INSECTS OF MICRONESIA
Microlepidoptera: Gelechioidea

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Abstract: Three species of Oecophoridae, belonging to the genus Elaeonoma are described as new to science. Two species of Agonoxenidae are also treated; both are pests of coconut.

In the introduction to the Microlepidoptera series (Clarke, 1976), I discussed the paucity of material available at that time and the poor condition of most of it, and noted that only specimens from Guam, Kusaie and Palau were moderately represented. Recent material that became available include the S. Issiki collection acquired by the Smithsonian Institution, and specimens collected in December, 1976, when my wife and I spent nearly two weeks on Ponape, one of the previously poorly collected islands. Although we collected several hundred specimens, the high altitudes of Ponape still need collecting. The Issiki collection contains material from some of the northern islands which will be incorporated in future papers.

The drawings for this paper were made by Elaine R. Snyder Hodges, and the photographs were produced by Victor Krantz, both of the Smithsonian staff.

FAMILY OECOPHORIDAE

Only three species in this family have thus far been recognized in Micronesia and all belong to one genus.

Genus Elaeonoma Meyrick

Elaeonoma Meyrick, 1914, Exotic Microlepidoptera 1: 238. (Type-species: Eulechria piodes Meyrick, 1902, Trans. R. Soc. S. Aust. 26: 148 [by original designation].)

1. Elaeonoma moira Clarke, n. sp. (Fig. 1; Plate 1, fig. a).
   Alar expanse 11-15 mm.
   Labial palpus fuscous black on outer side, inner side grayish buff; extreme tip of 3rd segment grayish buff. Antenna blackish brown. Head blackish brown. Thorax blackish brown;
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Oecophoridae
1. Elacionoma moira*  X
2. E. adeneia*       X
3. E. swezeyi*       X

Agonoxenidae
4. Agonoxena argaula ? ?

5. A. pyrogramma      X       X

* n. sp. ** Now Belau. *** Now Kosrae. **** Western Sector of Kiribati

base and apex of tegula slightly lighter. Forewing ground color blackish brown; from base to outer ¾, between cell and costal edge, fuscous black; in cell, at basal ¼, in fold and at end of cell, fuscous-black spots, mixed with grayish buff scales; cilia blackish brown. Hindwing fuscous black, slightly lighter basally; cilia fuscous black basally, paler distally. Foreleg fuscous black; tips of tibia and tarsal segments grayish buff; midleg similar but grayish buff on inner side; hindleg grayish buff suffused fuscous on outer side; tarsal segments fuscous black on outer side. Abdomen blackish brown dorsally, grayish buff ventrally.


♀. Genitalia unknown.

Holotype ♂ (US 76071). Type-locality: Ponape, 2.5 mi. (4 km) E. of Colonia.

DISTRIBUTION: Eastern Caroline Is.

PONAPE: 2.5 mi. (4 km) E. of Colonia, 50 m, 4 ♂♂, 15, 16 Dec. 1976, J.F.G. & Thelma M. Clarke.

Food plant: Unknown.

Described from the ♂ holotype and 5 ♂♂ paratypes as listed above.
Unquestionably, moira will be found to be a refuse feeder. The ♂ genitalia of moira are similar to those of adeneia, but the harpe of moira is much longer than that of adeneia, and the spine at end of cucullus of moira is twice as long as that of adeneia. Superficially, moira is easily distinguishable from adeneia by its much darker color.

2. Elaeonoma adeneia Clarke, n. sp. (Fig. 2; Plate 1, fig. d, e).

Alar expanse 12-18 mm.

Labial palpus light buckthorn brown; outer sides of 2nd and 3rd segments fuscous except apex of latter. Antenna light buckthorn brown, outer edge of each segment darker. Head buckthorn brown. Thorax buckthorn brown, suffused grayish fuscous; tegula grayish fuscous basally. Forewing ground color light buckthorn brown with darker, grayish fuscous suffusion along costa; at basal ½, in cell, a blackish fuscous spot followed obliquely on fold with a similar spot; beyond these 2 spots a grayish fuscous suffusion followed at end of cell by a small blackish fuscous spot; before termen, and parallel to it, a series of 6 or 7 small grayish fuscous spots; cilia mixed grayish fuscous and buckthorn brown. Hindwing grayish, slightly paler basally; cilia mixed grayish and buff. Foreleg buff, outer sides of segments blackish fuscous; tarsal segments narrowly annulated buff; midleg similar but dark markings grayish fuscous; hindleg buff to grayish fuscous; spurs marked with grayish fuscous. Abdomen grayish fuscous dorsally, buff to grayish buff ventrally.

