# New records of *Cosmopterix* HÜBNER, [1825] from the Philippines (Lepidoptera: Cosmopterigidae)

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**Abstract:** Two formerly undescribed species of *Cosmopterix* have been discovered during recent field work on the Philippines. They are described here as: *Cosmopterix ornithognatosella* **n. sp.** and *C. panayella* **n. sp.** (holotypes presently in MNHB). In addition, *C.* sp. cf. *pustulatella* SNELLEN, 1897 and *C. latilineata* KUROKO, 1987 are recorded from the Philippines for the first time. The male genitalia of all species are figured.

**Neue Daten zu Arten der Gattung *Cosmopterix* HÜBNER, [1825] von den Philippinen (Lepidoptera: Cosmopterigidae)**

**Zusammenfassung:** Es werden zwei neue *Cosmopterix*-Arten von den Philippinen beschrieben: *C. ornithognatosella* **n. sp.** und *C. panayella* **n. sp.**, Holotypen zur Zeit in MNHB. Weiterhin werden *C.* sp. cf. *pustulatella* SNELLEN, 1897 und *C. latilineata* KUROKO, 1987 erstmals von den Philippinen gemeldet. Von allen Arten werden die männlichen Genitalapparate abgebildet.

## Introduction

In his survey of the microlepidoptera of the Philippine Islands DIAKONOFF (1967) listed 2 species of *Cosmopterix: C. dulcivora* MEYRICK, 1919 and *C. basilisca* MEYRICK, 1909. However, the number of existing species is much larger. During the last 3 years I have collected several specimens on every island visited. This is not only indicative for a widely distributed group, but also for a more diversely represented genus in the Philippines. The examination of the collected material revealed more than half a dozen species. Unfortunately, some of them are females only or are represented by single, worn specimens. This part of the material is excluded from the present study for the moment. The remaining individuals belong to 4 species. They are described on the basis of males, with figures of wings and genitalia. The material of the Danish Noona Dan Expedition 1961 to the Philippines contained additional specimens. They are included in the present study.

### Abbreviations:

MNHB Museum für Naturkunde der Humboldt-Universität Berlin, Germany
ZMUC Zoological Museum of the University of Copenhagen, Danmark

## Deposition of the material

The type material is deposited mainly in the Microlepidoptera collection of the MNHB and in the ZMUC. The deposition of types in the Philippines would be reasonable. However, the actual conditions appear to be not appropriate for a safe and long lasting storage in this tropical country. I hope the situation will ameliorate in future, which then would enable the move of type material to the Philippines. Thus, the indicated depository of the whole material is a preliminary storage.

## *Cosmopterix* sp. cf. *pustulatella* Snellen, 1897

Material studied: 1 ♂, Philippines, Mindanao, Surigao del Sur, SW Lingig, ca. 400 m, LF, 28. v. 1996, leg. W. Mey (MNHB); 8 ♂♂, Philippines, Mindanao, Davao Orientale, Mt. Agtuuganon, Camp 55, 1050 m, 28. v.-7. vi. 1996, leg. W. Mey (MNHB); 1 ♂, Mindanao, Surigao del Sur, Mangagoy, 50 m, 27. v. 1996, leg. W. Mey (MNHB); 5 ♂♂, Tawi Tawi, Tarawakan, north of Batu Batu (Malaise trap), 24. x.-14. xi. 1961, Noona Dan Exped. (4 ♂♂ in ZMUC, 1 ♂ in MNHB); 1 ♂, 1 ♀, Balabac, Dalawan Bay (Malaise trap), 7. x. 1961, Noona Dan Exped. (ZMUC); 1 ♂, Panay, Antique, Culasi, San Vincente, 500 m, 11. iv. 1995, leg. W. Mey (MNHB); 1 ♂, Palawan, Mantalingajan, Pinigisan, 600 m (Malaise trap), 11. ix. 1961, Noona Dan Exped. (ZMUC).

