

Redescription of *Catada vagalis* (WALKER, [1859] 1858) and some notes on the genus *Catada* WALKER, [1859] 1858 (Lepidoptera: Noctuidae: Hypeninae)

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Abstract

Catada vagalis (WALKER, [1859] 1858 [*Bocana*] (= *Catada glomeralis* WALKER, [1859] 1858) is redescribed and illustrated in both sexes. The systematic position remains unclear. The genus *Catada* WALKER, [1859] 1858 is provisionally placed in the Hypeninae. *Catadella* STRAND, 1919 is found to be not congeneric with *Catada*. The species spectrum is discussed based on the external features of the major part of the known type material. The following **new combinations** are presented: *Catada antevorta* (VIETTE, 1958) [*Focillopis*] **comb.n.**, *Catada dichroana* (VIETTE, 1958) [*Focillopis*] **comb.n.**, *Catada janalis* (SCHAUS, 1893) [*Hydrillodes*?] **comb.n.**, *Catada renalis* (MOORE, 1882) [*Bocana*] **comb.n.**

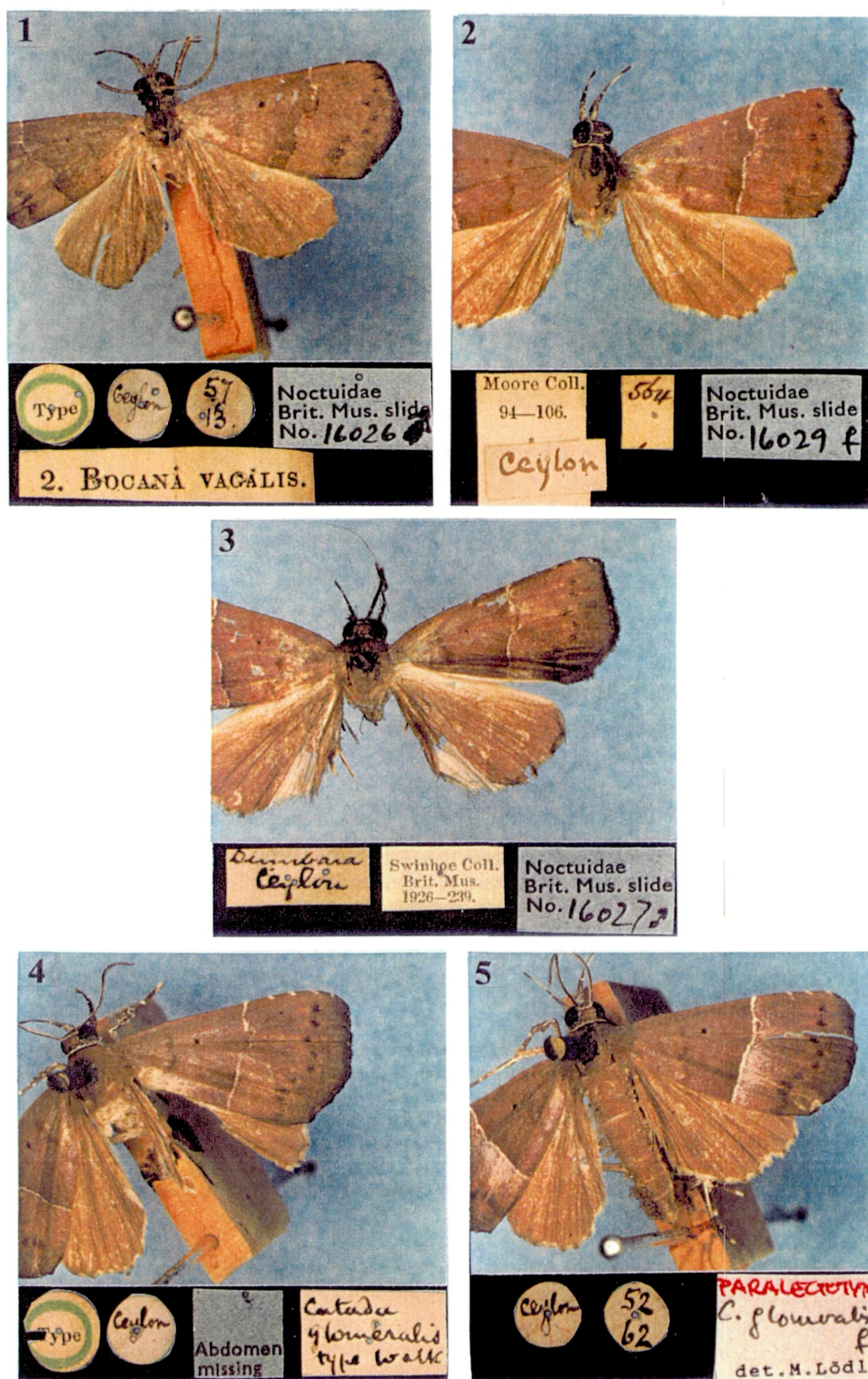
Zusammenfassung

Catada vagalis (WALKER, [1859] 1858 [*Bocana*] (= *Catada glomeralis* WALKER, [1859] 1858) wird wiederbeschrieben und in beiden Geschlechtern abgebildet. Die systematische Stellung der Gattung *Catada* WALKER, [1859] 1858 bleibt unsicher. Sie wird vorderhand in der Unterfamilie Hypeninae belassen. *Catadella* STRAND, 1919 wird als nicht kongenerisch mit *Catada* erkannt. Das Artenspektrum wird anhand äußerer Merkmale des größten Teiles des vorhandenen Typenmaterials diskutiert. Folgende **Neukombinationen** werden präsentiert: *Catada antevorta* (VIETTE, 1958) [*Focillopis*] **comb.n.**, *Catada dichroana* (VIETTE, 1958) [*Focillopis*] **comb.n.**, *Catada janalis* (SCHAUS, 1893) [*Hydrillodes* ?] **comb.n.**, *Catada renalis* (MOORE, 1882) [*Bocana*] **comb.n.**

Key words: *Catada*, Hypeninae, new combinations, Oriental Region, redescription.

Introduction

The genus *Catada* was described by Walker in [1859] 1858 based on the species *Catada glomeralis* WALKER, [1859] 1858 in the family „Herminidae“ („very near to the Noctuides“).



Figs. 1-5:

Fig. 1: *Catada vagalis* (WALKER, [1859] 1858), ♂-Holotype.- Fig. 2: dto.- ♀.- Fig. 3: dto.- ♂.-
