

## **Gelechiidae (Lepidoptera) of Taiwan IV. Genus *Helcystogramma* Zeller, with Description of a New Species**

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### **ABSTRACT**

Five species of *Helcystogramma* are reviewed; four are new combinations with *Heleystogramma*, and *H. hassenzanensis* is new to science. A key to species and illustrations of the adults, labial palpus, and male and female genitalia are provided. *Anathysotis* Meyrick is proposed to be a junior synonym of *Helcystogramma*, and *Anathysotis ceriochranta* Meyrick is synonymized with *H. trijunctum* (Meyrick). *Helcystogramma macroscopum* (Meyrick) is placed as a junior synonym of *H. triannulella* (Herrich-Schäffer).

Key words: Systematics. Lepidoptera. Gelechiidae. Dichomeridinae. *Anathysotis*. *Autosticha*. *Helcystogramma*. *Brachmia*. Taiwan

### **INTRODUCTION**

The genus *Helcystogramma* Zeller, 1877 comprises about 80 species throughout the world. Most occur in the Oriental and Neotropical regions, and none is known from New Zealand or Hawaii (Hodges, 1986). Among them five species occur in Palaearctic Region, viz., *lineolella* (Zeller), *rufescens* (Haworth), *cinerea* (Caradja), *inerudita* (Meyrick), and *triannulella* (Herrich-Schäffer). The genus is extremely similar to *Brachmia* Hübner, 1818 in characters other than the male genitalia and abdominal structure. Due to the similarity, many species of *Helcystogramma* have been erroneously placed in *Brachmia*. Recently, Hodges (1986) transferred 25 species from *Brachmia* to *Helcystogramma*. He stated the differences between two genera as follows: *Helcystogramma* males have a secondary radial retinaculum (see Hodges, 1986: 124, fig. 29f) on the undersurface of the

forewing and lack a juxta, whereas *Brachmia* males lack the secondary retinaculum but have a well-developed juxta in the male genitalia; females of *Helcystogramma* have paired, often pointed sclerites on the dorsal wall of the antrum; they are absent in *Brachmia*. He also stated that males may have secondary sex scales on the undersurface of the forewing at the base and on the 2nd abdominal sternum; however, none of the Taiwanese species has such scales. However, *H. hassenzanensis* has a different kind of scale-tuft on the undersurface of the anterior margin of the forewing (Fig. 18). *Helcystogramma* is defined by the following characters: Second segment of labial palpus sickle-shaped, without well-developed scale-tufts ventrally; ocellus absent; forewing of male with a well-developed secondary radial retinaculum on the under surface; hindtibia with weak scale-tuft dorsally; male genitalia with uncus elongate and caudal margin rounded or acute; gnathos hook-shaped; juxta absent, vinculum rather narrow in saccal region, with broad-based lobes arising from lateral arms; aedeagus free, with a spherical base, usually lacking cornutus and heavily sclerotized lateral lobes. The biology of the genus is poorly known. Larvae usually are leaf rollers and tiers on Poaceae, Convolvulaceae, and Asteraceae (Hodges, 1986).

Some species that were previously placed in *Brachmia* should be transferred to *Autosticha* Meyrick (Oecophoridae, Autostichinae), viz., *kyotoensis* Matsumura from Japan and *opaca* Meyrick from southern China. Only *Helcystogramma triannulella* (Herrich-Schäffer) has been previously reported from Taiwan. Two species of *Brachmia* that were described from Taiwan, *B. insuavis* Meyrick and *B. ioplaca* Meyrick, probably belong to *Helcystogramma*, but are not treated because we have been unable to study the type specimens. *Anathyrstis* Meyrick, a monotypic genus, is proposed to be a junior synonym of *Helcystogramma* because its type species, *A. ceriocranta* Meyrick is a junior synonym of *Helcystogramma trijunctum* (Meyrick) [syn. nov.]. *A. ceriocrhanta* Meyrick and *H. trijunctum* (Meyrick) were described from the same locality and date (China, Mt. Omei, 4,000 feet, July).

### Genus *Helcystogramma* Zeller, 1877

*Helcystogramma* Zeller, 1877, Horae Soc. Ent. Rossicae, 13, p. 369 (Type-species: *Gelechia* (*Helcystogramma*) *obseratella* Zeller, 1877 = *Gelechia hibisci* Stainton, 1859).

*Ceratophora* Heinemann, 1870, p. 325 (Type-species: *Recurvaria rufescens* Haworth, 1828), preoccupied.

*Teuchophanes* Meyrick, 1914, p. 274 (Type-species: *T. leucopleura* Meyrick, 1914).

*Psamathoscopa* Meyrick, 1937, p. 96 (Type-species: *Onebala simplex* Walsingham, 1900).

*Anathyrstis* Meyrick, 1939, p. 55 (Type-species: *A. ceriocrhanta* Meyrick, 1939), syn. nov.

