

**A Preliminary Annotated Checklist of the
Brahmaeidae of the World – Part IVB.
The *ledereri*-subgroup of the subgenus *Brahmaea*
WALKER, 1855 (Lepidoptera: Brahmaeidae)**

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Zusammenfassung: Der folgende Beitrag zur Kenntnis der Familie Brahmaeidae SWINHOE, 1892 (Lepidoptera) ist Teil der Serie „*Brahmaeidae of the World*“, die nach Fertigstellung eine möglichst vollständige Übersicht über diese Familie geben sollte. Neue Erkenntnisse und neue Namen wurden eingearbeitet soweit sie bis zur Drucklegung aus der Literatur bekannt und uns zugänglich waren. Auf Grundlage von fast 400 Einzelpublikationen wurde versucht, eine aktuelle und nahezu vollständige Literaturübersicht über die Familie Brahmaeidae zu erstellen. Der Umfang machte eine möglichst zweckmässige Unterteilung in bestimmte Themenbereiche notwendig, die spätere Ergänzungen oder Korrekturen erleichtern sollte. Der Teil IVB befasst sich speziell mit den Taxa der *ledereri*-Untergruppe der *ledereri*-Gruppe aus Kleinasien und dem Mittleren Osten aus der Untergattung *Brahmaea* WALKER, 1855. Diese erste zusammenhängende Analyse der Familie Brahmaeidae soll keine Gattungsrevision darstellen, sondern lediglich den heutigen Kenntnisstand aufzeigen und eine gute Arbeitsgrundlage für weitere Studien zur Familie Brahmaeidae SWINHOE, 1892 bieten.

Summary: The following contribution to knowledge the family Brahmaeidae SWINHOE, 1892 (Lepidoptera) is part of the series "*Brahmaeidae of the World*", which should give a complete overview of this family after completion. New findings and new names were incorporated as far as they were known from literature up to the time of printing and were accessible to us. On the basis of almost 400 individual publications, an attempt was made to create an up-to-date and almost complete overview of the literature on the family Brahmaeidae. The scope made it necessary to subdivide the information into certain subject areas as expediently as possible, which should facilitate subsequent additions or corrections. Part IVB deals specifically with the *ledereri*-subgroup of the *ledereri*-group from Asia Minor / Middle East of the subgenus *Brahmaea* WALKER, 1855. This first coherent analysis of the family Brahmaeidae is not intended to represent a generic revision, but merely to show the current state of knowledge and provide a good working basis for further studies on the family Brahmaeidae SWINHOE, 1892.

Important notes: This contribution to knowledge the family Brahmaeidae SWINHOE, 1892 is regarded as provisional with regard to completeness and occasionally provisional with regard to the status of scientific names that are specially marked here.

All quotations made in this issue (Part IVB) about taxa that do not belong to the subgenus *Brahmophthalma* MELL, 1928 or the subgenus *Brahmaea* WALKER, 1855 are provisional with regard to their taxonomic status. These taxa are dealt with conclusively in the relevant parts of the entire publication on the family Brahmaeidae SWINHOE, 1892.

Brahmaea (Brahmaea)

Brahmaeidae SWINHOE, 1892

***Brahmaea* WALKER, 1855**

***Brahmaea* WALKER, 1855**; STATUS-; subgenus of *Brahmaea* WALKER, 1855

Acanthobrahmaea SAUTER, 1967; STATUS-; junior synonym of *Brahmaea* WALKER, 1855

Transbrahmaea ZOLOTUHIN, 2016; STATUS-; junior synonym of *Brahmaea* WALKER, 1855

***ledereri*-group** (sensu Paukstadt & Paukstadt 2021)*

***ledereri*-subgroup** (sensu Paukstadt & Paukstadt 2021)*

ledereri ROGENHOFER, 1873 (*Brahmaea*)

ledereri zaba DE FREINA, 1982 (*Brahmaea*); STATUS-; needs further investigation (see “Taxonomic notes” in the “*ledereri*” part)

christophi STAUDINGER, 1879 (*Brahmaea*), **stat. rev.**

* **Taxonomic notes:** Collective-group names which are used in this contribution were established tentative for certain assemblages of taxonomic convenience and do not comply with the requirements for a valid description according to the provisions of the International Code of Zoological Nomenclature, 4th Edition (London) – ICZN (1999).

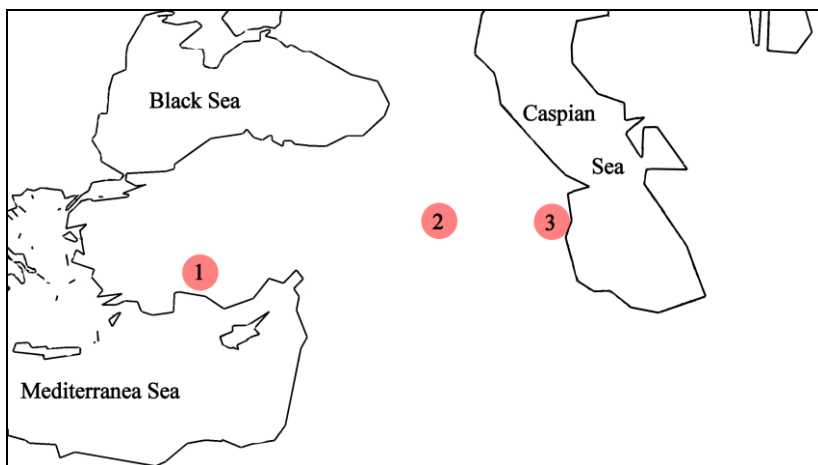
Type localities

ledereri ROGENHOFER, 1873 (*Brahmaea*): Cilicischer* Taurus [southern Turkey]

ledereri zaba DE FREINA, 1982 (*Brahmaea*): [Turkey,] Kleinasien [Asia Minor], Prov. Hakkari, Zab-Tal [Zab Valley], 30 km SW Hakkari, 1,200-1,300 m.

christophi STAUDINGER, 1879 (*Brahmaea*): Lenkoran (südöstliches Caucasion) [southeasterly Caucasia, Azerbaijan]

* Cilicia is an ancient district of southern Anatolia, also known as Asia Minor, bounded on the north and west by the Taurus Mountain Range, on the east by the Anti-Taurus, and on the south by the Mediterranean Sea. It is geographically divided into two contrasting regions. The western part being wild and mountainous and the eastern consisting of rich plainland. In ancient times the only route from Anatolia to Syria passed through Cilicia, cf. Encyclopedia Britannica.



Map 1. Type localities of the taxa in the *ledereri*-subgroup of the *ledereri*-group of the genus *Brahmaea* WALKER, 1855.

1. ***ledereri*** ROGENHOFER, 1873 (*Brahmaea*)
2. ***ledereri zaba*** DE FREINA, 1982 (*Brahmaea*)
3. ***christophi*** STAUDINGER, 1879 (*Brahmaea*)

Brahmaea (Brahmaea)

ledereri ROGENHOFER, 1873 (*Brahmaea*)

Original citation and spelling: *Brahmaea Ledereri* [sic] Rghf. n. sp.

Original description: Rogenhofer, A. F. (1873): *Brahmaea Ledereri* [sic] Rghf. n. sp. (Vorgelegt in der Sitzung am 8. [recte 1., cf. Rogenhofer (1876: 101)] Oktober 1873. – Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien, Jahrgang 1873, XXIII. Band: p. 574.

Type locality: Cilicischer Taurus [Turkey].

Geographical and altitudinal distribution: Rogenhofer (1873: 574) and Kirby (1892: 723) recorded *ledereri* from the Cilician Taurus / Cilicia. Röber (1897: 260) recorded *ledereri* from the Taurus, village Djebel [Dschebel?], approximately 1,000 m. Hering (1932: 29) recorded *ledereri* from Akbes (Syria). Nässig (1980: 82) reported *ledereri* from Ekbes [Meydan Ekbaz?], 1,600 m and from Cheikhlé, Syria [see “Remarks” below]. De Freina (1982: 138, fig. 7) presented a map with the previously known distribution range of *ledereri* ROGENHOFER, 1873 with its three subspecies. *B. ledereri* was recorded for the Taurus mountains in Turkey, the easterly populations from Elazig. This species is or has been most likely distributed in northwestern Syria, too, cf. location information by Nässig (1980: 82) and Hering (1932: 29). Gegechkori & Didmanidze (2015) recorded *B. ledereri* from Turkey and an adjacent small area of Syria. Zolotuhin, Didmanidze & Petrov (2011: 68) recorded *christophi ledereri* [sic] from northern Iran (Mazandaran, Elbrus: Kendevan [north of Teheran]) and [southeastern] Azerbaijan (Talysh) and *christophi christophi* [sic] from south-western Georgia and north-western [sic] Turkey, which, of course, has been a lapsus rather.

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are treated as distinct species. The taxon *zaba* is a [weak] subspecies of *B. (Brahmaea) ledereri* ROGENHOFER, 1873: *B. (Brahmaea) ledereri zaba* DE FREINA, 1982.

Meydan Akpas, has been a small border town and a train station on the north-western Syrian-Turkish border (Baghdad Railway). The Kurdish place, actually a pass between Kurd Dagh (Kurdenberg) and the Amanos Mountains, is of high historical value. The Trappist monastery Akbez, an earlier name was also Cheikhlé, was a French monastery of the Trappists from 1881 to 1926 near Meydan Ekbaz in the Nur Mountains in Syria, today in Turkey, northerly of Hassa (Hatay), not far from the Syrian border. Meydan Akpas belongs to the Rajo community, Afrin district, Aleppo governorate in Syria [the actual political situation was not investigated by us].

Etymology: *Brahmaea ledereri* was named in honor of the Austrian Entomologist Julius Lederer (June 24th, 1821 – April 30th, 1870).

Type material: the description based on an unstated number of ♂ and ♀ specimens. The type material was recorded being preserved in kaiserliches Museum [Wien] and in coll. von Zimmermann. The present location of the type material was not determined by us.

Taxonomic history: bombycids – Rogenhofer (1873); Endromidae – Staudinger (1879); Bombycidae – Staudinger (1881); *Bombyx* of Saturnides – Austaut (1896); Saturniidae – von Wattenwyl (1897); between *Endromis* [Endromidae] and *Saturnia* [Saturniidae] – Korb (1899); Bombycides – Conte (1911); Brahmaeidae – Strand in Wagner (1913); Bombycides – Conte (1919); Brahmaeidae – Seitz (1911); Brahmaeidae: *Brahmaea* (*Transbrahmaea*) – Zolotuhin (2016); Brahmaeidae: *Brahmaea* (*Brahmaea*) – Kitching, Rougerie, Zwick, Hamilton, St Laurent, Naumann, Ballesteros Mejia & Kawahara (2018).

Remarks: above compilation can be incomplete.

Taxonomic notes: Staudinger (1879: 359) remarked that especially after the four specimens brought by Christoph from the Amur, there is no doubt that the highly variable *Ledereri* [sic] is a weak local variety of *Lunulata* [sic] only. Contrary (: 360-361) Staudinger noted that all three forms [in the sense of subspecies rather] *Lunulata* [sic], *Ledereri* [sic], and *Christophi* [sic] certainly belong to only one species. De Freina (1982: 129) considered *B. ledereri* ROGENHOFER, 1873 and *B. christophi* STAUDINGER, 1879 to be conspecific and *christophi* was confirmed as subspecies of *ledereri*. Zolotuhin (2016) proposed the new subgeneric name *Transbrahmaea* for *B. christophi* STAUDINGER, 1885 [sic] and *B. ledereri* ROGENHOFER, 1873 with its subspecies *zaba* DE FREINA, 1982. *B. christophi* was selected as type species by original designation. A tree was figured (: 6, fig. 4) included the taxa of the subgenera *Brahmaea* WALKER, 1855, *Acanthobrahmaea* SAUTER, 1967 and *Transbrahmaea* ZOLOTUHIN, 2016 of the genus *Brahmaea* WALKER, 1855 sensu stricto and *Anthela* sp. (Anthelidae) from Western Australia was included as outgroup but taxa of the subgenus *Brahmophthalma* MELL, 1928 were excluded. At the time present *Acanthobrahmaea* SAUTER, 1967 and *Transbrahmaea* ZOLOTUHIN, 2016 are considered to be junior synonyms of *Brahmaea* WALKER, 1855 due to phylogenetic relationships with taxa of the *certhia*-group (sensu Paukstadt & Paukstadt 2021). After reviewing all available literature and assessing various trees (from BOLD), we decided to treat *ledereri* ROGENHOFER, 1873 and *christophi* STAUDINGER, 1879 as distinct but closely related species. The third

taxon in this group is *ledereri zaba* DE FREINA, 1982 which seems to be a weak subspecies rather.

The name *ledereri* ROGENHOFER, 1873 was listed as species of *Brahmaea* (*Brahmaea*) in Kitching, I.J., Rougerie, R., Zwick, A., Hamilton, C.A., St Laurent, R.A., Naumann, S., Ballesteros Mejia, L. & Kawahara, A.Y. (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236.

General notes: the type material was not figured in the original description.

Rogenhofer (1876: 801) described the larva and recorded *Phillyrea latifolia* L. as natural host. Korb (1899: [168]-170, col.pl. III with figs. 1-4) recorded as host plant for *christophi* from Talysh young ash and for *ledereri* from the Cilician Taurus *Phillyrea latifolia*. Larvae of *ledereri* (Cilician Taurus) and *christophi* (Talysh Mountains) were recorded being quite distinct in pattern and color morphology. Kirby (1897): col.pl. CXII, figure (chromolithograph) of a ♀ adult of *Brahmaea ledereri* by Wyman & Sons Limited from Lloyds Natural History – A Handbook in the Order Lepidoptera. Nässig (1980: 83, fig. 1) illustrated *B. (B.) ledereri* from the Cilician Taurus dorsally. De Freina (1982) illustrated a ♂ specimen of *ledereri ledereri* in phot. h.-t. (: 132, fig. 1). De Freina (1985) described and figured the preimaginals of *Brahmaea ledereri* ROGENHOFER, 1873: eggs (: 83, fig. 3, phot.h.-t. by Th. Witt), the 2nd, 4th, and 5th larval instars (: 85, fig. 4, line drawings), and the pupa dorsally, laterally, and ventrally (: 87, fig. 5, line drawing).

Synonyms: for misinterpretations see the appropriate text parts. Junior subjective synonyms, junior objective synonyms, errors and incorrect subsequent spellings for *ledereri* ROGENHOFER, 1873 are as follows:

ledereri ROSENHOFER; Bryk (1949: 22); [lapsus, incorrect spelling of author]

‡*reducta* HERING, 1932; STATUS-; infrasubspecific

ledereri (ROGENHOFER, 1874); Oberprieler & Duke (1994: 202) [error in publication date and not code-conform citation]

ledereri ROGENHOFER, 1973; Oberprieler & Duke (1994: 217) [lapsus, error in publication date]

‡*ledireri* ROGENHOFER; Zhang, Hao & Yang (1999: 38) [incorrect subsequent spelling]

Hybridizations: inter-generic and inter-specific pairings with *ledereri* ROGENHOFER, 1873 are unknown from literature.

Further readings on *ledereri* ROGENHOFER, 1873

Rogenhofer (1873) Verh. zool.-bot. Ges. Wien, XXIII, 1873; compared the new species *Brahmaea Ledereri* [sic] from the Cilician Taurus (Turkey) with *B. lunulata* BREMER [sic] (: 574). The author noted that the pupa was in a web

similar to that of *Lasiocampa otus*. This showed much more affinity with the bombycids [Bombycidae] than the Saturniids [Saturniidae], from which R. Felder (Wiener entom. Monatschrift, Volume VI, 1862: p. 35) removed them with good reason.

Remarks: *Lasiocampa otus* DRURY (Lasiocampidae); *Brahmaea (Brahmaea) lunulata* (BREMER & GREY, 1853 ["1852"]) (*Saturnia*) is a recognized species from East Asia.

There are no further observations available in literature or from rearing reports that larvae of *B. (Brahmaea) ledereri* ROGENHOFER, 1873 prepare something similar like a web before pupating.

Rogenhofer (1876) Verh. zool.-bot. Ges. Wien, XXV, 1875; described the larva [uncertain instars] of *Brahmaea Ledereri* [sic] m. [ROGENHOFER, 1873] (: 801-802). The larva was reported being almost similar *Deilephila Elpenor* [sic] L. [Sphingidae] and *Agria tau* [Saturniidae]. *Phillyrea latifolia* L. was recorded to be the original host plant in the Sicilian Taurus.