Fig. 4: *Catada glomerata* WALKER, [1859] 1858, ♀-Lectotype.- Fig. 5: dto.- ♀-Paralectotype.

This species was described in the same publication some pages earlier as *Bocana vagalis* WALKER, [1859] 1858. The type material of both taxa comes from Sri Lanka.

The genus *Catada* traditionally is placed in the Hypheninae. It seems to exhibit several very distinct features, so the systematic position still remains unclear. The next step is to clarify the morphological variation within the genus and the basic concept of the genitalia structures (LÖDL, in preparation). This paper gives a redescription and illustration of the type species of the genus *Catada* and a commented list of species based on POOLE (1989). The connection to the genus *Nolasena* WALKER, [1858] 1857 remains unclear (LÖDL 1999a).

The genus *Catadella* STRAND, 1919 (type-species *Catada pyralistis* STRAND, 1919) was proposed as a subgenus of *Catada* and is erroneously treated as a synonym of this genus. The author could study a photographic reproduction of the holotype of [*C.*] *pyralistis* which made clear that *Catadella* has nothing to do with *Catada*. The systematic position of *Catadella* needs further investigation although the external shape resembles very much *Micreremites bidentata* WILEMAN, 1915.

Catada vagalis (WALKER, [1859] 1858)

(Figs. 1-13)

Bocana vagalis WALKER, [1859] 1858: 172.

Catada glomeralis WALKER, [1859] 1858: 210.

Type material:

Bocana vagalis, Holotype: ♂ "Type \ 2. Bocana vagalis. \ Ceylon 57 13 \ Noctuidae Brit. Mus. slide No. 16026 ♂" (Fig. 1) (BMNH).

Catada glomeralis, Lectotype, ♀ "Type \ Catada glomeralis type Walk \ Ceylon \ Abdomen missing" (Fig. 4) (BMNH).- Paralectotype, ♀ „Ceylon 52 62 \ PARALECTOTYPE C. glomeralis ♀ det. M. Lödl" (Fig. 5) (BMNH). Note: The original description cites „Borneo" in a distinct line, but cites explicitly „Ceylon" in combination with the type specimens.

Additional material:

Sri Lanka: 1 ♀, Ceylon, Moore Coll. 94-106, 564, Noctuidae Brit. Mus. slide No. 16029 (Fig. 2); 1 ♂, Den[?]bara, Ceylon, Swinhoe Coll. Brit. Mus. 1926-239, Noctuidae Brit. Mus. slide No. 16027 (Fig. 3) (BMNH).