### Key to species of *Helcystogramma* in Taiwan

1. Third segment of labial palpus smooth scaled, slender; male with uncus rounded distally; 8th tergum with U-shaped emargination on anterior margin ..... 2
- Third segment of labial palpus with scale tuft; male with uncus pointed apically; 8th tergum with more or less straight anterior margin ..... 4
2. Forewing with a distinct dark-brown semicircular blotch on hind margin ..... *hibisci* (Stainton)
- Forewing without such distinct blotch ..... 3
3. Forewing yellowish brown with yellowish-orange streaks; 8th tergum rather triangular

- ..... *arotraeum* (Meyrick)
- Forewing dark brown with two eye-spots in discal cell; 8th tergum rather semiovate  
 ..... *triannulella* (Herrich-Schäffer)
- 4. Hindwing with a row of seta-like scales near base of Sc on the under surface  
 ..... *hassenzanensis* n. sp.
- Hindwing without such scales ..... *trijunctum* (Meyrick)

***Helcystogramma hibisci* (Stainton), comb. nov. (Figs. 1-5, 28A)**

*Gelechia* (?) *hibisci* Stainton, 1859. Trans. Ent. Soc. Lond. (2)5, p. 117.

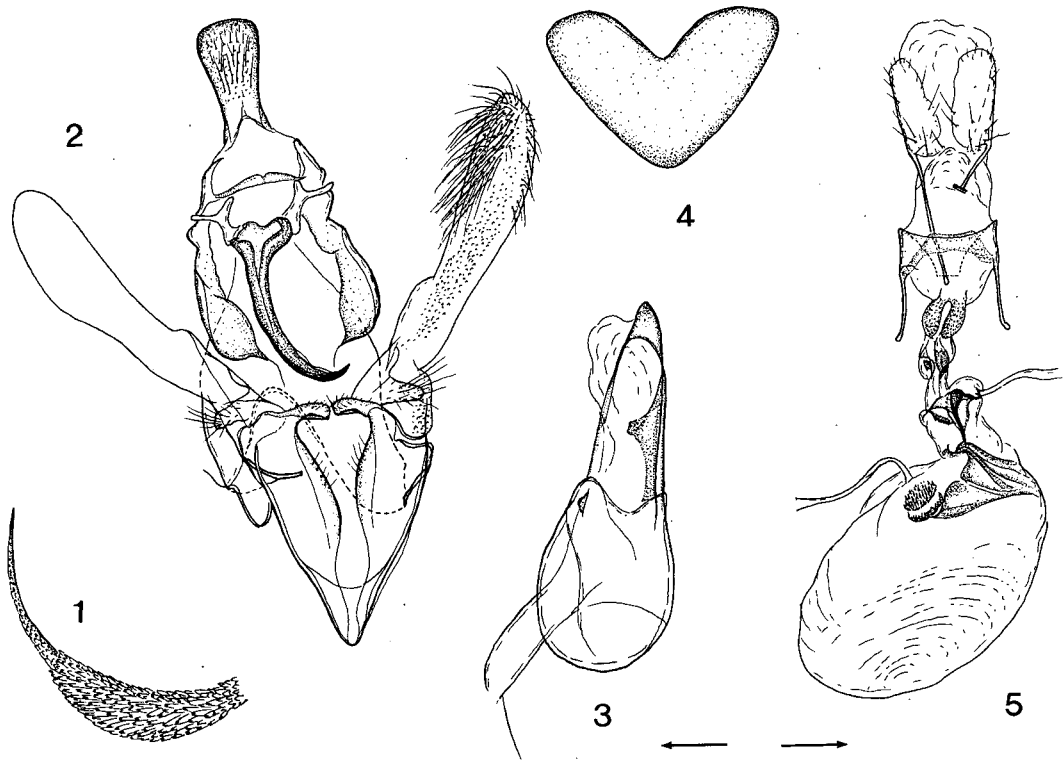
*Onebala hibisci*: Meyrick, 1925, p. 138; Gaede, 1937, p. 377.

*Gelechia* (*Helcystogramma*) *obseratella* Zeller, 1877, Horae Soc. Ent. Ross. 13, p. 371.

*Croesophora eudela* Turner, 1919, Proc. Roy. Soc. Queensland, 31, p. 160.

**Description.** Forewing length, 5.0-6.5 mm. Second segment of labial palpus sickle-shaped, thickened with appressed scales as illustrated (Fig. 1); 3rd segment slender, about equal to 2nd in length. Anterior margin of forewing gently curved; with a large dark-brown semicircular blotch on posterior margin mesially, extending more than half distance across wing, a smaller similar mark beyond cell, a broad preapical pale fascia extending from 2/3 length of anterior margin to tornus; apex slightly produced; R<sub>3</sub> separate, R<sub>4</sub> and R<sub>5</sub> stalked beyond middle.

Male genitalia (Figs. 2-3). Uncus dilated distally, densely setose on dorsal surface. Gnathos long and



**Figs. 1-5.** *Helcystogramma hibisci* (Stainton): 1, labial palpus; 2, male genitalia; 3, aedeagus; 4, eighth tergum; 5, female genitalia. (Unit of scale: 0.5 mm).

stout. Valva with anterior margin broadly lobed at basal 2/5. Ventral membranous lobe at near base digitate, with long setae; vinculum with well-developed lobes, arising from lateral arms and directed mesially; saccal region rather acute. Aedeagus globular at base, sclerotized apically, with a rather broad internal lobe. Eighth tergum (Fig. 4) with deep, V-shaped indentation on anterior margin.

Female genitalia (Fig. 5). Apophyses anteriores about  $1/2 \times$  as long as apophyses posteriores. Antrum broad, rugose laterally. Ductus bursae short, with lateral ridges; anterior half broad with bell-shaped sclerite; ductus seminalis arising from the broad anterior part. Corpus bursae ovate, 2-3 broad ridges horizontally; accessory bursae arising from wall of signum; signum forms round plates bearing dense denticles.

