ANNALES HISTORICO-NATURALES MUSEI NATIONALIS HUNGARICI
Tomus 78. Budapest, 1986 p. 205–218.

On the taxonomy and zoogeography of some Palaearctic and Indo-Australian Plusiinae (Lepidoptera, Noctuidae)*

by L. RONKAY, Budapest

Abstract — Descriptions of three new species, *Macdunnoughia hybrida* sp. n., *Trichoplusia indica* sp. n. and *Polychrysia marmorea* sp. n., notes on the taxonomic status of *Autographa khinjana*, sp. bona and *Diachrysia chrysitis generosa* ssp. bona. Records of *Plusiinae* species from Korea, India, Vietnam, Ceylon, Australia and New Guinea from the collection of the Hungarian Natural History Museum are given. With 1 photoplate and 30 figures.

1. DESCRIPTION OF THREE NEW SPECIES

Macdunnoughia hybrida sp. n. (Plate: 1–2)

Holotype: ♂, "N Korea, Prov. North Pyongan, Mt. Myohyang-san, near Hotel Myohyang, No. 663, leg. Forró et Topál, 13. IX. 1980" "Gen. prep. No. 226 L. Ronkay", deposited in the Hungarian Natural History Museum, Budapest (HNHM). — Paratypes: 18 ♂♂+5 ♀♀: from same locality and data. 1 ♀: from same locality, 12. IX. 1980. 1 ♂+1 ♀: from same locality, 14. IX. 1980; 1 ♂ Korea, Pyongyang City, 10. IX. 1980, leg. Forró and Topál, No. 633. 1 ♂; Korea, Pyongyang City, Mt. Ryongak-san, 27. VII. 1982, leg. Forró and Ronkay, No. 870. 1 ♀: Korea, Prov. S Hwanghae, Sariwon, 28. IX. 1978, leg. Vojnits and Zombori, No. 423. 1 ♂+3 ♀: Korea, Prov. Kangwon, Mt. Kumgang-san, 18. IX. 1980, leg. Forró and Topál, No. 705. 1 ♂: from same locality, 9–11. VII. 1977, leg. Á. Dely-Draskovits and O. Dely, No. 351. All the specimens are deposited in the HNHM Budapest. — 1 ♂: China, Mukden, Dong Ling, 10. V. 1959, Ing. Vlad Zouhar, in the Zoologische Staatssammlung Munich. — Slides: Nos 91, 210, 213, 214, 217, 219, 220, 221, 223, 229, 1025, 1032, 1033, 1320, 1789, 1902, 1903 (males), 215, 216, 222, 224, 225, 227, 228 (females).

Description — Head reddish brown with some greyish hairs, collar dark red-brown with two whitish arches and some orange-red scales. Thorax reddish brown with silvery-white margins, metathoracic tuft with orange-brown tip. Fore wing purple grey with some silvery grey shade and strong reddish-brown irroration in median field. Basal line short, fine silvery white line defined with brown, antemedial double, upper part pale, brownish, lower part strong, straight, silvery-white, outer brownish shadow wide. Orbicular small, oblique, flattened, lower part of it finely encircled with a silvery line, reniform with silvery grey outline, constricted at middle and with a silver streak above lower third, filling of reniform brownish. Darkest part of wing the medial area below the cell, deep red-brown with a velvet shade and more or less strong orange-brown irroration, strongest at lower extremity of stigma. Stigma bilobate or conjoined, large, brilliant silvery. Postmedial line double, rather pale, upper part with purplish grey shadow at outer edge, its filling grey, lower part silvery, mostly at inner margin. Subterminal sinuous, brown, upper part crossed through a bronze-brown field, defined by a dark shadow at apex. Terminal line blackish, defined by a white line from apex to vein cu_1.

Cilia grey with dark patch at vein m_3. Hind wing cupreous brown, veins covered with brown, terminal area wide, dark. Cellular lunule and transversal line obsolescent, cilia white with brown spots. Underside of wings ochreous brown, fore wing strongly covered with dark brown except at place of stigma and inner margin. Transversal line clearly visible, terminal line light. Hind wing with more or less dark brownish irroration, cellular lunule and transversal line dark, terminal area

*Zoological Collectings by the Hungarian Natural History Museum in Korea, No. 80.

darker with some ochreous scales. Cilia whitish with dark spots. Alar expanse 33–36 mm, length of fore wing 16–18 mm.

Male genitalia (Figs 1–2): Uncus long and slender, tegumen wide and moderately high, fultura inferior long and slightly pointed. Vinculum very long and less sclerotized. Valvae arcuate, cucullus narrow, outer margin dentated, corona absent. Costal margin strongly curved, clavus very long and thin, sacculus with two basal appendages and a large distal lobe; these lobes asymmetric, right lobe more elongate and larger. Aedoeagus moderately long, slightly curved, ventral sclerotized ribbon strong, basally furcated. Vesica everted ventrally, basal part with a spinulose lamina and a slender, arcuate cornutus on ventral side. Apical part of vesica with two diverticles, one of them with fine spicules on upper side. Ventral surface with two rows of strong cornuti, caudal surface with a globular diverticle covered with fine spinules.

Female genitalia (Fig. 25): Papillae anales less chitinized, gonapophyses long and thin. Ostium bursae granulate, ductus bursae wide. Apex bursae with sclerotized crests, corpus bursae narrow at middle, fundus wider, rounded; signum large, round.

Distribution: Korea, China, Japan (Sugi, pers. comm.), Amur Region (USSR).

Specific differences and systematic position — The new species with its morphological characters shows an interesting intermediate status between the related species, *M. confusa* (STEPHENS, 1850) and *M. crassisigna* (WARREN, 1913). Externally *M. hybrida* is very similar to *M. crassisigna* (Plate: 3) with its large, bilobate or conjoined stigma and the strong silvery streak at the outer edge of the reniform spot, which is absent in *M. confusa*. The third related species, *M. monosigna* CHOU et LU, 1979 has a reduced silvery pattern, the stigma is only a small spot and the streak of the reniform is absent. The configuration of the male genitalia also shows very special differences. Both *confusa* (Figs 3–4) and *crassisigna* (Figs 5–7) have symmetric, long saccular lobes and wide, ribbon-like basal cornutus in the vesica. (The differences between *confusa* and *crassisigna* are well-known, i. e. *crassisigna* has twice as many and much stronger cornuti in the vesica than in the case of *confusa* and the saccular appendage near to the ampulla is much longer). The new species has asymetric, smaller saccular lobes, the valvae are more arcuate, the basal cornutus in the vesica is much more slender — but its sclerotization is stronger —, armatures of cornuti show an intermediate form between the two species mentioned above; the shape of saccular appendages is similar to that of confusa. The third species, *monosigna* also has asymetric saccular lobes, but these are longer, the basal cornutus of vesica, similarly to *confusa* and *crassisigna*, is wide. The female genitalia are very similar to those of *confusa* (Fig. 26) but the bursa copulatrix is constricted at middle stronger. On the basis of its morphological characters, the new species should be placed between *confusa* and *crassisigna*. These three species occur sympatrically in Korea, Japan, probably also in China and in the Amur-Region.