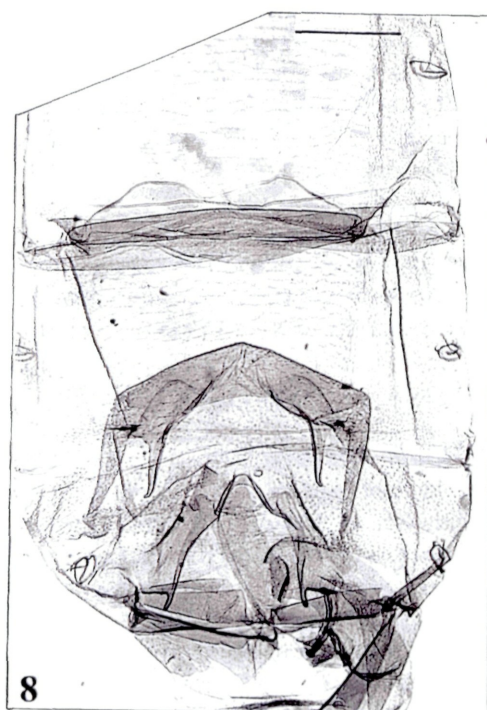
Description

Head: Head reddish brown, smoothly scaled without long hair-like scales. Neck and insertion area of antennae bordered with a whitish band. Sexual dimorphism: males exhibit big frog eyes. The labial palps are long, smoothly scaled and sickle shaped and curved upwards. The second joint is club-shaped and has a row of prominent scales on the underside. The third joint is very long, fine pointed and with a pale, whitish stripe. Antennae insert far in the back of the head. Antennae shortly ciliate, relatively thick, especially in the middle, and with a long white stripe. There are white stripes around the eyes and between the eyes.

Thorax and abdomen (Figs. 8-10): Reddish brown and also smoothly scaled, no tufts and prominent groups of scales. The legs are dark reddish brown with pale and whitish patches. The abdomina are short and stout. A postspiracular hood is present.

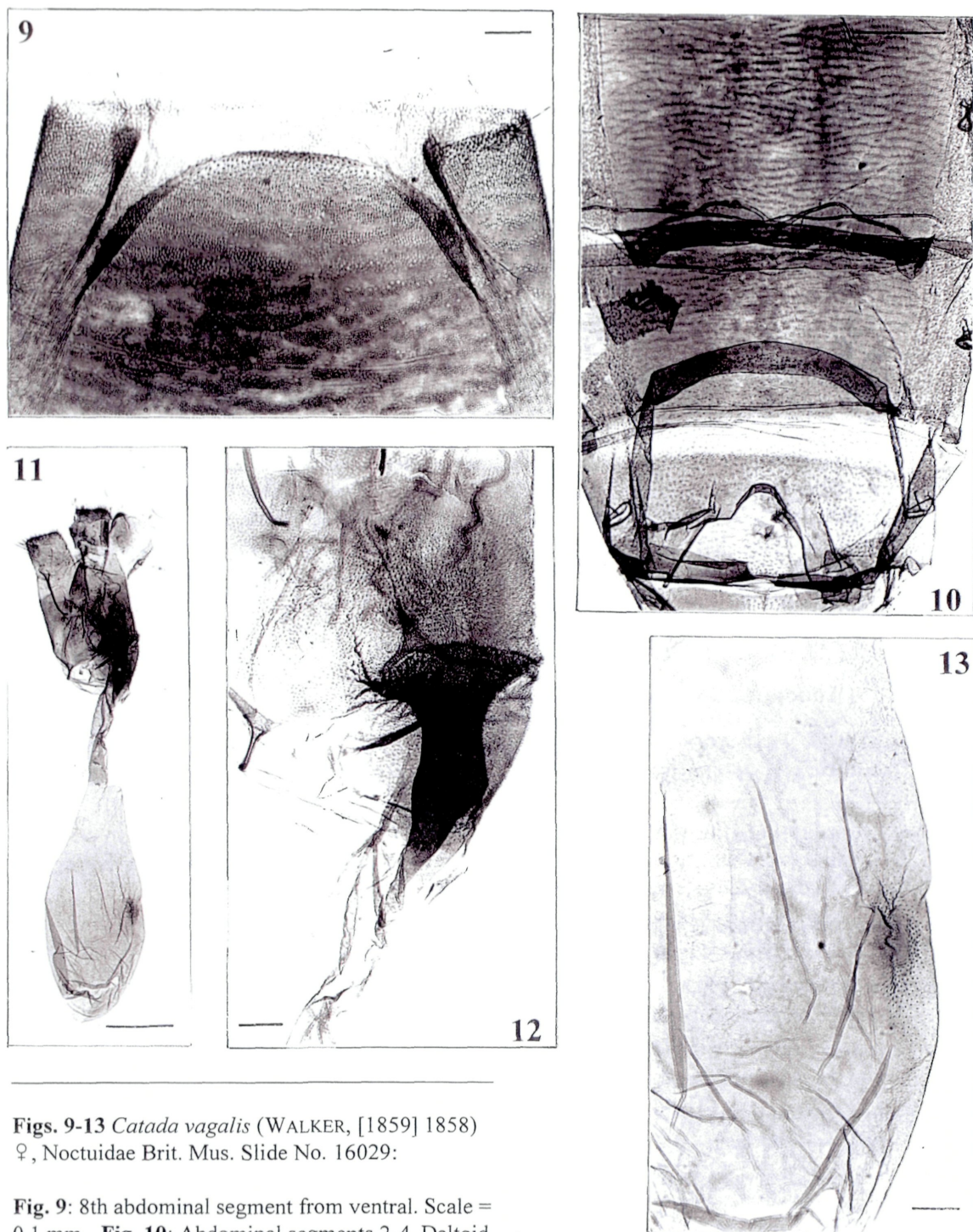
The sternites of the abdominal segment 2 and 3 exhibit deltoid-shaped plates (Figs. 8 (♂), 10 (♀)). In the ♂♂ the first of these plates is very prominent and wears two processes (muscle insertions) protruding into the abdominal lumen (Fig. 8).

