

CLAUSILIIDAE (GASTROPODA: PULMONATA) FROM INDIA, MYANMAR, PAKISTAN AND SRI LANKA IN THE COLLECTION OF THE NATURAL HISTORY MUSEUM, LONDON

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Abstract The Clausiliidae species of India, Myanmar, Pakistan and Sri Lanka are mostly endemic and among the least studied representatives of their family. Almost all of the available material of these taxa was collected before 1920 and is housed in the Natural History Museum, London. The present overview of this collection provides information on the origins of the samples, as well as distribution data and illustrations of the studied species and subspecies with some comments on their taxonomic status. From this material *Cylindrophaedusa* (*Montiphaedusa*) *godwinausteni* Grego & Szekeres sp. nov., *C.* (*M.*) *perplicata* Grego & Szekeres sp. nov., *Oospira decollata muspratti* Grego & Szekeres subsp. nov., *O. diyungensis* Grego & Szekeres sp. nov., *O. limborgi* Grego & Szekeres sp. nov., *O. rissomensis* Grego & Szekeres sp. nov., *O. shanensis* Grego & Szekeres sp. nov., and *O. telizoensis* Grego & Szekeres sp. nov. are described as new taxa.

Key words Garnieriinae, Phaesusinae, new taxa, former British India

INTRODUCTION

Clausiliids (Clausiliidae) are represented by more than 1300 species that inhabit vast areas of Europe, Asia and Africa, as well as parts of South America and the Caribbean (Nordsieck, 2007a). Although they constitute one of the best studied groups of pulmonate land snails, there is only scarce knowledge on the taxa occurring in hard to access parts of the distribution area. Among these are the southern slopes of the Himalaya in Pakistan and India, northeastern India, and the territories of Myanmar and Sri Lanka, all of which are considered biodiversity hotspots with considerable floristic and faunistic significance (Myers *et al.*, 2000).

During the 19th and early 20th centuries the clausiliids of these regions, then belonging to British India, were intensely investigated (Benson, 1836, 1852, 1863a, 1863b; Gould, 1844, 1859; Theobald, 1864, 1878, 1881; Hanley, 1868; Blanford, 1865, 1872; Stoliczka, 1871, 1872; Godwin-Austen, 1888, 1918) and overviewed in major malaco-faunistic works (Hanley &

Theobald, 1870–1876; Gude, 1914). Later, however, these efforts were largely abandoned and, despite a few further studies (Nordsieck, 1974, 2002b; Grego, Hunyadi & Szekeres, 2021; Szekeres, Grego & Slapcinsky, 2021), the clausiliid taxa of these regions remained poorly known. To date, many of the 44 nominal species from these areas, which are largely endemic to the region, remain unfigured and have poorly defined locality information.

Currently the largest Clausiliidae material from the aforementioned countries is housed in the Natural History Museum, London. Our review of this material provides detailed listing of the available samples, descriptions of seven new species and a subspecies, as well as images of all discussed taxa.

MATERIALS AND METHODS

The studied Clausiliidae of the Natural History Museum originate from the territories of India, Myanmar, Pakistan and Sri Lanka. About 40% of the material is from the former collection of Henry Haversham Godwin-Austen, who is also

credited for recognising most of the new taxa described in this paper, and a further 19% is from the collections of Thomas Blanford, and William Theobald. The rest of the samples were received from other collections and collectors. The following contributors are hereafter referred to by their family names: Richard Henry Beddome, William Henry Benson, Theodore Edward Cantor, A. W. Chennell, Alfred Hands Cooke, Hugh Cuming, Robert Damon, Francis Day, Harold Stanley ('Jim') Ede, Francis Fedden, Jozef Grego, Gerard Pierre Laurent Kalshoven Gude, Sylvanus Charles Thorpe Hanley, Henry Harvey, John Sidney Hawkins, Thomas Horsfield, Richard Hungerford, András Hunyadi, Thomas Hutton, Stanley Wells Kemp, John Watson Laidlay, Edgar Leopold Layard, Ossian Limborg, Francis Mason, E. Muspratt, George Frederick Thomas Oakes, M. J. Ogle, Kanji Okubo, Jamen Uiriamu Otani, Charles Samuel Pollock Parish, Alfred James Peile, John Henry Ponsonby, Frederik Adolph de Roepstorff, George Brettingham Sowerby I and III, John Crace Stevens, Theodor Anton Verkrüzen, Robert Gosset Woodthorpe, and John William Yerbury.

Figured specimens of the listed species and subspecies were chosen from type material or a sample collected at the type locality. The data for each sample give the locality (including a direct transcription of the earliest available label), collection and/or acquisition data (as available), registration number, and the number of specimens. The entry 'err.' denotes inventory numbers issued upon erroneous re-registration. For easier identification of the localities these are provided with geographic coordinates, and frequently mentioned hill regions in northeastern India are shown in a map (Fig. 1). In order to fix the status of taxa lacking designated types, and having most of their syntypes held in the Natural History Museum's collection, lectotypes have been designated.

The materials mentioned in the paper are those of the Natural History Museum, London (NHMUK), Florida Museum of Natural History, Gainesville (UF), Naturmuseum Senckenberg, Frankfurt am Main (SMF), and of the private collection of András Hunyadi, Budapest (HU). In text the abbreviations OD and SD correspond to original or subsequent type species designations

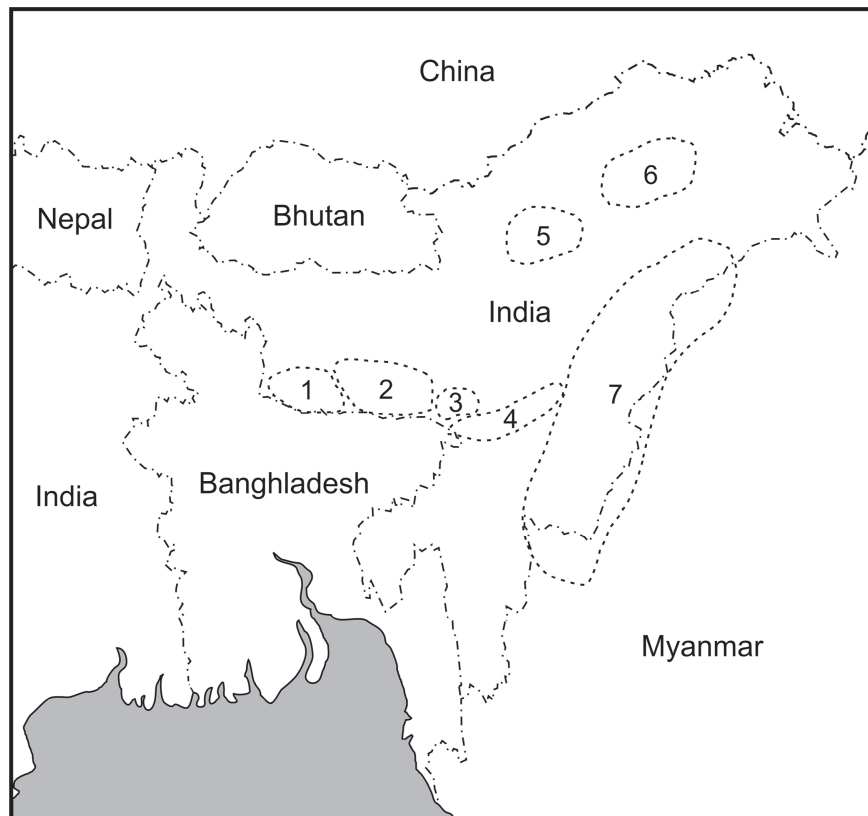


Figure 1 Hill regions of northeastern India. Garo Hills (1), Khasi Hills (2), Jaintia Hills (3), Barail Range (4), Dafla Hills (5), Abor Hills (6), Naga Hills (7).

of the discussed genera, whereas Hs, Ws, Ha and Wa denote shell height, spire width, aperture height and aperture width, respectively.

SYSTEMATICS

CLAUSILIIDAE

GARNIERIINAE

Indonenia Ehrmann, 1927

Type species: *Clausilia masoni* Theobald, 1864;
OD.

This genus of four species is endemic to central Myanmar.

Indonenia admirabilis Grego & Szekeres, 2021
(Fig. 2a)

Indonenia admirabilis Grego & Szekeres, in Grego
et al., 2021: p. 22, figs 2b, 3–4

Type locality Myanmar, Kayah State, Hpruso
District, Maw Ti Do, entrance of the Phruno
River Cave (19°22'44.6" N 97°02'34.2" E), 1230m.

Material Type locality, leg. Grego 12.02.2019,
NHMUK 20200185 [holotype], NHMUK
20200191 [3 paratypes].