Remarks — The new species was mentioned in a previous article as *Macdunnoughia* sp. (RONKAY 1982). Studies on the type of *M. rhopalosema* (HAMPSON 1913) have pointed out that the type specimen of *rhopalosema* is conspecific with the type of *crassisigna*, consequently the Korean species should be a distinct new one. It was found during investigations on the types of the presumed relatives that both of the two species mentioned previously as a members of the genus *Macdunnoughia*, namely *camptosema* (HAMPSON 1913) (Plate: 4–5) and *schalisema* (HAMPSON 1913) belong to the genus *Autographa* HÜBNER, 1821. The first species was already mentioned as *Autographa* by WILTSHIRE in 1971 without the note "stat. n.", the second is known only from the unique type, although Dufay described a new species from Burma (*emmetra* DUFAY, 1978) which may be synonymous with *schalisema* by as judged from the description and the photo. The genitalia of the types of these two species are figured on Figs 18–19, 30.

Trichoplusia indica sp. n. (Plate: 6)

Holotype ♂: "India, Shimoga District, Karnataka, Jog Falls, 500 m, 2 March 1980, leg. Gy. Topál, No. 167", "Gen. prep. No, 713 L. Ronkay". Deposited in the HNHM, Budapest.

Description: Head dark reddish-brown, palpi relatively short, with violet-brown hairs and scales on outer side. Collar and thorax violet brown, margins rosy grey, abdomen light brown with some bronze shade, dorsal crest consisting of dark brown tufts, anal tufts very small, ochreous brown. Fore wing carneous grey with metallic bronze shade, brownish and greyish irroration. Basal line double, inner side blackish-brown, outer side dark brown, fine, basal field partly covered with rosy grey, mostly on veins; in middle part with an oblique, obsolescent darker stripe. Antemedial line double, brown, strongly sinuous at costa, oblique and more or less straight below the cell, filled with pink. Darkest part of wing the medial area, mostly below cell with dark brown irroration. Filling of cell lighter, carneous grey, orbicular, flattened, oblique, encircled with pink, filled with dark brown and some blackish spots. Reniform rather obsolescent with very fine pinkish outline and dark brown spots inside. Stigma silvery white, U-shaped, outer extremity somewhat wider, filling of stigma carneous. Postmedial line strongly sinuous, double, brownish filled with pinkish and with rosy grey shadow on both sides. Subterminal line strongly waved, dark shadow on inner side wide, diffuse. Terminal field with whitish line consisting of conjoined spots defined by some darker brown spots, terminal line rosy-white with black spots inside, cilia brownish with darker spots. Hind wing ochreous white, cellular lunule very pale, transversal line consisting of some darker spots on veins, veins partly covered with brown. Marginal field wide, dark brown with a darker line at middle. Terminal line consisting of dark brown spots defined by fine white line inside. Cilia whitish with some dark spots. Underside ochreous, fore wing strongly irrorated with brown. Outer part of cell very dark, this field nearly unicolorous, only shadow of stigma slightly visible. Terminal line a row of dark spots, cilia whitish with darker pattern. Hind wing with dark stripe from transversal line to middle of terminal area, cellular lunule narrow, terminal line orange, cilia whitish with dark brown spots. Alar expanse 29 mm, length of fore wing 14 mm.

Male genitalia (Figs 10–11): Uncus long and pointed, tegumen high, fultura inferior a rounded, less sclerotized lamina, vinculum slender, relatively long. Valvae elongate, narrow, cucullus rounded, corona slightly developed. Clavus finger-like, long, ampulla wide-based, strong and pointed, slightly curved, sacculus short, upper part of it strongly sclerotized. Aedoeagus moderately long and thick, ventral ribbon furcate, rather strong, continued distally in a sclerotized appendage. Vesica with a basal spinulate zone and two strongly curved, large cornuti near to distal end of aedoeagus.

Distribution: India.

Specific differences and systematic position — The new species is similar in its appearence to *Trichoplusia hedysma* (DE JOANNIS, 1929) (*-scelionis* CHOU et LU, 1979, **syn. n.**) but it is darker, its stigma is smaller, silvery and not whitish, the outer margin of the valvae without a rounded extension near to apex, the clavus is much shorter, the vesica is with only two cornuti (*hedysma* has two bundles of spiniform cornuti). The new species also resembles to the species of the genus *Acanthoplusia* DUFAY, 1970 but the forewing of *indica* is shorter, less acute, the stigma is smaller. The configuration of the male genitalia is quite different the valvae are without spines on the outer edge (this character appears in the genus *Acanthoplusia* only in case of *herbuloti* DUFAY, 1982), the vesica has only two cornuti while the vesica of *Acanthoplusia* species have a different armature consisting of a dentated lamina, a spinulose field and cornuti. Based on its morphological characters the new species should be placed next to *hedysma* but the morphological distance between the two is large.

Polychrysia marmorea sp. n. (Plate: 7)

Holotype ♀: "Siao-Lou, Chasseurs indigenes du P. Déjean, 1903", "coll. K. Höfer", "spec. ?.", Gen. prep. No. 1661 L. Ronkay, deposited in the Naturhistorisches Museum, Wien.

Description: head and thorax dark red-brown, frons with whitish stripe, labial palp with dark brown scales, third joint relatively short, about $^3/_5$ of length of second joint. Base of collar fiery red, upper margin whitish, metathoracic tuft large, reddich brown with whitish tip. Fore wing pinkish grey with more or less strong brilliant bronze-brownish irroration. Basal line simple, brown, with very pale whitish shadow, basal field with wide brownish stripe being increasingly narrower

from costa to inner margin. Antemedial line strong, double, cupreous brown filled with pinkish, defined by narrow lines of ground colour on both sides. Medial area with very strong bronze-brown irroration, medial line dark brown, slightly diffuse. Orbicular only a darker shadow, reniform obsolescent, outline with darker lateral parts, filling of reniform brownish, stigma absent. Postmedial line pale at costa, strong and double from cell to inner margin, subterminal line only slightly sinuous, originating near to apex, a fine pinkish line with darker brown shadow on inner side. Terminal area pinkish grey except at apex, the latter brownish. Terminal line blackish with fine pinkish line from apex to vein m_3. Cilia pinkish with brown spots. Hind wing pale ochreous brown with some cupreous shade. Terminal area, veins and medial field with brownish irroration, cellular lunule and transversal line well discernible, terminal line dark, cilia pinkish with brown spots. Underside pale ochreous with some orange-brown shade at margins. Inner area of fore wing covered with brown, cellular lunule and transversal line dark, medial line and subterminal line also visible as pale shadow. Hind wing lighter, stripe of medial area and transversal line strong, dark brown, cellular lunule absent. Cilia pale pinkish with brown spots. Alar expanse 39 mm, length of fore wing 19 mm.

Female genitalia (Fig. 27): Papillae anales slightly sclerotized, small and rounded, gonapophyses moderately long, thin. Ostium bursae more or less funnel-like, wide, membranous, ductus bursae strongly sclerotized, long and thin, bursa copulatrix elongate, apical part wider and rounded, corpus bursae long, narrow.

Distribution: China (Tibet)

Specific differences and systematic position — The new species by its morphological characters represents a transitional state between the genera *Polychrysia* HÜBNER, 1821 and *Panchrysia* HÜBNER, 1821. The shape of the wings resembles that of the the species of *Polychrysia*, mostly to *splendida* (BUTLER, 1878) and *sica* (GRAESER, 1890), the colouration and the absence of the stigma of *marmorea* is unique in the group. The third joint of the palp is shorter than in the case of members of this genus but it is somewhat longer than those of the *Panchrysia* species. The shape of the bursa copulatrix is more or less similar to that of *Polychrysia aurata* (STAUDINGER, 1888), the ductus bursae is longer than that of *aurata* but shorter than in the case of *splendida* and *sica*. Species of the genus *Panchrysia* have shorter bursa copulatrix, the ductus bursae is similar or much longer and less sclerotized. The known locality of *marmorea* is relatively far from the distribution of the related *Polychrysia* species, so the new species seems to be a highly isolated member of the genus.