Remarks: *Deilephila elpenor* (LINNAEUS, 1758) (*Sphinx*) (Lepidoptera: Sphingidae); *Agria tau* (LINNAEUS, 1758) (*Phalaena*) (Lepidoptera: Saturniidae).

Kirby (1892: 723) and Strand in Wagner (1913: 4) cited '1875' as date of publication. This error probably based on Rogenhofer's (1876 ["1875"]: 801) citation "6. *Brahmaea Ledereri* [sic]. m.[ea]", the wording suggests that a new species is being described.

Staudinger (1879) Lepidopteren-Fauna Kleinasien's, in: Hor. Soc. Entom. Rossicae; XIV [14], 1878 [01.xi.1878: pp. 129-320] [15.v.1879: pp. 321-516], pp. 176-482; placed the genus *Brahmaea* in the Bombycidae. He noted (: 359-361) that all three forms, *Lunulata* [sic] BREMER [sic], *Ledereri* [sic] ROGENHOFER, and *Christophi* [sic] STAUDINGER certainly belong to only one species. The new subspecies *Christophi* [sic] was compared with *Ledereri* [sic] and *Lunulata* [sic]. The author noted that in his opinion, the genus *Brahmaea* belongs to the family Endromidae and not Saturniidae, especially because of the caterpillars (: 361). Staudinger noted (: 185) that in 1872 Joseph Haberhauer traveled to the Taurus and added far more interesting discoveries to Lederer's discoveries there, especially those of the *Brahmaea Ledereri* [sic] ROGENHOFER.

Staudinger (1881) [05.ii.1881] Lepidopteren-Fauna Kleinasien's, in: Hor. Soc. Entom. Rossicae; XVI [16], 1881, pp. 65-135; placed the genus *Brahmaea* again in the Bombycidae (: 100). He listed *Brahmaea (Lunulata)* [sic] v. *Ledereri* [sic] ROGENHOFER (: 100) and *Brahmaea Lunulata* [sic] v. [concluded from text in the sense of subspecies] *Christophi* [sic] (Cauc. m. or.) [Caucasus meridionalis orientalis] in the 'List of the generic, species and variety names newly established in the previous work' (: 131).

Butler (1880b) Ent. mon. Mag., XVII, 1880-81, pp. 110-111; was grouping the genus *Brahmaea* as follows: Section I: *Brahmaea Lucina* [sic] DRURY (Sierra Leone), *Brahmaea Swanzyi* [sic] BUTLER (Fantee and Old Calabar); Section II: *Brahmaea Certhia* [sic] FABRICIUS [sic] (= *lunulata* BREMER [sic], = *Petiveri* [sic] BUTLER) (Chusan and North China), *Brahmaea Ledereri* [sic] ROGENHOFER (Asia Minor), *Brahmaea Mniszechii* [sic] FELDER (Japan); Section III: *Brahmaea japonica* BUTLER (Yokohama and Nikko), *Brahmaea nigrans* BUTLER, 1880 (Japan). Without group status remain *Brahmaea Whitei* [sic] BUTLER (Darjiling),

Brahmaea conchifera BUTLER (Silhet and Darjiling), *Brahmaea rufescens* BUTLER (NE Bengal), and *Brahmaea Wallichii* [sic] GRAY [sic] (Nepal). Butler noted that 5 off 11 species [sensu Butler 1880] were not represented in the National Collection.

Remarks: Butler confused taxa of the genus *Brahmaea* WALKER, 1855. *B. (Brahmophthalma) mniszechii* FELDER, [1874] and *B. (Brahmophthalma) nigrans* BUTLER, 1880 are junior subjective synonyms of *B. (Brahmophthalma) japonica* BUTLER, 1873. *B. (Brahmophthalma) conchifera* BUTLER, 1880 and *B. (Brahmophthalma) rufescens* BUTLER, 1880 are junior subjective synonyms of *B. (Brahmophthalma) wallichii wallichii* (GRAY, 1831). A further synonym of *wallichii* was omitted by Butler: *B. (Brahmophthalma) spectabilis* (HOPE, 1841). Another taxon was omitted: *B. (Brahmophthalma) hearseyi* WHITE, 1862 [“1861”] but its junior objective synonym *B. (Brahmophthalma) whitei* BUTLER, 1866 was listed instead. *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) was erroneously cited as junior synonym of *B. (Brahmaea) certhia* (FABRICIUS, 1793), both are distinct species. The Afrotropical taxa were correctly placed in a separate group (Section I).

Butler (1883) Ann. Mag. nat. Hist., (5) 11, 1883: pp. 114-115; described *Brahmaea Carpenteri* [sic]. The new species was compared with *B. certhia (lunulata)* BREMER [sic], *B. Ledereri* [sic], and *B. conchifera* (Northern India).

Remarks: since no exact origins / locality data of *certhia* and *ledereri* were provided, no statements about the actual identity can be made.

B. (Brahmaea) lunulata (BREMER & GREY, 1853 [“1852”]) (as *B. (Brahmaea) certhia* (FABRICIUS, 1793) in the paper) was cited in subordination (synonym) of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883.

Kirby (1892) Syn. Cat. Lep. Het., I, Sphinges and Bombyces, XII + 951 pp.: placed the genus *Brahmaea* in the Bombycidae (: 723-724, Appendix: 933). The author included 14 species in *Brahmaea*. Two of those were 1. *B. Ledereri* [sic] ROGENHOFER, 1873 from Cilicia [Cilicia is a geo-cultural region in southern Turkey] and 2. *B. Christophi* [sic] STAUDINGER, 1885 [sic] from Lenkoran [Azerbaijan].

Remarks: Kirby designated *B. (Brahmophthalma) conchifera* BUTLER, 1880 as type species of the genus *Brahmaea* WALKER, 1855. The type designation by Kirby (1892: 724) is considered to be invalid because the name *conchifera* BUTLER, 1880 was not originally included in Walker (1855: 1315-1316) and *B. Certhia* [sic] (sensu Walker 1855: 1316) considered being misidentified.

B. (Brahmaea) christophi STAUDINGER, 1879 and *B. (Brahmaea) ledereri* ROGENHOFER, 1873 are considered distinct on species level.

Staudinger in Romanoff (1892) [12.vii.1892] Die Macrolepidopteren des Amurgebietes . 1. Theil, in: Mém. Lép., VI, 1892, pp. 83-658, col.-pls. IX-XIV; placed the genus *Brahmaea* WALKER in the Bombyces. The larvae of *Ledereri* [sic] and *Christophi* [sic] were briefly described and compared with those of *Lunulata* [sic] (: 325). Staudinger noted (: 325) ‘since the larval patterns are also quite different, one would have to regard them as a different species, according to the larval morphology; but the larvae seem to vary very strongly and no species rights can be established accordingly’.

Remarks: error in authorship of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]). Above names were cited in species status contrary to his remark.

Anonymous (1895) col.pl. CXII, figure of a ♀ adult of *Brahmaea ledereri* by Wyman & Sons Limited.

Anonymous (1896) 1896 Original Antique Colour Print - Moths BRAHMAEA LEDERERI (LN167) col.pl. CXII; figure of a ♀ adult of *Brahmaea ledereri* by Wyman & Sons Limited. Offer at <https://www.amazon.co.uk/1896-Original-Antique-Colour-Print/dp/B07W3C7MNB> [04.i.2021]

Austaut (1896) Le Naturaliste, (2) 10, p. 98; under the header “Notice on *Brahmaea Lunulata* [sic] BREMER [sic] and on a new variety of this species” Austaut erroneously noted that the *Brahmaea* are *Bombyx* [sic] who belong to the tribus Saturnides. He reported *Brahmaea Lunulata* [sic] BREMER [sic] from the Amur River, *B. Japonica* [sic] from Japan and Korea, and *B. Ledereri* [sic] from Asia Minor.

Remarks: the record of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) from the Amur refers to the subspecies *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883. *B. (Brahmophthalma) japonica* BUTLER, 1873 is absent in Korea.

Röber (1897) Entomol. Nachrichten, XXIII, (17 & 18) (1897), pp. 17-288; recorded *Brahmaea ledereri* from the Taurus, village Djebel [Dschebel?], approximately 1,000 m (: 260). He noted the larval season was passed already but the eaten leaves on the host plant *Phillyrea latifolia* [L. (Oleaceae)] described similar *Ligustrum* [(Oleaceae)] testified that the larvae were common. This taxon was listed as *Brahmaea lunulata* BREMER [sic] var. *ledereri* ROGENHOFER (: 271).

Wattenwyl von (1897) Betrachtungen über die Farbenpracht der Insekten, 16 pp. + 9 col.pls.; placed *Brahmaea* to the family Saturniidae and recorded *lunulata* BREMER [sic] from the Transcaucasus [South Caucasus] (: 7). The adult was figured in color dorsally (pl. 4, fig. 59).

Remarks: the following terms are associated with ‘Transcaucasus’: South Caucasus, Colchian Plain, Transcaucasian Lowlands, and Lenkoran Lowlands.

The record by von Wattenwyl refers to *B. (Brahmaea) christophi* STAUDINGER, 1879 which was originally described from Lenkoran.

Staudinger & Bang-Haas (1897) [xii.1897] Lepidopteren-Liste No. 41, listed *Brahmaea Lunulata* [sic] ♂ 350, *Brahmaea* v.[ariation] *Ledereri* [sic] sup. specimen 175, and *Brahmaea Undulosa* [sic] ♀ 400 (: 10). Prices in unities (or 1/10 Mark).

Remarks: the name *B. ‡Undulosa* is considered to be an incorrect subsequent spelling of *B. (Brahmaea) undulata* (BREMER & GREY, 1853) rather, than a *nomen nudum*.

Korb (1899) [15.ix.1899] Deut. ent. Zeit. “Iris”; described and illustrated the preimaginal instars of *Brahmea* [sic] *Christophi* [sic] STAUDINGER and provided information on the biology and ecology. He recognized three forms [in the sense of species] in *Brahmea* [sic]: *lunulata* BREMER [sic] (Amur), *ledereri* ROGENHOFER (Cilician Taurus), and *christophi* STAUDINGER (Talysch). Comments on *Brahmea* [sic] *ledereri* ROGENHOFER and a brief description of the preimaginals were provided. Korb remarked (: 169) that *Brahmea* [sic] is best placed between *Endromis* and *Saturnia*. He noted (: 169) that the larva is pupating below moss without spinning any silk, contrary to Rogenhofer’s 1873-description. Host plant

for *christophi* was cited to be young ash and for *ledereri* *Phillygrea latifolia*. Larvae of *ledereri* (Cilician Taurus) and *christophi* (Talysh Mountains) were recorded being quite distinct in pattern and color morphology.

Remarks: error in authorship of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 ["1852"]). The record from the Amur refers to *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883.

Strecker (1899) Index of Species to Kirby's Syn. Cat. Lep. Het., Vol. I, pp. [1]-45; listed *Ledereri* [sic], 65, 280, 493, 723, 869 (: 25).

Schaufuß & Schenkling (1910) [15.iii.1910] Deutsche Entomologische National-Bibliothek, 1 (5), 1910, frontpage; noted that Alois Zirps (Neutitschein, Mähren) can offer living pupae of the Saturniid *Brahmaea Ledereri* [sic] each Mk. 4 or dozen Mk. 40.

Conte (1911) Essai d. Class. Lep. Prod. de Soie, in: Rapp. du Laborat. d'ét. de la Soie, 14, pp. [1]-90; placed *Brahmaea* WALKER, 1855 in the Bombycides and recorded *Brahmaea Ledereri* [sic] ROGENHOFER, 1873 from Cilicia, Asia Minor and Shanghai. The adult was described (: 82) and figured in color dorsally (pl. XIV, fig. 2 [♂] and 3 [♀]).

Remarks: the record of *B. (Brahmaea) ledereri* ROGENHOFER, 1873 for Shanghai based on a misinterpretation by Conte (1911) and refers to *B. (Brahmaea) certhia* (FABRICIUS, 1793) rather.

Strand in Wagner (1913) [05.ix.1913] Lep. Cat., Pars 16: Brahmaeidae, pp. [3]-5; included a single genus in Brahmaeidae, which has been *Brahmaea* WALKER, 1855. The following taxon was included in *Brahmaea*: *B. Ledereri* [sic] ROGENHOFER, 1873 (Cilicia, Asia Minor, Shanghai). The author distinguished between 'Species' and 'Varitates' [varieties] in the Index Brahmaeidarum (: 6); he explicitly placed *Ledereri* [sic] ROGENHOFER as species in *Brahmaea* WALKER.

Remarks: the record of *B. (Brahmaea) ledereri* ROGENHOFER, 1873 for Shanghai based on a misinterpretation and refers to *B. (Brahmaea) certhia* (FABRICIUS, 1793) rather.

Conte (1919) Ess. d. Class. Lep. prod. de Soie, 7, (1919), pp. 246-256, 257, 258; pls. XII-XV, placed *Brahmaea* WALKER, 1855 in the Bombycides. Conte (255-256, 257) recorded *Brahmaea Ledereri* [sic] ROGENHOFER, 1875 [sic] from Cilicia, Asia Minor, and Shanghai. The ♂ and ♀ adults of *Brahmaea Ledereri* [sic] were illustrated dorsally (: pl. XIV, fig. 2 [♂] and 3 [♀]).

Remarks: The record of *B. (Brahmaea) ledereri* ROGENHOFER, 1873 for Shanghai refers to *B. (Brahmaea) certhia* (FABRICIUS, 1793) rather.

Seitz (1911) [10.xi.1911] 15. Familie: Brahmaeidae, in: Seitz (ed.) Die Grossschmetterlinge der Erde . I. Abt., Bd. 2, pp. 227-228, col.pl. 35c; placed only a single genus in the Brahmaeidae: *Brahmaea* WALKER. The author recognized three Palearctic species and several forms [concluded from text in the sense of subspecies] in *Brahmaea*. Those were 1. *B. certhia* FABRICIUS [sic] (Amur, North and Central China) with its synonyms *undulata* BREMER & GREY [sic] and *petiveri* BUTLER, and the forms [in the sense of subspecies] *carpenteri* BUTLER (Korea) and *ledereri* ROGENHOFER (Cicilia), and *lunulata* BREMER & GREY [sic] which represents a unicolorous specimen such as may occur everywhere among typical specimens [in the sense of color morph], 2. *B. christophi* STAUDINGER (Lenkoran,

Caucasia), and 3. *B. japonica* BUTLER (Japan). *Brahmaea christophi*, *B. certhia*, *B. ledereri*, and *B. japonica* were figured in color dorsally (pl. 35C).

Remarks: *B. (Brahmaea) certhia* (FABRICIUS, 1793) is absent in the Amur region. *B. (Brahmaea) undulata* (BREMER & GREY, 1853) is a junior objective synonym of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 ["1852"]) with its subspecies *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883. *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793).

Seitz (1911) [10.xi.1911] 15. Family: Brahmaeidae, in: Seitz (ed.) The Macrolepidoptera of the Palearctic Fauna . 2. Volume: The Palearctic Bombyces & Sphinges. I. Division. Vol. 2, pp. 227-228, col.pl. 35C; - please read: Seitz (1911) German Edition.

Mell [1930] Deutsche Entomologische Zeitschrift, 1929 (5), pp. [337]-494; distinguished three groups in the family Brahmaeidae: the Central African group with two genera: *Dactyloceras* and [*Spiramiopsis*] and 11 species, the Northern Indian group with 3 species: *hearseyi* WHITE, *wallichii* (GRAY), and *japonica* (BUTLER) [sic], and the Palearctic group with 3 species: *certhia* (FABRICIUS), *christophi* STAUDINGER, and *ledereri* ROGENHOFER. The subgenus *Brahmaea* WALKER was cited under 'Palearctic Asian group', which included *certhia certhia* FABRICIUS, *certhia tancréi* [sic] AUSTAUT, *ledereri* ROGENHOFER, and *christophi* STAUDINGER.

Remarks: *B. (Brahmaea) tancréi* AUSTAUT, 1896 is a junior subjective synonym of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883.