Indonenia excellens Nordsieck, 2002
(Fig. 2b–c)

Tropidauchenia (Indonenia) excellens Nordsieck,
2002a: p. 16, fig. 6

Indonenia excellens — Nordsieck, 2007a: p. 37,
plate 6 fig. 4

Indonenia excellens — Grego *et al.*, 2021: p. 22, fig.
2a

Type locality Myanmar, Kayin or Kayah State,
Karen Mountains, 1200–1300m.

Material Myanmar, Shan State, Taungoo to
Demoso road at km 124.5 (19°24'03.4" N
96°49'43.4" E), 970m, leg. Grego 17.02.2019,
NHMUK 20200189 [1].

Indonenia masoni (Theobald, 1864)
(Fig. 2d)

Clausilia masoni Theobald, 1864: p. 246

Clausilia masoni — Hanley & Theobald, 1870:
p. 12, plate 24 fig. 8

Clausilia (? *Nenia*) *masoni* — Blanford, 1872:
p. 206, plate 9 fig. 18

Clausilia masoni — Sowerby, 1875: plate 8 fig. 69

Clausilia masoni — Pfeiffer, 1877: p. 540

Clausilia (incertae sedis) *masoni* — Boettger, 1878:
p. 80

Clausilia [*Phaedusa* (*Hemiphaedusa*)] *masoni* —
Pfeiffer & Clessin, 1881: p. 394

Clausilia (*Garnieria*) *masoni* — Möllendorff, 1886:
p. 207

Clausilia (*Garnieria*) *masoni* — Gude, 1914: p. 331

Tropidauchenia (Indonenia) masoni — Nordsieck,
2002a: p. 6

Indonenia masoni — Nordsieck, 2007a: p. 37

Indonenia masoni — Grego *et al.*, 2021: p. 22

Type locality “Prope Tonghoo, in montibus inter
Provincias Pegu et Martaban” (Myanmar, near
the Kayin-Kayah state boundary, mountains E of
Taungoo, about 19°00' N 96°50' E).

Material Type locality: “Tonghu”, leg. Mason, ex
Theobald, NHMUK 1888.12.4.1034, [lectotype],
NHMUK 1888.12.4.1035–1036, [2 paralecto-
types]; “Burmah, between Pegu and Martaban”,
ex Cooke, NHMUK 1933.3.1.136 [1]; “Tonghu,
Burmah”, ex Godwin-Austen, NHMUK
1903.7.1.1105 [3]; “Tounghou”, ex Blanford,
NHMUK 1906.2.2.384 [2]; “Tonghoo, Pegu”, ex
Blanford, NHMUK 1906.2.2.286 [2].

Remark The syntype NHMUK 1888.12.4.1034
(Fig. 2d), received directly from Theobald’s col-
lection, is designated here lectotype of *Clausilia*
masoni.

Indonenia tuba (Hanley, 1868)
(Fig. 2e–f)

Clausilia tuba Hanley, 1868: p. 343

Clausilia tuba — Hanley & Theobald, 1870: p. 12,
plate 24 fig. 9

Clausilia tuba — Sowerby, 1875: plate 8 fig. 72

Clausilia tuba — Pfeiffer, 1877: p. 540

Clausilia (incertae sedis) *tuba* — Boettger, 1878:
p. 80

Clausilia [*Phaedusa* (*Hemiphaedusa*)] *tuba* — Pfeiffer
& Clessin, 1881: p. 394

Clausilia (*Garnieria*) *tuba* — Möllendorff, 1886:
p. 207



Figure 2 *Indonedia admirabilis* Grego & Szekeres, Myanmar, Phruno River Cave, holotype, NHMUK 20200185, 23.3mm (a); *I. excellens* (Nordsieck), Myanmar, Taungoo to Demoso road, NHMUK 20200189, 30.6mm (b); *I. excellens* (Nordsieck), Myanmar, Karen Mountains, paratype, UF 117592, 25.9mm (c); *I. masoni* (Theobald), Myanmar, E of Taungoo, lectotype, NHMUK 1888.12.4.1034, 26.2mm (d); *I. tuba* (Hanley), Myanmar, upper course of the Thanlwin, lectotype, NHMUK 1907.12.30.241, 33.5mm (e) and paralectotype NHMUK 1888.12.4.1033, 32.0mm (f).

Clausilia (Garnieria) tuba — Gude, 1914: p. 331, fig. 115

Tropidauchenia (Indonenia) tuba — Nordsieck, 2002a: p. 6

Indonenia tuba — Nordsieck, 2007a: p. 37

Indonenia tuba — Grego *et al.*, 2021: p. 22

Type locality “Shan, provinc. Ind. or ... valley of the Upper Salwen” (Myanmar, Shan State, along the upper course of the Thanlwin River).

Material Type locality: “Shan States”, leg. Fedden, ex Hanley, NHMUK 1907.12.30.241 [lectotype]; “Shan States”, leg. Fedden ex Theobald, NHMUK 1888.12.4.1033 [paralectotype, figured in Gude (1914)]; “Shan Hills”, leg. Fedden, ex Blanford, NHMUK 1906.3.3.45 [2 fragments].

Remark In Gude (1914) the syntype NHMUK 1907.12.30.241 (Fig. 2e) was referred to as the type of this species. According to ICZN article 74.5 this is regarded as a valid lectotype designation.

PHAEDUSINAE

Cylindrophaedusa Boettger, 1877

Type species: *Clausilia cylindrica* Pfeiffer, 1846; MT.

Cylindrophaedusa, comprised of two subgenera, occurs in humid forests from the Western Himalaya to the hill regions of northeastern India and northern Myanmar.

Cylindrophaedusa (Cylindrophaedusa) Boettger, 1877

Cylindrophaedusa (Cylindrophaedusa) cylindrica (Pfeiffer, 1846)
(Fig. 3a)

Clausilia cylindrica Pfeiffer, 1846: p. 93

Clausilia cylindrica — Küster, 1850: plate 11 figs 12–16

Clausilia cylindrica — Pfeiffer, 1850: p. 95

Clausilia elegans Hutt. mss. — Pfeiffer, 1850: p. 95

Clausilia cylindrica — Küster, 1853: p. 101

Clausilia (Phaedusa) cylindrica — Adams & Adams, 1855: p. 184

Clausilia (Phaedusa) cylindrica — Pfeiffer, 1855: p. 180

Clausilia cylindrica — Pfeiffer, 1859: p. 725

Clausilia cylindrica — Hanley & Theobald, 1870: p. 12, plate 24 fig. 4

Clausilia cylindrica — Blanford, 1872: p. 199, plate 9 fig. 1

Clausilia cylindrica — Sowerby, 1875: plate 2 fig. 18

Clausilia turritella Sowerby, 1875: plate 7 fig. 65

Clausilia [Phaedusa (Cylindrophaedusa)] cylindrica — Boettger, 1878: p. 57

Clausilia cylindrica — Theobald, 1881: p. 48

Clausilia (Cylindrophaedusa) cylindrica — Gude, 1914: p. 337, fig. 117

Clausilia (Cylindrophaedusa) turritella — Gude, 1914: p. 339

Hemiphaedusa (Cylindrophaedusa) cylindrica — Nordsieck, 1973: p. 66, plate 3 fig. 11

Cylindrophaedusa (Cylindrophaedusa) cylindrica — Nordsieck, 2002b: p. 87

Cylindrophaedusa (Cylindrophaedusa) cylindrica — Nordsieck, 2007a: p. 26

Type locality “India”.

Material Pakistan, Punjab State, Campbellpur/Attock (33°46' N 72°21' E): “Campbellpur”, ex Yerbury, NHMUK 1928.9.6.1–3 [3]. Pakistan or India, Western Himalaya: “W. Himalayas”, ex Benson, ex Hawkins, NHMUK 1954.6.2.1087–1089 [3]; “Himalaya, 8000 ft”, ex Verkrüzen, NHMUK 1883.10.22.432–433 [2]; “Himalaya”, ex Damon, NHMUK 1871.9.23.27 [1]; “Himalaya”, ex Cooke, NHMUK 1933.3.1.150–169 [17+9 apices]. India, Himachal Pradesh State, Shimla (31°06'20" N 77°10'20" E): “Simla”, ex Blanford, NHMUK 1906.2.2.371 [7+1 apex]; “Simla”, ex Blanford, NHMUK 1906.2.2.373 [2+1 apex]; “Simla – Himalaya”, ex Hutton (as *Clausilia elegans*), NHMUK 1928.7.28.31–50 [14+3 fragments]; “north of Simla”, ex Day, NHMUK 1891.9.19.67 [1]. India, Uttarkhand State, Mussoorie (30°27'40" N 78°04'00" E): “Simla, Mussoorie”, ex Hutton, NHMUK 1856.9.15.70 [10+1 apex]; “Mussoorie”, ex Godwin-Austen, NHMUK 1903.7.1.1272 [5+2 apices]. India, Uttarakhand State, Landour (30°27'18" N 78°06'08" E): “Landour”, purchased (as *Clausilia elegans*), NHMUK 1850.11.1.144–148 [4+3 apices]. India: “India”, ex Stevens, NHMUK 1842.7.4.452–459 [7+1 fragment]; “India”, ex Gude, NHMUK 1925.4.7.1 [1, specimen figured in Gude (1914)]; “India”, ex Laidlay, NHMUK 1951.1.9.56–57 [3 apices].