2. TAXONOMIC NOTES ON SOME PLUSIINAE TAXA

Autographa khinjana WILTSHIRE, 1961 sp. bona

The taxon was described by WILTSHIRE in 1961 as a subspecies of *pulchrina* (HAWORTH, 1802) on the basis of the great differences in their colouration. He did not find any significant differences in the configuration of male genitalia of these two taxa. In fact the configuration of the male genitalia of the *Autographa* species is rather similar and the specific characters of the related species, in the shape of the valvae and the cornutus, are often not well discernible; the specific differences in the female genitalia are more spectacular. Studies on the everted vesica of *Autographa* species showed the structure of vesica to be very characteristic for the species and the differences between the two closely related taxa may be surprisingly large (for example in the species-pair *pulchrina* and *buraetica* (STAUDINGER 1892), (see Figs 21, 24). Detailed study of the genitalia of both sexes of *khinjana* have shown that *khinjana* represents a distinct species which is taxonomically very far from *pulchrina*. The whole male copulatory apparatus of *khinjana* is smaller than that of *pulchrina* and the ampulla is relatively longer. The differences in the configuration of vesica are much larger, the vesica of *khinjana* being longer, slightly S-shaped, the lateral diverticulum is reduced, the cornutus is ventrally erected, without large basal plate, the distal part of the

vesica is dilated (Fig. 23). The differences in the female genitalia are also well descernible, the ductus bursae of *khinjana* (Fig. 29) is much longer than in the case of *pulchrina* (Fig. 28), it is joined to the bursa copulatrix at the apical third, not near to the apex, and the bursa copulatrix is without a sclerotized extension at the lower part of the apex bursae. — In summary, *khinjana* represents a distinct species distributed allopatrically with the related species.

Diachrysia chrysitis generosa ssp. bona

The species *generosa* (STAUDINGER, 1900) was downgraded by KOSTROWICKI (1961) on the basis of the strong similarity of their male genitalia to a form of *chrysitis*. Since then *generosa* has been found in the Caucasus Region, Iran (Elburs), and Afghanistan and as recently shown, it is distributed from Anatolia to Afghanistan. In the largest part of its range it occurs allopatrically with *chrysitis*, but in the Caucasus the two species can be found virtually sympatrically. This sympatric occurrence is only a virtual phenomenon as *chrysitis* lives in the humid Mediterranean-Subtropical territories of the Black Sea Coast while *generosa* inhabits the xerotherm mountainous slopes, mainly in bare places. As the morphological differences are very slight and overlapping, even in case of the characters of vesica, *generosa* should be considered as a highly isolated subspecies of *chrysitis*.

3. DISTRIBUTION DATA OF PLUSIINAE FROM THE COLLECTION OF THE HUNGARIAN NATURAL HISTORY MUSEUM

A) Further data of Plusiinae from Korea from the collectings of the HNHM in 1982 and 1985.

Anadevidia hebetata (BUTLER, 1889) — 2 ♂, 1 ♀: Prov. North Pyongan, Mt. Myohyang-san, 13. VII. 1982, No. 783 leg. Forró and Ronkay. 1 ♂, 2 ♀: from same locality, 14. VII. 1982, No. 793 leg. Forró and Ronkay. 1 ♂: from same locality, 16. VII. 1982, No. 812 leg. Forró and Ronkay. 2 ♂, 1 ♀: from same locality, 17. VII. 1982, No. 821 leg. Forró and Ronkay. 2 ♂: from same locality, 18. VII. 1982, No. 829 leg. Forró and Ronkay. — 1 ♀: Prov. Kangwon, Mt. Kumgang-san, 23. VII. 1982, No. 859 leg. Forró and Ronkay. 1 ♂: from same locality, 24. VII. 1982, No. 861 leg. Forró and Ronkay. 1 ♀: from same locality, 25. VII. 1982, No. 865 leg. Forró and Ronkay.

Macdunnoughia confusa (STEPHENS, 1850) — 1 ♀: Prov. North Pyongan, Mt. Myohyang-san, 14. VII. 1982, No. 793 leg. Forró and Ronkay.

Macdunnoughia hybrida sp. n. – The localities and data are given in the Part 1.

Macdunnoughia crassisigna (WARREN, 1913) — 1 ♂: Prov. North Pyongan, Mt. Myohyang-san, 14. VII. 1982, No. 793, leg. Forró and Ronkay. 1 ♂: from same locality, 18. VII. 1982, No. 829, leg. Forró and Ronkay. — 1 ♂: Prov. Kangwon, Mt. Kumgang-san, 24. VII. 1982, No. 861, leg. Forró and Ronkay. — 1 ♂: 2 ♀, Pyongyang City, Mt. Ryongak-san, 27. VII. 1982, No. 870, leg. Forró and Ronkay. — Slides Nos 1023, 1027, 1028, 1030 (males), 1026, 1031 (females).

Macdunnoughia (Puriplusia) purissima (BUTLER, 1878) — 2 ♂: Prov. North Pyongan, Mt. Myohyang-san, 13. VII. 1982, No. 783, leg. Forró and Ronkay. 2 ♂: 1 ♀ from same locality, 14. VII. 1982, No. 793, leg. Forró and Ronkay. 1 ♀: from same locality, 16. VII. 1982, No. 813, leg. Forró and Ronkay. 3 ♂: 1 ♀ from same locality, 17. VII. 1982, No. 821, leg. Forró and Ronkay. — 1 ♀: Prov. Kangwon, Mt. Kumgang-san, 23. VII. 1982, No. 859, leg. Forró and Ronkay. 1 ♀ from same locality, 24. VII. 1982, No. 861, leg. Forró and Ronkay. — 1 ♂: Prov. North Pyongan, Mt. Myohyang-san, 20. V. 1985, No. 927, leg. Vojnits and Zombori. 1 ♂: from same locality, 22. V. 1985, No. 939, leg. Vojnits and Zombori.

Erythroplusia rutilifrons (Walker, 1858) — 1 ♂: Pyongyang City, Mt. Daesong-san, 17. V. 1985, No. 923, leg. Vojnits and Zombori.

Erythroplusia pyropia (Butler, 1879) — 1 ♂: Prow. Kangwon, Mt. Kumgang-san, 23. VII. 1982, No. 859, leg. Forró and Ronkay.

Erythroplusia (Antoculeora) ornatissima (WALKER, 1858) — 1 ♀: Prov. North Pyongan, Mt. Myohyang-san, 13. VII. 1982., No. 783, leg. Forró and Ronkay. 1 ♂: from same locality, 18. VII. 1982, No. 829, leg. Forró and Ronkay.

Lamprotes mikadina (BUTLER, 1878) — 1 ♂: Prov. North Pyongan, Mt. Myohyang-san, 17. VII. 1982, No. 821, leg. Forró and Ronkay.

Diachrysia stenochrysis (WARREN, 1913) — 1 ♂: Prov. North Pyongan, Mt. Myohyang-san, 16. VII. 1982, No. 813, leg. Forró and Ronkay; slide No. 1877 Ronkay.

Diachrysia coreae (STRAND, 1916) — 1 ♂; Prov. North Pyongan, Mt. Myohyang-san, 18. VII. 1982, No. 829, leg. Forró and Ronkay.