### Description

**Male** (Fig. 1): Wing length 3-4 mm, antennae with 3-4 white subapical segments, additional 3 white segments beyond middle of antennae; dorsal surface of head and thorax bronzy, with two lateral white lines, sometimes with traces of a medial line; basal half of forewing with 3 short, white horizontal lines; transverse fascia yellowish orange, bordered basally by a shining, golden spot; another spot in the distal half of fascia, surrounded by orange fascia, and a third spot at the costal edge of the fascia, just besides a patch of white scales on the forewing margin.

**Male genitalia** (Figs. 3-5): Segment 8 annular, deeply excised on the ventral hind margin; vinculum a heavily sclerotised band, connected on its entire length with bases of valvae; juxta (Fig. 4) stretches from basal part of phallic apparatus to ventral part of vinculum, with lateral arms running to the upper base of valvae; valvae symmetrical, broadened and

elongate apically, with an inner process, arising from the articulation on the vinculum; aedeagus ankylosed; tegumen a slender band; gnathos asymmetrical, right brachium strongly sclerotised at apex and with a characteristically form in lateral (Fig. 3) and dorsal view (Fig. 5).

The species is supposed to be *C. pustulatella,* described from Java. However, the identity is not confirmed up to now by comparing the male genitalia. The extensive description of the Philippine species should help to clarify its status. According to the genitalia the species is similar to *C. aurella* BRADLEY, 1957 from the Solomon Islands and *C. kurokoi* SINEV, 1985 from Primorje, but can be separated in the pattern of the forewings and in the shape of the male brachium.

## *Cosmopterix ornithognathosella* n. sp.

Holotype ♂: Philippinen, Mindanao, Surigao del Sur, SW Lingig, 400 m, LF, 28. v. 1996, leg. W. MEY (MNHB).

Paratype: 1 ♂, Philippinen, Palawan, Mt. St. Paul, Cayasan, Babuyan river, 5.-6. IV. 1995, leg. W. MEY (MNHB).

### Description

**Male** (Fig. 2): Wing length 3 mm; antenna brown, with 3 white subapical segments and 2 further pairs of white segments in the distal half; head and thorax brown, with white lateral lines and an indistinct medial line; tip of scutellum white; underside of thorax creamy white; labial palpi with a dorsal and ventral white line; basal half of forewings dark brown, with 3 white lines; fascia pale yellow, bordered basally by two confluent golden spots and two dark scales in between; distal spots in the corner of fascia; one white costal and one long apical streak.

**Male genitalia** (Figs. 6-7): Segment 8 annular, membraneous; vinculum and tegumen a thin sclerotised band; juxta curved, extending from ventral margin of vinculum to the ventral side of aedeagus; aedeagus ankylosed with anellus; valvae symmetrical, with a tapering dorsal edge and a basal, inner appendage; brachium elongate, strongly sclerotised, looking like a bird head in lateral view (Fig. 7), and with a groove on the dorsal side.

The new species is characteristic for its brachium structure. A somewhat similar brachium is developed in *C. splendens* SINEV, 1985 from Primorje, Far East of Russia. However, the pattern on the forewing is quite different.

**Derivatio nominis:** Composed from ornithos (greek) = bird and gnathos (greek) = curved, hooklike; referring to the shape of the gnathos.