Figure 3 *Cylindrophaedusa* (*Cylindrophaedusa*) *cylindrica* (Pfeiffer), India, Mussoorie, NHMUK 1856.9.15.70, 12.7mm (a); *C. (Montiphaedusa) annandalei annandalei* (Preston), India, Abor Hills, Rottung, lectotype, NHMUK 1903.7.1.3706a, 19.3mm (b); *C. (M.) annandalei annandalei* (Preston), India, Abor Hills, Shimang Valley, lectotype of *Clausilia shimangensis* Godwin-Austen, 1918, NHMUK 1903.7.1.3154a, 19.0mm (c); *C. (M.) annandalei aborensis* (Godwin-Austen), India, Abor Hills, lectotype, NHMUK 1903.7.1.3099a, 19.8mm (d); *C. (M.) bacillum* (Hanley & Theobald), India, Nanclai Poonji, holotype, NHMUK 1888.12.4.1030, 15.5mm (e); *C. (M.) godwinausteni* Grego & Szekeres sp. nov., India, Naga Hills, Kopamedza Summit, holotype, NHMUK 1903.7.1.697a, 12.9mm (f).

Cylindrophaedusa (Montiphaedusa) Nordsieck, 2002

Type species: *Clausilia ios* Benson, 1852; OD.

Cylindrophaedusa (Montiphaedusa) annandalei annandalei (Preston, 1915)
(Fig. 3b–c)

Clausilia (Phaedusa) annandalei Preston, 1915: p. 538, fig. 2

Clausilia annandalei — Godwin-Austen, 1918: p. 618, fig. 10c–d

Clausilia shimangensis Godwin-Austen, 1918: p. 619, fig. 10b

Hemiphaedusa annandalei — Nordsieck, 1973: p. 71, plate 3 figs 7–8

Cylindrophaedusa (Montiphaedusa) annandalei — Nordsieck, 2002: p. 87

Cylindrophaedusa (Montiphaedusa) annandalei annandalei — Nordsieck, 2007a: p. 26

Type locality “Upper Rotung, at an altitude of 2000ft.” (India, Arunachal Pradesh State, Abor Hills, Rottung, 28°07'50" N 95°08'45" E, 600m).

Material Type locality, leg. Kemp, ex Godwin-Austen, NHMUK 1903.7.1.3706a [lectotype, figured in Nordsieck (1973)], NHMUK 1903.7.1.3706b [paralectotype]. India, Arunachal Pradesh State, Abor Hills, Shimang Valley (28°24'20" N 94°54'00" E): “Shimang, Abor Hills”, leg. Oakes, ex Godwin-Austen, NHMUK 1903.7.1.3154a [lectotype of *Clausilia shimangensis* Godwin-Austen, 1918, figured in Nordsieck (1973)], NHMUK 1903.7.1.3154b [paralectotype of *Clausilia shimangensis* (apex)]; “Abor, 28°15'–29°15' N 94°50'–95°10' E”, leg. Oakes, ex Godwin-Austen, NHMUK 1903.7.1.3707 [2].

Remark The syntype of *Clausilia (Phaedusa) annandalei* (NHMUK 1903.7.1.3706a, Fig. 3b) is designated here as the lectotype of this taxon. According to ICZN article 74.5, mentioning and figuring the syntype of *Clausilia shimangensis* (NHMUK 1903.7.1.3154a, Fig. 3c) as “holotype” in Nordsieck (1973) is regarded valid lectotype designation.

Cylindrophaedusa (Montiphaedusa) annandalei aborensis (Godwin-Austen, 1918)
(Fig. 3d)

Clausilia aborensis Godwin-Austen, 1918: p. 618, fig. 10a, e

Hemiphaedusa annandalei aborensis — Nordsieck, 1973: p. 71, plate 3 fig. 9

Cylindrophaedusa (Montiphaedusa) annandalei aborensis — Nordsieck, 2007a: p. 26

Type locality “Abor Hills” (India, Arunachal Pradesh State, Abor Hills, 28°10' N 94°30' E).

Material Type locality, leg. Oakes, ex Godwin-Austen, NHMUK 1903.7.1.3099a [lectotype], NHMUK 1903.7.1.3099b [4 adult +3 juvenile paralectotypes].

Remark The syntype NHMUK 1903.7.1.3099a (Fig. 3d), figured in Godwin-Austen (1918), was mentioned and re-figured by Nordsieck (1973) as the lectotype of this species. This constitutes valid lectotype designation.

Cylindrophaedusa (Montiphaedusa) bacillum
(Hanley & Theobald, 1870)
(Fig. 3e)

Clausilia bacillum (sic!) (nomen nudum) — Theobald, 1858: p. 321

Clausilia ignota (nomen nudum) — Theobald, 1858: p. 321

Clausilia bacillum Hanley & Theobald, 1870: p. 12, plate 24 fig. 1

Clausilia (? Medora) bacillum — Blanford, 1872: p. 200, plate 9 fig. 3

Clausilia bacillum — Sowerby, 1875: pl. 6 fig. 48

Clausilia [Phaedusa (Euphaedusa)] bacillum — Boettger, 1878: p. 53

Clausilia (Phaedusa) bacillum — Gude, 1914: p. 305

Hemiphaedusa bacillum — Nordsieck, 1973: p. 72, plate 3 fig. 10

Cylindrophaedusa (Montiphaedusa) bacillum — Nordsieck, 2002b: p. 87

Cylindrophaedusa (Montiphaedusa) bacillum — Nordsieck, 2007a: p. 26

Type locality “Nanclai, Khasi Hills” (India, Meghalaya State, Khasi Hills, Nanclai/Nanclai Punji, 25°15' N 92°30' E).

Material Type locality: “Khasi Hills”, ex Theobald, NHMUK 1888.12.4.1030 [holotype]. India, Meghalaya State, Khasi Hills (25°30' N 91°30' E): “Khasi Hills”, ex Blanford, NHMUK 1906.2.2.345 [5]; “Khasi Hills”, ex Cooke, NHMUK 1933.3.1.149 [1]. India, Meghalaya State, Khasi Hills, Therriaghat (25°10'40" N 91°45'10" E): “Teria

Ghat, Khasi", ex Theobald, ex Godwin-Austen, NHMUK 1903.7.1.1117 [5]. India, Meghalaya State, Garo Hills (25°25' N 90°30' E): "Garo Hills", ex Godwin-Austen, NHMUK 1903.7.1.1118 [2]. India, Meghalaya State, Jaintia Hills, Nongbareh (25°14'00" N 92°01'50" E): "Nongbaria, Jaintia Hills", ex Blanford, 1906.2.2.385 [8]; "Nongbaria", ex Godwin-Austen, ex Damon, NHMUK 1871.9.23.26(b) [1]. India, Meghalaya or Manipur State: "NE Bengal", ex Verkrüzen, NHMUK 1883.10.22.40 [1]. India, Manipur State, Narandhor Basa (24°47'20" N 93°09'30" E): "Naraindher, Cachar", leg. Ede, ex Godwin-Austen, NHMUK 1903.7.1.1663 (err. NHMUK 1998129) [1]. India, Manipur State (24°50' N 94°00' E): "Munipur?", ex Godwin-Austen, NHMUK 1903.7.1.4022 [1]. India, Manipur or Nagaland State, Naga Hills: "Naga Hills", ex Godwin-Austen, NHMUK 1903.7.1.1121 [1]; "Naga Hills", leg. Muspratt, ex Beddome, NHMUK 1912.4.16.28a (err. NHMUK 1998124) [1]. India, Nagaland State, Dimapur (25°55' N 93°44' E): "Dinapur", ex Godwin-Austen, NHMUK 1903.7.1.3921 [12+2 fragments].

Cylindrophaedusa (Montiphaedusa) godwinausteni
Grego & Szekeres sp. nov.
(Fig. 3f)

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Diagnosis Small, slender *Cylindrophaedusa (Montiphaedusa)* with finely costate shell, non-connected lamellae superior and spiralis, retracted lamella subcolumellaris and three strong lateral plicae.