Trichoplusia ni (HÜBNER, 1802) — 1 ♀: Prov. Kangwon, Mt. Kumgang-san, 22. VII. 1982, No. 850, leg. Forró and Ronkay. 1 ♂: from same locality, 23. VII. 1982, No. 859, leg. Forró and Ronkay. 1 ♂ from same locality, 25. VII. 1982, No. 865, leg. Forró and Ronkay. — 1 ♂, Pyongyang City, Mt. Ryongak-san, 27. VII. 1982, No. 870 leg. Forró and Ronkay.

Ctenoplusia agnata (STAUDINGER, 1892) — 1 ♂: Pyongyang City, Pyongyang, 9. VII. 1982, No. 761, leg. Forró and Ronkay. — 2 ♂: 4 ♀, Prov. Kangwon, Mt. Kumgang-san, 24. VII. 1982, No. 861, leg. Forró and Ronkay. 1 ♂, 1 ♀ from same locality, 25. VII. 1982, No. 865, leg. Forró and Ronkay.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 1 ♂: Kaesong City, Kaesong, 29. VII. 1982, No. 873, leg. Forró and Ronkay.

Autographa nigrisigna (WALKER, 1857) — 1 ♂, Prov. North Pyongan, Mt. Myohyang-san, 13. VII. 1982, No. 783, leg. Forró and Ronkay. 1 ♂ from same locality, 17. VII. 1982, No. 821, leg. Forró and Ronkay. — 1 ♀, Prov. Kangwon, Mit Kumgang-san, 24. VII. 1982, No. 861, leg. Forró and Ronkay. — 1 ♂: Kaesong City, Kaesong, 29. VII. 1982, No. 783, leg. Forró and Ronkay.

Syngrapha ain (HOCHENWARTH, 1785) — 1 ♀: Prov. North Pyongan, Mt. Myohyang-san, 13. VII. 1982, No. 783, leg. Forró and Ronkay. 1 ♂ from same locality, 14. VII. 1982, No. 793, leg. Forró and Ronkay.

Plusia festucae kamtshadala (BRYK, 1949) — 1 ♀: Pyongyang City, Pyongyang, 9. VII. 1982, No. 761, leg. Forró and Ronkay. — 1 ♂: Pyongyang City, Mt. Ryongak-san, 27. VII. 1982, No. 870, leg. Forró and Ronkay. — 1 ♂: 1 ♀, Kaesong City, Kaesong, 29. VII. 1982, No. 873, leg. Forró and Ronkay. 1 ♂: from same locality, 30. VII. 1982, No. 887, leg. Forró and Ronkay.

Remark — The specimen mentioned in a previous article from Korea as "*Autographa* sp." (RONKAY 1982) belongs to *Autographa amurica* (STAUDINGER, 1892).

B) Records of Plusiinae from India

Data from the material collected by E. and A. Bauer, Schliermann, presented by Mr. Hermann Hacker

Abbreviations:

"Iruttupallam" = S India, Tamil Nadu, Iruttupallam (25 km E Coimbatore), ca 500 m, 10° 57′ N 76° 45′ E, 18–26. 12. 1982, leg. E.+A. Bauer, Schliermann.

"Bolampatti" = S India, Tamil Nadu, Bolampatti Range (30 km E Coimbatore) ca 800 m, 10° 58′ N, 75° 51′ E, 20. 12. 1982, E.+A. Bauer, Schliermann.

"Silent Valley" = S India, Nilgiri Hills, Kunda Hills: Silent Valley, ca. 1000 m, 11° 05 N, 76° 27′ E, 10–14. 12. 1982, leg. E.+A. Bauer, Schliermann.

Trichoplusia reticulata (MOORE, 1882) (= *Argyrogramma brevistriata* CHOU et LU, 1979, **syn. n.**) — 1 ♂: 3 ♀, Silent Valley. 1 ♂+1 ♀: Iruttupallam. — Slides Nos 1433 (♂), 1343 (♀).

Trichoplusia obtusisigna (WALKER, 1857) — 1 ♂+1 ♀: Silent Valley; slide No. 1438 ♀ (Figs 14–15).

Trichoplusia orichalcea (FABRICIUS, 1775) — 2 ♂+1 ♀; Iruttupallam.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 1 ♂: Silent Valley.

Ctenoplusia furcifera (WALKER, 1857) (= *Argyrogramma yunnanensis* CHOU et LU, 1978, **syn. n.**) — 1 ♂+1 ♀: Silent Valley. 1 ♀: Iruttupallam. — Slides Nos 1436 (♀), 1347 (♂).

Ctenoplusia placida (MOORE, 1884) (= *Argyrogramma rhuscola* CHOU et LU, 1979, **syn. n.**) — 1 ♂: Iruttupallam. 1 ♂: Bolampatti. — Slide No. 1441.

Chrysodeixis minutus DUFAY, 1970 — 1 ♂: Silent Valley; slide No. 1443 (Figs 12–13).

Chrysodeixis permissa (WALKER, 1858) — 2 ♀: Silent Valley.

Chrysodeixis chalcites (ESPER, 1789) — 1 ♂ +2 ♀: Iruttupallam. 1 ♀, Silent Valley, slide No. 1432 (♀).

Chrysodeixis acuta (WALKER, 1857) — 1 ♂ +7 ♀: Iruttupallam. 1 ♂ +4 ♀: Silent Valley. 2 ♂ +4 ♀: Bolampatti.

Data from the collectings of Dr. Gy. Topál

Anadevidia peponis (FABRICIUS, 1775) — 1 ♂ +1 ♀: Daitari, Orissa, 21. XI. 1967, No. 921. 1 ♀ from same locality, 1. XII. 1967, No. 990.

Plusia (s. l.) pannosa (MOORE, 1882) — 2 ♀: Darjeeling, W. Bengal, 16. X. 1967, No. 839; slide No. 640.

Macdunnoughia (Puriplusia) tetragona (WALKER, 1857) (*Puriplusia zayuensis* CHOU et LU, 1980, **syn. n.**) — 1 ♂ +1 ♀: Darjeeling, W. Bengal, 16. X. 1967, No. 839; slides Nos 109 (♂), 172 (♀) (Figs 8–9).

Autographa nigrisigna (WALKER, 1857) — 1 ♀: Kashmir, Pahalgam, 3. VI. 1967, No. 426; slide No. 639.

Trichoplusia indica sp. n. — The description and data are given in Part 1.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 1 ♂: Daitari, Orissa, 22. XI. 1967, No. 921.

Chrysodeixis eriosoma (DOUBLEDAY, 1843) — 1 ♀: Daitari, Orissa, 1. I. 1967, No. 101. 1 ♀ from same locality, 24. XI. 1967, No. 937; slides Nos 615, 617.

Ctenoplusia acuta (WALKER, 1857) — 2 ♀: Darjeeling, W. Bengal, 6. X. 1967, No. 769; slides Nos 623, 625.

Records of Plusiinae from Vietnam collected by T. Dolinka, A. Manninger, T. Pócs and Gy. Topál

Zonoplusia ochreata (WALKER, 1865) — 1 ♂: Hanoi, 7–15. III. 1964, leg. Dolinka. 1 ♀ from same locality, 10. IV. 1966; leg. Topál; slide No. 633 (♂).

Trichoplusia lectula (WALKER, 1858) (= *Argyrogramma longisigna* CHOU et LU, 1979, **syn. n.**) — 1 ♂: Hanoi, 4–10. IX. 1963, leg. Manninger, 1 ♀: from same locality, 6–7. I. 1964, leg. Manninger; slide No 664 (♂). New to the fauna of Vietnam.

Trichoplusia intermixta (WARREN, 1913) — 1 ♂: Hanoi, 11–20. XII. 1963, leg. Manninger.