Wings: Wingspan = 20 - 24 mm; length : width of forewing = 1.75 - 1.9. Ground colour reddish brown, sometimes with a slight purplish touch. Forewings stout, outer margin edged in the middle. Antemedian line as a waved dark brown band. Orbicular spot small, black. Median line more or less straight, edged in the costal third and white, dividing the forewing in an outer and an inner half. A typical feature is the reniform spot which is remarkably bordered by the median line and framed with a whitish line. The postmedial area can be suffused with white. The subterminal line is marked by big, blackish brown dots. The fringe of the forewing is blackish. The hindwing is plain brown, the fringe is spotted with yellowish brown.



Figs. 6-8 *Catada vagalis* (WALKER, [1859] 1858) ♂ :

Fig. 6: Genitalia, total. Noctuidae Brit. Mus. slide No. 16027. Scale = 0.5 mm.- **Fig. 7:** Genitalia, total. Holotype. Noctuidae Brit. Mus. slide No. 16026. Scale = 0.5 mm.- **Fig. 8:** Abdominal segments 2-4. Deltoid plates on sternite 2 with processi. Noctuidae Brit. Mus. slide No. 16027. Scale = 0.5 mm.



Figs. 9-13 *Catada vagalis* (WALKER, [1859] 1858)
♀, Noctuidae Brit. Mus. Slide No. 16029:

Fig. 9: 8th abdominal segment from ventral. Scale = 0.1 mm.- **Fig. 10:** Abdominal segments 2-4. Deltoid plates on sternite 2. Scale = 0.5 mm.- **Fig. 11:** Genitalia, total. Scale = 0.5 mm.- **Fig. 12:** dto. Ductus bursae. Scale = 0.1 mm.- **Fig. 13:** dto.- Signum. Scale = 0.1 mm.

♂-genitalia (Figs. 6-7): The male genitalia can be characterized with the following features:

- The uncus region is complex, consisting of an aberrant uncus and a claw like scaphium of the anal tube.
- The tegumen is slim and slender, forming a swelling from the ventral side.
- The anellus is a skinny glove covered with spines.
- The valves are skinny and divided into two big lobes at the distal end and wear a bristle covered lobe in the middle, protruding in the lumen of the genital corpus.
- The sacculus is well developed and forms a giant, flabby eversible tube (coremata !), which is densely covered with very long hair-like scales. There are three centres of density of hairs: one ventrally at the base, covered with the longest hairs, one on the dorsal margin in the distal third and one at the distal tip.
- The vinculum is insignificant, rounded and is not exceeding the length of the remaining genitalia corpus proximally.
- The aedeagus is tiny and slender, more or less straight or slightly kneed and not even of half of the length of the genitalia corpus.