Type material Holotype: India, Nagaland State, Naga Hills, Mt. Kopamedza (25°31'58" N 94°17'56" E): "Kopamedza Pk., Naga Hills", ex Godwin-Austen, NHMUK 1903.7.1.697a (err. NHMUK 1998122). Paratypes: same locality and data, NHMUK 1903.7.1.697b (err. NHMUK 1998122) [1]; "Kopamedza Range, Naga Hills", ex Blanford, NHMUK 1906.1.1.951 (err. NHMUK 1998123) [1].

Description The slender, pale yellowish shell consists of 9.0 to 9.5 bulging whorls. The upper whorls are very finely striate, but gradually the striae become stronger and turn to dense ribs toward the base. The oval aperture has a wide sinulus. The whitish peristome is detached, its

thickened margin is reflexed. The lamella superior is separated from the lamella spiralis by a short gap. The lamella inferior does not reach the peristome. Its steeply descending end part is visible only in oblique view. The retracted, laterally ending lamella subcolumellaris is not visible through the aperture. The plica principalis spans from the ventrolateral to the left lateral side. There are three strong, widely spaced lateral plicae, of which the lowest is shorter than the others. The clausilium plate cannot be viewed through the aperture.

Measurements Holotype: Hs 12.9mm, Ws 2.8mm, Ha 2.7mm, Wa 1.9mm. Paratypes (2): Hs 12.0–12.4mm, Ws 2.7mm, Ha 2.5–2.6mm, Wa 1.8–2.0mm.

Derivation of name The species is named in honour of Henry Haversham Godwin-Austen (1834–1923) who made pioneering contributions to the study of the Indian malacofauna.

Remark *Cylindrophaedusa (M.) godwinausteni* sp. nov. is clearly distinguishable from all congeneric species in northeastern India. Compared to it, *C. (M.) annandalei* is much larger, *C. (M.) bacillum* has deeper, fused plicae, whereas *C. (M.) perplicata* sp. nov. is smaller and has marginally ending lamella subcolumellaris. Morphologically the new species is closest to *C. (M.) ios* (Benson, 1852) of the southern Himalaya, from which it differs by its smaller size, less exposed lamella inferior, and strong, widely spaced palatal plicae.

Cylindrophaedusa (Montiphaedusa) ios (Benson, 1852)
(Fig. 4a)

Clausilia iös Benson, 1852: 350

Clausilia jös — Pfeiffer, 1853: p. 612

Clausilia ios — Hanley & Theobald, 1870: p. 12, plate 24 fig. 10

Clausilia (? *Medora*) *iös* — Blanford, 1872: p. 200, plate 9 fig. 2

Clausilia jos — Sowerby, 1875: plate 8 fig. 75

Clausilia [Phaedusa (Euphaedusa)] joes — Boettger, 1878: p. 53

Clausilia (Phaedusa) ios — Gude, 1914: p. 308

Hemiphaedusa ioes ioes — Nordsieck, 1973: p. 71, plate 3 fig. 6

Cylindrophaedusa (Montiphaedusa) ioes — Nordsieck, 2002b: p. 87

Cylindrophaedusa (*Montiphaedusa*) *ioes* — Nordsieck, 2007a: p. 26, plate 3 fig. 1

Type locality “Darjiling” (India, West Bengal State, Darjeeling, 27°02'10" N 88°15'50" E).

Material Type locality: “Darjiling”, ex Blanford, NHMUK 1906.2.2.195 [9]; “Darjiling”, ex Cooke, NHMUK 1933.3.1.170–180 [11]; “Darjiling”, ex Blanford, NHMUK 1860.6.27.23 [2]; “Darjiling”, ex Godwin-Austen, NHMUK 1903.7.1.1129 [4]. India, Sikkim State, Dumsong Range (27°08'40" N 88°34'20" E): “Damsang, Sikkim”, ex Godwin-Austen, NHMUK 1903.7.1.3472 [4]. India, Arunachal Pradesh State, Dafla Hills, Mt. Shengorh (27°18'41" N 93°44'43" E): “Shengorh, Dafla”, ex Godwin-Austen, NHMUK 1903.7.1.968 [6]. India, Arunachal Pradesh State, Abor Hills (28°10' N 94°30' E): “Abor Hills”, leg. Oakes, ex Godwin-Austen, NHMUK 1903.7.1.3373 [1].

Remark In his original description Benson gave the name *iös*. In order to avoid the diacritic mark, Boettger (1878) provided the alternative spelling *joes*. Nordsieck (1973) subsequently gave *ioes* as the spelling. However, ICZN article 32.5.2 allows such spelling corrections only in names based on German words, which is not the case here. Therefore the correct spelling of the name should be *ios*.

Cylindrophaedusa (*Montiphaedusa*) *perplicata*

Grego & Szekeres sp. nov.

(Fig. 4b)

urn:lsid:zoobank.org:act:2FD3268A-321E-4543-A5E4-C6A52B75A47B

Diagnosis Small *Cylindrophaedusa* (*Montiphaedusa*) with weak, non-connected lamellae superior and spiralis, as well as marginally ending lamella subcolumellaris.

Type material Holotype: India, boundary of Nagaland and Manipur States, Naga Hills, Mt. Telizo/Solepe (25°30'08" N 94°12'31" E): “Barrail Range, Naga Hills, Tellizo”, ex Godwin-Austen, NHMUK 1903.7.1.2064a (err. NHMUK 1998134). Paratypes: same locality and data, NHMUK 1903.7.1.2064b (err. NHMUK 1998134) [2]; “Telizo Pk. Naga”, ex Godwin-Austen, NHMUK 1903.7.1.1122 (err. NHMUK 1998134) [3].

Further material India, Meghalaya state, Garo Hills, Rewak along the Someswari River

(25°17'50" N 90°39'40" E): “Rywuk, Garo Hills”, ex Godwin-Austen, NHMUK 1903.7.1.3471 (err. NHMUK 1998136) [1].

Description The small, fusiform, pale yellowish-corneous shell consists of 8.7 to 9.5 whorls. The glossy surface is finely striate at the apical part, then toward the base the striae become stronger and turn to dense blunt ribs on the last whorl. The ribs at the neck are strong and sharp. The relatively large, pear-shaped aperture has a wide sinulus. The thick, whitish peristome is attached, its margin is non-reflexed. The very weak, lump-like lamella superior is narrowly separated from the similarly weak, barely emerged lamella spiralis. The lower end of the lamella inferior is visible in apertural view but it does not reach the peristome. By contrast, the lamella subcolumellaris is strong and reaches the peristome margin near the base. The plica principalis starts somewhat deeper than ventral and terminates on the left lateral side. Ventrally and parallel to it, there is a short upper plica. One of the paratypes has a further, very short and diffuse plica below the outer end of the former. The outline of the ventral, strongly backward-bent clausilium plate is visible through the translucent shell.

Measurements Holotype: Hs 9.7mm, Ws 2.4mm, Ha 2.3mm, Wa 1.6mm. Paratypes (5): Hs 9.3–10.1mm, Ws 2.2–2.4mm, Ha 2.2–2.4mm, Wa 1.5–1.6mm.

Derivation of name The Latin specific epithet refers to the plicae that are clearly visible through the translucent shell.

Remark Its small size, reduced lamella superior and marginally ending lamella subcolumellaris distinguish *C. (M.) perplicata* sp. nov. from all other species of its subgenus. The shell collected in the Garo Hills, 350km west of the type locality, does not differ appreciably from those of the type series.

Cylindrophaedusa (*Montiphaedusa*) *waageni*

(Stoliczka, 1872)

(Fig. 4c)

Clausilia waageni Stoliczka, 1872: p. 209, plate 9 fig. 19

Clausilia [*Phaedusa* (*Euphaedusa*)] *waageni* — Boettger, 1878: p. 53



Figure 4 *Cylindrophaedusa* (*Montiphaedusa*) *ios* (Benson), India, Darjeeling, NHMUK 1906.2.2.195, 13.0mm (a); *C. (M.) perplicata* Grego & Szekeres sp. nov., India, Naga Hills, Telizo Summit, holotype, NHMUK 1903.7.1.2064a, 9.7mm (b); *C. (M.) waageni* (Stoliczka), Pakistan, Murree, NHMUK 1906.2.2.368, 16.5mm (c); *Oospira arakana* (Stoliczka), Myanmar, Mwa-ywa, lectotype, NHMUK 1888.12.4.1037, 20.6mm (d); *O. asaluensis* (Blanford), India, Barail Range, Ashalu, lectotype, NHMUK 1903.7.1.1123a, 25.8mm (e) and paralectotype NHMUK 1906.2.2.346, 19.2mm (f).