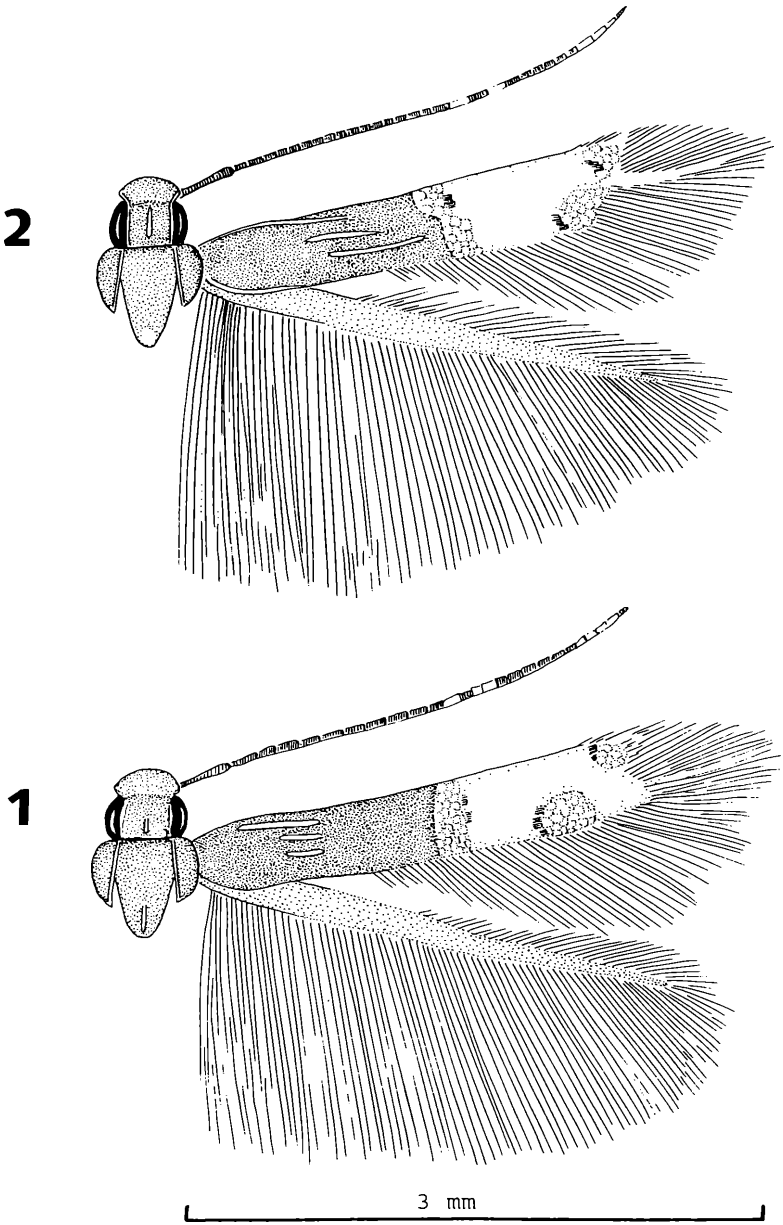
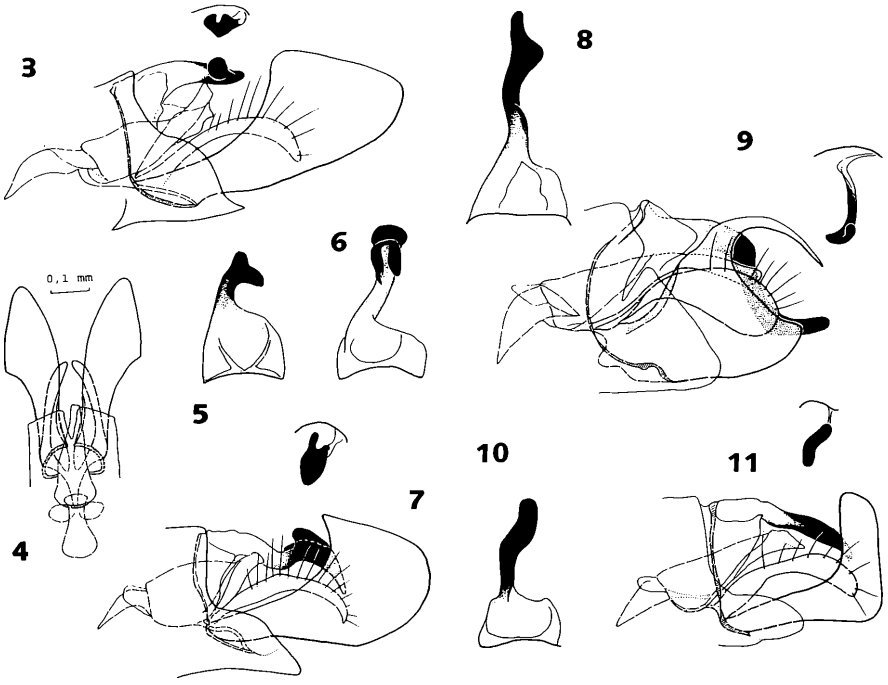