Acanthoplusia tarassota (HAMPSON, 1913) — 1 ♂: Prov. Lao-cai, Sa-pa, 24. IX. 1963, leg. Pócs; slide No. 177.

Ctenoplusia agnata (STAUDINGER, 1892) — 1 ♂: Hanoi, 7. VIII. 1963, leg. Pócs. 1 ♂ from same locality, 28. X. 1963, leg. Pócs. 3 ♂: from same locality, 4–10. XI. 1963, leg. Manninger. 1 ♂: from same locality, 12–19. XI. 1963, leg. Manninger. 1 ♂: from same locality, 19–20. XII. 1963, leg. Manninger. 1 ♂: from same locality, 2. I. 1964, leg. Dolinka; slides Nos 92, 174, 175, 176, 609, 634, 635. New to the fauna of Vietnam.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 1 ♂: Hanoi, 1–10. XII. 1963, leg. Manninger. — 1 ♂, Prov. Lao-cai, Sa-pa, 21. IX. 1963, leg. Pócs; slide No. 86.

Chrysodeixis acuta (WALKER, 1857) — 1 ♂ +4 ♀: Hanoi, 10. VIII. 1963, leg. Pócs. 2 ♀ from same locality, 11–19. XI. 1963, leg. Manninger. 1 ♀ from same locality, 7–15. III. 1964, leg. Dolinka. — 1 ♀: Prov. Lao-cai, Sa-pa, 21. IX. 1963, leg. Pócs; Slide No. 638 (♀).

Chrysodeixis eriosoma (DOUBLEDAY, 1843) — 1 ♀: Hanoi, 20–30. XI. 1963, leg. Manninger. 1 ♂: from same locality, 4–10. XI. 1963, leg. Manninger. 1 ♀: from same locality, 11–19. XI. 1963, leg. Manninger. 1 ♂: from same locality 1–20. XII. 1963, leg. Manninger. 1 ♂ +3 ♀: Prov. Lao-cia, Sa-pa, 20–24. IX. 1963, leg. Pócs. 2 ♂: Prov. Ha-Tinh, forest Hüöng-sön, 15. VIII. 1963, leg. Pócs; slides Nos 178, 612, 613, 616, 617 (males), 619, 622, 636, 637 (females).

Records of Plusiinae from Sri Lanka

Chrysodeixis permissa (WALKER, 1858) — 1 ♀: "Ceylon", slide No. 651.
Trichoplusia intermixta (WARREN, 1913) — 1 ♂: "Ceylon", slide No. 654.

Records of Plusiinae from Australia — a) Data of the Plusiinae material collected by G. Hangay, É. Herczeg and A. Vojnits on the joint expeditions of the Hungarian Natural History Museum and the Australian Museum during 1980 and 1981

Argyrogramma signata (FABRICIUS, 1792) (= *A. hainanensis* CHOU et LU, 1979, **syn. n.**) — 1 ♂; Conway Range National Park, E from Proserpine, NE Queensland, 18. II. 1981, No. 179.

Plusia (s. l.) nigriluna (WALKER, 1857) (= *Argyrogramma hokowensis* CHOU et LU, 1979, **syn. n.**) — 1 ♂, Conway Range National Park, E from Proserpine, NE Queensland, 17. II. 1981, No. 170; slide No. 1248. New to the fauna of Australia.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 3 ♀: Between Gympie and Tiaro, near Bruce Highway, E Queensland, 24. II. 1981, No. 252.

Chrysodeixis acuta (WALKER, 1857) — 1 ♀: Conway Range National Park, E from Proserpine, NE Queensland, 21. II. 1981, No. 214. 5 ♂: between Gympie and Tiaro, near Bruce Highway, E Queensland, 24. II. 1981, No. 252; slide No. 1250 (♂).

Chrysodeixis eriosoma (DOUBLEDAY, 1843) — 1 ♀: Conway Range National Park, E from Proserpine, NE Queensland, 17. II. 1981, No. 170. 1 ♀ from same locality, 18. II. 1981, No. 179. 1 ♀ from same locality, 22. II. 1981, No. 225. — 1 ♂ +1 ♀: between Gympie and Tiaro, near Bruce Highway, E Queensland, 24. II. 1981, No. 252; slide No. 1250 (♂).

Chrysodeixis argentifera (GUENÉE, 1852) — 1 ♀: Fowlers Gap: near Silver City Highway, N from Broken Hill, New South Wales, 1. I. 1981, No. 30. 1 ♀: Round Hill, near Lake Cargillego, New South Wales, 12. I. 1981, No. 95.

b) Data of the collectings of M. Tóth and B. Molnár

Chrysodeixis affluens (GUENÉE, 1852) — 1 ♂: Canberra, 11. XI. 1980, leg. M. Tóth.

Chrysodeixis argentifera (GUENÉE, 1852) — 71 ♂ +47 ♀: Canberra, X–XII. 1980, leg. M. Tóth. 1 ♂ +1 ♀: Camira, 22 km SW or Brisbane, 16. XII. 1981, leg. B. Molnár.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 2 ♂: Camira, 22 km SW or Brisbane, 24. I. 1982, leg. B. Molnár.

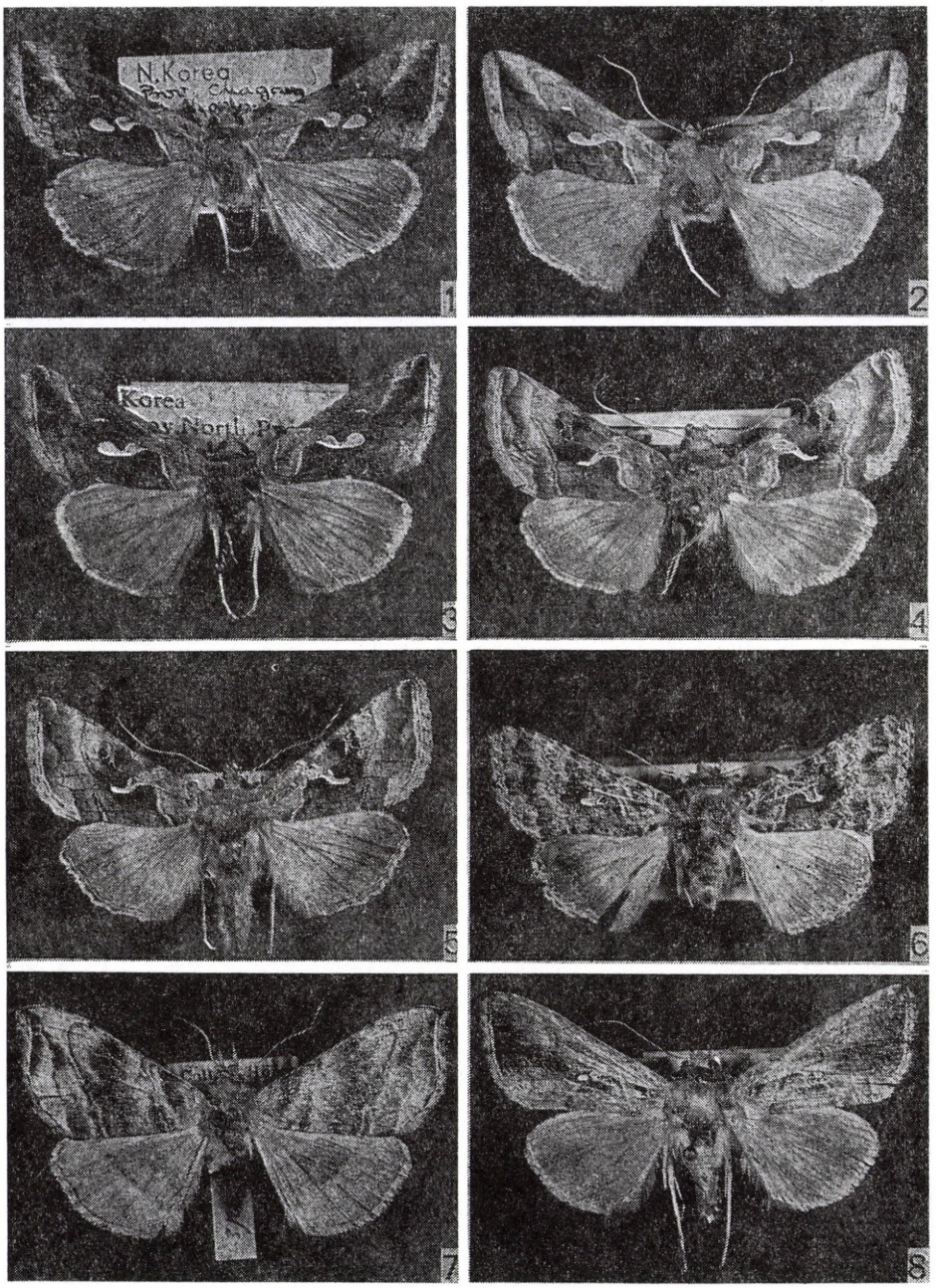
c) Data of the material collected by G. Hangay at Narrabeen, 80 Gondola Road, N Sydney, in February 1983.