**Type locality.** Calcutta, India.

**Material examined.** 1 ♂, Tainan Co., Kansirei, 19 Oct. 1934 (S. Issiki), gen. prep. USNM-11564/Hodges; 1 ♀, Taiwan, without date label (S. Issiki), gen. prep. USNM-11565/Hodges; 1 ♂, Pingtung Co., Kenting Bot. Garden, 10-14 July 1980 (D. Davis); 1 ♂, 1 ♂, Pingtung Co., Kenting Park, 50 m, 1-5 Sep. 1983 (J. B. Heppner).

**Distribution.** Widely distributed in the Oriental region. S. China, Taiwan (new record), India, Sri Lanka, Java, and Australia (Queensland).

**Host.** Stainton (1859) referred to the larva feeds on the top of the yellow *Hibiscus*.

### ***Helcystogramma arotraeum* (Meyrick) (Figs. 6-10, 28B)**

*Cladodes arotraea* Meyrick, 1894, Trans. Ent. Soc. London, 1894. p. 15.

*Brachmia arotraea*: Meyrick, 1911, p. 722; Gaede, 1937, p. 534; Clarke, 1969a, p. 354, pl. 176, fig. 3.

*Helcystogramma arotraeum*: Hodges, 1986, p. 122.

**Description.** Forewing length, 6.0-6.2 mm. Labial palpus (Fig. 6) generally similar to that of the preceding species, but 2nd segment slightly narrower and 3rd thicker. Forewing slightly dilated distally, apex rather pointed; ground colour yellowish brown, with yellowish-orange longitudinal streaks along veins; two distinct discal spots near middle and end of cell, one short streak posterad of cell on fold. Male with secondary radial retinaculum on under surface. Hindwing pale gray.

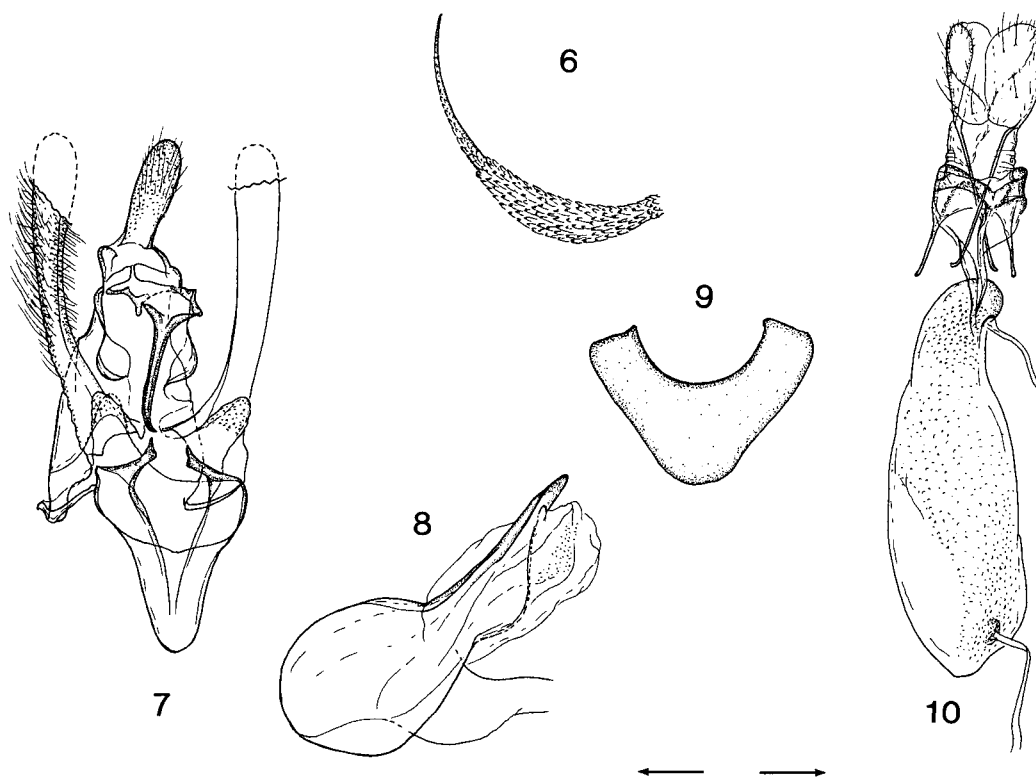
Male genitalia (Figs. 7-8): Uncus rather elongated, with round caudal margin. Ganthos hook-shaped, slender. Valva nearly attaining apex of uncus, slender; membranous lobe broad basally, spatulate. Basal lobe of vinculum slender, directed mesially, apex of lobe heavily sclerotized with pointed apex; saccal region narrow, but rather rounded distally. Aedeagus with globular base, apex sclerotized, rather acute. Eighth tergum (Fig. 9) with anterior margin emarginate, semicircular.

Female genitalia (Fig. 10). Ductus bursae short, about  $1/3$  as long as corpus bursae; ductus seminalis arising from junction with corpus bursae. Corpus bursae elongate, with dense spicules on inner surface; accessory bursa arising from near anterior end; signum lacking.