Clausilia waageni — Theobald, 1878: p. 147
Clausilia waageni — Theobald, 1881: p. 48
Clausilia (Phaedusa) waageni — Gude, 1914: 307, fig. p. 105
Hemiphaedusa waageni — Nordsieck, 1973: p. 67, plate 3 fig. 1
Cylindrophaedusa (Montiphaedusa) waageni — Nordsieck, 2002b: p. 87
Cylindrophaedusa (Montiphaedusa) waageni — Nordsieck, 2007a: 26

Type locality “Changligalli, prope Marri, ... circa 9000 ped. angl.” (Pakistan, Punjab State, Changla Gali, 33°59'40" N 73°23'00" E, 2500m).

Material Pakistan, Punjab State, Murree (33°54'20" N 73°23'30" E): “Murree, Panjab”, ex Blanford, NHMUK 1906.2.2.368 [2]; “Murri, Panjab”, ex Godwin-Austen, NHMUK 1903.7.1.1267 [2]. Pakistan, Punjab State, Hazara Region (32°47' N 74°17' E): “India, Hazara”, ex Theobald, NHMUK 1888.12.4.1052–1055 [4]. India or Pakistan, Himalaya: “Himalaya”, ex Cooke, NHMUK 1933.3.1.182–183 [2].

Oospira Blanford, 1872

Type species: *Clausilia philippiana* Pfeiffer, 1847; OD.

This genus, as defined by Nordsieck (2002b, 2007a), includes more than 100 species of diverse morphology, which are widely distributed in both mainland and insular Southeast Asia. Here we use this concept, although initial molecular phylogenetic results (Uit de Weerd & Gittenberger, 2013; Motochin, Wang & Ueshima, 2017) revealed that *Oospira* in this sense is not monophyletic and will require thorough taxonomic revision (Do, Grego & Szekeres, 2019).

Oospira arakana (Stoliczka, 1872) (Fig. 4d)

Clausilia (Phaedusa) sp. — Blanford, 1872: p. 205
Clausilia arakana Stoliczka, 1872: p. 210, plate 9 fig. 20
Clausilia arakana — Hanley & Theobald, 1874: p. 48, plate 118 figs 8–9
Clausilia arakana — Sowerby, 1875: plate 9 fig. 78
Clausilia arakana — Pfeiffer, 1877: p. 467
Clausilia [Phaedusa (Acrophaedusa)] arakana — Boettger, 1878: p. 57

Clausilia (Phaedusa) arakana — Gude, 1914: p. 312
Oospira arakana — Nordsieck, 1974: p. 47, fig. 8, plate 2 fig. 8
Oospira (Oospira) arakana — Nordsieck, 2002b: p. 86
Oospira (Oospira) arakana — Nordsieck, 2007a: p. 23

Type locality “Mai-i in provincia Sandoway” (Myanmar, Rakhine State, Mwa-ywa, 19°32' N 94°01' E).

Material *Type locality:* “Maii, Arakan Coast”, ex Theobald, NHMUK 1888.12.4.1037 [lectotype, figured in Nordsieck (1974)], NHMUK 1888.12.4.1038 [paralectotype]; “Mai-i, Sandoway”, ex Godwin-Austen, NHMUK 1903.7.1.1269a [1].

Remark The syntype NHMUK 1888.12.4.1037 (Fig. 4d) is designated here as the lectotype of *Clausilia arakana*.

Oospira asaluensis (Blanford, 1872) (Fig. 4e–f)

Clausilia (Phaedusa) asaluensis Blanford, 1872: p. 202, plate 9 fig. 8
Clausilia asaluensis — Hanley & Theobald, 1876: p. 64, plate 159 fig. 5
Clausilia asaluensis — Pfeiffer, 1877: p. 466
Clausilia [Phaedusa (Pseudonemia)] asaluensis — Boettger, 1878: p. 54
Clausilia (Phaedusa) asaluensis — Gude, 1914: p. 323
Oospira (Oospira) asaluensis — Nordsieck, 2002b: p. 86
Oospira (Oospira) asaluensis — Nordsieck, 2007a: p. 23

Type locality “Asalu in North Cachar, ad altitudinem 7000 ped. angl.” (India, Assam State, Barail Range, Ashalu, 25°11'10" N 93°11'20" E).

Material *Type locality:* “Asalu, North Cachar Hills”, ex Blanford, ex Godwin-Austen, NHMUK 1903.7.1.1123a [lectotype, figured in Blanford (1872)], NHMUK 1903.7.1.1123b [4 paralectotypes]; “Asalu, North Cachar”, ex Blanford, NHMUK 1906.2.2.346 [4 paralectotypes]; “Asalu”, ex Blanford, NHMUK 1906.2.2.388 [4 paralectotypes]; “Asalu”, ex Hungerford, ex Sowerby III, NHMUK 1891.3.17.152 [1]; “Asalu, N. Cachar”, ex Godwin-Austen, NHMUK

1903.7.1.3877 [11]; "Asalu", ex Theobald, NHMUK 1888.12.4.1028 [1]. India, Assam State, Barail Range, Jatinga Valley, Kayeng (25°04'50" N 92°49'30" E): "N. Cachar Hills, Kayong, Jatinga River", leg. Ede 11.1918, ex Godwin-Austen, NHMUK 1903.7.1.3743 [3+6 fragments]. India, Assam State, Barail Range, Jatinga Valley, south of Harungajao (25°06'59" N 92°51'25" E): "Jatingah Valley S. Harungajau, Cachar", leg. Ede 1918, ex Peile, ex Cooke, NHMUK 1933.3.1.147–148 [2]. India, Assam State, Barail Range, Diyung Valley (25°14'25" N 93°10'10" E): "Diyung Valley, N. Cachar Hills", ex Godwin-Austen, NHMUK 1903.7.1.1127 [2]; "Diyung Valley, N. Cachar", ex Godwin-Austen, NHMUK 1903.7.1.1128 [5]; "Diyung Valley, N. Cachar", ex Godwin-Austen, NHMUK 1903.7.1.3878 [5]. India, Assam State, Barail Range (25°20' N 93°00' E): "North Cachar", ex Hanley, NHMUK 1907.12.30.239 [1, figured in Hanley & Theobald (1876)]. India, Meghalaya State, Khasi Hills (25°30' N 91°30' E): "Khasi Hills", ex Blanford, NHMUK 1906.2.2.389 [4]; "Khasi Hills", ex Theobald, NHMUK 1888.12.4.1029 [1].

Remark The syntype NHMUK 1903.7.1.1123a (Fig. 4e), figured in Blanford (1872), is designated here as the lectotype of *Clausilia (Phaedusa) asaluensis*.

Oospira blanfordi Nordsieck, 1998
(Fig. 5a–b)

Clausilia (Phaedusa) monticola Blanford, 1872: p. 204, plate 9 fig. 13

Clausilia monticola — Hanley & Theobald, 1874: p. 48, plate 118 fig. 7

Clausilia monticola — Pfeiffer, 1877: p. 467

Clausilia [Phaedusa (Acrophaedusa)] monticola — Boettger, 1878: p. 57

Clausilia (Phaedusa) monticola — Gude, 1914: p. 311

Oospira monticola — Nordsieck, 1974: p. 47, fig. 7, plate 2 fig. 7

Oospira blanfordi Nordsieck, 1998: p. 129 (replacement name for *Clausilia monticola*)

Oospira (Oospira) blanfordi — Nordsieck, 2002b: p. 86

Oospira (Oospira) blanfordi — Nordsieck, 2007a: p. 23

Type locality "In montibus Burreil dictis, ad latus meridionalis vallis Assamensis, in North Cachar,

ad alt circa 6500 ped. angl." (India, Assam State, Barail Range, 25°20' N 93°00' E).