**Fig. 1:** *Cosmopterix* sp. cf. *pustulatella* SNELLEN, ♂, Mindanao. **Fig. 2:** *Cosmopterix ornithognathosella* n. sp., holotype, Mindanao.




**Figs. 3–5:** ♂ genitalia of *C.* sp. cf. *pustulatella*. **Fig. 3:** lateral view and brachium, caudal view. **Fig. 4:** ventral view. **Fig. 5:** brachium, dorsal view. **Figs. 6–7:** ♂ genitalia of *C. ornithognathosella* n. sp., **Fig. 6:** brachium, dorsal view. **Fig. 7:** lateral view and brachium, caudal view. **Figs. 8–9:** ♂ genitalia of *C. panayella* n. sp. **Fig. 8:** brachium, dorsal view. **Fig. 9:** lateral view and brachium, caudal view. **Figs. 10–11:** ♂ genitalia of *C. latilineata* KUROKO. **Fig. 10:** brachium, dorsal view. **Fig. 11:** lateral view and brachium, caudal view.

## *Cosmopterix panayella* n. sp.

Holotype ♂: Philippines, Panay, Antique, San Reminigio, Aningalan, ca. 900 m, 9.-10. IV. 1995, leg. W. MEY (MNHB).

### Description

**Male:** Wing length 4 mm; antennae creamy white to grey, with three different patches of brown segments in distal half; head and thorax dorsal brown, with a bronzy shine and with 3 white lines; underside of head and thorax creamy white, shining silvery; wing pattern like in *C. ornithognathosella* n. sp., basal half of forewing with 3 white lines, inner margin (dorsum) of forewings white; fascia pale yellow, with underlying silvery scales and bordered distally by two opposite silvery spots; apical streak white.

**Male genitalia** (Figs. 8-9): Segment 8 annular and membraneous, laterally excised; vinculum and tegumen forming a sclerotised thin band; juxta weakly developed, irregularly curved ventrally; valvae very broad and short, widely excised forming an acute upper appendage; inner process broadly clubbed; aedeagus elongate, weakly ankylosed; right brachium heavily sclerotised, bandlike and bent downwards.

*C. panayella* n. sp. is externally similar to *C. ornithognatosella* n. sp. as well as to a number of species from East Asia and the West Pacific. They can be separated by genitalia dissection only. The unique brachium of *C. panayella* and the form of the valvae make the species easily identifiable.

**Derivatio nominis:** The specific epithet is derived from Panay, the island of the terra typica.

## *Cosmopterix latilineata* Kuroko, 1987

Material studied: 1 ♂, Philippinen, Palawan, Irawan river, Puerto Princesa, 7. iv. 1995, leg. W. Mey (MNHB); 1 ♂, 1 specimen without abdomen, Mindanao, Sapamoro, Curuan district (Malaise trap), 18.-19. xii. 1961, Noona Dan Exped. (ZMUC); 7 ♂♂, 11 specimens without abdomen, Tawi Tawi, Tarawakan, north of Batu Batu (Malaise trap), 20. x.-14. xi. 1961, Noona Dan Exped. (ZMUC, 1 ♂ in MNHB).

The external characters of the species are sufficiently described by Kuroko (1987). In order to facilitate the comparison with other species from the Philippines the genitalic apparatus of the male is illustrated (Figs. 10-11).

