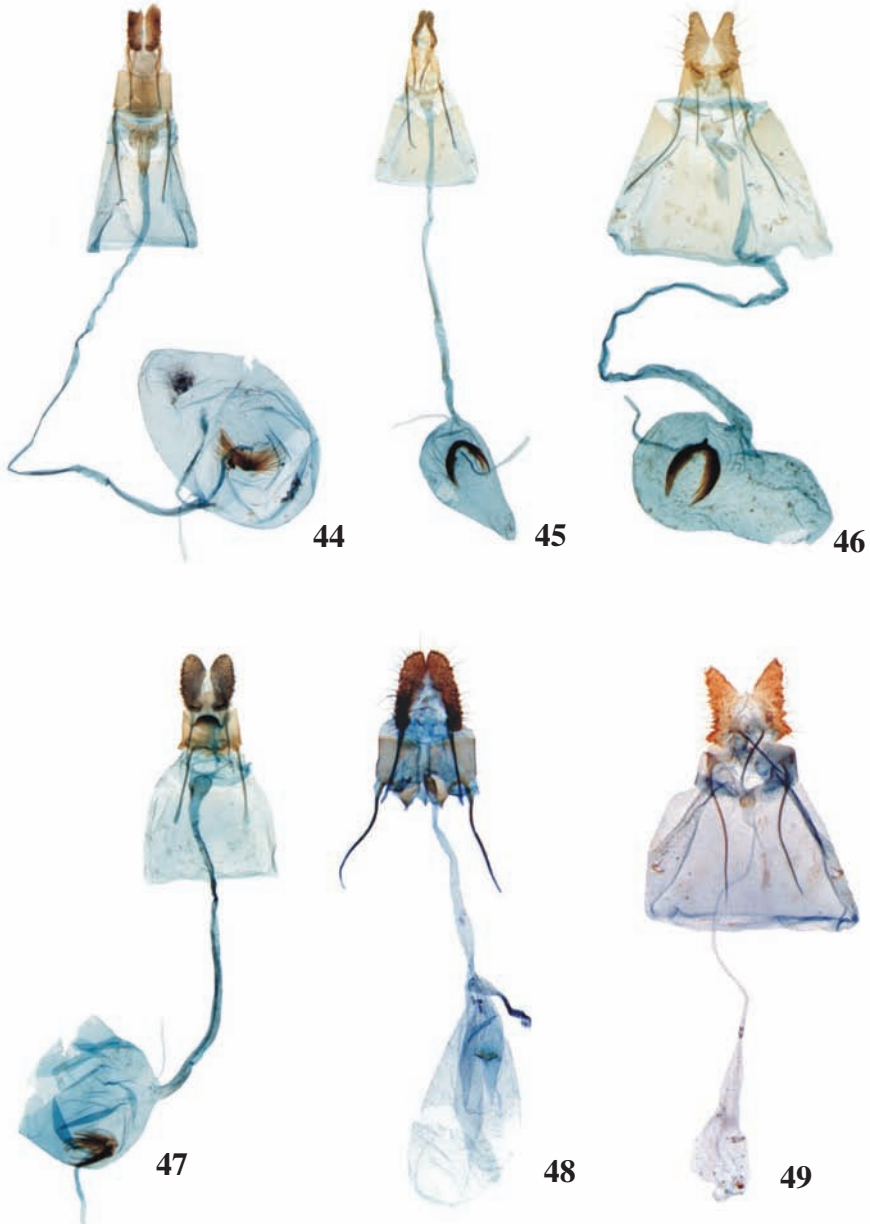
**Figs. 13-24.**— Male genitalia: **13, 14.** *Hilarographa excellens* (Pagenstecher), Fergusson Islands; **15, 16.** *Hilarographa fergussonana* Razowski, sp. n., holotype; **17, 18.** *Hilarographa marangana* Razowski, sp. n., holotype; **19, 20.** *Hilarographa buruana* Razowski, sp. n., holotype; **21, 22.** *Hilarographa rampayoha* Razowski, sp. n., holotype; **23, 24.** *Hilarographa uthaithani* Razowski, sp. n., holotype.