♀-genitalia (Figs. 11-13): The female genitalia represent a type of genitalia which is present in the genera *Anoratha* MOORE, 1867 (LÖDL & GAAL 1998) and *Phanaspa* WALKER, [1866] 1865 (LÖDL 1995): Short genitalia (total length slightly more than 4 mm) with well developed papillae anales and short apophyses anteriores. Very similar to *Anoratha* and *Phanaspa* is the stout and heavily sclerotized ductus bursae (Fig. 12). The bursa is a very simple, oval sack. A signum is present, formed by a group of tiny, sclerotized cones (Fig. 13). Segment 8 very long (1.75 times as long as the distal segment including the papillae).

Annotated list of species

***Catada antevorta* (VIETTE, 1958) [*Focillopis*] comb.n.**

Due to the type specimen in the MNHN, Paris this species is a *Catada*. The male genitalia is typical for the genus.

***Catada antipodalis* (HOLLAND, 1900) [*Pseudaglossa*]**

The author has seen a photo of the type in CM, Pittsburgh. The species possibly belongs to *Catada*. The synonymy to *Catada transversalis* (MOORE, 1877) [*Hydrillodes*] is unclear.

***Catada canaliferalis* (MOORE, 1877) [*Cyclopteryx*]**

Due to the external study of the type in the BMNH it is a typical *Catada* species.

***Catada charalis* SWINHOE, 1900**

Due to the external shape of type specimens in the BMNH it is a *Catada*.

***Catada dichroana* (VIETTE, 1958) [*Focillopis*] comb.n.**

Due to the type specimen in the MNHN, Paris this species is a *Catada*.

***Catada glomeralis* WALKER, [1859] 1858 syn.**

Type-species of the genus *Catada*. A junior, subjective synonym of *C. vagalis*.

***Catada icelomorpha* BETHUNE-BAKER, 1911**

Due to the holotype in the BMNH this species is a *Catada*.

***Catada janalis* (SCHAUS, 1893) [*Hydrillodes* ?] comb.n.**

Due to the type in the AMNH, New York this species is a *Catada*.

***Catada ndalla* BETHUNE-BAKER, 1911**

Due to the type(s) in the BMNH this species is a *Catada*.

***Catada obscura* JOANNIS, 1906**

Due to the type(s) in the MNHN, Paris the species could well be a stout *Catada*.

***Catada phaeopasta* HAMPSON, 1909**

Could well represent a huge form of *Catada*. The type in the BMNH has been studied externally.

***Catada renalis* (MOORE, 1882) [*Bocana*] comb.n.**

Due to the external shape of type specimens in the BMNH the species is transferred to the genus *Catada*.

***Catada transversalis* (MOORE, 1877) [*Hydrillodes*]**

Due to the external features of the type in the BMNH this is a *Catada*. The synonymy with *C. antipodalis* is unclear.

***Catada vagalis* (WALKER, [1859] 1858) [*Bocana*]**

Senior, subjective synonym of the type-species of the genus *Catada*. Redescribed in this paper.

Annotated list of species excluded from the genus *Catada* (genera which are cited in front of the species and given in square brackets represent a not verified combination)

[*Catada*] *alboapicalis* BETHUNE-BAKER, 1909

This colourful taxon represents a very distinct species which seems to be distributed from New Guinea to Indonesia (Sumatra). It may well represent a new genus. The external features of the type have been checked.

[*Catada*] *alboapicalis minuens* A.E.PROUT, 1922 syn.

The syntypes in the BMNH have been checked externally and a male genitalia (Genit.Diss. slide No. Hypen. 73a.) which in fact is in a very bad condition. This taxon is treated as a synonym of [*Catada*] *alboapicalis* by POOLE (1989).

***Acidon albolineata* (HAMPSON, 1895) [*Catada*]**

The species was transferred to the genus *Acidon* by LÖDL (1998).

[*Catada*] *apoblepta* TURNER, 1908

This colourful species was externally checked with specimens from the BMNH, London. It is a distinct species, closely related to [*Bocana*] *picta* MOORE, 1882.

[*Harmatelia*] *bipartita* MOORE, 1882

A syntype in the BMNH has been checked. Due to the morphology of the genitalia it is supposed that the species represents an extreme end of the *Ricla* WALKER, 1869 and *Sarmatia* GUENÉE, 1854 complex.