**Type locality.** Myanmar.

**Material examined.** 1 ♂, Taipei Co., Taihoku (= Taipei), 18 June 1946 (S. Issiki), gen. prep. USNM-11612/Hodges; 1 ♂, Taihoku, 5 July 1946 (S. Issiki); 1 ♀, same locality, 2 Sep. 1946 (S. Issiki); 1 ♀, same locality, 11 Sep. 1946, gen. prep. USNM-11613/Hodges.

**Additional specimens examined.** 1 ♂, label indicated as 1) "Pusa, Bengal, T. B. F. 1. IX. 1911", 2) "*Brachmia arotraea* Meyr."; 1 ♀, 1) "Pusa, Bengal, A. M. 26.VII.1906", 2) "3988", 3) "*Brachmia*



**Figs. 6-10.** *Helcystogramma arotraeum* (Meyrick): 6, labial palpus; 7, male genitalia; 8, aedeagus; 9, eighth tergum; 10, female genitalia. (Unit of scale: 0.5 mm).

*arotraea* Meyr."; 1 ♂, 1) "Koni, Burma, NM 188", 2) "Comp. with type, *Brachmia arotraea* Meyrick, det. J.F.G.C. 1949", 3) "11/2, E. Meyrick det. in Meyrick Coll."; 1 °, 1) " Khasi Hills, Assam, 9. 1906", 2) "*Brachmia arotraea* Meyrick, 11/3, E. Meyrick det. in Meyrick Coll."

**Distribution.** Taiwan (new record), Myanmar, India, Java, and Japan.

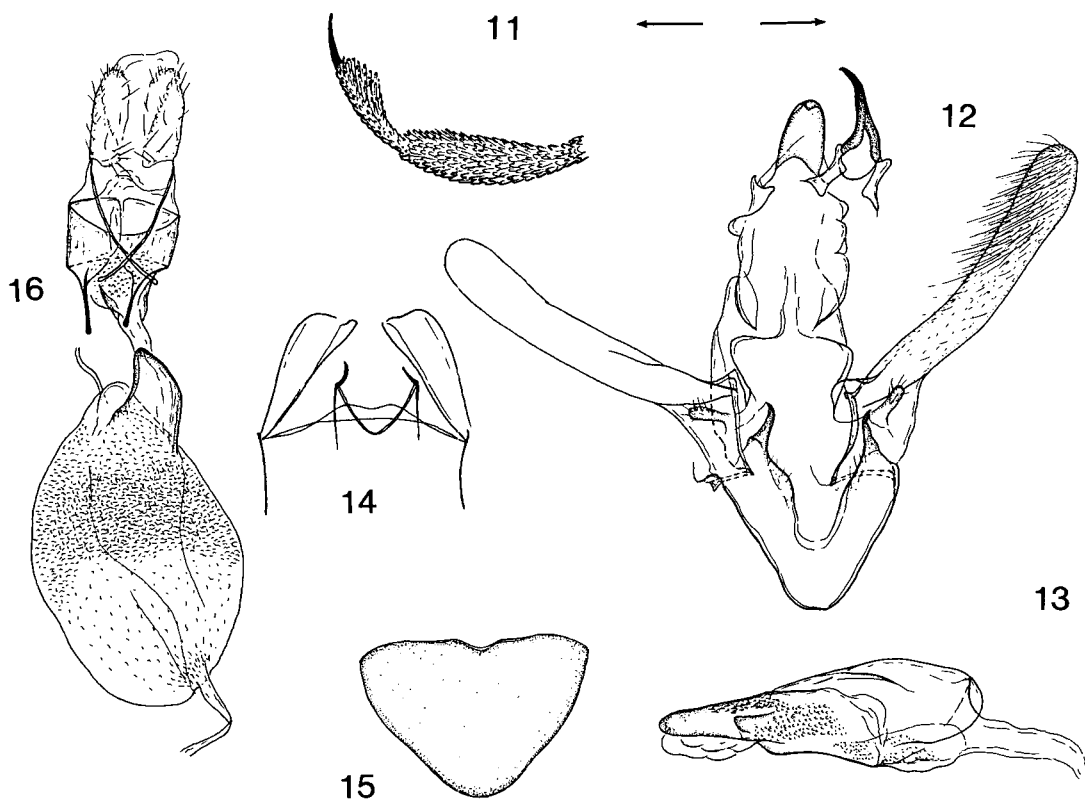
**Host.** Unknown.

**Remarks.** Extremely similar to the North American species *H. hystricella* (Braun) in superficial and genital characters. Male with uncus much broader distally and lateral lobe of vinculum more massive in *hystricella* (gen. prep. USNM-11968) than for *H. arotraeum*; female of *arotraeum* with ductus bursae uniformly slender and accessory bursa arising from near anterior end of corpus bursae, of *hystricella* (gen. prep. USNM-11969) with antrum broadly V-shaped, ductus bursae relatively broad, and accessory bursa arising at 2/3-3/4 length of corpus bursae. This species is widely distributed in the Oriental and Palaearctic regions, from N. India to the southern part of Japan.

***Helcystogramma trijuntum* (Meyrick), comb. nov. (Figs. 11-16, 28C)**

*Orsodytis trijuncta* Meyrick, 1934, Exot. Microl., 4, p. 513; Clarke, 1969b, p. 272, pl. 136, figs. 2a-2b.