♂. Genitalia slides 24381, 24382, 24383. Harpe rather broad but narrowed toward cucullus; cucullus rounded; sacculus entirely sclerotized, terminating in a short spine. Gnathos long and

♀. Genitalia unknown.

FIGURE 2. *Elaeophora adeneia*, n. sp.: 2, ventral view of ♂ genitalia with left harpe and aedeagus omitted; 2a, aedeagus.

Holotype ♂ (US 76072). Type-locality: Kusaie, Hill 541, 165 m.

DISTRIBUTION: Eastern Caroline Is.

KUSAIE: Hill 541, 165 m, 10 ♂, 25 Mch., 29 Apr. 1953; Hill 1010, 300 m, 2 ♂, 13 Apr. 1953; Malem River, 30 m, 13 ♂, 27 Apr. 1953; S. slope Mt. Matante, 310 m, 5 ♂, 11 Feb., 23 Apr. 1953; Mutunlik, 22 m, ♂, 21 Mch. 1953, all collected by Clarke.

Food plant: Unknown.

Described from the ♂ holotype and 29 ♂ paratypes as listed above.

Although none of the specimens was reared we can assume that *adeneia* has similar habits as *swezeyi*. The ♂ genitalia indicate that *adeneia* is closely related to *autogramma* Meyrick of Sri Lanka (Ceylon) but the sacculus of *autogramma* lacks the small terminal spine. Moreover, the aedeagus of *adeneia* is longer than that of *autogramma*. This species is quite variable as can be seen by the figures (Plate 1d, e). Some specimens exhibit much pale ground color while others are heavily overlaid or suffused by grayish fuscous.
Plate 1. a, Elaeonoma moira, n. sp., ♂ holotype; b, Elaeonoma suezyi, n. sp., ♀ paratype; c, Agonoxena argaula Meyrick, ♂; d, Elaeonoma adeneia, n. sp., ♂ holotype; e, Elaeonoma adeneia, n. sp., ♀ paratype; f, Agonoxena pyrogramma Meyrick, ♂.
FIGURE 3. *Elaenoma suzeyi*, n. sp.: 3, ventral view of ♂ genitalia with left harpe and aedeagus omitted; 3a, aedeagus; 3b, ventral view of ♀ genitalia.
3. *Elaeonoma swezeyi* Clarke, n. sp. (Fig. 3; Plate 1, fig. b.).

Alar expanse 13-22 mm.

Labial palpus light ochraceous buff; outer side of 2nd segment suffused brownish. Antenna light ochraceous buff, faintly annulated brownish. Head light ochraceous buff. Thorax light ochraceous buff irrorate with buffy brown, tegula light ochraceous buff, darker basally. Forewing ground color light ochraceous buff, strongly overlaid buffy brown; in cell, at basal 1/3, a fuscous discal spot followed at end of cell by a similarly colored mark; in fold in some specimens a slender fuscous streak; inside termen, and parallel to it, a series of small fuscous spots, obsolete in some specimens; cilia a mixture of light ochraceous buff and buffy brown. Hindwing grayish; paler basally; cilia grayish. Foreleg light ochraceous buff; femur and tibia overlaid buffy brown on outer sides; tarsal segments fuscous on outer sides, narrowly annulated light ochraceous buff; midleg and hindleg similar but hindleg paler. Abdomen buffy brown dorsally, light ochraceous buff ventrally, suffused brownish.


Holotype ♀ (US 76073). Type-locality: Guam, Piti.

DISTRIBUTION: Southern Mariana Is.

SOUTHERN MARIANA IS. GUAM: Piti, 2 ♂ and 4 ♀, Aug. and Sept. 1936, reared from dead *Barleria* or at light.