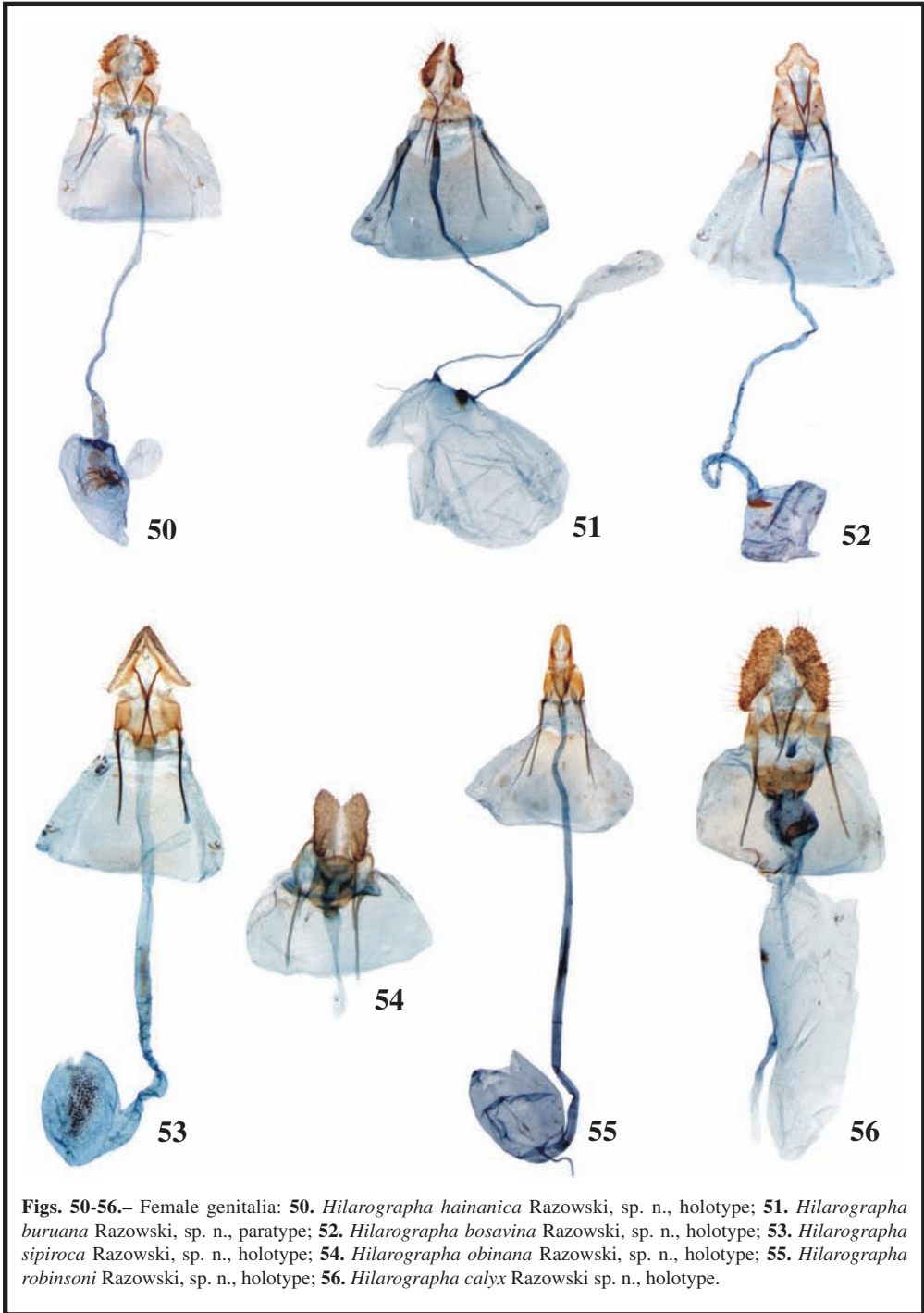
**Figs. 25-36.**– Male genitalia: **25, 26.** *Hilarographa tasekia* Razowski, sp. n., holotype; **27, 28.** *Hilarographa temburonga* Razowski, sp. n., holotype; **29, 30.** *Hilarographa muluana* Razowski, sp., holotype; **31, 32.** *Hilarographa shehkonga* Razowski, sp. n., holotype; **33, 34.** *Hilarographa gunongana* Razowski, sp. n., holotype; **35, 36.** *Hilarographa renonga* Razowski, sp. n., holotype



**Figs. 37-23.**— Male and female genitalia: **37, 38.** *Hilarographa khaoyai* Razowski, sp. n., holotype; **39, 40.** *Hilarographa uluana* Razowski, sp. n., holotype; **41.** *Hilarographa pahangana* Razowski, sp. n., paratype; **42.** *Hilarographa celebesiana* Razowski, sp. n., paratype; **43.** *Hilarographa baliana* Razowski, sp. n., holotype.