Material Type locality: "North Cachar", ex Blanford, NHMUK 1906.2.2.344a [lectotype of *Clausilia monticola*, figured in Nordsieck (1974)], NHMUK 1906.2.2.344b [2 paralectotypes of *Clausilia monticola*]; "Barail Range, Cachar", ex Blanford, NHMUK 1906.2.2.390 [4 paralectotypes of *Clausilia monticola*]; "N. Cachar", ex Blanford, ex Hanley, NHMUK 1907.12.30.235 [paralectotype of *Clausilia monticola*, figured in Hanley & Theobald (1874)]; "North Cachar", ex Theobald, NHMUK 1888.12.4.1027 [1]; "Burreil", ex Godwin-Austen, NHMUK 1903.7.1.4030 [7+2 fragments]. India, Nagaland State, Naga Hills, Mt. Japvo (25°35'50" N 94°04'00" E): "Japvo Peak, Naga Hills", ex Godwin-Austen, NHMUK 1903.7.1.3467 [1]. India, Nagaland State, Naga Hills, Lhota tribal area in Wokha District (26°11' N 94°11' E): "Lhota, Naga Hills", leg. Chennell, ex Godwin-Austen, NHMUK 20200851 [7+1 apex]. India, Nagaland State, Naga Hills, Mt. Kopamedza (25°31'58" N 94°17'56" E): "Kopamedza Peak, Naga", ex Godwin-Austen, NHMUK 1903.7.1.701 [10]. India, Nagaland State, Naga Hills, Mt. Khono (25°31'18" N 94°06'30" E): "Khunho Peak., Naga Hills", ex Godwin-Austen, NHMUK 1903.7.1.700 [4+1 apex]. India, Manipur or Nagaland State, Naga Hills: "Naga Hills", ex Muspratt, ex Beddome, NHMUK 1912.4.16.28 [1]. India, Manipur State, Nongmaiching Hills (24°40' N 94°10' E): "Nongmaiching, Munipur", ex Godwin-Austen, NHMUK 1903.7.1.1125 [4+1 apex]; "Mangching", ex Godwin-Austen, NHMUK 1903.7.1.4031 [4]; "Nongmaiching, Munipur", ex Godwin-Austen, NHMUK 1903.7.1.4033 [2]. India, Manipur State, Lahupa tribal area, Sikhume/Tunngam Khullen (25°28'24" N 94°11'44" E): "Sikhami, Lahupa, Naga", ex Godwin-Austen, NHMUK 1903.7.1.1126 [2]. India, Manipur State, Lahupa tribal area, Gaziphema (25°30'00" N 94°23'20" E): "Gaziphema, Lahupa, Naga", ex Godwin-Austen, NHMUK 1903.7.1.702 [6]. India, north-eastern Manipur State: "N.E. Manipur", leg. Ogle, ex Godwin-Austen, NHMUK 1903.7.1.817 (err. NHMUK 1998126) [5]; "N.E. Manipur", ex Godwin-Austen, NHMUK 1903.7.1.4029 [4]. India: "India", ex Horsfield, NHMUK 1869.6.4.11 [1].

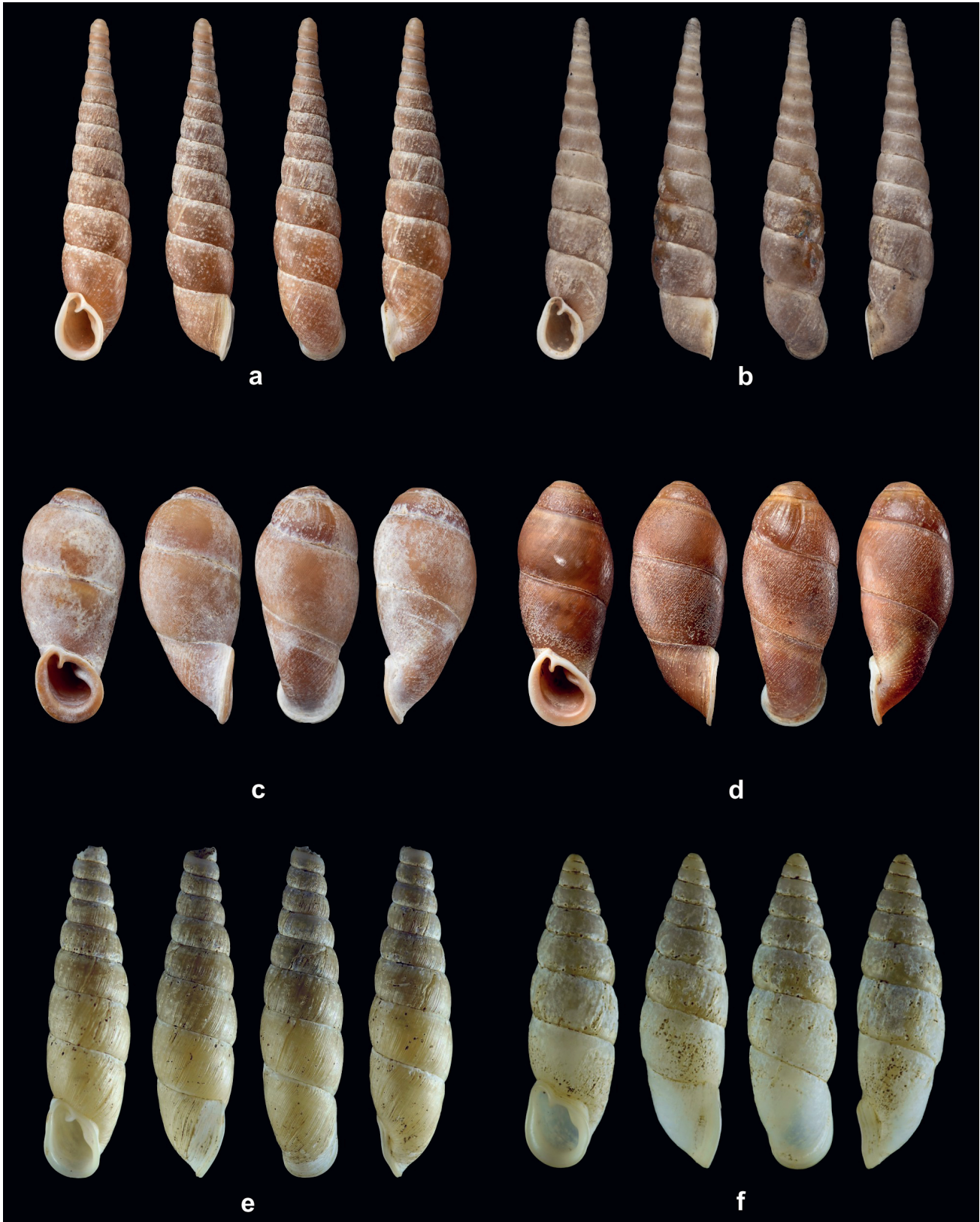


Figure 5 *Oospira blanfordi* Nordsieck, India, Barail Range, lectotype, NHMUK 1906.2.2.344a, 20.7mm (a) and paralectotype, NHMUK 1907.12.30.235, 21.2mm (b) of *Clausilia monticola* Blanford; *O. bulbus* (Benson), Myanmar, Mawlamyine, NHMUK 1903.7.1.1278, 18.8mm (c) and NHMUK 1933.3.1.121, 22.0mm (d); *O. decollata muspratti* Grego & Szekeres subsp. nov., India, Naga Hills, holotype, NHMUK 1912.4.16.29a, 23.2mm (e); *O. diyungensis* Grego & Szekeres sp. nov., India, Barail Range, Diyung Valley, holotype, NHMUK 1903.7.1.1120a, 15.4mm (f).

Remark Nordsieck (1974) mentioned and figured the syntype NHMUK 1906.2.2.344a (Fig. 5a) as lectotype of *Clausilia* (*Phaedusa*) *monticola*. This is regarded valid designation. As the name given by Blanford proved to be a junior homonym (see: *Clausilia verbanensis* var. *monticola* Stabile, 1859), the replacement name *Oospira blanfordi* was introduced by Nordsieck (1998).

Oospira bulbus (Benson, 1863)
(Fig. 5c–d)

Clausilia bulbus Benson, 1863a: p. 321
Clausilia bulbus — Pfeiffer, 1868: p. 409
Clausilia bulbus — Hanley & Theobald, 1870: p. 12, plate 24 fig. 5
Clausilia (*Oospira*) *bulbus* — Blanford, 1872: p. 206, plate 9 fig. 16
Clausilia bulbus — Sowerby, 1875: plate 6 fig. 51
Clausilia [*Phaedusa* (*Oospira*)] *bulbus* — Boettger, 1878: p. 56
Clausilia (*Oospira*) *bulbus* — Gude, 1914: p. 332
Oospira (*Oospira*) *bulbus* — Nordsieck, 2002b: p. 86
Oospira (*Oospira*) *bulbus* — Nordsieck, 2007a: p. 23

Type locality “Ad ripas fluvii Attaran, non procul ab urbe Moulmein” (Myanmar, Mon State, valley of the Ataran River near Mawlamyine, 16°17' N 97°54' E).

Material Type locality: “Moulmein”, ex Godwin-Austen, NHMUK 1903.7.1.1278 [2]; “Moulmein”, ex Cooke, NHMUK 1933.3.1.121 [1]; “Moulmein, Burmah”, ex Verkrüzen, NHMUK 1883.10.22.259 [1].

Oospira decollata muspratti Grego & Szekeres
subsp. nov.
(Fig. 5e)

urn:lsid:zoobank.org:act:47333EB0-2E19-476A-BF0D-95837AC32A57

Diagnosis Medium-size *Oospira* with decollate shell, strongly striate whorls, deeply retracted lamella subcolumellaris, and six to seven lateral plicae.

Type material Holotype: India, Manipur or Nagaland State, Naga Hills: “Naga Hills”, leg. Muspratt, ex Beddome, NHMUK 1912.4.16.29a

(err. NHMUK 1998132). Paratype: same locality and data, NHMUK 1912.4.16.29b (err. NHMUK 1998132).