*Anathyrstotis ceriochranta* Meyrick, 1939, Trans. R. Ent. Soc. London, 89, p. 55, **syn. nov.**; Clarke, 1969a, p. 254, pl. 126, figs. 1-1d.



**Figs. 11-15.** *Helcystogramma trijunctum* (Meyrick): 11, labial palpus; 12, male genitalia; 13, aedeagus; 14, 1st and 2nd segment of abdomen; 15, eighth tergum; 16, female genitalia. (Unit of scale: 0.5 mm).

**Description.** Forewing length, 6.0-6.5 mm. Second segment of labial palpus (Fig. 11) with rough scales dorsally, dark brown on outer surface; 3rd segment shorter than 2nd, dark brown with some rough scales dorsally, yellowish white apically. Forewing with fuscous fascia from base to 1/2 length on anterior margin; a large, triangular costal blotch nearly connected to fuscous fascia arising from posterior margin at 1/4 length; postmedian line incurved, dark brown beyond it; a well-developed blackish tuft posterad of cell on fold near middle, other smaller ones near middle and end of cell.

Male genitalia (Figs. 12-13). Uncus with pointed apex. Valva slender, with nearly parallel margins, basal lobe digitate. Lobe of vinculum tapering to sharply pointed apex; saccal region rounded. Aedeagus with sclerotized, broadly rounded apex, with numerous spicules. Eighth tergum (Fig. 15) with nearly straight anterior margin. Base of abdomen as in Fig. 14.

Female genitalia (Fig. 16). Antrum broad. Ductus bursae very short; ductus seminalis arising from near junction with corpus bursae. Corpus bursae ovate, large; posterior half of corpus bursae with more dense spicules on inner surface; accessory bursa arising from anterior end.

**Type locality.** Mt. Omei, W. China.

**Material examined.** 1 ♂, Pintung Co., Raisya, 24 Nov. 1934 (S. Issiki); 1 ♂, Nantou Co., Kirsato (= Tungli), 1 June 1943 (S. Issiki), gen. prep. USNM-11575/Hodges; 2 ♂, 1 ♀, Kaohsiung Co., 1-2 km W. Meishan, 29 June-2 July 1980 (D. Davis), gen. prep. USNM-87357/Park (♂) and 87358/Park (♀); 1 ♀, Taichung Co., Chingshan, 1,100 m, 31 Aug.-4 Sep. 1988 (J. B. Heppner et H.

Wang); 1 ♂, Kaohsiung Co., Liukuei For. Stn., 750 m, 29 Apr-3 May 1989 (J. B. Heppner et H. Wang).

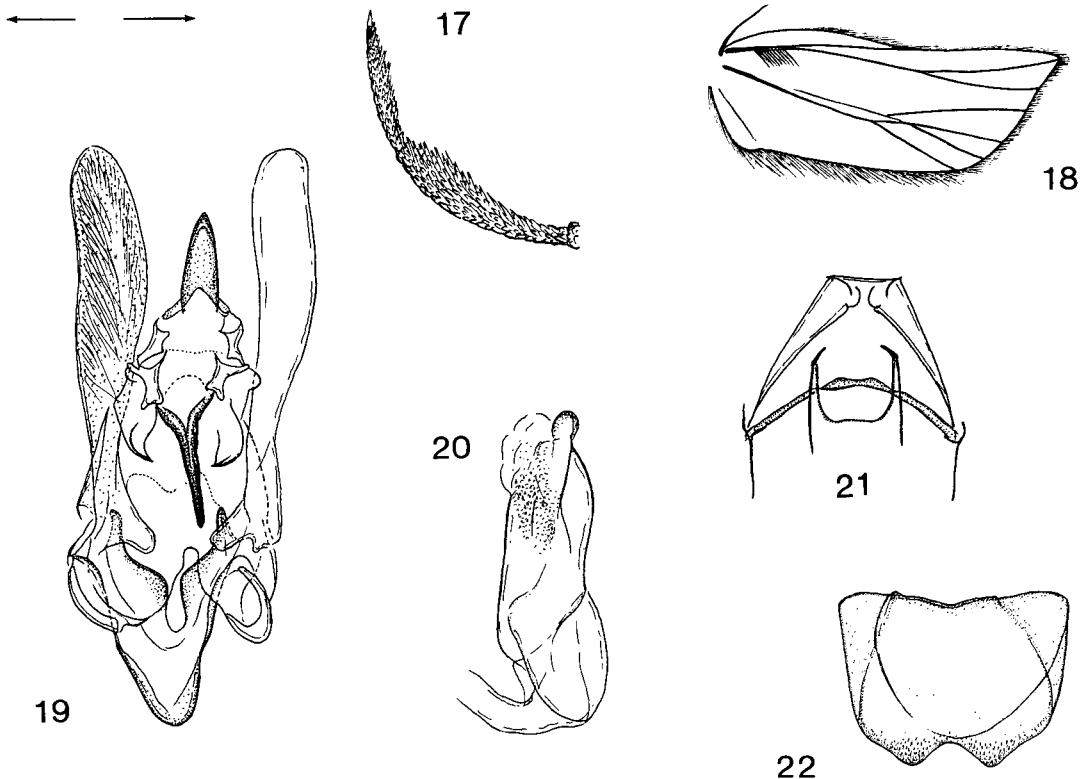
**Additional specimens examined.** 1 ♂ (lacks abdomen), labels indicated as 1) "Mt. Omei, W. China, 4,000 f.", 2) "Comp. with type, *Orsodytis trijuncta* Meyrick, Det. J. F.G.C. 1949," 3) "*Orsodytis trijuncta* Meyrick, 3/2, E. Meyrick det. in Meyrick Coll.; 1 ♂, 1) "Mt. Omei, China, 7, 29", 2) "Comp. with type, *Anathyrstotis ceriochranta* Meyrick, Det. J. F. G. C., 1949, Genotype", 3) "*Anathyrstotis ceriochranta* Meyrick, 2/2, E. Meyrick, det. in Meyrick Coll".