*C. latilineata* was hitherto known only from Thailand. According to the new records from the Philippines (Fig. 12) the species obviously has a wide distribution and occurs very probably in Sundaland, too.

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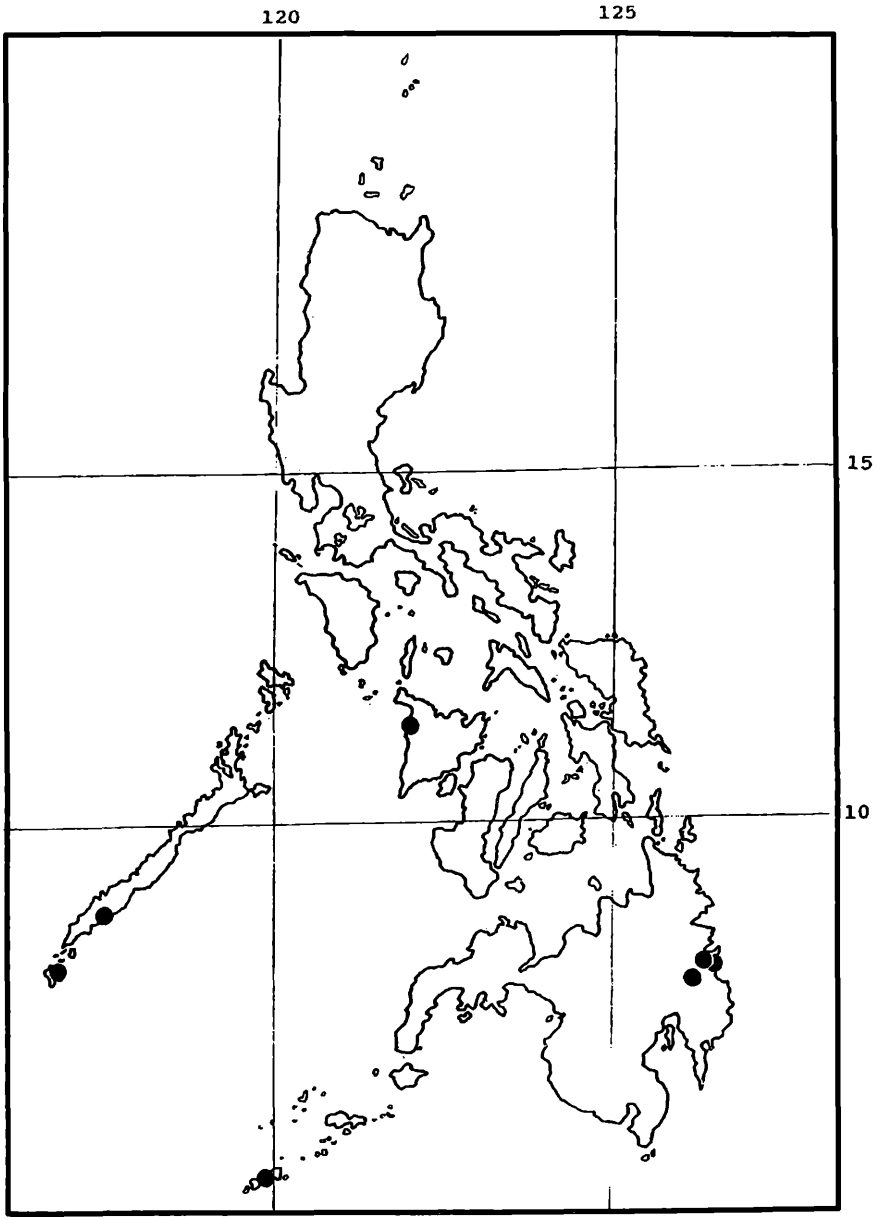


Fig. 12: Distribution of *C.* sp. cf. *pustulatella* in the Philippines.

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