Hering (1932) Mitt. D. ent. Ges., 3 (2), 1932, pp. [28]-29; described a new form of *Brahmaea ledereri* ROGENHOFER due to the pattern morphology of the median area in the forewings. All specimens were confirmed originally from a rearing.

Remarks: the proposed name ‡*reducta* is considered to be of infrasubspecific rank.

Aue (1933) Handbuch für den praktischen Entomologen; 1. Abteilung; Lepidoptera; IV. Band; provided short rearing instructions on *Brahmaea ledereri* ROGENHOFER var. [not specified] from Cilicia (: 138). The author noted that the family Brahmaeidae is closely related to the Saturniidae and listed by him within the latter family since no relatives of Brahmaeidae are distributed in Europe. Aue considered *ledereri* being a variation of *certhia* [sic] FABRICIUS [sic] and pointed to the chapter on the nominotypical *certhia* in his book.

Remarks: *B. (Brahmaea) certhia* (FABRICIUS, 1793) and *B. (Brahmaea) ledereri* ROGENHOFER, 1873 are distinct species.

Bryk (1949) Arkiv för Zoologi, Band 41 A, N:o 1 [26.i.1949], pp. 20-26; provided some critical remarks on nomenclature in Brahmaeidae. Finally a new species from North Korea was described: *Brahmaea magnificentia* BRYK, 1949. The new species was compared with *carpenteri* BUTLER, *B. certhia certhia* FABRICIUS [sic], *tancréi* [sic] AUSTAUT, *ledereri* ROGENHOFER, and *christophi*. Bryk treated *B. carpenteri* BUTLER from South Korea as an albinistic form of *B. certhia* FABRICIUS [sic]. Some observations on the venation in *Brahmaea* and *Dactyloceras* were recorded and several species in Brahmaeidae were shortly described, compared, and several conclusions presented.

Remarks: *B. (Brahmaea) magnificentia* BRYK, 1949 and *B. (Brahmaea) tancrei* AUSTAUT, 1896 are junior subjective synonyms of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883. The latter taxon is distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793) on species level.

Hartig (1963) Boll. Ass. Romana ent., XVIII (1), pp. 5-6; compared *Bramaea* [sic] *europaea* HARTIG, 1963 with *Bramaea* [sic] *certhia* FABRICIUS [sic] (including *ledereri* ROGENHOFER and *carpenteri* BUTLER), *christophi* STAUDINGER, and *japonica* BUTLER. *Bramaea* [sic] *ledereri* ROGENHOFER, *lunulata* BREMER & GREY [sic], and *carpenteri* BUTLER were listed as subspecies of *certhia* FABRICIUS [sic] in the “Bibliografia”. *Bramaea* [sic] *cristophi* [sic] STAUDINGER and *japonica* BUTLER were cited in species rank and *nigrans* BUTLER as subspecies of *japonica* BUTLER in the “Bibliografia”.

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]), and *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 are distinct from the Chinese *B. (Brahmaea) certhia* (FABRICIUS, 1793). *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmaea) japonica* BUTLER, 1873 are distinct species and *B. (Brahmaea) nigrans* BUTLER, 1880 is a junior subjective synonym of the latter.

Sauter (1967) Mitt. schweiz. ent. Ges., XL (1/2), 1967 [20 Jul 1967]: pp. [125]-129, 2 text-figs.; remarked that the species in *Brahmaea* are difficult to distinguish in the pattern morphology, therefore Seitz (erroneously) placed *ledereri* ROGENHOFER as race only to *certhia* FABRICIUS. Sauter (: 126) remarked that the only ♂ adult of *europaea* he has received for examination is distinct from the type because the median area is interrupted as in f. *reducta* HERING of *B. ledereri* ROGENHOFER.

Remarks: Sauter (1967) used the citation “f. *reducta* HERING” for an aberrative specimen, which is in this manner not recommended by the Code, cf. ICZN (1999) Rec. 51F.

Schepdael (1967) Linneana Belgica, 3 (5): pp. 91-103; provided some information on the biology and the ecology of *Brahmaea europaea*. Schepdael recorded the distribution range of the family Brahmaeidae from Japan, Korea, East and North China, India, Amur, the Caucasus, Cilicis and Ethiopia. He noted that Hartig listed 7 forms for this faunal region, belonging to only three species. Those were *Brahmaea certhia* FABRICIUS [sic], *B. certhia ledereri* ROGENHOFER, *B. certhia lunulata* BREMER & GREY [sic], *B. certhia carpenteri* BUTLER, *B. cristophi* [sic] STAUDINGER, *B. japonica* BUTLER, and *B. japonica nigrans* BUTLER. The author discussed on the history of the development of the Brahmaeidae.

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 are distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793) on species level. *B. (Brahmophthalma) nigrans* BUTLER, 1880 is a junior subjective synonym of *B. (Brahmophthalma) japonica* BUTLER, 1873.

Chu & Wang (1977) [ii.1977] Acta Ent. Sinica, 20 (1), 1977, pp. 83-84, figs. 1-7 (separate plate); recorded seven species of the family Brahmaeidae from China. Those were *Brahmaea certhia* FABRICIUS [sic] (fig. 1) (Heilongjia Prov.: Yichun, Dailin; Zhejia Prov.: Zhoushan; Central and North China), *Brahmaea christophi* STAUDINGER (fig. 2) (Beijing; Caucasus), *Brahmaea ledereri* ROGENHOFER (fig. 3) (Shanghai; Zhejian Prov.: Tianmu Shan; Turkey and Asia Minor), the new species *Brahmaea porphyria* CHU & WANG (fig. 4) (Zhejian Prov.; Jianxi Prov.;

Shanghai, and Jianshu Prov.: Wuxi), *Brahmophthalma hearseyi* (WHITE) (fig. 5) (Sichuan Prov.; Henan Prov.; Gueichou Prov.; Guangdong Prov.; Fujian Prov.; Ceylon [Sri Lanka]; India; Burma [Myanmar]), *Brahmophthalma wallichii* (GRAY) (fig. 7) (Yunnan Prov.: Kunming; Sichuan Prov.; Hunan Prov.: Changyang; Taiwan; India), and *Brahmophthalma japonica* (BUTLER) (fig. 6) (Taiwan, Japan and India). The family was divided into two genera depending on the larval morphology, those were *Brahmaea* and *Brahmophthalma*.

Remarks: the ranges were recorded in Chinese [not translated, but see Chu & Wang (1983)].

Records of *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmophthalma) japonica* BUTLER, 1873 from China based on misinterpretations and erroneous citations in literature. Above three taxa are absent in China. *B. (Brahmaea) porphyria* CHU & WANG, 1977 is a junior subjective synonym of *B. (Brahmaea) certhia* (FABRICIUS, 1793). The record of *B. (Brahmophthalma) japonica* BUTLER, 1873 from Taiwan refers to *B. (Brahmophthalma) wallichii insulata* INOUE, 1984.

Nässig (1980) [xii.1980] Nachr. entomol. Ver. Apollo, Frankfurt/Main, N. F. Bd. 1 (3/4), pp. 77-91; recognized four genera in the Brahmaeidae. Those were the African *Dactyloceras* MELL., the Italian *Acanthobrahmaea* SAUTER, the Asian typical *Brahmaea* WALKER, and the isolated *Calliprogonos* MELL. [sic] from SW China. He recorded the geographical distribution of *B. (Brahmaea) ledereri* ROGENHOFER, 1874 [sic] and *B. (Brahmaea) christophi* STAUDINGER, 1879 in Iran and Turkey. A lot of general information compiled from literature on the biology and ecology, distribution, the pre-imaginal stages, host plants, climatic and botanical conditions at the collecting sites, and short descriptions of *ledereri* and *christophi* were give. *B. (Brahmaea) ledereri* was figured dorsally (: 83, fig. 1 phot. h.-t.) and the distribution shown in fig. 4 (: 85).

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

de Freina (1982) [10.v.1982] Entomofauna, 3 (9), pp. 129-139; described the new subspecies *Brahmaea ledereri zaba* from the Turkish Kurdistan region. The new subspecies was compared with *ledereri ledereri* from the Taurus mountains in Turkey and with *B. ledereri christophi* from the Persian Caspian Sea-Region [Azerbaijan]. De Freina (: 138, fig. 7) presented a map with the previously known distribution area of *ledereri* ROGENHOFER, 1873 with its subspecies. ♂ specimens of all three subspecies were illustrated in phot.h.-t. (: 132, fig. 1 *ledereri*), (: 133, fig. 2 *zaba*, and fig. 3 *christophi*).

Remarks: at the time being *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are treated as distinct species.

Gardiner (1982) A Silkmoths Reared's Handbook, xiii + 255 pp., 125 figs. phot.h.-t. / line drawings, XXXII col.pls.; recorded *Brahmaea ledereri* ROGENHOFER particularly from Asia Minor and reported the larvae are gregarious with foodplants in particular *Phillyrea latifolia*, but also privet, lilac, and ash.

Zhu Hongfu [Chu, H.F.] & Wang Linyao (1983) Iconographia Heterocerorum Sinicorum, IV, pp. 414-415, col.-figs. 2985-2991, [actually a reprint of Chu & Wang (1977)]; recorded seven species of the family Brahmaeidae from China.

Those were *Brahmaea certhia* FABRICIUS [sic] (fig. 2985), *Brahmaea christophi* STAUDINGER (fig. 2986), *Brahmaea ledereri* ROGENHOFER (fig. 2987), *Brahmaea porphyrio* [sic] CHU & WANG (fig. 2988), *Brahmophthalma hearseyi* (WHITE) (fig. 2989), *Brahmophthalma wallichii* (GRAY) (fig. 2990), and *Brahmophthalma japonica* (BUTLER) (fig. 2991). Representatives of above names were figured in color (col.pl. 136).

Remarks: the following distribution range was recorded for *B. (Brahmaea) ledereri* ROGENHOFER, 1873: Shanghai, Zhejiang Prov. (Tianmu Shan), Turkey and Asia Minor [sic]. Locations cited are partly based on misinterpretations and erroneous citations in literature. Taiwan is occupied by the later described taxon *B. (Brahmophthalma) wallichii insulata* INOUE, 1984. *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmophthalma) japonica* BUTLER, 1873 are no taxa of the fauna of China. *B. (Brahmaea) porphyria* CHU & WANG, 1977 is a junior subjective synonym of *B. (Brahmaea) certhia* (FABRICIUS, 1793).

de Freina (1983) [28.ii.1983] Mitt. Münch. Ent. Ges., 72, pp. 57-127; listed *Brahmaea ledereri zaba* DE FREINA, 1982 and noted that the record of *Brahmaea ledereri* ROGENHOFER, 1874 [sic] for the Hakkari-Region [Turkey, Hakkari Province] is an extremely interesting record from a zoogeographical point of view (cf. de Freina, 1982). The genus *Brahmaea* was placed in the family Brahmaeidae HAMPSON, 1892 [sic].

Sbordoni & Forestiero (1984) Il Mondo delle Farfalle, 312 pp.; see Sbordoni & Forestiero (1985) Weltenzyklopädie der Schmetterlinge [German Edition].

Sbordoni & Forestiero (1985) Weltenzyklopädie der Schmetterlinge, 312 pp.; placed the genera *Dactyloceras*, *Acanthobrahmaea*, *Brahmaea*, and *Calliprogonos* in the Brahmaeidae and the genera *Lemonia*, *Spiramiopsis*, and *Sabalia* in the Lemoniidae (: 142). The authors noted that *Spiramiopsis* was also placed sometimes to the Eupterotidae or Brahmaeidae. Information on the distribution ranges was provided for *B. ledereri* (Middle East). The authors [erroneously] noted that the proboscis of the adults of the Brahmaeidae is inoperable.

Remarks: Paukstadt, U. & Paukstadt, L. H. (1987) Ent. Z. (Essen), 97 (9), pp. 113-121, demonstrated that adults of *Brahmophthalma* MELL, 1928 actively imbibed water / sugar solution with the reduced proboscis and thereby extending life expectancy.

Acanthobrahmaea SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

de Freina (1985) [01.xii.1985] Mitt. Münch. Ent. Ges., 74: pp. 77-90; described and figured the preimaginals of *Brahmaea ledereri* ROGENHOFER, 1873. Some particulars on the habitat (: 79-81, figs. 2a-c), environment and distribution (: 77-78, fig. 1 [map]), original host plant (: 81), biology and ecology (: 82) were given. The subspecies-status of *ledereri*, *christophi* STAUDINGER, 1879, and *zaba* DE FREINA, 1982 was discussed. The life-history was described in detail, the eggs were figured (: 83, fig. 3, phot. h.-t. by Th. Witt), the 2nd, 4th, and 5th larval instars were illustrated (: 85, fig. 4, line drawings), and the pupa dorsally, laterally, and ventrally (: 87, fig. 5, line drawing). The variability of the subspecies *ledereri*, *christophi* and *zaba* was described and the ratio between the width of the hind wing outer band [“Hflgl.-Außenbindenbreite” = postmedian area?] width and the total width of the hind wing was shown in an affinogram (: [89, fig. 6]).

Kozlov (1985) Arthropods of Siberia and Far East, "Nauka", pp. 105-112; described and figured the preimaginals of *B. lunulata* BREMER & GRAY [sic], 1852 [sic] [as *certhia* FABRICIUS, 1793]. This species was compared with *Brahmaea ledereri* ROGENHOFER and *B. christophi* STAUDINGER. [in Russian]

Remarks: *B. (Brahmaea) certhia* (FABRICIUS, 1793) is replaced in the Russian Federation / Far East by *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883.

Sauter (1986) [31.xii.1986] Nota lepid., 9 (3-4), 1986 [December 31st, 1986 as per header], pp. 262-271, 3 text-figs.; placed *Acanthobrahmaea* SAUTER, 1967, *Brahmaea* WALKER, 1888 [sic], *Brahmidia* BRYK, 1948 [sic], *Brahmaeops* BRYK, 1948 [sic], and *Brahmophthalma* MELL, 1930 [sic] in the subfamily Brahmaeinae (: 268-269) of the Brahmaeidae. *Calliprogonos* MELL & HERING, 1937 and *Dactyloceras* MELL, 1930 [sic] were placed in the new subfamily Dactyloceratinae. The author noted that the ♂ genitalia structures of *Acanthobrahmaea* regarding the structures of valva and uncus correspond quite well to that of *Brahmaea ledereri* and *B. christophi* (: 269). An updated generic diagnostic for *Acanthobrahmaea* SAUTER, 1967 and a key for the genera was provided. A work by Dujardin (1977: 99) was viewed critically in that Sauter wrote (: 269) "The zoogeographical theories, from which Dujardin starts, have to adapt to the observed facts, not the other way around!"

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Brahmaeops BRYK, 1949 and *Brahmidia* BRYK, 1949 are considered to be junior synonyms of *Brahmophthalma* MELL, 1928. *Brahmophthalma* MELL, 1928 is placed as subgenus to *Brahmaea* WALKER, 1855. *Calliprogonos* MELL & HERING, 1937 and *Dactyloceras* MELL in Hering in Seitz (ed.), 1927 are genera in the family Brahmaeidae SWINHOE, 1892.

de Freina & Witt (1987) Die Bombyces und Sphinges der Westpalaearktis, Bd. 1, noted (: 327) that also in the southeastern Balkans (e.g. in Serbia or Bulgaria) there are biotopes that are almost identical to the habitats of the Asian Minor *Brahmaea ledereri* in terms of climate and vegetation. The ♂ genitalia structures (uncus and valva) of *ledereri* and *christophi* were figured and compared (: 107, fig. 1).

Owada, Brahmaeidae; in Sugi (ed.) (1987) Larvae of Larger Moths in Japan, pp. 120-122; cited *Brahmaea ledereri* ROGENHOFER (: 121) for comparison. [text Japanese].

Trentini & Marini (1989) J. Res. Lepid., 27 (2), 1988, pp. 136-138, reported on a chromosome study of *Brahmaea japonica* BUTLER. The distribution of taxa of Euroasiatic species of *Brahmaea*, e.g., *Brahmaea ledereri* ROGENHOFER, *Calliprogonos*, and *Acanthobrahmaea*, Indo-Australian species of *Brahmaea*, and Ethiopian species of *Dactyloceras* was demonstrated in fig. 1 (distribution map).