**Distribution.** Taiwan and W. China.

**Remarks.** This species was described from the western China, Mt. Omei (4,000 feet, July) based on a female. A male specimen from the same locality as the type is represented in Issiki's collection (abdomen missing) is conspecific with the latter in superficial characters. The female genitalia of a Taiwanese specimen (USNM-87358) agrees well with the photo of the type specimen illustrated by Clarke (1969b: 272, fig. 2).

***Helcystogramma hassenzanensis* sp. nov. (Figs. 17-22, 28D)**

**Description.** Forewing length, 6.0-7.5 mm. Head, thorax and tegula dark brown. Antenna with short sensory scales ventrally. Ocellus absent. Second segment of labial palpus sickle-shaped (Fig. 17) thickened with appressed scales ventrally and rough erect scales dorsally, brownish orange speckling



**Figs. 17-22.** *Helcystogramma hassenzanensis* Park et Hodges: 17, labial palpus; 18, hindwing; 19, male genitalia; 20, aedeagus; 21, 1st and 2nd segment of abdomen; 22, eighth tergum. (Unit of scale: 0.5 mm).

with dark-brown scales on inner and outer surface; 3rd segment stout, much shorter than 2nd, roughly scaled dorsally; apex yellowish orange, acute. Forewing greatly dilated distally, ground color uniformly grayish brown, with three well-developed scale tufts: before middle, near end of cell, and posterad of cell on fold; margin with several yellowish short streaks from beyond 3/4 length of anterior margin to tornus; postmedian line inconspicuous, being darker beyond it; R<sub>3</sub> separate, R<sub>4</sub> and R<sub>5</sub> stalked. Hindwing gray, with a well-developed setae on R near base on under surface (Fig. 18). Female: unknown.

Male genitalia (Figs. 19-20): Uncus sharply pointed caudally, heavily sclerotized. Gnathos hook-shaped. Valva exceeding apex of uncus, dilated beyond middle and then slightly narrowed; without basal lobe. Vinculum with digitate lateral lobe directed distally, inner margin convex mesially; saccal region with round apex. Eighth tergum subtrapezoidal, emarginate mesially on distal margin as figured (Fig. 22). Abdominal segments one and two as in Fig. 21.

**Types.** Holotype: male, Taichung Co., Hassenzan, 4. June. 1947 (S. Issiki), gen. prep. USNM-11680/Hodges. Paratypes: 1 ♂, same data for the holotype; 1 ♂, Nantou Co., Rengwati (= Lienhuachi), 21 Mar. 1943 (S. Issiki); 1 ♂, Nantou Co., Meifeng, 30 km S. Tayuling, 2,200 m, 1-8 June 1980 (D. Davis). Types are in USNM.

**Distribution.** Taiwan.

**Host.** Unknown.

**Remarks.** Closely similar to *convolvuli* (Walsingham), which has been considered to be a senior synonym of *crypsilychna* (Meyrick), and *effuera* (Meyrick) known from India, but *hassenzanensis* is distinguished from *convolvuli* by the following characters: 3rd segment of labial palpus shorter and stouter than that of *convolvuli*, with slight scale tufts dorsally, and having setaelike scales along the vein R near at the base on the under the surface of the hindwing. More distinct separable characters are in the male genitalia: uncus narrowed distally with pointed apex, whereas greatly broadened distally in *convolvuli*.

### ***Helcystogramma triannulella* (Herrich-Schäffer) (Figs. 23-27, 28E)**

*Anacamptis triannulella* Herrich-Schäffer, 1854, Sys. Bearb. Schmett. Eur. 5, p. 201, fig. 450.

*Gelechia triannulella*: Rossler, 1863, p. 131.

*Ceratophora triannulella*: Heinemann, 1870, p. 326.

*Brachmia triannulella*: Staudinger and Rebel, 1901, p. 157; Gaede, 1937, p. 545; Clarke, 1969a, p. 366, fig. 2; Moriuti, 1982, part 1, p. 287, part 2, p. 215.

*Brachmia triannulella* var. *cinerea* Caradja, 1931, Mem. Sec. stiint. Acad. Rom, ser. 3, 7(8), p. 340.

*Gelechia sepiella* Streudel, 1866, Ent. Zeit. Stetiin., 27, p. 312.

*Brahmia macroscopa* Meyrick, 1932, Exot. Microl., 4(7), p. 206; Inoue, 1954, p. 72; Issiki, 1957, p. 39; Clarke, 1969a, p. 366.

