

**A PRELIMINARY LIST OF THE EUPTEROTIDAE (LEPIDOPTERA)
OF VIETNAM**

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The family Eupterotidae contains about 60 genera, the majority of them occurring in the tropics. The classification and phylogeny of the group remains inadequately studied, and the family has never been properly and fully catalogued, having been omitted from Junk's Lepidopterorum Catalogus. Only Forbes (1955) published a systematic checklist of the world genera, which is somewhat incomplete and now partly out of date, and Nässig & Oberprieler (2008) produced a modern catalogue based on original point of view on score of most genera. They also clarified the nomenclature of the family-group names in Eupterotidae (Nässig & Oberprieler 2007), and this catalogue was used with changes for preparing of the present paper.

The first species of the Eupterotidae described from Vietnam was *Pseudojana vitalisi* Candèze, 1927 that pointed from Indochina. The generic attribution was obviously wrong but the type of the species has not been found so far and tentavily the taxon is placed into the genus *Eupterote* Hübner, 1820.

To date, no one work was devoted specially to Vietnamese Eupterotidae, and only in the articles of L. Candèze (1927), J. de Joannis (1929) and A. Lemée (1950) we found information and short lists of species mostly faulty identified. Some species were listed recently by vietnamese colleagues as defoliators: Plant Protection Research Institute (1976) and Tran Thieu Du (2009).

I. MATERIAL AND METHODS

Most of the material for this paper was studied in Museum Witt, München (MWM) and Vietnam Academy of Science and Technology. Also, special field trip were undertaken during 2007-2009 by authors in different parts of Vietnam. As a result of this preliminary study, 27 species of Eupterotidae are listed from Vietnam.

In this paper, a modified system of the family is used. A few preliminary changes and additions are made in the text of this work below.

II. RESULTS AND DISCUSSION

A generic check-list of the Subfamily Eupterotinae Swinhoe, 1892

Eupterote Hübner, 1820 ("1816")

Hübner, 1820: 187, type species *Phalaena fabia* Cramer, 1779: 98, pl. 250, fig. B, by subsequent designation by Moore 1883: 141 without family association; Swinhoe, 1892: 275 (in Eupterotidae).

Distribution. From Sri Lanka and South India through the Indian subcontinent, the Himalayas, Nepal, Bhutan, southern and central China, Indochina, Sundaland to the Philippines, Sulawesi and Flores.

Comments. Over a hundred species names in *Eupterote* and its synonyms are known, but many of them are likely to be synonyms while still quite a number of species appear to be undescribed. The real number of species in this the largest genus of Eupterotidae with dominantly yellow ground colour with reddish to brownish markings remains unknown so far. The genus needed in revision and is likely polyphyletic sensu Holloway (1987) or Nässig & Oberprieler (2008). Only 4-5 species are known so far from Vietnam; a mysterious *Pseudojana vitalisi* Candèze, 1927 is also included herein forming a very special group supposedly of generic rank. *Apha strix* BRYK, 1944 is distinctly misplaced and contrary information Nässig & Oberprieler (2008) it also does not belong in *Sphingognatha* but shall to be included in the same group with *vitalisi* Candèze; probably it is the female of the species.

***Tagora* Walker, 1855**

Walker, 1855: 1188, type species: *Tagora glaucescens* Walker, 1855: 1188, by subsequent designation by Moore, 1883: 142) (in Drepanidae);

Mallarctus Mell, 1930: 458, type species: *Tagora pandya* Moore, 1866: 807, by subsequent designation by Forbes, 1955: 130 (in Eupterotidae).

Distribution. North India (Himalaya), Nepal, Bhutan, Thailand, Myanmar, South China including the islands of Hainan and Taiwan, Vietnam, Borneo.

Comments. The genus was oftenly considered within *Eupterote* but is distinctly differing in wing ground colour being always much darker, often with bluish shining, and markings there oblique postmedian fascia is diagnostic, and small but constant features in male and female genitalia. *Tagora* currently comprises 4 species and 2 of them – *pandya* Moore, 1865 and *glaucescens* Walker, 1855 are known from Vietnam.

***Sphingognatha* C. & R. Felder, 1874**

C. & R. Felder, 1874: legend pl. XCIV; 1875: “Erklärung der Tafeln LXXV–CVII”: 9; type species: *Sphingognatha asclepiades* C. & R. Felder, 1874: pl. XCIV, fig. 2; legend; 1875: “Erklärung der Tafeln LXXV–CVII”: 9, by monotypy (without family association); Fletcher & Nye, 1982: 153 (in Eupterotidae).

Distribution. India, southern China, Thailand, Myanmar, Vietnam, Malaysia, islands of Sundaland and the Philippines.

Comments. Large sexually dimorph species with pale ground colour, concave fascia on the fore wing and 1 or 2 transparent windows on the fore wing. *Sphingognatha* comprises 9 species with *nobilis* Bryk, 1944, *pallida* Walker, 1855 and *?insulindica* Bryk, 1944 native to Vietnam.

***Palirisa* Moore, 1884**

Moore, 1884: 360, type species: *Jana lineosa* Walker, 1855: 912, by original designation (in Lasiocampidae); Swinhoe, 1892: 279 (in Eupterotidae).

Distribution. Northern India, Nepal, Bhutan, Myanmar, southern China including the islands of Hainan and Taiwan, Vietnam, Thailand.

Comments. Medium sized to large species with cream to brown groundcolour with diagnostic rather parallel forewing fasciae. The genus is needed in revision; it currently comprises over a dozen species but many more are yet undescribed. From Vietnam, at least 8 species are known, most of them are undescribed. Among them *lineosa* WALKER, 1855 and *salex* Pugaev et Tran Thieu, sp. nov.