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Paukstadt, U. & Ragus (1990) [15.i.1990] Ent. Z. (Essen), 100 (1/2), pp. 11-30, 29 figs. phot.h.-t.; described and figured the preimaginal instars of *Brahmaea (Brahmaea) tancrei* AUSTAUT 1896 from Korea for the first time. Comments on the taxa in *Brahmaea* WALKER, 1855 and taxonomy were presented. The authors

noted that further comparisons with the life-histories of *B. ledereri ledereri* ROGENHOFER, 1874 [sic], *B. ledereri christophi* STAUDINGER, 1879, and *B. porphyria* CHU & WANG, 1977 of the subgenus *Brahmaea* WALKER are projected.

Remarks: *B. (Brahmaea) tancrei* AUSTAUT, 1896 is a junior subjective synonym of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 and *B. (Brahmaea) porphyria* CHU & WANG, 1977 is a junior subjective synonym of *B. (Brahmaea) certhia* (FABRICIUS, 1793).

McNamara (1990) [ii.1990] Bull. Amat. Ent. Soc., 49 (368), pp. 11-14; compared *B. (Acanthobrahmaea) europaea* (HARTIG) [sic] mainly with *B. (Brahmaea) certhia* (FABRICIUS) and *B. wallichii japonica* (BUTLER) [sic]. *B. europaea*, *certhia* and *wallichii insulata* (INOUE) [sic] were illustrated [drawings]. The taxa in *Brahmaea* were grouped as follows: European, *Certhia* [sic] group, and *Wallachii* [sic] group. On rearing / crossing experiments was reported briefly. *B. (Brahmaea) christophi* (STAUDINGER) [sic] was cited as a member of the *Certhia* [sic] group.

Remarks: the names *Wallachii* group and *Wallichii* group appeared repeatedly in this paper besides the correct written name *wallichii wallichii* (GRAY, 1831) and therefore ‡*Wallachii* is considered to be an incorrect subsequent spelling of *wallichii* (GRAY, 1831) rather than a newly proposed group name. *B. (Brahmophthalma) wallichii wallichii* (GRAY, 1831) and *B. (Brahmophthalma) japonica* BUTLER, 1873 are distinct taxa.

Acanthobrahmaea SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Nässig & Paukstadt, U. (1990: 117-136) [xii.1990] Heterocera Sumatrana (Göttingen), 6, Dec 1990; tentatively placed *ledereri* ROGENHOFER, 1873 (sensu de Freina 1985) to the genus *Brahmaea* WALKER, 1855. The authors remarked that it is very likely that *Acanthobrahmaea* SAUTER, 1967 will be included in *Brahmaea* in future as a close relative of *B. ledereri*. Some further general notes on taxonomy of the family Brahmaeidae were presented.

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Oberprieler & Duke (1994) [xi.1994] Nachr. entomol. Ver. Apollo, Frankfurt/Main, N.F. 15 (3), pp. 199-244, 8 col.-figs., 8 b/w-figs., gave a historical review of the taxonomic placements of the genus *Spiramiopsis* HAMPSON, 1901. The life history and immature stages of *S. comma* HAMPSON, 1901 were described and figured in color. The immature stages of *S. comma* were compared with those of other selected bombycoids, mainly with those of *Brahmaea* (including *Acanthobrahmaea*, *Brahmophthalma*, and *Brachygnatha*) and *Dactyloceras*. The authors noted that the larvae of *Brahmaea* are still incompletely described, particularly the 1st larval instars and their chaetotaxy. Comparisons were done with larvae of *B. ledereri* (ROGENHOFER, 1874) [sic] (: 202) / ROGENHOFER, 1973 [sic] (: 217), *B. tancrei* AUSTAUT, 1896, *B. (Brahmophthalma) japonica* (BUTLER) [sic], *B. hearseyi* (WHITE), *B. hearseyi ardjoeno* KALIS, 1934 (sensu Nässig & Paukstadt 1990). The authors concluded that the taxonomic position of *Spiramiopsis* remains not entirely clear but proposed to place this genus in a family of its own.

Remarks: the citation of *B. hearseyi ardjoeno* KALIS, 1934 (sensu Nässig & Paukstadt 1990) refers to more than one species in the subgenus *Brahmophthalma* MELL, 1928. Those are *B. (Brahmophthalma) ardjoeno* KALIS, 1934 endemic from Java, *B. (Brahmophthalma) loeffleri* NAUMANN & BROSCHE, 2005 from West Malaysia, Sumatra and Borneo, *B. (Brahmophthalma) paukstadtorum* NAUMANN & BROSCHE, 2005 from the Philippines:

- Negros [type locality], Luzon and Samar, and *B. (Brahmophthalma) naessigi* NAUMANN & BROSCHE, 2005 from Mindanao. *B. (Brahmaea) tancrei* AUSTAUT, 1896 is a junior subjective synonym of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883. *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.
- Nässig & Oberprieler (1995) [ii.1995] Nachr. entomol. Ver. Apollo, Frankfurt /Main, N.F. 15 (4), p. 531; published a ‘Corrigenda’ with a note that the correct citation of the original description of *Brahmaea ledereri* (pp. 202 and 217) reads: “*Brahmaea ledereri* (ROGENHOFER 1873)” [sic].
- Remarks:** unfortunately erroneous in the “Corrigenda”, too.
- Raineri, Zangheri & Zilli, in Minelli, Ruffo & La Posta (eds.) (1995) Checklist delle specie della fauna italiana, Fasc. 88: Lepidoptera Thyridoidea, Lasiocampoidea, Bombycoidea, pp. [1]-6, remarked (: [1]-2) that despite the establishment of a monotypic genus to accommodate the Italian endemic [*europaea* (HARTIG, 1963)] on the basis of valid characteristics, the species has obvious similarities in pattern and coloration with the group of palearctic *Brahmaea*, which is present from Asia Minor with *B. ledereri* ROGENHOFER, 1873.
- McNamara (1997) [ivi.1997] Bull. Amat. Ent. Soc., 56, pp. 107-108; reported on new discoveries of the *certhia* “tribe” of *Brahmaea* (*Brahmaea*) from China. The author noted that several dealers of the “Leicester” (23rd May 1997) had set specimens of the *certhia* group with appellations “*christophi*?” or “*ledereri*?”.
- Zheng, Wu, Ding, Binion, Fu & Reardon (2006) Invasive Plants of Asian Origin Established in the United States and Their Natural Enemies, Vol. 1 (2nd. Ed., March 2006), vii + 150 pp.; recorded the native range of *Ligustrum sinense* LOUR., Chinese privet, in China and gave some notes on the economic importance and natural enemies (: 93-96). The following species of the family Brahmaeidae (Lepidoptera) were listed: *Brahmaea certhia* FABRICIUS [sic], *Brahmaea hearseyi* (WHITE) [sic], *Brahmaea ledereri* ROGENHOFER, *Brahmaea porphyrio* [sic] CHU & WANG, *Brahmophthalma hearseyi* (WHITE) [sic], and *Brahmophthalma wallichii* (GREY) [sic] (: 96).
- Remarks:** besides not code-conform citations and misspellings of an author’s name and a taxon name the species *B. (Brahmophthalma) hearseyi* WHITE, 1862 [“1861”] was listed twice, as species of the genus *Brahmaea* WALKER, 1855 and of the genus *Brahmophthalma* MELL., 1928. *B. (Brahmaea) ledereri* ROGENHOFER, 1873 is no member of the Brahmaeidae-fauna of China.
- Koçak & Koçak (2008) [26.i.2008] Cent. Ent. Stud., Priamus Suppl. 12, pp. 1-89; presented a first attempt in preparing a comprehensive list of patronyms among the genus- and species-group names in the Lepidopterology. 5175 patronyms of the Lepidoptera were listed, including 745. *Brahmaea* (s.str.) *ledereri* ROGENHOFER, 1873 (Brahmaeidae) and 746. *Brahmaea* (s.str.) *ledereri ledereri* ROGENHOFER, 1873 (Brahmaeidae) (: 18).
- Gegechkori (2011) Annals of Agrarian Science, 9 (1), pp. 1-29, presented results of his biogeographical study of the Arcto-Tertiary refugia (Colchis and Talysh) of southern Caucasus. Both regions were reported being species-rich refugia for many Tertiary relict plants and animal species in Western Euroasia. The author noted that particular attention should be paid to the remarkable endemic

Brahmaea ledereri from the Colchis region and *Brahmaea christophi* from Lenkoran (: 15-16). The author noted that *B. ledereri* must be on the range of extinction, or is already extinct from the Colchis refugium since entomologist did not discover this species until the last 50-70 years. *B. certhia* was recorded from Russia Far East (Amur Gorge River), Korea, China, Japan, and India.

Remarks: records of *B. (Brahmaea) certhia* (FABRICIUS, 1793) from Russia Far East, Korea, Japan, and India refer to *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) (northern China), *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 (Korea, Russia Far East, Northeast China), and *B. (Brahmophthalma) japonica* BUTLER, 1873 (Japan) rather. Thus far there were only scattered records of *B. (Brahmaea) certhia* (FABRICIUS, 1793) from South Korea.

Zolotuhin, Didmanidze & Petrov (2011) [viii.2011] NEN, 67 (2017 [sic] recte August 2011), pp. 63-72; recorded *Brahmaea christophi christophi* [sic] STAUDINGER, 1879 from south-western Georgia and north-western [sic] Turkey, *B. christophi zaba* DE FREINA, 1982 from Turkish Kurdistan, and *B. christophi ledereri* [sic] ROGENHOFER, [1873] 1874 from northern Iran (Mazandaran, Elbrus: Kendeavan) and Azerbaijan (Talysh).

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are treated as distinct species herein. The taxon *zaba* is a subspecies of *B. (Brahmaea) ledereri* ROGENHOFER, 1873: *B. (Brahmaea) ledereri zaba* DE FREINA, 1982. To be read as *christophi* (northern Iran and Azerbaijan) and *ledereri* (southwestern Georgia and northeastern Turkey) rather.

Koçak (2014) [09.x.2014] Priamus, Supp. 32, 877 pp.; listed in “List of the 23773 pterygot species in Turkey based upon the info-system of the CESA” 224. *Brahmaea* (s.str.) *christophi* STAUDINGER, 1879 (Brahmaeidae) and 225. *Brahmaea* (s.str.) *ledereri* ROGENHOFER, 1873 (Brahmaeidae) (: 157).

Mosconi, Zilli, Spicciarelli, Maurizi, Vigna Taglianti & Audisio (2014) [31.x.2014] fe Fragmenta entomologica, Vol. 46, No. 1-2, 2014, published a highly interesting overview on the state of knowledge about the Italian endemic *Brahmaea (Acanthobrahmaea) europaea* HARTIG, 1963. The authors noted that from the systematic point of view *B. europaea* is more closely related to the so-called “palearctic brameas”, members of the *Brahmaea ledereri* ROGENHOFER, 1873 – *Brahmaea certhia* (FABRICIUS, 1793)-group (*Brahmaea sensu stricto*) [not further specified], some of which from time to time associated with the (sub)generic name *Brachygnatha* ZHANG & YANG, 1993. The only other *Brahmaea* species known from the Western Palearctic was reported being *B. ledereri* from the Taurus Mountains across SE Anatolia to N Iran (= *B. christophi* (STAUDINGER, 1885 [sic])) [not in the sense of synonym].

Remarks: *Brachygnatha* ZHANG & YANG, 1993 is a junior synonym of *Brahmaea (Brahmaea)*. *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Gegechkori & Didmandze (2015) American Journal of Environmental Protection, 2015, 4 (3-1), pp. 82-92, discussed on the possibility whether *Brahmaea ledereri* ROGENHOFER, 1873 ever has inhabited the Colchis Refugium. Some information on the biogeographical background was provided by the authors. The authors

concluded that there are actually allopatric ranges of the two relict species *Brahmaea ledereri* and *B. christophi* STAUDINGER, but the disjunction has occurred not between moths of Brahmaeidae of Colchis and Hyrcanian refugia. Split of the common range of the genus *Brahmaea* actually took place in the Pliocene, although not between Transcaucasian refugia Colchis and Talysh but between the Hyrcanian refugium and the Anatolian criptic refugial areas. The authors assumed that despite the prehumid and warm climate of Colchis the seasonal insufficient cycles of light caused by the higher latitude became unsuitable for *B. ledereri*.

Koçak & Kemal (2016) [13.iii.2016] Priamus, Supplement, No. 42, pp. [1]-160; presented a 'Revised and annotated bibliography of the Lepidoptera of Turkey' which included literature on *Brahmaea ledereri* ROGENHOFER, 1873, *B. ledereri zaba* DE FREINA, 1982 and *B. ledereri christophi* STAUDINGER, 1873 (: 47, 106, 124).

Zolotuhin (2016) [27.xi.2016] Eversmannia, No. 47-48; pp. 4-10 [+1]; proposed the new subgeneric name *Transbrahmaea* for two species (a geographically disjunctive group) distributed in Transcaucasia and Asia Minor. Those were *B. christophi* STAUDINGER, 1885 [sic] and *B. ledereri* ROGENHOFER, 1873 with its subspecies *zaba* DE FREINA, 1982. *B. christophi* was selected as type species by original designation. A tree was figured (: 6, fig. 4) included the taxa of the subgenera *Brahmaea* WALKER, 1855, *Acanthobrahmaea* SAUTER, 1967 and *Transbrahmaea* ZOLOTUHIN, 2016.

Remarks: not only from a biogeographical point of view, but also due to morphological and genetic differences the two species *B. christophi* STAUDINGER, 1879 and *B. ledereri* ROGENHOFER, 1873 can be separated and transferred from the nominate subgenus to a separate (new) subgenus: *Transbrahmaea* ZOLOTUHIN, 2016. But this makes only sense if the endemic Italian species *europaea* HARTIG, 1963 remains in the monotypic subgenus *Acanthobrahmaea* SAUTER, 1967. Because *Acanthobrahmaea* is the sister-species of *Transbrahmaea* from Asia Minor / Middle East the latter represents not the link between the monotypic *Acanthobrahmaea* from Italy and the species group around *B. (Brahmaea) certhia* and *B. (Brahmaea) lunulata* in the eastern Palearctic Region.

Transbrahmaea ZOLOTUHIN, 2016 and *Acanthobrahmaea* SAUTER, 1967 are junior synonyms of *Brahmaea* WALKER, 1855.

Wu (2017) The Marvelous Moths of China, 403 pp.; noted (: 272) that China has four genera in the family Brahmaeidae. Those were *Brahmaea*, *Brachygatha* [sic] with its species *diastemata* (ZHANG & YANG, 1993) [sic], *christophi* (Staudinger, 1853) [sic], *jilinneus* [sic] (ZHANG, 1988), and *ledereri* (ROGENHOFER, 1873), *Brahmophthlma* [sic], and finally *Brahmidia*.

Remarks: *Brahmaea* WALKER, 1855 and *Brahmophthalma* MELL, 1928 are subgenera of *Brahmaea* WALKER, 1855. *Brachygnatha* ZHANG & YANG, 1993 is a junior synonym of *Brahmaea* WALKER, 1855 and *Brahmidia* BRYK, 1949 is a junior synonym of *Brahmophthalma* MELL, 1928. *Calliprogonos* MELL & HERING, 1937 from China was omitted by the author.

Paukstadt, U. & Paukstadt, L. H. (2017b) [14.v.2017] Beiträge zur Kenntnis der wilden Seidenspinner (Wilhelmshaven), 15 (2), pp. 47-72; described and figured the preimaginal instars of *Brahmaea certhia* (FABRICIUS, 1793) from Jiangsu,

China. The following taxon was cited: *B. (Brahmaea) ledereri* ROGENHOFER, 1873. *Acanthobrahmaea* was noted being closely related to the Turkish-Iranian *B. (B.) ledereri* ROGENHOFER, 1873 confirmed by allied DNA structures.

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Kaleka, Singh & Saini (2017) J. Entomol., 14 (5), pp. 234-240, 2017; noted that the family Brahmaeidae is found in Africa, Oriental, and Palearctic regions. The family was reported being presented by four genera, namely the Oriental and Palearctic genus *Brahmaea* WALKER with 8 species, the monotypic European genus *Acanthobrahmaea* SAUTER, the monotypic Chinese genus *Calliprogonos* MELL [sic], and the Afrotropical genus *Dactyloceras* MELL with 8 species. Six species of *Brahmaea* endemic to the Palearctic region were listed. One of those has been *Brahmaea ledereri* ROGENHOFER from Turkey and an adjacent small area of Syria.