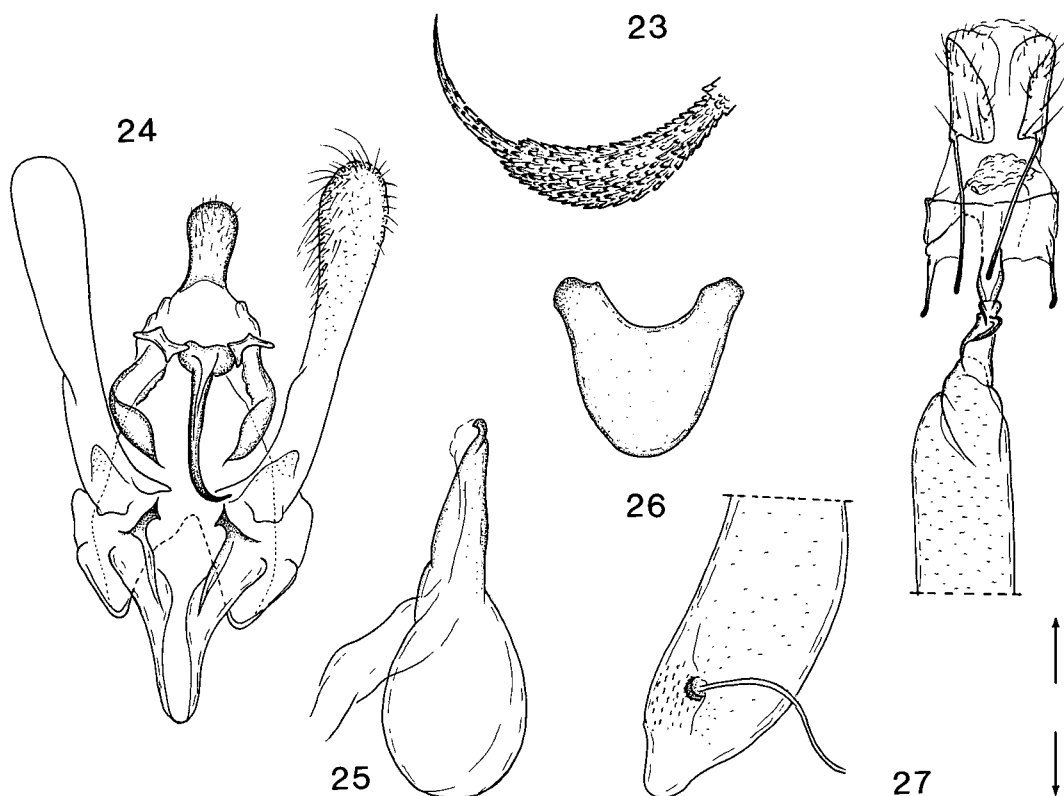
*Helcystogramma triannulella*: Hodges, 1986, p. 123, missp.

*Helcystogramma macroscopum*: Hodges, 1986, p. 123. **syn. nov.**

**Description.** Forewing length, 8.0-8.5 mm.

Male genitalia (Figs. 24-25): See Moriuti (1982, pl. 259, fig. 1). Similar to those of *arotraeum* (Meyrick), but differ from the latter by the following: uncus much shorter, broadened distally, valva





**Figs. 23-27.** *Helcystogramma triannulella* (Herrich-Schäffer): 23, labial palpus; 24, male genitalia; 25, aedeagus; 26, eighth tergum; 27, female genitalia. (Unit of scale: 0.5 mm).

exceeding apex of uncus, and saccal region shorter.

Female genitalia (Fig. 27): Also similar to those of *arotraeum* (Meyrick), but corpus bursae elongate, about  $6 \times$  as long as ductus bursae, while that of *arotraeum* is less than  $4 \times$ ; signum crescent-shaped with serrated edges.

**Type locality.** Middle Europe.

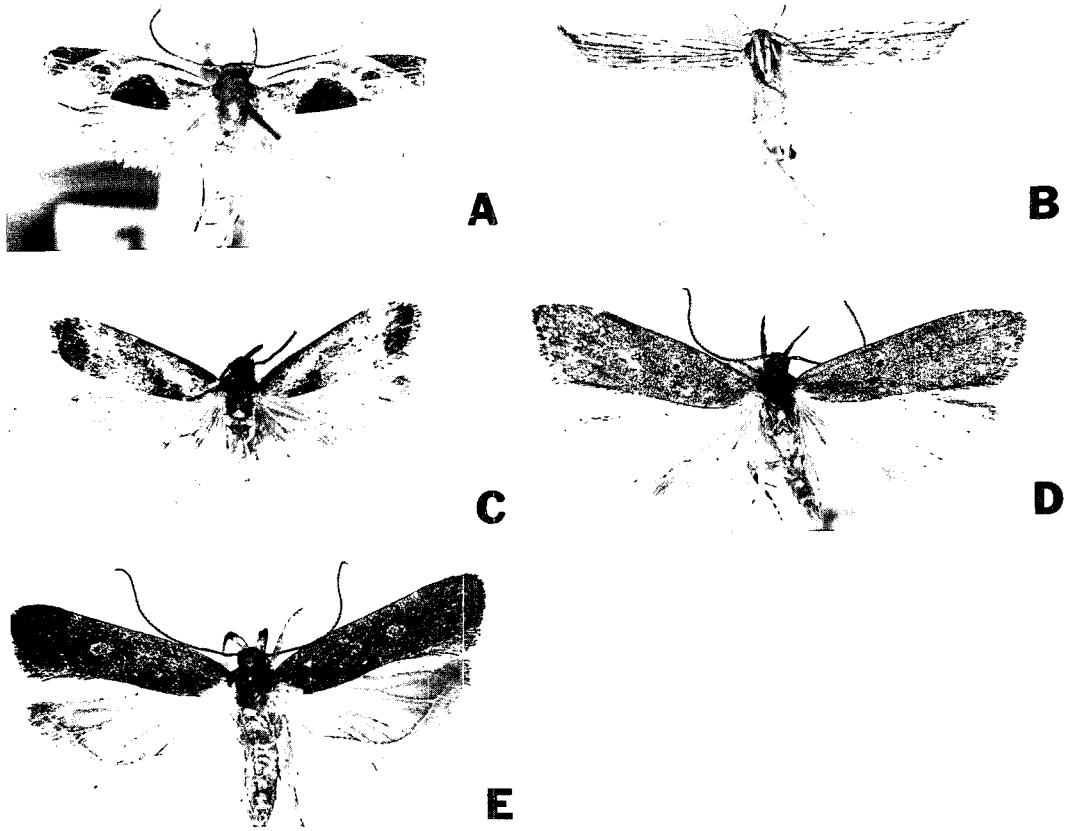
**Material examined.** 1 ♀, Taipei Co., Taihoku, 20 Nov. 1945 (S. Issiki); 1 ♂, no locality and date label, with labels indicated, 1) "Taiwan", 2) "Issiki collection 1972".