Subfamily insertae sedis probably close to Janinae Aurivillius, 1892

In Nässig & Oberprieler (2008) all members of the group have been considered within the Striphnopteryginae Wallengren, 1858 as so-called “*Ganisa*-group”; hence neither in general appearance nor in genitalic characters they are related. This “*Ganisa*-group” seems to be a monophyletic grouping with unclear so far phylogenetic relationship but surely they should be considered outside the Striphnopteryginae Wallengren, 1858 and presence of tergal appendages in male genitalia and weakly modified valvae confirm this supposition.

***Apha* Walker, 1855**

Walker, 1855: 1180 [key: 1158], type species: *Apha subdives* Walker, 1855: 1180, by monotypy (in Drepanidae); Swinhoe, 1892: 272 (in Eupterotidae).

Distribution. Continental South-East Asia from northern India, Nepal, Bhutan, Thibet and southern China to Japan, Taiwan, Cambodia, Myanmar, Thailand and Vietnam.

Comments. Medium sized speckled species with diagnostic oblique and straight postmedia. 12 species are known and 4 of them are native to Vietnam: *subdives* Walker, 1855, *kantonensis* Mell, 1929 and 2 undescribed species.

***Apona* Walker, 1856**

Walker, 1856: 1762, type species: *Apona pallida* Walker, 1856: 1763, by monotypy (in Drepanidae); Swinhoe, 1892: 278 (in Eupterotidae).

Distribution. From Pakistan, India, Sri Lanka, Nepal to China, Myanmar, Thailand, Vietnam, and Sumatra.

Comments. *Apona* contains only 7 valid species with *hasiana* Swinhoe and *hoenei* Mell, 1937 known from Vietnam.

***Ganisa* Walker, 1855**

Walker, 1855: 1190 [key: 1159], type species: *Ganisa postica* Walker, 1855: 1190, by subsequent designation by Hampson, 1893: 49 (in Drepanidae); Swinhoe (1892: 271) (in Eupterotidae).

Distribution. From Pakistan, India and Nepal to China, Vietnam, Myanmar, Malaysia, the Philippines, Sulawesi and Flores.

Comments. Diagnostically dark, often dark grey to black moths, generally resemble *Tagora* WALKER, 1855, but smaller. *Ganisa* comprises about 10 species and 3 of them are components of Vietnamese biota: *similis* Moore, 1884, *postica* Walker, 1855 and *longipennata* Mell, 1958.

***Melanothrix* C. & R. Felder, 1874**

C. & R. Felder, 1874: legend pl. XCIV; also 1875: “Erklärung der Tafeln LXXV–CVII”: 6, type species: *Melanothrix pulchricolor* C. & R. Felder 1874: pl. XCIV, fig. 2, legend; also 1875: “Erklärung der Tafeln LXXV–CVII”: 6, by monotypy (without family association); SWINHOE, 1892: 279 (in Eupterotidae).

Distribution. Indonesia, Thailand, Myanmar, Malaysia, Vietnam, Sundaland, Philippines.

Comments. *Melanothrix* C. & R. FELDERE, 1874 is strongly sexually dimorph genus, sometimes with unclear relationship between sexes; moths are colourful and sometimes are

day-fliers. The genus is needed in revision; 18 species are already described but only about 10 of them are valid. From Vietnam. Only 3 species are known, among them *leucotrigona* Hampson, 1892 and *nymphalaria albidior* Rothschild, 1917.

Pseudojana Hampson, 1893

Pseudojana Hampson 1893(: 48 [key: 41]), type species: *Jana incandescens* Walker 1855(: 910), by original designation (in Eupterotidae).

Distribution. South-eastern Asia from North India through South China and Indochina to Sundaland, the southern Philippines and part of the Indonesian islands.

Comments. Large and robust dark coloured species with zic-zac submarginal fascia and more or less parallel medial fasciae. 7 species were described but only *incandescens* Walker, 1855 is known from Vietnam.

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**DANH LỤC BƯỚC ĐẦU VỀ CÁC GIỐNG THUỘC HỌ NGÀI VƯỜN
EUPTEROTIDAE (LEPIDOPTERA) CỦA VIỆT NAM**

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TÓM TẮT

Họ Ngài vượn Eupterotidae là một họ có số lượng loài trung bình nằm trong liên họ Ngài tầm Bombycoidea. Những nghiên cứu về phân loại học họ này trên thế giới còn chưa được nhiều nhà khoa học quan tâm. Cho đến nay chỉ có danh lục các giống và hệ thống phân loại của chúng được bàn luận trong một vài công trình như Forbes (1955), Nassig et Oberprieler (2008), chưa có một thống kê đầy đủ về danh lục các loài của họ này trên thế giới. Các nghiên cứu về họ này ở khu hệ Việt Nam càng không nhiều với một vài loài ghi nhận trong các công trình như Candeze (1927), Joannis (1929), Lemee (1950), Viện Bảo vệ thực vật (1976) và Trần Thiệu Dư (2009). Kết quả nghiên cứu bước đầu về khu hệ họ Ngài vượn ở Việt Nam được thực hiện trong khuôn khổ chương trình hợp tác nghiên cứu song phương giữa Viện Khoa học và Công nghệ Việt Nam với Quỹ Nghiên cứu cơ bản Nga đã đưa ra danh sách gồm 27 loài thuộc 9 giống. Công trình có sự hỗ trợ kinh phí của Viện Khoa học và Công nghệ Việt Nam trong Chương trình hợp tác song phương với Quỹ Nghiên cứu cơ bản Nga (2011-2012).