Chrysodeixis argentifera (GUENÉE, 1852) — 12 ♂ +17 ♀.
Chrysodeixis affluens (GUENÉE, 1852) — 12 ♂ +13 ♀.
Chrysodeixis eriosoma (DOUBLEDAY, 1843) — 1 ♂ +2 ♀.
Ctenoplusia albostriata (BREMER et GREY, 1853) — 1 ♀.

Records of Plusiinae from New Guinea — a) Data of the material collected by G. Hangay in Papua New Guinea, Prov. Western Highlands, Jimi River, Jimi Valley between 21 and 27, July 1981.

1 = *Macdunnoughia hybrida* sp. n.: holotype, Korea
2 = *Macdunnoughia hybrida* sp. n.: paratype, China
3 = *Macdunnoughia crassisigna* WARREN: Korea
4 = *Autographa camptosema* HAMPSON: Aksu
5 = *Autographa camptosema* HAMPSON: Alai Mts.
6 = *Trichoplusia indica* sp. n.: holotype, India
7 = *Polychrysia marmorea* sp. n.: holotype, China
8 = *Chrysodeixis dinawa* BETHUNE-BAKER: Papua New Guinea

Plate



Trichoplusia lectula (WALKER, 1858) — 1 ♂ +2 ♀ ; slide No. 1175 (♂).

Chrysodeixis dinawa (BETHUNE-BAKER, 1906) (Plate: 8) — 1 ♂; slide No. 1176 (Figs. 16–17).

Chrysodeixis kebeae (BETHUNE-BAKER, 1906) — 1 ♂; slide No. 1177.

Plusiopalpa adrasta (FELDER, 1874) — 2 ♂; slide No. 1174.

b) Data of the collectings of L. Móczár

Anadevidia peponis (FABRICIUS, 1775) — 1 ♀ : Wau, 17. IX. 1972.

Argyrogramma signata (FABRICIUS, 1792) — 1 ♂ : Wau, 20. IX. 1972.

Trichoplusia orichalcea (FABRICIUS, 1775) — 1 ♂ : Wau, 13. IX. 1972. 1 ♀ : from same locality, 18. IX. 1972. 1 ♀ : from same locality, 27. IX. 1972. — 2 ♀ : Mt. Kaindi, 11. IX. 1972.

Ctenoplusia furcifera (WALKER, 1857) — 1 ♀ : Wau, 13. IX. 1972; slide No. 728.

Ctenoplusia albostriata (BREMER et GREY, 1853) — 6 ♀ : Wau, 12–27. IX. 1972.

Chrysodeixis eriosoma (DOUBLEDAY, 1843) — 1 ♂ : Wau, 13. IX. 1972. 1 ♀ : from same locality, 27. IX. 1972. — 2 ♂ : Mt. Kaindi, 11. IX. 1972. — Slide Nos 725, 1240 (males), 726 (female).

c) Data of the collectings of L. Biró

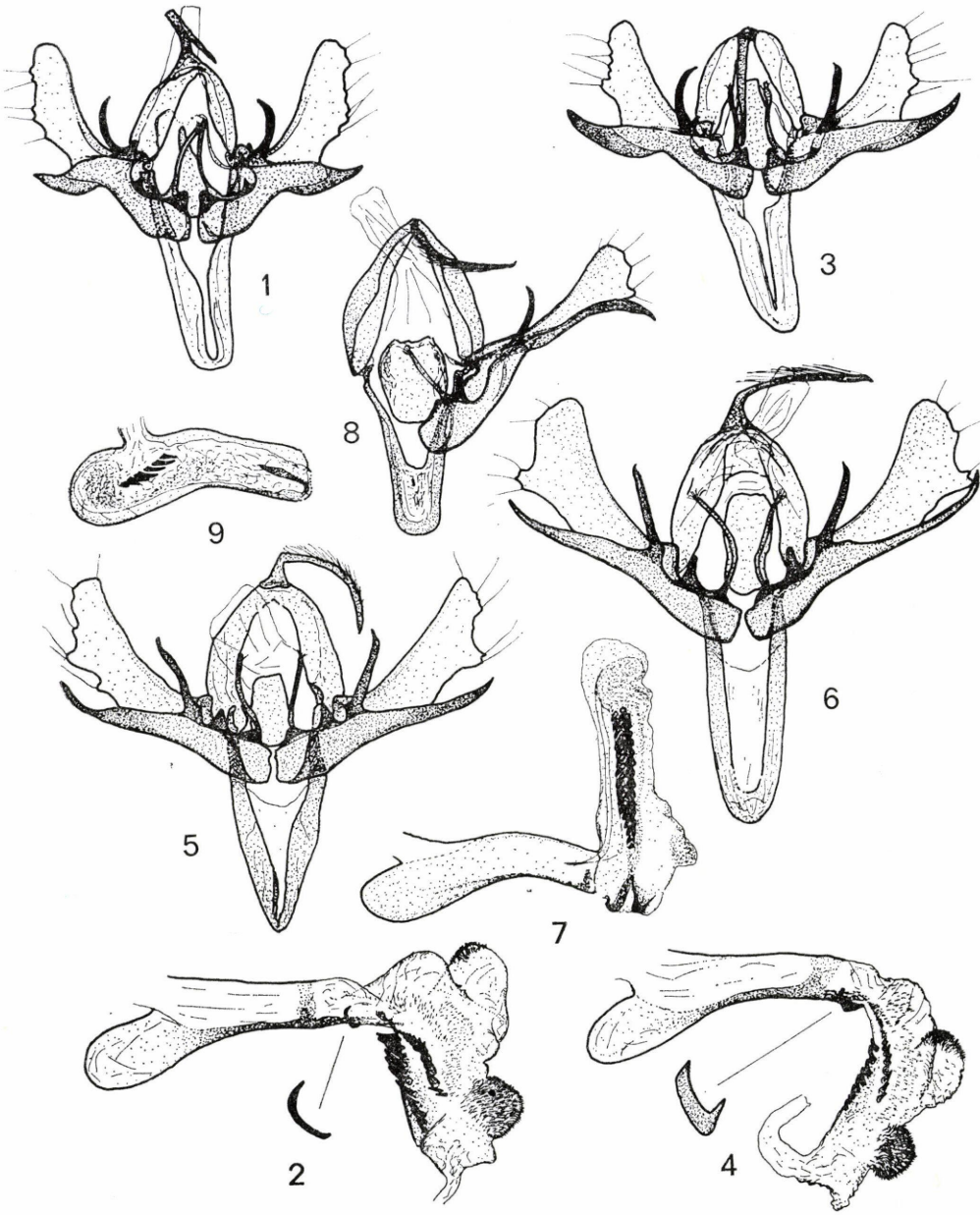
Argyrogramma signata (FABRICIUS, 1792) — 1 ♂ : Erima, slide No. 657. 1 ♂ : Amboina, slide No. 650.