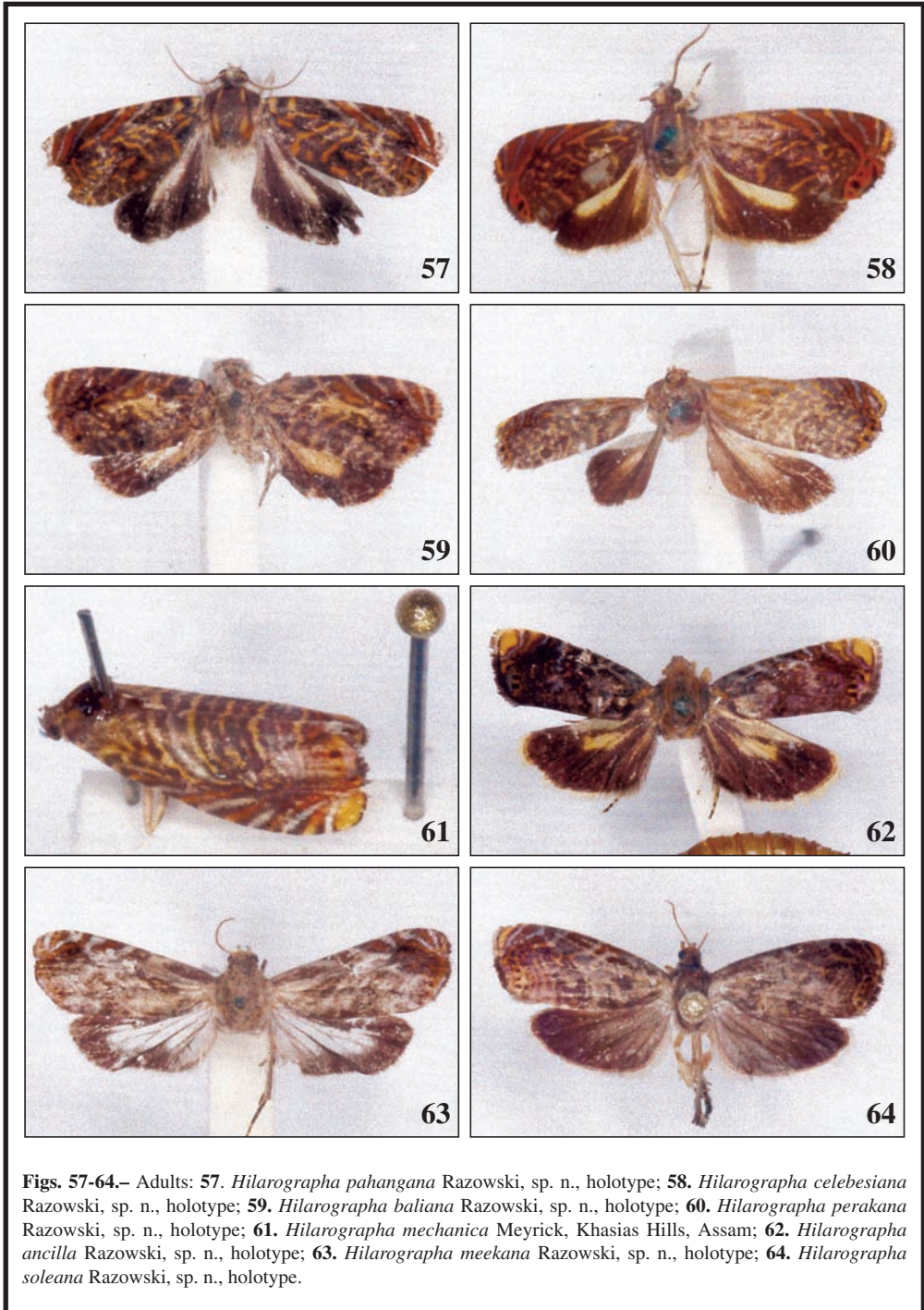


**Figs. 44-49.**– Female genitalia: **44.** *Hilarographa perakana* Razowski, sp. n., holotype; **45.** *Hilarographa mechanica* Meyrick, Khasias Hills, Assam; **46.** *Hilarographa ancilla* Razowski, sp. n., holotype; **47.** *Hilarographa meekana* Razowski, sp. n., holotype; **48.** *Hilarographa fergussonana* Razowski, sp. n., paratype; **49.** *Hilarographa auroscripta* Razowski, sp. n., holotype.

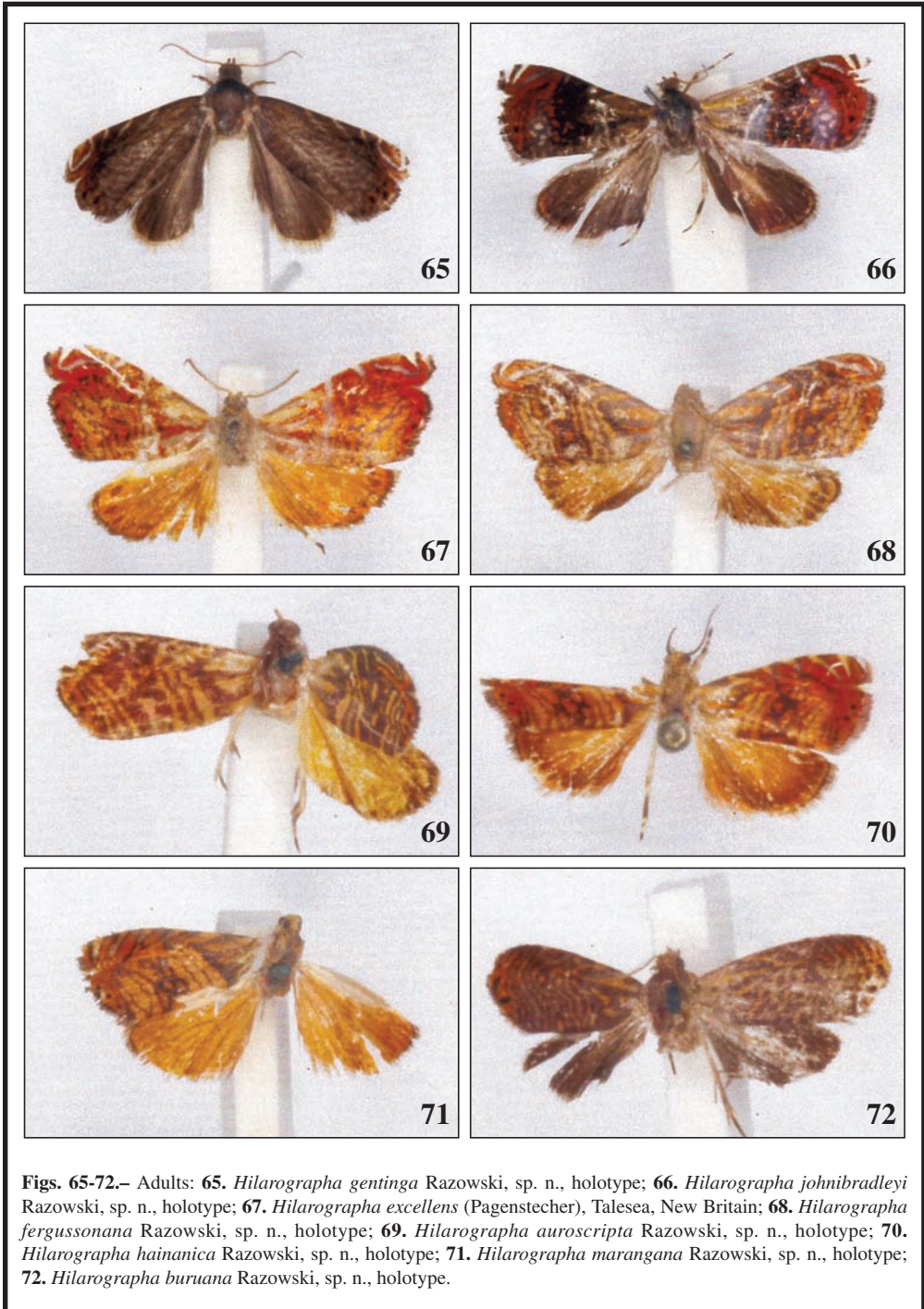


**Figs. 50-56.**— Female genitalia: **50.** *Hilarographa hainanica* Razowski, sp. n., holotype; **51.