Remarks: the general part was copied (including errors) from Gegechkori & Didmandze (2015).

Acanthobrahmaea SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Kitching, Rougerie, Zwick, Hamilton, St Laurent, Naumann, Ballesteros Mejia & Kawahara (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236; listed the name *ledereri* ROGENHOFER, 1873 as species of *Brahmaea (Brahmaea)*.

‡*reducta* HERING, 1932 (*Brahmaea*)

[infrasubspecific]

Original citation and spelling: *Brahmaea ledereri* f. *reducta* nov.

Original description: Hering, M. (1932): Zwei neue paläarktische Heteroceren (Lep.). – Mitteilungen der Deutschen entomologischen Gesellschaft, 3 (2): pp. [28]-29; figs. 1-2.

Type locality (no type locality as such!): Akbes, [Syria].

Geographical and altitudinal distribution: n/a.

Etymology: the name ‡*reducta* is pointing to the particular pattern morphology of reared specimens, which shows a reduced median area and consequently fused antemedian and postmedian areas in the forewings.

Type material (no type material as such!): several unnumbered ♂ and ♀ were recorded, specimens are in ZMHU (Berlin). A ♂ bearing a rectangular red printed pinlabel “Type”, a rectangular white handwritten pinlabel “Br. ledereri f. reducta Her. / ♂ Type”, a rectangular white handwritten pinlabel “Asbes / Syria / Buchta S.”, a rectangular white

printed pinlabel with handwritten number inserted “Genitaluntersuchung / No. / 168/1931 / teste M. Hering”, and a rectangular white pinlabel containing the ♂ genitalia apparatus. A ♀ bearing a rectangular red printed pinlabel “Type”, a rectangular white handwritten pinlabel “Br. ledereri f. *reducta* Her / ♀-Type”, a rectangular white handwritten pinlabel “Asbes / Syria / Buchta S.”, a rectangular white printed pinlabel with handwritten number inserted “Genitaluntersuchung / No. / 169./1931 / teste M. Hering”, and a rectangular white pinlabel containing the ♀ genitalia apparatus. The ♀ preserved in ZMHU (Berlin) is almost identical with the ♀ figured in the original description. The name *reducta* was given for a “form” but clearly published in infrasubspecific rank because the content of the work unambiguously reveals that the name was proposed for an infrasubspecific entity, cf. ICZN (1999) Art.45.6.1.

Type material (no type material as such!): infrasubspecific names are excluded from the species group and the provisions of the Code do not apply to them, cf. ICZN (1999) Art.1.3.4.

Taxonomic notes: the name ‡*reducta* is considered to be infrasubspecific, cf. ICZN (1999) Art.45.6.1. Hering (: 29) confirmed in his work that no differences in the genitalia structures, or other constant differences compared to the normal form could be determined. Thus, the name he proposed clearly referred to a pattern morph which he obtained from a rearing and not to a local form.

The name *reducta* HERING, 1932 was listed as species synonym of *Brahmaea* (*Brahmaea*) *ledereri* ROGENHOFER, 1873 in Kitching, I.J., Rougerie, R., Zwick, A., Hamilton, C.A., St Laurent, R.A., Naumann, S., Ballesteros Mejia, L. & Kawahara, A.Y. (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236.

General notes: a ♀ was figured in the original description (: 29, fig. 2) and shows an aberrant specimen.

Synonyms: for misinterpretations see the appropriate text parts. Junior subjective synonyms, junior objective synonyms, errors and incorrect subsequent spellings for ‡*reducta* HERING, 1932 are as follows: n/a.

Hybridizations: n/a

Further readings on ‡*reducta* HERING, 1932

Bryk (1949) compared the pattern morphology of the forma *reducta* HERING of *Brahmaea ledereri* ROSENHOFER [sic] with those of the African *Dactyloceras* MELL, in particular with *D. bramarbas* KARSCH from Kamerun (: 22).

Remarks: the ICZN (1999) Art.45.6.4.1. cannot be applied, because the name ‡*reducta* was neither adopted as the valid name of a species or subspecies nor was treated as a senior homonym.

Sauter (1967) Mitt. schweiz. ent. Ges., XL (1/2), 1967 [20 Jul 1967]: pp. [125]-129, 2 text-figs., remarked that the species in *Brahmaea* are difficult to distinguish in the pattern morphology, therefore Seitz (erroneously) placed *ledereri* ROGENHOFER as race only to *certhia* FABRICIUS. Sauter (: 126) remarked that the only ♂ adult of *europaea* he has received for examination is distinct from the type because the median area is interrupted / reduced as in f. *reducta* HERING of *B. ledereri* ROGENHOFER.

Remarks: Sauter (1967) used the citation f. *reducta* HERING for an aberrative specimen, which is in this manner not recommended by the Code, cf. ICZN (1999) Rec. 51F.

Kitching, Rougerie, Zwick, Hamilton, St Laurent, Naumann, Ballesteros Mejia & Kawahara (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236 listed the name *reducta* HERING, 1932 as species synonym of *Brahmaea (Brahmaea) ledereri* ROGENHOFER, 1873.

***ledereri zaba* DE FREINA, 1982 (*Brahmaea*)**

Original citation and spelling: *Brahmaea ledereri zaba* ssp. n.

Original description: de Freina, J. J. (1982): Eine neue Population von *Brahmaea ledereri* ROGENHOFER, 1873, (*Brahmaea ledereri zaba* ssp. n.) in Türkisch-Kurdistan, sowie Nachweis der Konspezifität von *Brahmaea ledereri* ROGENHOFER, 1873, und *Brahmaea christophi* STAUDINGER, 1879 (Lepidoptera, Brahmaeidae). – Entomofauna, 3 (9): pp. 129-139; 7 figs., 2 tables.

Type locality: [Turkey,] Kleinasien [Asia Minor], Prov. Hakkari, Zab-Tal [Zab Valley], 30 km SW Hakkari, 1,200-1,300 m.

Geographical and altitudinal distribution: thus far known from the type locality the Turkish Kurdistan region from 1,200-1,300 m. De Freina (1982: 138, fig. 7) presented a map with the previously known distribution range of *ledereri* ROGENHOFER, 1873 with its three subspecies. *B. ledereri zaba* was recorded from the Turkish Kurdistan region. Zolotuhin, Didmanidze & Petrov (2011: 68) recorded *christophi zaba* [sic] DE FREINA, 1982 from Turkish Kurdistan.

Etymology: the name refers to the collecting place, the Zab Valley in the Hakkari Province of Turkey.

Type material: the description based on a single ♂ specimen. ♂ holotype (figured in the original description) by original designation in coll. Museum Witt (Munich).

Taxonomic notes: de Freina (1982: 129) considered *B. ledereri* ROGENHOFER, 1873 and *B. christophi* STAUDINGER, 1879 to be conspecific and *christophi* was confirmed as subspecies of *ledereri*. Zolotuhin (2016) proposed the new subgeneric name *Transbrahmaea* for two species (a geographically disjunctive group) distributed in Transcaucasia and Asia Minor: *B. ledereri* ROGENHOFER, 1873 with its subspecies *zaba* DE FREINA, 1982 and *B. christophi* STAUDINGER, 1879. *Transbrahmaea* ZOLOTUHN, 2016 and *Acanthobrahmaea* SAUTER, 1967 are junior synonyms of *Brahmaea* WALKER, 1855. After reviewing all available literature and assessing various phylogenetic trees, we decided to treat *ledereri* ROGENHOFER, 1873 and *christophi* STAUDINGER, 1879 as two different but closely related species. The third taxon in this group is *ledereri zaba* DE FREINA, 1982.

The name *zaba* DE FREINA, 1982 was listed as subspecies of *Brahmaea* (*Brahmaea*) *ledereri* ROGENHOFER, 1873 in Kitching, I.J., Rougerie, R., Zwick, A., Hamilton, C.A., St Laurent, R.A., Naumann, S., Ballesteros Mejia, L. & Kawahara, A.Y. (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236.

General notes: the ♂ holotype by original designation was illustrated in the original description (: 133, fig. 2).

Synonyms: for misinterpretations see the appropriate text parts. Junior subjective synonyms, junior objective synonyms, errors and incorrect subsequent spellings for *zaba* DE FREINA, 1982 are as follows:
nothing found in literature so far

Hybridizations: inter-generic and inter-specific pairings with *zaba* DE FREINA, 1982 are unknown from literature.

Further readings on *ledereri zaba* DE FREINA, 1982

de Freina (1982) [10.v.1982] Entomofauna, 3 (9), pp. 129-139; described *Brahmaea ledereri zaba* from the Turkish Kurdistan region. De Freina (1982: 129) considered *B. ledereri* ROGENHOFER, 1873 and *B. christophi* STAUDINGER, 1879 to be conspecific and *christophi* was confirmed as subspecies of *ledereri*. The new subspecies was compared with *ledereri ledereri* from the Taurus mountains in Turkey and with *B. ledereri christophi* from the Persian Caspian Sea-Region [Azerbaijan]. De Freina (: 138, fig. 7) presented a map with the previously known distribution area of *ledereri* ROGENHOFER, 1873 with its subspecies. ♂ specimens of all three subspecies were illustrated in phot. h.-t. (: 132, fig. 1 *ledereri*), (: 133, fig. 2 *zaba*, and fig. 3 *christophi*).

- de Freina (1983) [28.ii.1983] Mitt. Münch. Ent. Ges., 72, pp. 57-127; listed *Brahmaea ledereri zaba* DE FREINA, 1982 and noted that the record of *Brahmaea ledereri* ROGENHOFER, 1874 [sic] for the Hakkari-Region [Turkey, Hakkari Province] is an extremely interesting record from a zoogeographical point of view (cf. de Freina, 1982). The genus *Brahmaea* was placed in the family Brahmaeidae HAMPSON, 1892 [sic].
- de Freina (1985) [01.xii.1985] Mitt. Münch. Ent. Ges., 74: pp. 77-90; discussed the subspecies-status of *ledereri* ROGENHOFER, 1873, *christophi* STAUDINGER, 1879, and *zaba* DE FREINA, 1982. The variability of the subspecies *ledereri*, *christophi* and *zaba* was described and the ratio between the width of the hind wing outer band [“Hfogl.-Außenbindenbreite” = postmedian area?] width and the total width of the hind wing was shown in an affinogram (: [89, fig. 6]).
- Trentini & Marini (1989) J. Res. Lepid., 27 (2), 1988, pp. 136-138; reported on a chromosome study of *Brahmaea japonica* BUTLER. The distribution of taxa of Euroasiatic species of *Brahmaea*, *Calliprogonos*, and *Acanthobrahmaea*, Indo-Australian species of *Brahmaea*, and Ethiopian species of *Dactyloceras* was demonstrated in fig. 1 (distribution map). The authors noted (: 136) that Freina [sic] (1982) reported a new population of *Brahmaea ledereri* from Hakkari, that shows intermediate features between *B. ledereri* and *B. christophi*; for this reason the author considers *B. christophi* conspecific with *B. ledereri*.
- Remarks:** the new population has been *B. (Brahmaea) ledereri zaba* DE FREINA, 1982 from the Zab Valley. The two species *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 were not clearly and not consistently cited in species or subspecies rank.
- Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.
- Wagner (2006) [iv.2006] Bonner zoologische Beiträge, 54 (1), 2005, pp. 3-23; reported that the construction of a new road from Hakkari to Cukurca, populations of *Euapatura mirza* living on *Zelkova carpinifolia*, a Tertiary relict, and of the very rare *Brahmaea ledereri zaba* whose larvae feed on *Fraxinus* in the Zab valley can be heavily endangered.
- Zolotuhin, Didmanidze & Petrov (2011) [viii.2011] NEN, 67 (2017 [sic] recte August 2011), pp. 63-72; recorded *Brahmaea christophi christophi* STAUDINGER, 1879 from south-western Georgia and north-western Turkey, *B. christophi zaba* [sic] DE FREINA, 1982 from Turkish Kurdistan, and *B. christophi ledereri* [sic] ROGENHOFER, [1873] 1874 from northern Iran (Mazandaran, Elbrus: Kendeven) and Azerbaijan (Talysh). Map 12(: 71) shows the distribution of *ledereri*.
- Remarks:** *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are treated as distinct species. The taxon *zaba* is a subspecies of *B. (Brahmaea) ledereri* ROGENHOFER, 1873; *B. (Brahmaea) ledereri zaba* DE FREINA, 1982.
- Koçak (2014) [09.x.2014] Priamus, Supp. 32, 877 pp.; listed in “List of the 23773 pterygot species in Turkey based upon the info-system of the CESA” 224. *Brahmaea* (s.str.) *christophi* STAUDINGER, 1879 (Brahmaeidae) and 225. *Brahmaea* (s.str.) *ledereri* ROGENHOFER, 1873 (Brahmaeidae) (: 157). In the References 1275. Freina, J.J.de (1982), Eine neue Population von *Brahmaea ledereri* ROGENHOFER, 1873 (*Brahmaea ledereri zaba* ssp.n.) in Türkisch-

Kurdistan, sowie Nachweis der Konspezifität von *Brahmaea ledereri* ROGENHOFER, 1873 und *Brahmaea christophi* STAUDINGER, 1873 [sic] (Lep., Brahmaeidae). Entomofauna 3 (9): 123-139, figs. was listed (: 774).

Remarks: *Brahmaea ledereri* ROGENHOFER, 1873 and *Brahmaea christophi* STAUDINGER, 1879 is the correct citation in de Freina (1982: 129) and therefore based on a lapsus by Koçak (2014: 774).

Gegechkori & Didmandze (2015) [23.vi.2015 / online] American Journal of Environmental Protection, 2015, 4 (3-1), pp. 82-92, discussed on the possibility whether *Brahmaea ledereri* ROGENHOFER, 1873 ever has inhabited the Colchis Refugium. Some information on the biogeographical background was provided by the authors. The authors recognized four genera in the Brahmaeidae, namely the Oriental and Palearctic genus *Brahmaea* WALKER with 8 species, a monotypic European genus *Acanthobrahmaea* SAUTER, a monotypic Chinese genus *Calliprogonos* MELL [sic], and the Afrotropical genus *Dactylocerus* [sic] MELL with 8 species. Gegechkori & Didmandze remarked that the Palearctic *Lemonia* HÜBNER with about 20 species was included in the Brahmaeidae by some authors. 5-6 species of *Brahmaea* were reported endemic to the Palearctic region. *Brahmaea ledereri* ROGENHOFER from Turkey and an adjacent small area of Syria was recorded. Hyrcanian *B. christophi* STAUDINGER was remarked being treated as subspecies of *ledereri* by some authors. Finally the subspecies *ledereri zaba* DE FREINA was recorded from the extreme easternwards of Anatolia. Quite controversial citations of Brahmaeidae taxa and probably erroneous collecting sites in literature were noted.

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Koçak & Kemal (2016) [13.iii.2016] Priamus, Supplement, No. 42, pp. [1]-160; presented a 'Revised and annotated bibliography of the Lepidoptera of Turkey' which included literature on *Brahmaea ledereri* ROGENHOFER, 1873, *B. ledereri zaba* DE FREINA, 1982 and *B. ledereri christophi* STAUDINGER, 1873 [sic] (: 47, 106, 124).

Zolotuhin (2016) [27.xi.2016] Eversmannia, No. 47-48; pp. 4-10 [+1]; proposed the new subgeneric name *Transbrahmaea* for two species (a geographically disjunctive group) distributed in Transcaucasia and Asia Minor. Those were *B. christophi* STAUDINGER, 1885 [sic] and *B. ledereri* ROGENHOFER, 1873 with its subspecies *zaba* DE FREINA, 1982. A tree was figured (: 6, fig. 4) included the taxa of the subgenera *Brahmaea* WALKER, 1855, *Acanthobrahmaea* SAUTER, 1967 and *Transbrahmaea* ZOLOTUHI, 2016.

Remarks: not only from a biogeographical point of view, but also due to morphological and genetic differences the two species *B. christophi* STAUDINGER, 1879 and *B. ledereri* ROGENHOFER, 1873 can be separated and transferred from the nominate subgenus to a separate (new) subgenus: *Transbrahmaea* ZOLOTUHI, 2016. But this makes only sense if the endemic Italian species *europaea* HARTIG, 1963 remains in the monotypic subgenus *Acanthobrahmaea* SAUTER, 1967. Because *Acanthobrahmaea* is the sister-species of *Transbrahmaea* from Asia Minor / Middle East the latter represents not the link between the monotypic *Acanthobrahmaea* from Italy and the species group around *B. (Brahmaea) certhia* and *B. (Brahmaea) lunulata* in the eastern Palearctic Region.