Zonoplusia ochreata (WALKER, 1865) — 1 ♀ : Mt. Oertzen, 1897.

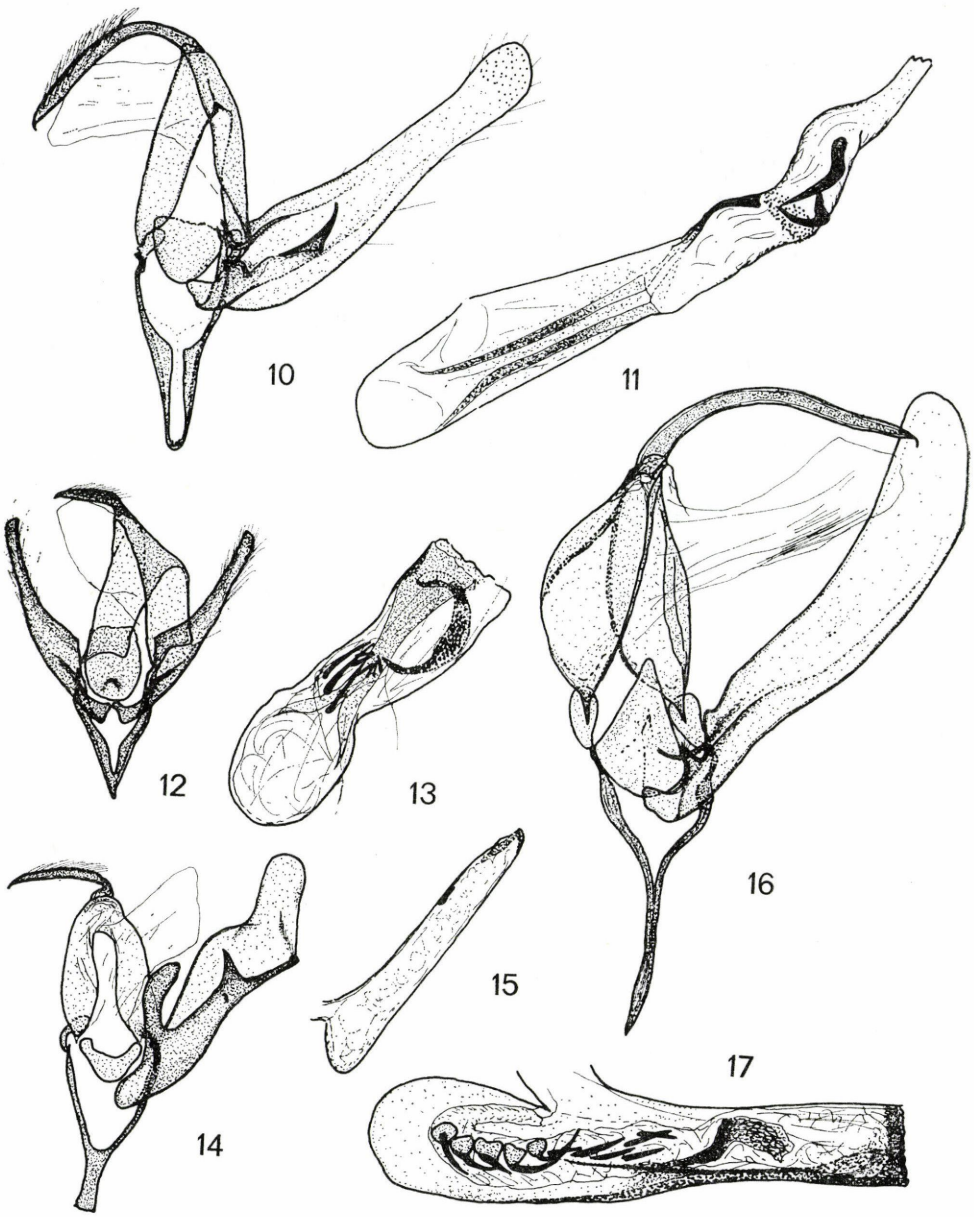
* * *

A c k n o w l e d g e m e n t — I would like to express my thanks to the late Dr. Alan Hayes (London), Dr. W. Dierl (Munich), Dr. L. Kobes (Göttingen), H. Hacker (Staffelstein), Prof. Dr. H. J. Hannemann (Berlin), Mrs. E. Vartian and Dr. F. Kasy (Vienna), Dr. Z. Korsós (Budapest), Dr. V. I. Kuznetsov and Dr. I. L. Sukhareva (Leningrad), Dr. Z. F. Kljutshko (Kiev), Dr. Chou Io (Wugong, China) and S. Sugi (Tokyo) for their kind help.

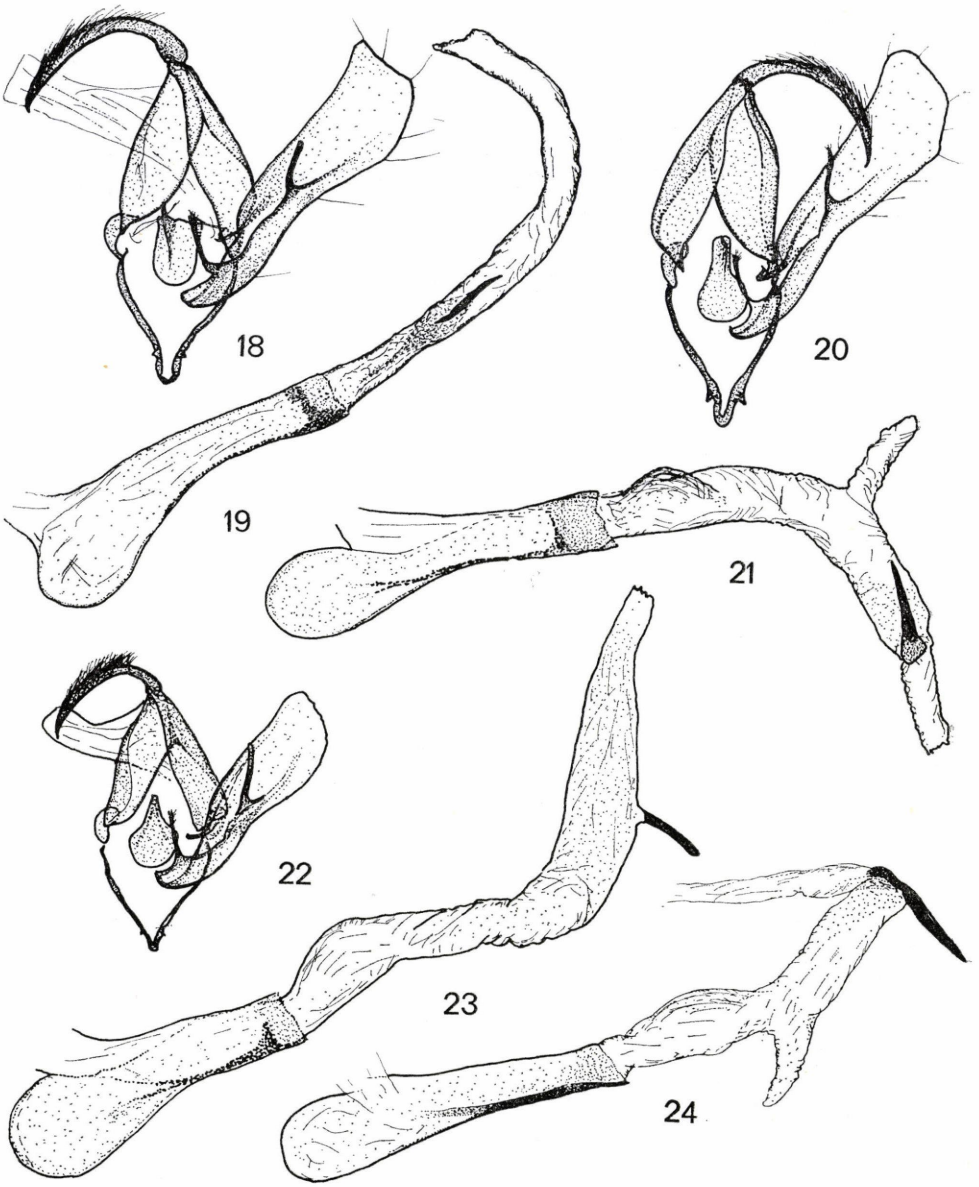
Author's address: DR. L. RONKAY
Zoological Department
Hungarian Natural History Museum
Budapest, Baross utca 13.
H-1088