**Additional specimens examined.** 1 ♂, Hokkaido, Sapporo, 12 Sep. 1917 (S. issiki); 1 ♂, Honshu, Kii, Hashimoto, E. Sep. 1920 (S. Issiki); 1 ♂, Tokyo, 12 July 1932 (S. Issiki); 1 ♂, Tokyo, 10 July 1934 (S. Issiki); 1 ♀, Tokyo, 7 July 1934 (S. Issiki); 1 ♀, Honshu, Nishinomiya, Kinki, 25. June. 1949 (S. Issiki); 1 ♂, Honshu, Ikeda, Kinki, 31 Aug. 1950 (S. Issiki); 5 individuals, Honshu, Iwawakisan, Kinki, 15-16 Oct. 1950 (S. Issiki).

**Distribution.** India, Taiwan, China, Japan, Korea, and Europe.

**Host.** The larva is well known as a leaf-feeding pest of *Ipomoea batatas* Linnaeus (Convolvulaceae) in Korea and Japan.

**Remarks.** *Helcystogramma macroscopum* (Meyrick) was described from Kashmir and Japan (Kii, Hashimoto); Clarke (1969) designated a male lectotype based on the Japanese syntype specimen. It has been treated as a good species or a subspecies of *triannulella* in the Japanese and Korean



**Figs. 28.** Adults: A, *Helcystogramma hibisci* (Stainton); B, *H. arotraeum* (Meyrick); C, *H. trijunctum* (Meyrick); D, *H. hassenzanensis* Park et Hodges; E, *H. triannulella* (Herrich-Schäffer).

literature. Moriuti (1982) indicated that no differences were found in the genitalia between *triannulella* (Herrich-Schäffer) and *macroscopa* (Meyrick), and he treated *macroscopa* as a subspecies of *triannulella* at Sattler's suggestion. From the result of the comparison between the two species by the male and female genitalia, we herein place *macroscopa* as a junior synonym of *triannulella*.

#### Unrecognized species

Meyrick described two species of *Brachmia* from Taiwan. We have been unable to study the types, and no further additional specimens have been collected. They could be species of *Helcystogramma*. Heppner and Inoue (1992) listed them for the fauna of Taiwan, without collection data.

#### *Brachmia insuavis* Meyrick

*Brachmia insuavis* Meyrick, 1914, Suppl. Entom., 3, p. 51; Meyrick, 1925, p. 250.

**Type locality.** Taiwan [Kankau (= Koshun)]

***Brachmia ioplaca* Meyrick***Brachmia ioplaca* Meyrick, 1934, Exot. Microl. 4, p. 453.**Type locality.** Taiwan (Alikano).**REFERENCES**

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대만産 빨나방科的 분류  
IV. *Helcystogramma*屬의 정리 및 1 新種

박 규 택 · 로날드 호지스\*  
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요 약

본 연구는 대만産 빨나방科的 분류에 대한 4번째 결과로서 *Brachmia* Hübner, *Scodes Hodges*屬들과 함께 Dichomeridinae亞科에 속하는 *Helcystogramma*屬의 분류학적 정리를 시도하였다. 사용된 재료는 Smithsonian 연구소등에 보관되어 있는 표본을 대상으로 하였으며 그 결과 新種 1種의 기재와 함께 총 5種이 밝혀졌다. *hibisci*(Stainton), *truunctum*(Meyrick), *triannulella*(Herrich-Schäffer) 등 3種은 종전에 속했던 屬들로 부터 *Helcystogramma*屬으로 변경 정리하였다. 근연屬으로 알려져왔던 *Anathyrstis Meyrick*을 *Helcystogramm*屬의 synonym으로 처리하였으며, *Anathyrstis ceriochranta* Meyrick을 *H. triunctum*의 synonym으로 그리고 *H. macrospum*(Meyrick)을 유럽산 *H. triannulella*의 synonym으로 각각 정리하였다. 쉰 5種에 대한 암수 생식기圖解와 種별 검색표가 작성되었다.