Transbrahmaea ZOLOTUHIN, 2016 and *Acanthobrahmaea* SAUTER, 1967 are junior synonyms of *Brahmaea* WALKER, 1855.

Kitching, Rougerie, Zwick, Hamilton, St Laurent, Naumann, Ballesteros Mejia & Kawahara (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236; listed the name *zaba* DE FREINA, 1982 as subspecies of *Brahmaea* (*Brahmaea*) *ledereri* ROGENHOFER, 1873.

***christophi* STAUDINGER, 1879 (*Brahmaea*)**

Original citation and spelling: [*Brahmaea Lunulata* [sic] f.] *Christophi* [sic] [n. forma, n. ssp. (localform)]

Original description: Staudinger (1879): Lepidopteren-Fauna Kleinasien's. – Horae Societatis Entomologicae Rossicae, XIV, 1878: 4th livraison pp. 321-516 & pls. II–IV) [description pp. 359-361] [published May 15th, 1879].

Remarks: Strand in Wagner (1913: 4) cited 'Stgr., Rom. Mem. Lépid. 2, p. 13, t. 1, f. 5 (1885)' and Kirby (1892: 723) cited '*B. Christophi* [sic], STAUD.[INGER] (*Brahmaea Lunulata* [sic], var. *C.[ristophi]*) Romanoff, Mém. Lépid. ii. p. 13, t. 1, f. 5 (1885)' as publication / original description.

The first (original) description of *christophi* was published by Dr. O. Staudinger (1879) in Horae Societatis Entomologicae Rossicae, XIV, 1878-1879, pp. 176-482 (pp. 129-320 and pls. I-II = 2nd & 3rd livraison, published November 1st, 1878 and pp. 321-516 and pls. III-IV = 4th livraison, published May 15th, 1879). The description of *christophi* (pp. 359-361) was consequently published in 1879.

Type locality: Lenkoran (südöstliches Cascasien) [southeasterly Cascasia, Azerbaijan]

Geographical and altitudinal distribution: Kirby (1892: 723) recorded *christophi* from Lenkoran following Staudinger (1885: 13). Barou (1967: 14) recorded *B. christophi* from Mazandaran, Tchalous [Tschalus, Māzandarān, just north of Teheran at the southern shore of the Caspian See, Iran]. De Freina (1982: 138, fig. 7) shows a map with the previously known distribution range of *ledereri* ROGENHOFER, 1873 with its three subspecies. *B. ledereri christophi* was recorded from the Persian Caspian Sea-Region [Azerbaijan]. Zolotuhin, Didmanidze & Petrov (2011: 68) recorded *christophi* from the humid lowland of Talysh in SE Azerbaijan, south-western Georgia, and north-western Turkey.

Etymology: named in honor of the collector, Mr. Christoph, who found the larvae on *Fraxinus* sp.

Type material: unstated number of syntypes of unrecorded sex.

Taxonomic history: Bombycidae – Staudinger (1879); Saturniidae [sic] – Romanoff (1885); Bombycidae – Kirby (1892); Bombyces – Staudinger (1892); Saturniidae – von Wattenwyl (1897); between *Endromis* [Endromiidae] and *Saturnia* [Saturniidae] – Korb (1899); Brahmaeidae – Staudinger & Rebel (1901); Bombycides – Conte (1911); Brahmaeidae – Seitz (1911); Bombycides – Conte (1919); Brahmaeidae – Mell [1930]; Brahmaeidae: *Brahmaea* (*Transbrahmaea*) – Zolotuhin (2016); Brahmaeidae: *Brahmaea* (*Brahmaea*) – Kitching, Rougerie, Zwick, Hamilton, St Laurent, Naumann, Ballesteros Mejia & Kawahara (2018).

Taxonomic notes: Staudinger (1879: 361) transferred the genus *Brahmaea* from the Saturniidae to the family Endromidae. Staudinger (1879: 359) remarked that especially after *Lunulata* [sic] brought by Christoph from the Amur, there is no doubt that the highly variable *Ledereri* [sic] is a weak local variety of *Lunulata* [sic] only. Contrary (: 360-361) Staudinger noted that all three forms [in the sense of subspecies] *Lunulata* [sic], *Ledereri* [sic], and *Christophi* [sic] certainly belong to only one species. De Freina (1982: 129) considered *B. ledereri* ROGENHOFER, 1873 and *B. christophi* STAUDINGER, 1879 to be conspecific and *christophi* was confirmed as subspecies of *ledereri*. In very recent literature *ledereri* and *christophi* were treated as distinct species, cf. Gegechkori & Didmandze (2015), Zolotuhin (2016) and Wu (2017). Zolotuhin (2016) proposed the new subgeneric name *Transbrahmaea* for *B. christophi* STAUDINGER, 1885 [sic] and *B. ledereri* ROGENHOFER, 1873 with its subspecies *zaba* DE FREINA, 1982. At the time present *Acanthobrahmaea* SAUTER, 1967 and *Transbrahmaea* ZOLOTUHIN, 2016 are considered to be junior synonyms of *Brahmaea* WALKER, 1855 due to phylogenetic relationships with taxa of the *certhia*-group (sensu Paukstadt & Paukstadt 2021). After reviewing all available literature and assessing various phylogenetic trees, we decided to treat *ledereri* ROGENHOFER, 1873 and *christophi* STAUDINGER, 1879 as two different but closely related species. The third taxon in this group is *ledereri zaba* DE FREINA, 1982.

The name *christophi* STAUDINGER, 1885 [sic] was listed as subspecies of *Brahmaea* (*Brahmaea*) *ledereri* ROGENHOFER, 1873 in Kitching, I.J., Rougerie, R., Zwick, A., Hamilton, C.A., St Laurent, R.A., Naumann, S., Ballesteros Mejia, L. & Kawahara, A.Y. (2018): A global checklist of the Bombycoidea (Insecta: Lepidoptera); published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236.

General notes: the original hostplant was noted by Staudinger (1879) to be *Fraxinus* sp. in Azerbaijan. Romanoff (1885: col.pl. 1, fig. 5) figured a

?♂ adult of *lunulata* BREMER var. *Christophi* [sic] STAUDINGER. Wattenwyl von (1897: pl. 4, fig. 59) figured an adult from the Transcaucasus (Lenkoran Lowlands) dorsally in color (as *lunulata*). Korb (1899: col.pl. III) figured the preimaginals: 1st larval instar (figs. 1-2), final larval instar (fig. 3), and pupa (fig. 4). Nässig (1980) figured *B. (Brahmaea) christophi* STAUDINGER, 1879 (: 83, fig. 2, and 86: fig. 5 [♂]) in phot. h.-t. De Freina (1982) figured a ♂ specimen of *B. ledereri christophi* (: 133, fig. 3). Korb (1899: [168]-170) recorded as host plant for *christophi* from Talysh young ash and for *ledereri* from the Cilician Taurus *Phillygrea latifolia*. Larvae of *ledereri* (Cilician Taurus) and *christophi* (Talysh Mountains) were recorded being quite distinct in pattern and color morphology.

Synonyms: for misinterpretations see the appropriate text parts. Junior subjective synonyms, junior objective synonyms, errors and incorrect subsequent spellings for *christophi* STAUDINGER, 1879 are as follows:

‡*cristophi* STGR.; Romanoff (1885: 251) [lapsus, incorrect subsequent spelling]
 ‡*cristophi* STAUDINGER, Romanow; Hartig (1963: 6) [lapsus, incorrect subsequent spellings]
 ‡*cristophi*; Schepdael (1967: 96) [incorrect subsequent spelling]
christophi LED[ERER]; Le Cerf (1913) [lapsus, error in authorship]
christophi ROM[ANOFF]; Nässig (1980: 80) [lapsus, error in authorship]
christophi STAUDINGER, 1873; Koçak (2014: 774) [lapsus, error in publication date]

Hybridizations: inter-generic and inter-specific pairings with *christophi* STAUDINGER, 1879 are unknown from literature.

Further readings on *christophi* STAUDINGER, 1879

Staudinger (1878/79) Lepidopteren-Fauna Kleinasien's, in: Hor. Soc. Entom. Rossicae; XIV [14], 1878 [01.xi.1878: pp. 129-320] [15.v.1879: pp. 321-516], pp. 176-482, placed the genus *Brahmaea* in the Bombycidae. He noted (: 359-361) that all three forms [in the sense of subspecies], *Lunulata* [sic] BREMER [sic], *Ledereri* [sic] ROGENHOFER, and *Christophi* [sic] STAUDINGER certainly belong to only one species. The new subspecies *Christophi* [sic] was compared with *Ledereri* [sic] and *Lunulata* [sic]. The author noted that in his opinion, the genus *Brahmaea* belongs to the Endromids [Endromidae] and not Saturnids [Saturniidae], especially because of the caterpillars (: 361).

Staudinger (1881) [05.ii.1881] Lepidopteren-Fauna Kleinasien's, in: Hor. Soc. Entom. Rossicae; XVI [16], 1881, pp. 65-135, placed the genera *Crateronyx* and *Brahmaea* again in the Bombycidae (: 100). He listed *Crateronyx Balcanica* [sic] HS.[HERRICH-SCHÄFFER] (?) and *Brahmaea Lunulata* [sic] v. [concluded from text in the sense of subspecies] *Christophi* [sic] (Cauc. m. or.) [Caucasus meridionalis orientalis] in the 'List of the generic, species and variety names newly established in the previous work' (: 131).

Romanoff in Romanoff (1885) Mém. Lép., Vol. II, pp. 1-118; placed *Brahmaea Lunulata* BREM.[ER] var. *Christophi* STGR.[=STAUDINGER] in the family Saturniidae [sic] B.[OISDUVAL] (: 13). He noted [translated from French] *Lunulata* BREM. var. *Christophi* STGR. (Pl. I fig. 5). - It was in 1870 that Mr. Christoph found the caterpillar for the first time near the warm waters around Lenkoran. In July 1874 he found it in the same places in large numbers. The caterpillar feeds on a species of ash. The butterfly hatches in April (: 13). '*Cristophi* [sic] Stgr. ... 13' was listed in the "Index" of this paper with the following remark [translated from French]: '(Varieties and aberrations are marked in italics)'. *Brahmaea lunulata* BREMER var. *Christophi* [sic] STAUDINGER was illustrated in color (pl. I, fig. 5).

Remarks: the nominotypical subspecies *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 ["1852"]) and the subspecies *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 from the Eastern Palearctic region are distinct from *B. (Brahmaea) christophi* STAUDINGER, 1879.

Kirby (1892) Syn. Cat. Lep. Het., I, Sphinges and Bombyces, XII + 951 pp.; placed the genus *Brahmaea* in the Bombycidae (: 723-724, Appendix: 933). The author included 14 species in *Brahmaea*. Two of those were 1. *B. Ledereri* [sic] ROGENHOFER, 1873 from Cilicia [Cilicia is a geo-cultural region in southern Turkey] and 2. *B. Christophi* [sic] STAUDINGER, 1885 [sic] from Lenkoran [Azerbaijan]. Kirby [erroneously] cited '*Brahmaea Lunulata*. var. *C.[ristophi]*) Romanoff, Mém. Lépid. ii. p. 13, t. 1. f. 5 (1885)' as original description of *B. Christophi* [sic] STAUD.[INGER].

Remarks: Kirby designated *B. (Brahmophthalma) conchifera* BUTLER, 1880 as type species of the genus *Brahmaea* WALKER, 1855. The type designation by Kirby (1892: 724) is considered to be not valid because the name *conchifera* BUTLER, 1880 was not originally included in Walker (1855: 1315-1316) and *B. Certhia* [sic] (sensu Walker 1855: 1316) is considered being misidentified.

At the time being *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmaea) ledereri* ROGENHOFER, 1873 are treated as distinct on species level.

Staudinger in Romanoff (1892) [12.vii.1892] Die Macrolepidopteren des Amurgebietes . 1. Theil, in: Mém. Lép., VI, 1892, pp. 83-658, col.-pls. IX-XIV; placed the genus *Brahmaea* WALKER in the Bombyces. The larvae of *Ledereri* [sic] and *Christophi* [sic] were briefly described and compared with those of *Lunulata* [sic] BREM.[ER] [sic] (: 325). Staudinger noted (: 325) 'since the larval patterns are also quite different, one would have to regard them as a different species, according to the larval morphology; but the larvae seem to vary very strongly and no species rights can be established accordingly'.

Remarks: error in authorship of *lunulata* (BREMER & GREY, 1853 ["1852"]). Above names were cited in species rank but subspecific status was meant.

Wattenwyl von (1897) Betrachtungen über die Farbenpracht der Insekten, 16 pp. + 9 col.pls.; placed *Brahmaea* to the Saturniidae and recorded *lunulata* BREMER [sic] from the Transkaukasus [South Caucasus] (: 7). The adult was figured in color dorsally (pl. 4, fig. 59).

Remarks: the record refers to *B. (Brahmaea) christophi* STAUDINGER, 1879 which is distinct from the eastern Palearctic *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 ["1852"]).

The following terms are associated with ‘Transcaucasus’: South Caucasus, Colchian Plain, Transcaucasian Lowlands, and Lenkoran Lowlands. The record by von Wattenwyl actually refers to *christophi* STAUDINGER, 1879 which was originally described from Lenkoran.

Korb (1899) [15.ix.1899] Deut. ent. Zeit. “Iris”; described the preimaginal instars of *Brahmea* [sic] *Christophi* [sic] STAUDINGER and provided information on the biology and ecology. He recognized three forms [in the sense of species] in *Brahmea* [sic]: *lunulata* BREMER [sic] (Amur), *ledereri* ROGENHOFER (Cilician Taurus), and *christophi* STAUDINGER (Talysh). The larval instar of *Christophi* [sic] (pl. III, figs. 1-2 [1st-3rd?] and fig. 3 [mature larva]) and the pupa (pl. III, fig. 4) were illustrated in color. Comments on *Brahmea* [sic] *ledereri* ROGENHOFER and a brief description of the preimaginals were provided. Korb remarked (: 169) that *Brahmea* is best placed between *Endromis* and *Saturnia*. He noted (: 169) that the larva is pupating below moss without spinning any silk, contrary to Rogenhofer’s 1873-description. Host plant for *christophi* was cited to be young ash and for *ledereri* leaves from *Phillygrea latifolia*. Larvae of *ledereri* (Cilician Taurus) and *christophi* (Talysh Mountains) were recorded being quite distinct in pattern and color morphology.

Remarks: error in authorship of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]). The record from the Amur refers to *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883.

Strecker (1899) Index of Species to Kirby’s Syn. Cat. Lep. Het., Vol. I, pp. [1]-45; listed *Christophi* [sic], 71, 552, 709, 723, 785 (: 12).

Staudinger & Rebel (1901) Cat., I. Theil, [XXXII] + 368 pp.; placed the genus *Brahmaea* WALKER, 1855 in the family Brahmaeidae. Three species were listed for the Palearctic fauna. Those were *Certhia* [sic] with its synonyms *Lunulata* [sic] BREMER [sic], *Undulata* BREMER & GREY, 1853, and *Carpentieri* [sic] BUTLER, 1883 from Amur, Ussuri, Corea [Korea], China septentrionalis [North] et centralis [central], *Ledereri* [sic] ROGENHOFER, 1873 (praec. forma Darw.) from Taurus occidentalis [West], and *Christophi* STAUDINGER, [1879] (*Certhiae* forma Darw.) from Armenia (Russian Transcaucasian) meridionalis orientalis [South east] (Lenkoran) (: 128).

Remarks: *B. (Brahmaea) undulata* (BREMER & GREY, 1853) is a junior objective synonym of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) and distinct on species level from the Chinese *B. (Brahmaea) certhia* (FABRICIUS, 1793). *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 is a subspecies from the Amur, Ussuri, Korea, and northeastern China. *B. (Brahmaea) christophi* STAUDINGER, 1879 is distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793) on species level.