Description The decollate, light ochre shell consists of 7.5 to 8 convex whorls. The surface of the whorls is densely and strongly striate, with less sharp striae towards the base. The whitish, somewhat rhombic peristome has thick, attached margin with slightly reflexed rim. The lamella superior is continuous with the lamella spiralis, which is lower at the fusion but becomes higher inward. The end of the steeply descending lamella inferior bends toward the aperture before reaching the peristome. Its terminal part is visible in apertural view. The deep, laterally ending lamella subcolumellaris cannot be viewed through the aperture. The half-whorl-long plica principalis starts ventrolaterally. Below it there are six to seven evenly spaced lateral plicae. The uppermost of these starts deeper than the others and is about twice their length. The clausilium plate is not visible through the aperture.

Measurements Holotype: Hs 23.2mm, Ws 5.9mm, Ha 5.5mm, Wa 3.9mm. Paratype: Hs 23.0mm, Ws 6.1mm, Ha 6.0mm, Wa 4.3mm.

Derivation of name The subspecies is named after E. Muspratt who collected the type material.

Remark In contrast to the new subspecies, *O. decollata decollata* (Likharev, 1962) has fewer (only four) deeper (ventrolateral), and longer palatal plicae. It needs to be pointed out that the type locality of *O. decollata decollata* on the Nat Ma Taung in Myanmar’s Chin State (Likharev, 1962) is about 450km south of that of *O. decollata muspratti* subsp. nov., and up to now there is no record of the species between these locations. Thus, despite the highly similar shell morphology, future results may reveal that the new taxon is a distinct species.

Oospira diyungensis Grego & Szekeres sp. nov.
(Fig. 5f)

urn:lsid:zoobank.org:act:6E83288F-DF4D-4B46-A44F-67F1B3632F7D

Diagnosis Small, ventricose *Oospira* with papillate suture, attached peristome and four lateral plicae.

Type material Holotype: India, Assam State, Barail Range, Diyung Valley (25°14'25" N 93°10'10" E): "Diyung Valley, E. Assam", leg. Ogle, ex Godwin-Austen, NHMUK 1903.7.1.1120a (err. NHMUK 1998128). Paratype: same locality and data, NHMUK 1903.7.1.1120b (err. NHMUK 1998128).

Description The yellowish-corneous shell of 8.0 to 8.3 whorls is ventricose with convex outline. The finely and densely striate whorls are separated by a weakly papillate suture. The relatively large, oval aperture has a thick, attached peristome with non-reflexed margin. The lamella superior is continuous with the lamella spiralis, which is lower at the fusion but becomes higher farther inside. The steeply descending lamella inferior turns toward the aperture before ending at the peristome. Its terminal part is visible in apertural view. The retracted, laterally ending lamella subcolumellaris cannot be viewed through the aperture. The plica principalis starts ventrally or ventral-ventrolaterally and ends left laterally. Below it laterally there are four long plicae of which the lowest is somewhat shorter than the others. The clausilium plate is not visible through the aperture.

Measurements Holotype: Hs 15.4mm, Ws 4.4mm, Ha 4.3mm, Wa 3.2mm. Paratype: Hs 14.6mm, Ws 4.1mm, Ha 3.8mm, Wa 3.0mm.

Derivation of name The name of the new species refers to its occurrence in the valley of the Diyung River.

Remark *Oospira diyungensis* sp. nov. shows morphological resemblance to *O. asaluensis* and *O. ferruginea* (Blanford, 1872), both of which also occur along the Barail Range and have papillate suture and deeply recessed lamella subcolumellaris. However, the shells of these two species are much larger, less tumid, and in *O. asaluensis* the palatal plicae are ventrolateral, rather than lateral.

Oospira ferruginea (Blanford, 1872)
(Fig. 6a)

Clausilia (Phaedusa) ferruginea Blanford, 1872: p. 202, plate 9 fig. 7
Clausilia (Phaedusa) ferruginea var. *tumida* Blanford, 1872: p. 202

Clausilia ferruginea — Hanley & Theobald, 1874: p. 48, plate 118 figs 5–6

Clausilia ferruginea — Pfeiffer, 1877: p. 466

Clausilia [Phaedusa (Pseudonenia)] ferruginea — Boettger, 1878: p. 54

Clausilia (Phaedusa) ferruginea — Gude, 1914: p. 322

Oospira (Oospira) ferruginea — Nordsieck, 2002b: p. 86

Oospira (Oospira) ferruginea — Nordsieck, 2007a: p. 23

Type locality "In montibus Naga dictis, ultra fines meridionales provinciae Assam" (India, Naga Hills, south the former Assam Province).

Material Type locality: "Assam", ex Blanford, NHMUK 1906.2.2.287a [lectotype], NHMUK 1906.2.2.287b [2 paralectotypes]; "Assam", ex Blanford, NHMUK 1906.2.2.382 [paralectotype]. India, Assam State, Namba Falls near Golaghat (26°26'53" N 93°57'07" E): "Namba Falls near Golaghat, Assam", ex Godwin-Austen, NHMUK 1903.7.1.1114 [4]. India, Assam State, Golaghat (26°31' N 93°58' E): "Naga Hills (Golaghat)", ex Blanford, NHMUK 1906.3.3.89 [1, figured in Hanley & Theobald (1874)]; "Golaghat, Assam", ex Theobald, NHMUK 1888.12.4.1051 [1].

Remark The syntype NHMUK 1906.2.2.287a (Fig. 6a) of *Clausilia (Phaedusa) ferruginea* is designated here as the lectotype.

Oospira fusiformis (Blanford, 1865)
(Fig. 6b–c)

Clausilia fusiformis Blanford, 1865: p. 80

Clausilia fusiformis — Pfeiffer, 1868: p. 410

Clausilia fusiformis — Hanley & Theobald, 1870: p. 12, plate 24 fig. 6

Clausilia (Phaedusa) fusiformis — Blanford, 1872: p. 203, plate 9 fig. 9

Clausilia fusiformis — Sowerby, 1875: plate 7 fig. 62

Clausilia [Phaedusa (Pseudonenia)] fusiformis — Boettger, 1878: p. 54

Oospira (Oospira) fusiformis — Nordsieck, 2002b: p. 86

Oospira (Oospira) fusiformis — Nordsieck, 2007a: p. 23

Type locality "Arakan Hills, west of Henzada" (Myanmar, Ayeyarwady Region or Rakhine



Figure 6 *Oospira ferruginea* (Blanford), India, Naga Hills, lectotype, NHMUK 1906.2.2.287a, 29.3mm (a); *O. fusiformis* (Blanford), Myanmar, west of Hinthada, holotype, NHMUK 1906.2.2.380, 22.2mm (b); *O. fusiformis* (Blanford), Myanmar, Arakan Mountains, NHMUK 1907.12.30.236, 22.5mm (c); *O. gouldiana* (Pfeiffer), Myanmar, mountains near Myeik, lectotype, NHMUK 196548a, 22.9mm (d); *O. gouldiana* (Pfeiffer), Myanmar, Pabu, lectotype of *Clausilia gouldiana magna* Gude, NHMUK 1901.3.17.156; 30.6mm (e); *O. gouldiana* (Pfeiffer), Myanmar, Zwekabin Hill near Mawlamyine, NHMUK 1888.12.4.1041, 26.6mm (f).

State, Arakan Mountains west of Hinthada, about 17°40' N 94°50' E).

Material Type locality: "Arakan Hills", ex Theobald, ex Blanford, NHMUK 1906.2.2.380 [holotype]. Myanmar, Rakhine State: "Arrakan", ex Godwin-Austen, NHMUK 1903.7.1.1277 [3]. Myanmar, Ayeyarwady Region or Rakhine State, Arakan Mountains (about 19°30' N 94°20' E): "Aracan Hills", ex Hanley, NHMUK 1907.12.30.236 [1, figured in Hanley & Theobald (1870)]; "Arakan Hills", ex Theobald, NHMUK 1888.12.4.1061–1063 [3]. Myanmar, Ayeyarwady Region, Ngathaingchaung (17°23' N 95°05' E): "Nanghatto Khyoung, Arakan", ex Blanford, NHMUK 1906.2.2.149 [2]. Myanmar, Mon State, Zwekabin Hill near Mawlamyine (16°48'20" N 97°41'00" E) (dubious): "Zwargabin, Moulmein", leg. Theobald, ex Blanford, NHMUK 1906.2.2.395 [2].

Remark A note on the box of sample NHMUK 1906.2.2.395 reads: "from tablet of *gouldiana*, labelled Zwargabin, Moulmein, Theobald; see 386.06.2.2", indicating that the two shells were originally misidentified as *O. gouldiana* (Pfeiffer, 1857) and mounted together with specimens of that species (currently in sample NHMUK 1906.2.2.386). The label gave Zwekabin Hill as locality, where *O. gouldiana* has been collected on multiple occasions. However, the occurrence of *O. fusiformis* there seems unlikely because up to now all other records of this species are from the Arakan Mountains, at a distance of at least 350km.