** *Hilarographa buruana* Razowski, sp. n., paratype; **52.** *Hilarographa bosavina* Razowski, sp. n., holotype; **53.** *Hilarographa sipiroca* Razowski, sp. n., holotype; **54.** *Hilarographa obinana* Razowski, sp. n., holotype; **55.** *Hilarographa robinsoni* Razowski, sp. n., holotype; **56.** *Hilarographa calyx* Razowski sp. n., holotype.

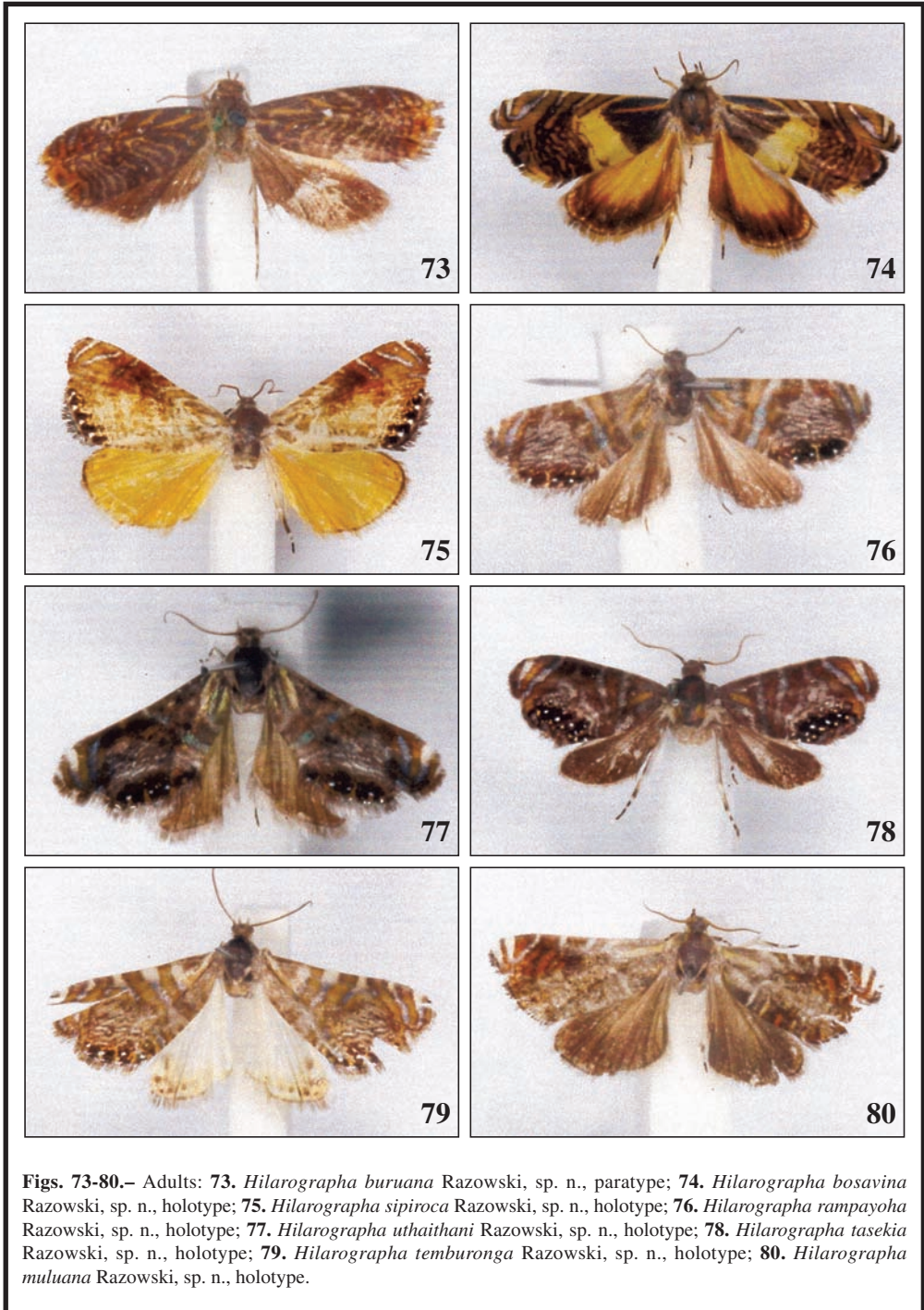




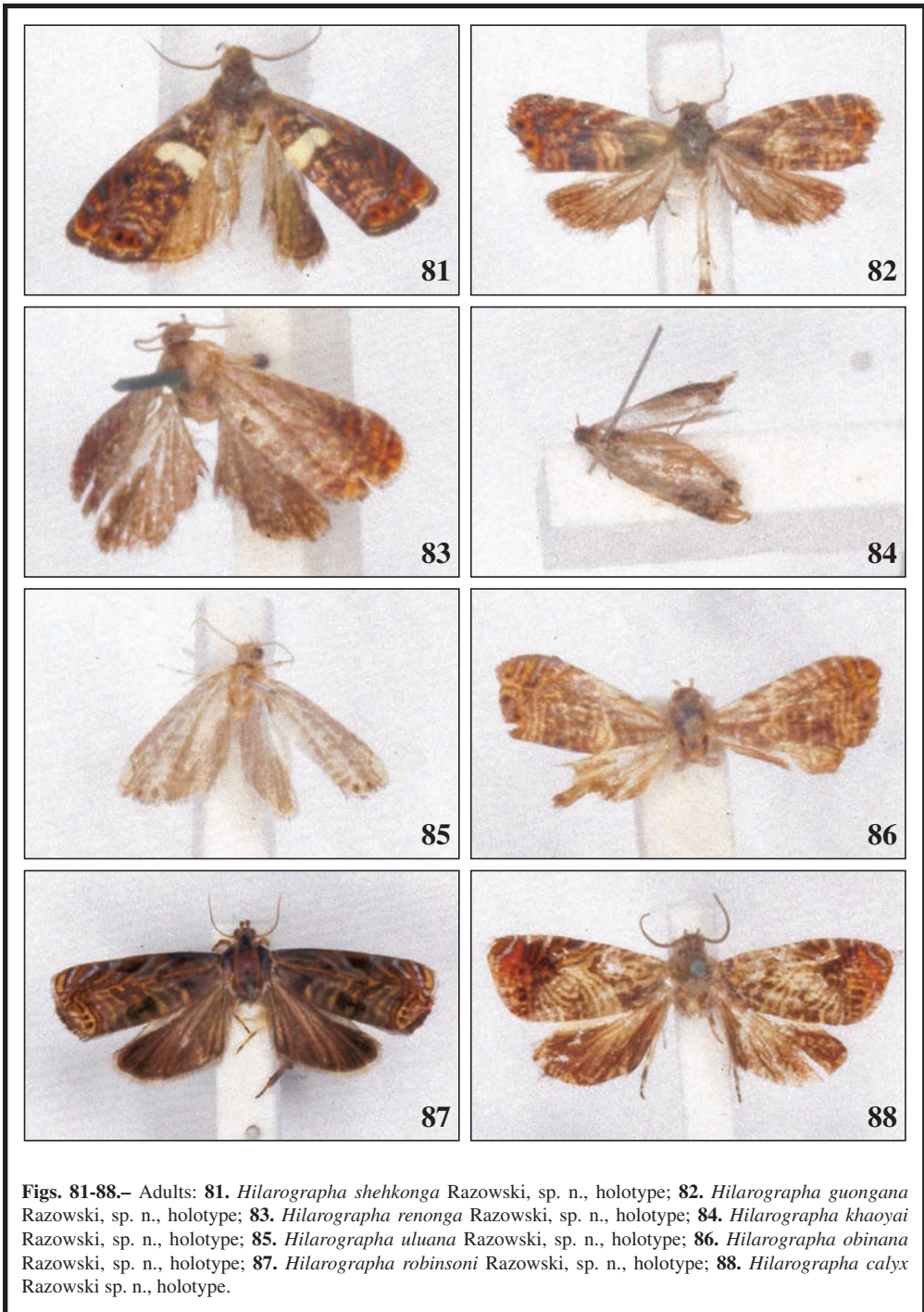
**Figs. 57-64.**— Adults: **57.** *Hilarographa pahangana* Razowski, sp. n., holotype; **58.** *Hilarographa celebesiana* Razowski, sp. n., holotype; **59.** *Hilarographa baliana* Razowski, sp. n., holotype; **60.