Conte (1911) Essai d. Class. Lep. Prod. de Soie, in: Rapp. du Laborat. d’ét. de la Soie, 14, pp. [1]-90; placed *Brahmaea* WALKER, 1855 in the Bombycides [Bombycidae]. The author recorded *Brahmaea Certhia* [sic] FABRICIUS, 1793 [sic] from North China, Korea, Chusan Island. *B. Christophi* [sic] ROMANOFF [sic], 1885 [sic] was cited in subordination of *B. Certhia* [sic] FABRICIUS, 1793 [sic] [as synonym].

Remarks: the records of *B. (Brahmaea) certhia* (FABRICIUS, 1793) from North China and Korea might refer to *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) and *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 rather. *B. (Brahmaea) christophi*

STAUDINGER, 1879 is distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793) on species level.

Seitz (1911) [10.xi.1911] 15. Familie: Brahmaeidae, in: Seitz (ed.) Die Grossschmetterlinge der Erde . I. Abt., Bd. 2, pp. 227-228, col.pl. 35c; placed only a single genus in the Brahmaeidae: *Brahmaea* WALKER. The author recognized three Palaerctic species and several forms [concluded from text in the sense of subspecies] in *Brahmaea*. Those were 1. *B. certhia* FABRICIUS [sic] (Amur, North and Central China), 2. *B. christophi* STAUDINGER (Lenkoran, Caucasia), and 3. *B. japonica* BUTLER (Japan).

Remarks: *B. (Brahmaea) certhia* (FABRICIUS, 1793) is absent in the Amur region. The records from Amur and North China might refer to the taxa *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) and *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 rather. *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793).

Seitz (1911) [10.xi.1911] 15. Family: Brahmaeidae, in: Seitz (ed.) The Macrolepidoptera of the Palearctic Fauna . 2. Volume: The Palearctic Bombyces & Sphinges. I. Division, Vol. 2, pp. 227-228, col.-pl. 35c; - please read: Seitz (1911) German Edition.

Strand in Wagner (1913) [05.ix.1913] Lep. Cat., Pars 16: Brahmaeidae, pp. [3]-5; included a single genus in Brahmaeidae, which has been *Brahmaea* WALKER, 1855. The following taxon was included *Brahmaea: B. Christophi* [sic] STAUDINGER, 1885 [sic] (Caucasus). The author distinguished between ‘Species’ and ‘Varitates’ [varieties] in the Index Brahmaedarum (: 6); he explicitly placed *Christophi* [sic] STAUDINGER as species in *Brahmaea* WALKER.

Remarks: the name *christophi* STAUDINGER was not assigned to the valid original description of *B. (Brahmaea) christophi* STAUDINGER, 1879.

Le Cerf (1913) Annales d’histoire naturelle, Tome II, Entomologie; recorded in his Second Contribution to the lepidopterological fauna of Persia (Catalogue des Rhopalocères): ‘*B. Christophi* [sic] STAUDINGER has been reported as a synonym to *B. certhia* F.[ABRICIUS] by Conte (1911) who attributes Romanoff to it as author.’ Le Cerf noted that ‘I cannot decide due to lack of sufficient material, the question of knowing whether it is indeed two different species or two forms of the same species, but besides that *Christophi* [sic] would be separated and isolated (as variety) by thousands of kilometers of the typical form: *certhia*, it seems to me to present with this a set of small differences which, in a genus as homogeneous as the genus *Brahmaea*, may very well be specific as had been thought first Staudinger.’ The author further noted ‘I do not understand why this one [Staudinger], in his last Catalog (ed. III), writes after *Christophi* [sic]: » *Certhiae forma Darwiniana* « whereas he interposed between *B. certhia* F.[ABRICIUS] and *B. Christophi* [sic] LED.[ERER] [sic] a third species: *B. Ledereri* [sic] ROG.[ENHOFER], the specific value of which does not seem to have been questioned so far.’

Remarks: Le Cerf critically reviewed the contribution by Conte (1911). He noticed the erroneous citation by Conte (1911) regarding the authorship of *B. (Brahmaea) christophi* STAUDINGER, 1879. Le Cerf assumed that *B. (Brahmaea) certhia* (FABRICIUS, 1793) and *B.*

(*Brahmaea christophi* STAUDINGER, 1879 being distinct, in whatever status, due to zoogeography.

Conte (1919) Ess. d. Class. Lep. prod. de Soie, 7, (1919), pp. 246-256, 257, 258; pls. XII-XV, placed *Brahmaea* WALKER, 1855 in the Bombycides. Conte (251-252, 257) recorded *Brahmaea Certhia* [sic] FABRICIUS, 1793 [sic] from North China, Korea and Chusan Island. *Bombyx* C, (sensu Petiver 1710, Gazoph., pl. 18, fig. 3), *Saturnia Lunulata* [sic] BREMER & GRAY [sic], 1852 [sic], *Brahm[aea]* (sensu Ménétries, 1863, Descr. Lep. Acad. Sc. III, pl. 15, fig. 5), *Sat[urnia] Undulata* [sic] BREMER & GRAY [sic], 1853, *B. Petiveri* [sic] BUTLER, 1866, *B. Carpenteri* [sic] BUTLER, 1883, and *B. Christophi* [sic] ROM.[ANOFF] [sic], 1885 [sic] were cited in subordination [concluded from text as synonyms].

Remarks: the citation of *Bombyx* C, (sensu Petiver 1710) refers to the pre-linnean name ‡*maxima* PETIVER, 1710. The record of *B. (Brahmaea) certhia* (FABRICIUS, 1793) for Korea refers to *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 rather which is a subspecies of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]). *B. (Brahmaea) undulata* (BREMER & GREY, 1853) is a junior objective synonym of *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]). *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmaea) ledereri* ROGENHOFER, 1873 are distinct on species level.

Mell [1930] Deutsche Entomologische Zeitschrift, 1929 (5), pp. [337]-494; distinguished three groups in the family Brahmaeidae: the Central African group with two genera: *Dactyloceras* and [*Spiramiopsis*] with 11 species, the Northern Indian group with 3 species: *hearseyi* WHITE, *wallichii* (GRAY), and *japonica* (BUTLER), and the Palearctic group with 3 species: *certhia* (FABRICIUS), *christophi* STAUDINGER, and *ledereri* ROGENHOFER. The subgenus *Brahmaea* WALKER was cited under ‘Palearctic Asian group’, which included *certhia certhia* FABRICIUS, *certhia tancrei* [sic] AUSTAUT, *ledereri* ROGENHOFER, and *christophi* STAUDINGER.

Remarks: *B. (Brahmaea) tancrei* AUSTAUT, 1896 is a junior subjective synonym of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883.

Aue (1933) Handbuch für den praktischen Entomologen; 1. Abteilung; Lepidoptera; IV. Band, provided short rearing instructions on *Brahmaea certhia* FABRICIUS from the Amur, N and C China and *Brahmaea christophi* STAUDINGER (Brahmaeidae) from the Caucasus (: 124). The author noted that the family Brahmaeidae is closely related to the Saturniidae and listed within the latter family since no relatives of Brahmaeidae are distributed in Europe.

Remarks: the citation of *B. (Brahmaea) certhia* (FABRICIUS, 1793) from the Amur and North China refers to *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 (Amur, Northeast China) and the nominotypical subspecies *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) (North China).

Hartig (1963) Boll. Ass. Romana ent., XVIII (1), pp. 5-6, pl. I; compared *Bramaea* [sic] *europaea* HARTIG, 1963 with *Bramaea* [sic] *certhia* FABRICIUS [sic] (including *ledereri* ROGENHOFER and *carpenteri* BUTLER), *christophi* STAUDINGER, and *japonica* BUTLER. Concluded from text above names were most probably used in species rank, though *ledereri* ROGENHOFER, *lunulata* BREMER & GREY [sic], and *carpenteri* BUTLER were listed as subspecies of *B. certhia* FABRICIUS [sic] in the “Bibliografia”. *Bramaea* [sic] *cristophi* [sic] STAUDINGER and *japonica*

BUTLER were cited in species rank and *nigrans* BUTLER as subspecies of *japonica* BUTLER in the “Bibliografia”.

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) christophi* STAUDINGER, 1879, the nominotypical subspecies *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 [“1852”]) and *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 are distinct from the Chinese *B. (Brahmaea) certhia* (FABRICIUS, 1793). *B. (Brahmophthalma) nigrans* BUTLER, 1880 is a junior subjective synonym of *B. (Brahmophthalma) japonica* BUTLER, 1873.

Schepdael (1967) *Linneana Belgica*, 3 (5): pp. 91-103; provided some information on the biology and the ecology of *Brahmaea europaea*. Schepdael recorded the distribution range of the family Brahmaeidae from Japan, Korea, East and North China, India, Amur, the Caucasus, Cilicus and Ethiopia. He noted that Hartig listed 7 forms for this faunal region, belonging to only three species. Those were *Brahmaea certhia* FABRICIUS [sic], *B. certhia ledereri* ROGENHOFER, *B. certhia lunulata* BREMER & GREY [sic], *B. certhia carpenteri* BUTLER, *B. cristophi* [sic] STAUDINGER, *B. japonica* BUTLER, and *B. japonica nigrans* BUTLER. The author discussed on the history of the development of the Brahmaeidae.

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) ledereri christophi* STAUDINGER, 1879 and *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 are distinct from *B. (Brahmaea) certhia* (FABRICIUS, 1793) on species level. *B. (Brahmophthalma) nigrans* BUTLER, 1880 is a junior subjective synonym of *B. (Brahmophthalma) japonica* BUTLER, 1873.

Barou (1967) *Ent. Phyt. Applique*, 26, pp. 41-58, recorded *Brahmaea christophi* STAUDINGER from Mazandaran, Tchalous, [Iran, Provinz Māzandarān, Tschalus (at the southern coast line of the Caspian Sea)] from the month of July (: 14).

Chu & Wang (1977) [ii.1977] *Acta Ent. Sinica*, 20 (1), 1977, pp. 83-84, figs. 1-7 (separate plate); recorded seven species of the family Brahmaeidae from China. Those were *Brahmaea certhia* FABRICIUS [sic] (fig. 1) (Heilongjia Prov.: Yichun, Dailin; Zhejia Prov.: Zhoushan; Central and North China), *Brahmaea christophi* STAUDINGER (fig. 2) (Beijing; Caucasus), *Brahmaea ledereri* ROGENHOFER (fig. 3) (Shanghai; Zhejian Prov.: Tianmu Shan; Turkey and Asia Minor), the new species *Brahmaea porphyria* CHU & WANG (fig. 4) (Zhejian Prov.; Jianxi Prov.; Shanghai, and Jianshu Prov.: Wuxi), *Brahmophthalma hearseyi* (WHITE) (fig. 5) (Sichuan Prov.; Henan Prov.; Gueichou Prov.; Guangdong Prov.; Fujian Prov.; Ceylon [Sri Lanka]; India; Burma [Myanmar]), *Brahmophthalma wallichii* (GRAY) (fig. 7) (Yunnan Prov.: Kunming; Sichuan Prov.; Hunan Prov.: Changyang; Taiwan; India), and *Brahmophthalma japonica* (BUTLER) (fig. 6) (Taiwan, Japan and India). The family was divided into two genera depending on the larval morphology, those were *Brahmaea* and *Brahmophthalma*.

Remarks: the ranges were recorded in Chinese [not translated, but see Chu & Wang (1983)].

Records of *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmophthalma) japonica* BUTLER, 1873 from China based on misinterpretations and erroneous citations in literature. Above three taxa are absent in China. *B. (Brahmaea) porphyria* CHU & WANG, 1977 is a junior subjective synonym of *B.*

- (*Brahmaea*) *certhia* (FABRICIUS, 1793). The record of *B. (Brahmophthalma)* *japonica* BUTLER, 1873 from Taiwan refers to *B. (Brahmophthalma)* *wallichii* *insulata* INOUE, 1984.
- Yang (1978) Moths of North China, 523 pp, 29 col.pls. [in Chinese without English summary]; recorded *B. certhia* (Fabricius) and *B. undulata* (BREMER & GREY) of the genus *Brahmaea* (Brahmaeidae) from North China (: 424-427). Remarks on *B. christophi* STAUDINGER from Lenkoran, *Brahmophthalma*, *Dactyloceras*, *B. japonica*, and *B. wallichii* were given [text in Chinese]. The venation in Brahmaeidae was illustrated and described. *Brahmaea certhia* (FABRICIUS) (pl. 28, fig. 2 [♂]) and *Brahmaea undulata* (BREMER & GREY) (pl. 28, fig. 1 [♂]) were figured.
- Remarks:** the citation of *B. (Brahmaea)* *undulata* (BREMER & GREY, 1853) refers to *B. (Brahmaea)* *lunulata* (BREMER & GREY, 1853 ["1852"]).
- Nässig (1980) [xii.1980] Nachr. entomol. Ver. Apollo, Frankfurt/Main, N. F. Bd. 1 (3/4), pp. 77-91, recognized four genera in the Brahmaeidae. Those were the African *Dactyloceras* MELL, the Italian *Acanthobrahmaea* SAUTER, and the Asian typical *Brahmaea* WALKER and the isolated *Calliprogonos* MELL [sic] from SW China. He recorded the geographical distribution of *B. (Brahmaea)* *ledereri* ROGENHOFER, 1874 [sic] and *B. (Brahmaea)* *christophi* STAUDINGER, 1879 from Iran and Turkey. A lot of general information compiled from literature on the biology and ecology, distribution, the pre-imaginal stages, host plants, climatic and botanical conditions at the collecting sites, and short descriptions of *ledereri* and *christophi* were given. *B. (Brahmaea)* *christophi* was figured (: 83, fig. 2; : 86, fig. 5 ♂) and the distribution was recorded in fig. 6 (: 87). Nässig (: 80) noted that Ebert (pers. com.) observed *B. (Brahmaea)* *christophi* ROM.[ROMANOFF] [sic] all over the lowlands northerly of the Elbrus.
- Remarks:** *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.
- de Freina (1982) [10.v.1982] Entomofauna, 3 (9), pp. 129-139, described *Brahmaea ledereri zaba* from the Turkish Kurdistan region. The new subspecies was compared with *ledereri ledereri* from the Taurus Mountains in Turkey and with *B. ledereri christophi* from the Persian Caspian Sea-Region [Azerbaijan]. De Freina (: 138, fig. 7) presented a map with the previously known distribution area of *ledereri* ROGENHOFER, 1873 with its subspecies. ♂ specimens of all three subspecies were illustrated in phot.h.-t. (: 132, fig. 1 *ledereri*), (: 133, fig. 2 *zaba*, and fig. 3 *christophi*). *B. ledereri* and *B. christophi* were considered being conspecific and *christophi* confirmed as subspecies of *ledereri*.
- Remarks:** *B. (Brahmaea)* *ledereri* ROGENHOFER, 1873 and *B. (Brahmaea)* *christophi* STAUDINGER, 1879 are recognized as distinct species herein.
- Gardiner (1982) A Silkmoths Reared's Handbook, xiii + 255 pp., 125 figs. phot.h.-t. / line drawings, XXXII col.-pls.; recorded *Brahmaea christophi* STAUDINGER from the Caucasus and reported the larvae are solitary and prefer to feed on ash (: 113, 243).
- Zhu Hongfu [Chu, H.F.] & Wang Linyao (1983) Iconographia Heterocerorum Sinicorum, IV, pp. 414-415, col.-figs. 2985-2991, [actually a reprint of Chu & Wang (1977)]; recorded seven species of the family Brahmaeidae from China.

Those were *Brahmaea certhia* FABRICIUS [sic] (fig. 2985), *Brahmaea christophi* STAUDINGER (fig. 2986), *Brahmaea ledereri* ROGENHOFER (fig. 2987), *Brahmaea porphyrio* [sic] CHU et WANG (fig. 2988), *Brahmophthalma hearseyi* (WHITE) (fig. 2989), *Brahmophthalma wallichii* (GRAY) (fig. 2990), and *Brahmophthalma japonica* (BUTLER) (fig. 2991). The family was divided into two genera depending on the larval morphologies of the species. Representatives of above names were figured in color (col.pl. 136).