Food plant: dead *Barleria*.

Described from ♀ holotype, 2 ♂ and 4 ♀ paratypes as listed above.

This species is probably closely related to *nephelissa* of Sri Lanka (Ceylon) but *swezeyi* has a more evenly colored forewing. The lamella postvaginalis of *swezeyi* is strongly sclerotized by the lamella postvaginalis of *nephelissa* lacks the sclerotized plate. Named for the late O.H. Swezey who contributed so much to Pacific entomology.
FAMILY AGONOXENIDAE

Of the four species in this family, only one is definitely recognized from Micronesia.

Genus Agonoxena Meyrick

Agonoxena Meyrick, 1921, Exotic Microlepidoptera 2: 471. (Type-species: Agonoxena argaula Meyrick, ibid., 472. [by monotypy])

4. Agonoxena argaula Meyrick (Fig. 4; Plate 1, fig. c).


Holotype: British Museum (Nat. Hist.). Type-locality: Fiji, Lautoka.


Food plants: Cocos nucifera L., Clinostigma onchorhyncha Becc., and other palms.

Parasites: Apanteles agonoxenae Fullaway, Brachymeria agonoxenae Fullaway. O’Connor (1957:79) lists also Bracon sp., and Agathis sp.

A complete treatment of the species of this genus occurs in Bradley (1966). Of the four species known in this family, only argaula and pyrogramma have been reported from Micronesia. There are no specimens of argaula from Guam in the British Museum (Nat. Hist.) and none in the U.S. National Museum of Natural History, but Bradley (1966: 454) lists it from Guam, as does Dumbleton (1954: 100), and Gressitt (1954: 178) has this to say about it: "The coconut moths Agonoxena pyrogramma Meyrick and A. argaula Meyrick have been recorded from Guam or the Carolines, but they may be misidentifications." Judging from specimens in the U.S. National collection, the record of argaula from Guam resulted from the misidentification of specimens of pyrogramma.

I have included argaula in this paper in the event that it is discovered later, and have included illustrations to aid in its identification.
FIGURE 4. *Agonoxena argaula* Meyrick: 4, ventral view of ♂ genitalia with left harpe and aedeagus omitted; 4a, aedeagus; 4b, ventral view of ♀ genitalia.
5. Agonoxena pyrogramma Meyrick (Fig. 5; Plate 1, fig. f).


**DISTRIBUTION:** Solomon Is., New Guinea, Southern Mariana Is., Eastern Caroline Is.

**SOUTHERN MARIANA IS. GUAM:** Tumon, ♂, Nov. 1936; Yona, ♀, ♂, May 1936; Yigo, ♂, 2 ♀♀, Nov. 1936; Tarague, ♀, May 1936; Mt. Alifan, ♀, May 1936, Swezey; (no specific locality), 16 ♂♂, 14 ♀♀, Sept., Oakley.

**KUSAIE:** Mutunlik, 26 ♂♂, 5 ♀♀, Feb., Mch., Apr. 1953; Mt. Wakap, 1300 ft. (400 m), ♂, Apr. 1953; Lele I., ♂, Feb. 1953; Innem River, ♀, Jan. 1953, Clarke.

Food plants: *Cocos nucifera* L. (coconut); *Nipa fruticans* Thunb. (Nipa Palm).

Parasites: *Brachymeria hammari* (Crawford) and *Macrocentrus pallidus* Fullaway.

My notes from Kusaie are as follows: “KU66. Lelu Id., 24 Feb. 1953. Larvae on Nipa palm feeding singly on undersides of the leaves; the feeding takes place under a light web, and the injury is in the form of a longitudinal strip about 1/4" to 3/4" long and about 1/16" to 5/16" wide. Pupation occurs under a compact, but thin shining white web placed longitudinally against the midrib or where the leaf is slightly folded . . . Pupa not extruded at time of emergence . . .”

**LITERATURE CITED**


FIGURE 5. *Agonoxena pyrogramma* Meyrick: 5, ventral view of ♀ genitalia with left harpe and aedeagus omitted; 5a, aedeagus; 5b, ventral view of ♀ genitalia.