Figs 1–2. *Macdunnoughia hybrida* sp. n.: paratype, slide No. 1902, Korea. — Figs 3–4. *M. confusa* STEPHENS: slide No. 1901, Italy. — Figs 5–7. *M. crassisigna* WARREN: 5 = holotype of *rhopalosema* HAMPSON, slide No. 4382 BMHN, Nilgiri, 6–7 = holotype of *crassisigna*, slide No. 4387 BMNH, Japan. — Figs 8–9. *M. tetragona* WALKER, slide No. 109, India



Figs 10–11. *Trichoplusia indica* sp. n.: holotype, slide No. 713, India. — Figs 12–13. *Chrysodeixis minutus* DUFAY: slide No. 1443, India. — Figs 14–15. *Trichoplusia obtusisigna* WALKER: Type, slide No. 4423 BMNH, Sri Lanka (Ceylon). — Figs 16–17. *Chrysodeixis dinawa* BETHUNE-BAKER: slide No. 1176, New Guinea



Figs 18–19. *Autographa camptosema* HAMPSON: holotype, slide No. 4384 BMNH, Kashmir. — Figs 20–21. *A. pulchrina* HAWORTH: slide No. 1872, Germany. — Figs 22–23. *A. khinjana* WILTSHIRE: slide No. 1873, Afghanistan. — Fig. 24. *A. buraetica* STAUDINGER: slide No. 1898, Siberia

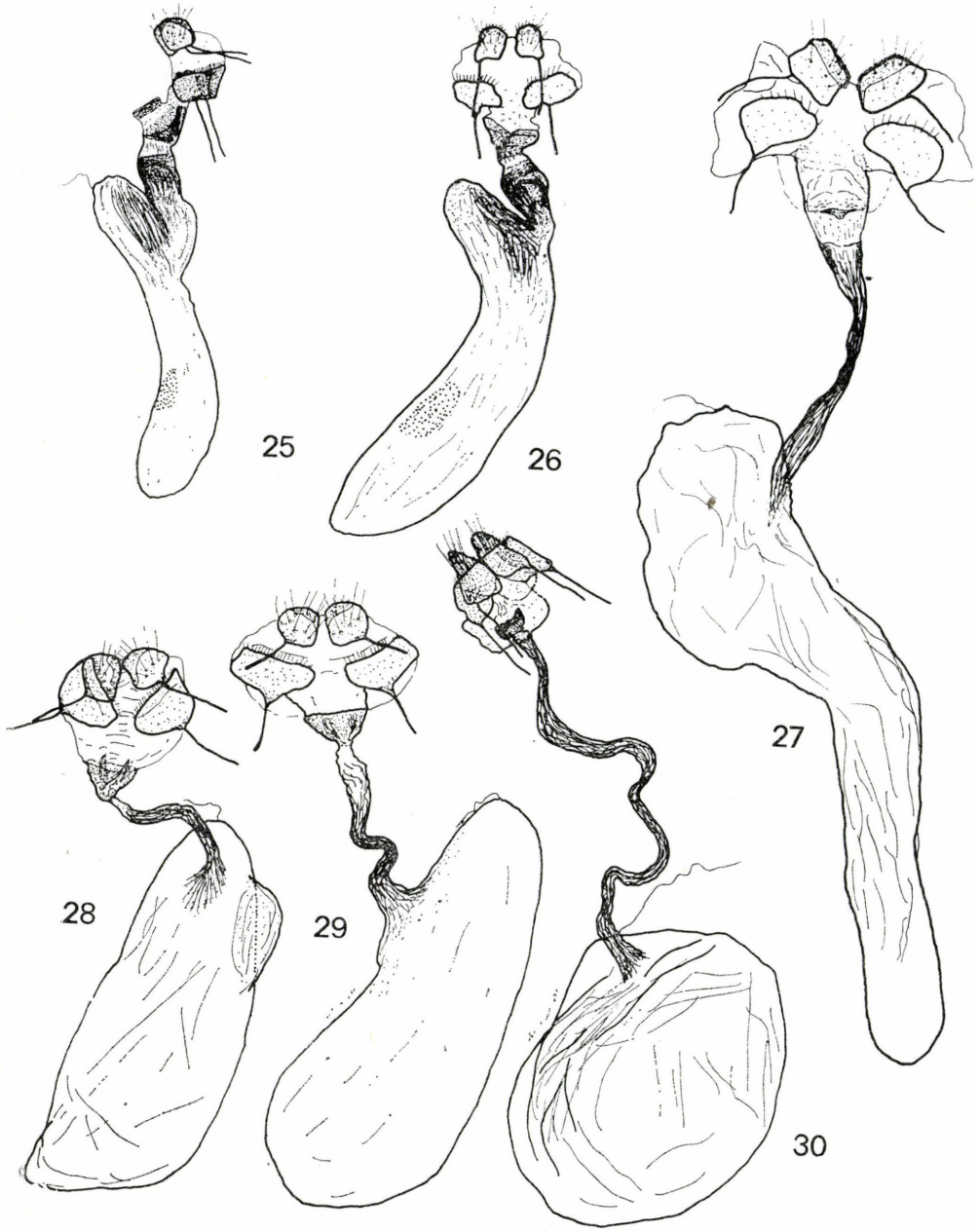


Fig. 25. *Macdunnoughia hybrida* sp. n.: paratype, slide No. 228, Korea. — Fig. 26. *M. confusa* STEPHENS: slide No. 1024, Korea. — Fig. 27. *Polychrysia marmorea* sp. n.: holotype, slide No. 1661, China. — Fig. 28. *Autographa pulchrina* HAWORTH: slide No. 545, Austria. — Fig. 29. *A. khinjana* WILTSHIRE: slide No. 536, Afghanistan. — Fig. 30. *A. schalisema* HAMPSON: holotype, slide No. 4385 BMNH, China