***Acidon hemiphaea* (HAMPSON, 1906) [*Catada*]**

The species was transferred to the genus *Acidon* by LÖDL (1998).

***Acidon mediobrunnea* (HOLLOWAY, 1976) [*Catada*]**

The species was transferred to the genus *Acidon* by LÖDL (1998). Possibly a synonym of *Acidon sabada* SWINHOE, 1905 (LÖDL 1999b).

***Acidon nigrobasis* (SWINHOE, 1895) [*Catada*] (= *Catada nigribasis* SWINHOE MS misspelling in HAMPSON 1895 (vide LÖDL 1999b))**

The species was transferred to the genus *Acidon* by LÖDL (1998).

[*Bocana*] *picta* MOORE, 1882

Obviously closely related to [*Catada*] *apoblepta*. Checked with material from the BMNH. The male genitalia has been figured in HOLLOWAY (1976: 42, fig. 273). These two species could represent an extreme end of the *Acidon* HAMPSON, 1896 and *Hiasapis* WALKER, [1866] 1865 complex.

[*Catada*] *pyralistis* STRAND, 1919

Type-species of the subgenus *Catadella* STRAND, 1919. Needs to be placed near *Micreremites* WARREN, 1891.

[*Catada*] *rex* BETHUNE-BAKER, 1911

After having checked the holotype in the UM, Oxford there is no doubt that this species does not belong to the genus *Catada*. The systematic position remains unclear. It is near [*Hypena*] *ducalis*

SCHAUS, 1893 which in fact is definitely not a *Hypena*. The colourful species are similar to some African lycaenid species with red wings with broad black margins.

Acidon sabada SWINHOE, 1905 [*Catada*]

The species was transferred to the genus *Acidon* by LÖDL (1999b).

[*Catada*] *sanguinea* BETHUNE-BAKER, 1908

Due to the external features of the holotype in the BMNH this is no *Catada*.

[*Catada*] *variegata* BETHUNE-BAKER, 1908

The worn holotype in the BMNH was checked. The relationship is unclear. It is quite unsure if this species can be treated as a Hypeninae.

List of species which could not be investigated (cited as *Catada* species in POOLE (1989))

Catada dahlioides ROTHSCILD, 1915

Mastigophorus albolineata griseomarginalis ROTHSCILD, 1915

Bocana philemonalis WALKER, [1859] 1858

Simplicia phricozona TURNER, 1902

Catada purpureotincta HAMPSON, 1895

Catada rubricaea SCHULTZE, 1907

Literature

HOLLOWAY, J. D. 1976: Moths of Borneo with special reference to Mount Kinabalu. - Malayan Nature Society with assistance from The Sabah Foundation, 264 pp.

LÖDL, M. 1995: Revision der afrikanischen Gattung *Phanaspa* WALKER, [1866] 1865 (Lepidoptera: Noctuidae: Hypeninae). - Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen 47(3/4): 97-111.

LÖDL, M. 1998: Revision der Gattungen *Acidon* HAMPSON, 1896 und *Hiaspis* WALKER, [1866] 1865 subfam. Comb.n. (Lepidoptera: Noctuidae: Hypeninae). - Quadriana 1: 25-62.

LÖDL, M. 1999a: The identity of *Nolasena ferrifervens* WALKER, [1858] 1857 (Lepidoptera: Noctuidae: Ophiderinae). - Quadriana 2: 125-133.

LÖDL, M. 1999b: Additions to the revision of the genus *Acidon* HAMPSON, 1896 (Lepidoptera: Noctuidae: Hypeninae). - Quadriana 2: 135-136.

LÖDL, M. & GAAL, S. 1998: Revision of the genus *Anoratha* MOORE, 1867 (Lepidoptera: Noctuidae: Hypeninae). - Quadriana 1: 5-24.

POOLE, R.W. 1989: Lepidopterorum Catalogus (new series). Fasc. 118, Noctuidae Pt.1-3. - E.J. Brill, Fauna & Flora Publ., Leiden, New York, 1314 pp.

WALKER, F. [1859] 1858: List of the Specimens of Lepidopterous Insects in the Collection of the British Museum. Part XVI. - Edward Newman, London: 1-253.

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Autor(en)/Author(s): Lödl Martin

Artikel/Article: [Redescription of *Catada vagalis* \(WACKER, \[1859\] 1858\) and some notes on the genus *Catada* WACKER, \[1859\] 1858 \(Lepidoptera: Noctuidae: Hypeninae\). 137-144](#)