Remarks: the following distribution range was recorded for *B. (Brahmaea) ledereri christophi* STAUDINGER, 1879: Beijing and Caucasus. Locations cited can be partly based on misinterpretations and erroneous citations in literature. Taiwan is occupied by the later described subspecies *B. (Brahmophthalma) wallichii insulata* INOUE, 1984. *B. (Brahmaea) ledereri* ROGENHOFER, 1873, *B. (Brahmaea) christophi* STAUDINGER, 1879 and *B. (Brahmophthalma) japonica* BUTLER, 1873 are no taxa of the fauna of China. *B. (Brahmaea) porphyria* CHU & WANG, 1977 is a junior subjective synonym of *B. (Brahmaea) certhia* (FABRICIUS, 1793).

de Freina (1985) [01.xii.1985] Mitt. Münch. Ent. Ges., 74: pp. 77-90, discussed on the subspecies-status of *ledereri*, *christophi* STAUDINGER, 1879, and *zaba* DE FREINA, 1982. The variability of the subspecies *ledereri*, *christophi* and *zaba* was described and the ratio between the width of the hind wing outer band [“Hflgl.-Außenbindenbreite” = postmedian area?] width and the total width of the hind wing was shown in an affinogram (: [89, fig. 6]).

Sauter (1986) [31.xii.1986] Nota lepid., 9 (3-4), 1986 [December 31st, 1986 as per header], raised *Brahmaeops* Bryk, 1948, *Brahmidia*, and *Brahmophthalma* from synonymy of *Brahmaea* (: 264-265). *Acanthobrahmaea* SAUTER, 1967, *Brahmaea* WALKER, 1988 [sic], *Brahmidia* BRYK, 1948, *Brahmaeops* BRYK, 1948, and *Brahmophthalma* MELL, 1930 were placed in the subfamily Brahmaeinae (: 268-269). The author noted that the ♂ genitalia structures of *Acanthobrahmaea* correspond quite well those of *Brahmaea ledereri* and *B. christophi*.

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Kozlov (1985) Arthropods of Siberia and Far East, “Nauka”, pp. 105-112; described and figured the preimaginals of *B. lunulata* BREMER & GRAY [sic], 1852 [sic] [as *certhia* FABRICIUS, 1793 in the paper]. This species was compared with *Brahmaea ledereri* ROGENHOFER and *B. christophi* STAUDINGER. The ♂ genitalia structures (uncus and valva) of *ledereri* and *christophi* were figured and compared (: 107, fig. 1).

Remarks: the paper was dealing with the preimaginals of the Russian subspecies *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 which inhabits Siberia / Far East, Northeast China, and Korea.

Trentini & Marini (1989) J. Res. Lepid., 27 (2), 1988, pp. 136-138, reported on a chromosome study of *Brahmaea japonica* BUTLER. The distribution of taxa of Euroasiatic species of *Brahmaea*, e.g., *Brahmaea* [sic] *christophi* STAUDINGER, *Calliprogonos*, and *Acanthobrahmaea*, Indo-Australian species of *Brahmaea*, and Ethiopian species of *Dactyloceras* was demonstrated in fig. 1 (distribution map).

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Sauter (1986) [31.xii.1986] *Nota lepid.*, 9 (3-4), 1986 [December 31st, 1986 as per header], pp. 262-271, 3 text-figs.; placed *Acanthobrahmaea* SAUTER, 1967, *Brahmaea* WALKER, 1888 [sic], *Brahmidia* BRYK, 1948 [sic], *Brahmaeops* BRYK, 1948 [sic], and *Brahmophthalma* MELL, 1930 [sic] in the subfamily Brahmaeinae (: 268-269) of the Brahmaeidae. *Calliprogonos* MELL & HERING, 1937 and *Dactyloceras* MELL, 1930 [sic] were placed in the new subfamily Dactyloceratinae. The author noted that the ♂ genitalia structures of *Acanthobrahmaea* regarding the structures of valva and uncus correspond quite well to that of *Brahmaea ledereri* and *B. christophi* (: 269). An updated generic diagnostic for *Acanthobrahmaea* SAUTER, 1967 and a key for the genera was provided. A work by Dujardin (1977: 99) was viewed critically in that Sauter wrote (: 269) “The zoogeographical theories, from which Dujardin starts, have to adapt to the observed facts, not the other way around!”

Remarks: *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855. *Brahmaeops* BRYK, 1949 and *Brahmidia* BRYK, 1949 are junior synonyms of *Brahmophthalma* MELL, 1928. *Brahmophthalma* MELL, 1928 is placed as subgenus to *Brahmaea* WALKER, 1855. *Calliprogonos* MELL & HERING, 1937 and *Dactyloceras* MELL, in Hering in Seitz (ed.), 1927 are genera in the family Brahmaeidae SWINHOE, 1892.

Paukstadt, U. & Ragus (1990) [15.i.1990] *Ent. Z. (Essen)*, 100 (1/2), pp. 11-30, 29 figs. phot.h.-t.; described and figured the preimaginal instars of *B. (Brahmaea) tancrei* AUSTAUT 1896 from Korea for the first time. Comments on the taxa in *Brahmaea* WALKER, 1855 and taxonomy were presented. The authors noted that further comparisons with the life-histories of *B. ledereri ledereri* ROGENHOFER, 1874 [sic], *B. ledereri christophi* STAUDINGER, 1879, and *B. porphyria* CHU & WANG, 1977 of the subgenus *Brahmaea* WALKER are projected.

Remarks: *B. (Brahmaea) tancrei* AUSTAUT, 1896 is a junior subjective synonym of *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 and *B. (Brahmaea) porphyria* CHU & WANG, 1977 is a junior subjective synonym of *B. (Brahmaea) certhia* (FABRICIUS, 1793). *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are distinct on species level.

McNamara (1990) [ii.1990] *Bull. Amat. Ent. Soc.*, 49 (368), pp. 11-14; grouped the taxa in *Brahmaea* as follows: European, *Certhia* [sic] group, and *Wallachii* [sic] group. On rearing / crossing experiments was reported briefly. *B. (Brahmaea) christophi* (STAUDINGER) [sic] was cited as a member of the *Certhia* [sic] group. One species of each group (sensu Mc Namara 1990) was illustrated (drawing).

Remarks: the names *Wallachii* group and *Wallichii* group appeared repeatedly in this paper besides the correct written name *wallichii wallichii* (GRAY, 1831) and therefore ‡*Wallachii* is considered to be an incorrect subsequent spelling of *wallichii* (GRAY, 1831) rather than a newly proposed group name.

McNamara (1997) [ivi.1997] *Bull. Amat. Ent. Soc.*, 56, pp. 107-108; reported on new discoveries of the *certhia* “tribe” of *Brahmaea (Brahmaea)* from China. The author noted that several dealers of the “Leicester” (23rd May 1997) had set specimens of the *certhia* group with appellations “*christophi*?” or “*ledereri*?”.

Zhang, Hao & Yang (1999) *J. China Agricult. Univers.*, 1999, 4 (5), pp. 37-42; presented an overview on the Chinese brahmids moths. The authors recognized

four genera in the family Brahmaeidae in China. One of those has been *Brachygnatha* ZHANG & YANG, 1993 with the species *diastemata* ZHANG & YANG, 1993, *ledireri* [sic] ROGENHOFER, 1873, *christophi* STAUDINGER, 1853 [sic], and *jilinneus* [sic] ZHANG, 1988.

Remarks: *Brachygnatha* ZHANG & YANG, 1993 is a junior synonym of *Brahmaea* WALKER, 1855.

Koçak, M. K. & Koçak, A. Ö. (2008) [26.i.2008] Cent. Ent. Stud., Priamus Suppl. 12, pp. 1-89; presented a first attempt in preparing a comprehensive list of patronyms among the genus- and species-group names in the Lepidopterology. 5175 patronyms of the Lepidoptera were listed, including 743. *Brahmaea* (s.str.) *christophi* STAUDINGER, 1879 (Brahmaeidae) and 744. *Brahmaea* (s.str.) *christophi christophi* STAUDINGER, 1879 (Brahmaeidae) (: 18).

Gegechkori (2011) Annals of Agrarian Science, 9 (1), pp. 1-29, presented results of his biogeographical study of the Arcto-Tertiary refugia (Colchis and Talysh) of southern Caucasus. Both regions were reported being species-rich refugia for many Tertiary relict plants and animal species in Western Euroasia. The author noted that particular attention should be paid to the remarkable endemic *Brahmaea ledereri* from the Colchis region and *Brahmaea christophi* from Lenkoran (: 15-16). *B. certhia* was recorded from Russia Far East (Amur Gorge River), Korea, China, Japan, and India.

Remarks: records of *B. (Brahmaea) certhia* (FABRICIUS, 1793) from Russia Far East, Korea, Japan, and India refer to *B. (Brahmaea) lunulata* (BREMER & GREY, 1853 ["1852"]) (northern China), *B. (Brahmaea) lunulata carpenteri* BUTLER, 1883 (Russia Far East, Northeastern China and Korea), and *B. (Brahmophthalma) japonica* BUTLER, 1873 (Japan). *B. There* are scattered records of *(Brahmaea) certhia* (FABRICIUS, 1793) from South Korea, too. Records in literature of *B. (Brahmaea) certhia* (FABRICIUS, 1793) from India were based on misidentifications and mainly refers to *B. (Brahmophthalma) wallichii wallichii* (GRAY, 1831).

Zolotuhin, Didmanidze & Petrov (2011) [viii.2011] NEN, 67 (2017 [sic] recte August 2011), pp. 63-72; recorded *Brahmaea christophi christophi* [sic] STAUDINGER, 1879 from south-western Georgia (Colchic Lowlands) and north-western [sic] Turkey, *B. christophi zaba* [sic] DE FREINA, 1982 from Turkish Kurdistan, and *B. christophi ledereri* [sic] ROGENHOFER, [1873] 1874 [sic] from northern Iran (Mazandaran, Elbrus: Kendevan) and Azerbaijan (Talysh).

Remarks: *ledereri* ROGENHOFER, 1873 is an older name than *christophi* STAUDINGER, 1879 and the citation of *ledereri* as subspecies of *christophi* therefore is wrong. *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are treated as distinct species herein. The taxon *zaba* is a subspecies of *B. (Brahmaea) ledereri* ROGENHOFER, 1873: *B. (Brahmaea) ledereri zaba* DE FREINA, 1982.

Koçak (2014) [09.x.2014] Priamus, Suppl. 32, 877 pp.; listed in "List of the 23773 pterygot species in Turkey based upon the info-system of the CESA" 224. *Brahmaea* (s.str.) *christophi* STAUDINGER, 1879 (Brahmaeidae) and 225. *Brahmaea* (s.str.) *ledereri* ROGENHOFER, 1873 (Brahmaeidae) (: 157).

Mosconi, Zilli, Spicciarelli, Maurizi, Vigna Taglianti & Audisio (2014) [31.x.2014] fe Fragmenta entomologica, Vol. 46, No. 1-2, 2014; published a highly interesting

overview on the state of knowledge about the Italian endemic *Brahmaea* (*Acanthobrahmaea*) *europaea* HARTIG, 1963. The authors noted that from the systematic point of view *B. europaea* is more closely related to the so-called “palaearctic brameas”, members of the *Brahmaea ledereri* ROGENHOFER, 1873 – *Brahmaea certhia* (FABRICIUS, 1793)-group (*Brahmaea* sensu stricto) [not further specified], some of which from time to time associated with the (sub)generic name *Brachygnatha* ZHANG & YANG, 1993. The only other *Brahmaea* species known from the Western Palaearctic was reported being *B. ledereri* from the Taurus Mountains across SE Anatolia to N Iran (= *B. christophi* (STAUDINGER, 1885 [sic]) [sic]) [in the sense of synonym].

Remarks: *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are considered being distinct on species level. *Acanthobrahmaea* SAUTER, 1967 is a junior synonym of *Brahmaea* WALKER, 1855.

Gegechkori & Didmandze (2015) American Journal of Environmental Protection, 2015, 4 (3-1), pp. 82-92; discussed on the possibility whether *Brahmaea ledereri* ROGENHOFER, 1873 ever has inhabited the Colchis Refugium. Some information on the biogeographical background was provided by the authors. The authors concluded that there are actually allopatric ranges of the two relict species *Brahmaea ledereri* and *B. christophi* STAUDINGER, but the disjunction has occurred not between moths of Brahmaeidae of Colchis and Hyrcanian refugia. Split of the common range of the genus *Brahmaea* actually took place in the Pliocene, although not between Transcaucasian refugia Colchis and Talysh but between the Hyrcanian refugium and the Anatolian criptic refugial areas. The authors assumed that despite the prehumid and warm climate of Colchis the seasonal insufficient cycles of light caused by the higher latitude became unsuitable for *B. ledereri*.

Koçak & Kemal (2016) [13.iii.2016] Priamus, Supplement, No. 42, pp. [1]-160; presented a ‘Revised and annotated bibliography of the Lepidoptera of Turkey’ which included appropriate literature on *Brahmaea ledereri* ROGENHOFER, 1873, *B. ledereri zaba* DE FREINA, 1982 and *B. ledereri christophi* STAUDINGER, 1873 [sic] (: 47, 106, 124).

Remarks: at the time being *B. (Brahmaea) ledereri* ROGENHOFER, 1873 and *B. (Brahmaea) christophi* STAUDINGER, 1879 are considered to be distinct species.

Zolotuhin (2016) [27.xi.2016] Eversmannia, No. 47-48; pp. 4-10 [+1]; proposed the new subgeneric name *Transbrahmaea* for two species (a geographically disjunctive group) distributed in Transcaucasia and Asia Minor. Those were *B. christophi* STAUDINGER, 1885 [sic] and *B. ledereri* ROGENHOFER, 1873 with its subspecies *zaba* DE FREINA, 1982. *B. christophi* was selected as type species by original designation. A tree was figured (: 6, fig. 4) included the taxa of the subgenera *Brahmaea* WALKER, 1855, *Acanthobrahmaea* SAUTER, 1967 and *Transbrahmaea* ZOLOTUHIN, 2016. The ♂ genitalia structures were figured in color (: 8) of *christophi* (fig. 12). *B. christophi* from Azerbaijan, Talysh was figured in color dorsally (fig. 10).

Remarks: not only from a biogeographical point of view, but also due to morphological and genetic differences the two species *B. christophi* STAUDINGER, 1879 and *B. ledereri*

ROGENHOFER, 1873 can be separated and transferred from the nominate subgenus to a separate subgenus: *Transbrahmaea* ZOLOTUHIN, 2016. But this makes only sense if the endemic Italian species *europaea* HARTIG, 1963 remains in the monotypic subgenus *Acanthobrahmaea* SAUTER, 1967. Because *Acanthobrahmaea* is the sister-species of *Transbrahmaea* from Asia Minor / Middle East the latter represents not the link between the monotypic *Acanthobrahmaea* from Italy and the species group around *B. (Brahmaea) certhia* and *B. (B.) lunulata* in the eastern Palearctic Region.

Transbrahmaea ZOLOTUHIN, 2016 and *Acanthobrahmaea* SAUTER, 1967 are junior synonyms of *Brahmaea* WALKER, 1855.

Wu (2017) *The Marvelous Moths of China*, 403 pp.; noted (: 272) that China has four genera in the family Brahmaeidae. Those were *Brahmaea*, *Brachygatha* [sic] with its species *diastemata* (ZHANG & YANG, 1993) [sic], *christophi* (STAUDINGER, 1853 [sic]), *jilinneus* [sic] (ZHANG, 1988), and *ledereri* (ROGENHOFER, 1873), *Brahmophthlma* [sic], and finally *Brahmidia*.

Remarks: *Brahmaea* WALKER, 1855 and *Brahmophthlma* MELL, 1928 are subgenera of *Brahmaea* WALKER, 1855. *Brachygnatha* ZHANG & YANG, 1993 is a junior synonym of *Brahmaea* WALKER, 1855 and *Brahmidia* BRYK, 1949 is a junior synonym of *Brahmophthlma* MELL, 1928. The Chinese *Calliprogonos* MELL & HERING, 1937 from China was omitted by the author.

Kitching, Rougerie, Zwick, Hamilton, St Laurent, Naumann, Ballesteros Mejia & Kawahara (2018): *A global checklist of the Bombycoidea (Insecta: Lepidoptera)*; published online 2018 Feb 12. doi: 10.3897/BDJ.6.e22236; listed the name *christophi* STAUDINGER, 1885 [sic] as subspecies of *Brahmaea (Brahmaea) ledereri* ROGENHOFER, 1873.

Remarks: A “Preliminary Checklist” of the names in the family Brahmaeidae, the “References” and the “Internet References”, and the “Acknowledgements” are supposedly provided with the last issue of this series.

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