** *Hilarographa perakana* Razowski, sp. n., holotype; **61.** *Hilarographa mechanica* Meyrick, Khasias Hills, Assam; **62.** *Hilarographa ancilla* Razowski, sp. n., holotype; **63.** *Hilarographa meekana* Razowski, sp. n., holotype; **64.** *Hilarographa soleana* Razowski, sp. n., holotype.



**Figs. 65-72.**— Adults: **65.** *Hilarographa gentinga* Razowski, sp. n., holotype; **66.** *Hilarographa johnbradleyi* Razowski, sp. n., holotype; **67.** *Hilarographa excellens* (Pagenstecher), Talesea, New Britain; **68.** *Hilarographa fergussonana* Razowski, sp. n., holotype; **69.** *Hilarographa auroscripta* Razowski, sp. n., holotype; **70.** *Hilarographa hainanica* Razowski, sp. n., holotype; **71.** *Hilarographa marangana* Razowski, sp. n., holotype; **72.** *Hilarographa buruana* Razowski, sp. n., holotype.



**Figs. 73-80.**— Adults: **73.** *Hilarographa buruana* Razowski, sp. n., paratype; **74.** *Hilarographa bosavina* Razowski, sp. n., holotype; **75.** *Hilarographa sipiroca* Razowski, sp. n., holotype; **76.** *Hilarographa rampayoha* Razowski, sp. n., holotype; **77.** *Hilarographa uthaithani* Razowski, sp. n., holotype; **78.** *Hilarographa tasekia* Razowski, sp. n., holotype; **79.** *Hilarographa temburonga* Razowski, sp. n., holotype; **80.** *Hilarographa muluana* Razowski, sp. n., holotype.



**Figs. 81-88.**— Adults: **81.** *Hilarographa shehkonga* Razowski, sp. n., holotype; **82.** *Hilarographa guongana* Razowski, sp. n., holotype; **83.** *Hilarographa renonga* Razowski, sp. n., holotype; **84.** *Hilarographa khaoyai* Razowski, sp. n., holotype; **85.** *Hilarographa uluana* Razowski, sp. n., holotype; **86.** *Hilarographa obinana* Razowski, sp. n., holotype; **87.** *Hilarographa robinsoni* Razowski, sp. n., holotype; **88.** *Hilarographa calyx* Razowski sp. n., holotype.