Oospira gouldiana (Pfeiffer, 1857)
(Fig. 6d–f)

Clausilia gouldiana Pfeiffer, 1857: p. 259
Clausilia gouldiana — Pfeiffer, 1860: p. 123, plate 34 figs 18–20
Clausilia (Phaedusa) gouldiana — Blanford, 1872: p. 203, plate 9 fig. 10
Clausilia gouldiana — Stoliczka, 1872: p. 208
Clausilia gouldiana — Hanley & Theobald, 1874: p. 48, plate 118 figs 2–3
Clausilia gouldiana — Sowerby, 1875: plate 16 fig. 148
Clausilia [Phaedusa (Pseudonenia)] gouldiana — Boettger, 1878: p. 54
Clausilia gouldiana — Gude, 1914: p. 314, fig. 108

Clausilia (Phaedusa) gouldiana var. *magna* Gude, 1914: p. 316, fig. 109

Oospira (Oospira) gouldiana — Nordsieck, 2002b: p. 86

Oospira (Oospira) gouldiana — Nordsieck, 2007a: p. 23

Oospira gouldiana — Szekeres *et al.*, 2021: p. 41

Type locality "Mergui imperii Birmani" (Myanmar, Tanintharyi Region, Myeik, 12°26' N 98°36' E).

Material Type locality: "Mergui", ex Museum Cuming, NHMUK 196548a [lectotype], NHMUK 196548b [2 paralectotypes]. Myanmar, Kayin State, Pabu (16°54'10" N 97°37'40" E): "Phaboo", ex Hungerford, ex Sowerby III, NHMUK 1901.3.17.156 [lectotype of *Clausilia (Phaedusa) gouldiana magna*, figured in Gude (1914)]. Myanmar, Tanintharyi Region, Dawei (14°04' N 98°11' E): "Tavoy", ex Cooke, NHMUK 1933.3.1.138–141 [3, as *Clausilia (Phaedusa) insignis*]. Myanmar, Kayin State, Yathebyan Hill (16°50'25" N 97°33'50" E): "Yethebian-ku", ex Theobald, NHMUK 1888.12.4.1046–1048 [3, as *Clausilia insignis*]. Myanmar, Kayin State, Hpa-paung Cave (17°20'20" N 97°35'50" E): "Phaboug-ku", ex Theobald, NHMUK 1888.12.4.1043–1045 [3, as *Clausilia insignis*]. Myanmar, Kayin State, Mulayit Mountains (16°10' N 98°30' E): "Mulè-it, Tenasserim", leg. Limborg, ex Godwin-Austen, NHMUK 1903.7.1.1279 [1]. Myanmar, Kayin or Mon State, valley of the Thanlwin River: "Salween", ex Beddome, NHMUK 1912.4.16.40 [2]. Myanmar, Mon State, Mawlamyine (16°29' N 97°38' E): "Moulmein, Burmah", ex Verkrüzen, NHMUK 1883.10.22.598–599 [2]; "Moulmein", ex Theobald, NHMUK 1888.12.4.1064–1066 [3]; "near Moulmein", ex Blanford, NHMUK 1906.3.3.84 [4]. Myanmar, Mon State, Zwekabin Hill near Mawlamyine (16°48'20" N 97°41'00" E): "Zwagabin", ex Theobald, NHMUK 1888.12.4.1068–1070 [3, as *Clausilia insignis*]; "Zwargabin, Molmein", ex Theobald, ex Blanford, NHMUK 1906.2.2.386 [3]; "Zwagabin near Moulmein", ex Theobald, NHMUK 1888.12.4.1041 [1], NHMUK 1888.12.4.1042 [1]; "Moulmein, Zwargabin", ex Godwin-Austen, NHMUK 1903.7.1.1276 [3]. Myanmar, Mon State, valley of the Ataran River (16°17' N 97°54' E): "Ataran Valley", ex Blanford, NHMUK 1906.2.2.391 [5, as *Clausilia insignis*]. Myanmar:

“Burma”, ex Nevill, ex Godwin-Austen, NHMUK 1903.7.1.4041 [1]; “Burmah”, ex Cooke, NHMUK 1933.3.1.141–143 [3].

Remark Hereby the syntype NHMUK 196548a (Fig. 6d) is designated as the lectotype of *Clausilia gouldiana*, and the syntype of *Clausilia (Phaedusa) gouldiana magna* (NHMUK 1901.3.17.156, Fig. 6e) as the lectotype of that taxon. Extreme morphological variability in *O. gouldiana* was pointed out by Stoliczka (1872) and also by Gude (1914). The species closely resembles *O. insignis* (Gould, 1844) of overlapping distribution, but is distinguishable from that by the higher number (11–12, rather than 8–10) of the whorls and the thinner apex.

Oospira insignis (Gould, 1844)
(Fig. 7a–b)

Clausilia insignis — Gould, 1844: p. 458, plate 24 fig. 8

Clausilia insignis — Pfeiffer, 1848: p. 423

Clausilia (Phaedusa) insignis — Pfeiffer, 1855: p. 180

Clausilia insignis — Pfeiffer, 1860: p. 122, plate 34 figs 15–17

Clausilia insignis — Hanley & Theobald, 1870: p. 12, plate 24 fig. 2

Clausilia insignis var. *gracilior* Hanley & Theobald, 1870: p. 12, plate 24 fig. 3

Clausilia (Phaedusa) insignis — Blanford, 1872: p. 204, plate 9 fig. 11

Clausilia insignis — Stoliczka, 1872: p. 208

Clausilia insignis — Sowerby, 1875: plate 6 fig. 53, plate 7 fig. 53b

Clausilia [Phaedusa (Pseudonenia)] insignis — Boettger, 1878: p. 55

Clausilia (Phaedusa) gracilior — Gude, 1914: p. 318, fig. 110

Clausilia (Phaedusa) insignis — Gude, 1914: p. 319

Oospira (Oospira) insignis — Nordsieck, 2002b: p. 86

Oospira (Oospira) insignis — Nordsieck, 2007a: p. 23, plate 1 fig. 1

Oospira insignis — Szekeres *et al.*, 2021: p. 41, fig. 1b

Type locality “Province of Tavoy, in British Burmah” (Myanmar, Tanintharyi Region around Dawei, 14°04' N 98°11' E).

Material Type locality: “Tavoy”, ex Museum Cuming, NHMUK 1996183a (err. 20160060a) [lectotype, figured in Nordsieck (2007a)]; 1996183b (err. 20160060b) [2 paralectotypes]; “Tavoy”, ex Cooke, NHMUK 1933.3.1.138–141 [4]. Myanmar, Mon State, Mawlamyine (16°29' N 97°38' E): “Burma, Moulmain”, ex Hanley, NHMUK 1907.12.30.243 [lectotype of *Clausilia insignis* var. *gracilior*, figured in Hanley & Theobald (1870) and Gude (1914)]. Myanmar, Mon State, Zwegabin Hill near Mawlamyine (16°48'20" N 97°41'00" E): “Zwagabin near Moulmein”, ex Theobald, NHMUK 1888.12.4.1040 [1]. Myanmar, Tanintharyi Region: “Tenasserim”, leg. Limborg, ex Godwin-Austen, NHMUK 1903.7.1.1103 [3], NHMUK 1903.7.1.1280 [3]. Myanmar, Tanintharyi Region, Pagawyun (14°27'37" N 98°10'05" E): “Pabaya, Tenasserim”, ex Godwin-Austen, NHMUK 1903.7.1.1282 [2]. Myanmar: “Burmah”, ex Cooke, NHMUK 1933.3.1.145–146 [2, as *Clausilia (Phaedusa) gouldiana*]; “Burma”, ex Beddome, NHMUK 1912.4.16.38 [1].

Remark Hereby the syntype NHMUK 1996183a (Fig. 7a) is designated lectotype of *Clausilia insignis*. It was figured in Nordsieck (2007a) as “lectotype”, but without formal designation. Likewise, the syntype of *Clausilia insignis* var. *gracilior* (NHMUK 1907.12.30.243, Fig. 7b) is designated here as the lectotype of this taxon.

Oospira limborgi Grego & Szekeres sp. nov.
(Fig. 7c)

urn:lsid:zoobank.org:act:813CB9C7-AA3E-4F79-A6B5-66B0255C6379

Diagnosis Medium-size, ventricose *Oospira* with convex outline, pointed apex, triangular peristome, and three equal size lateral plicae.

Type material Holotype: Myanmar, Tanintharyi Region: “Tenasserim”, leg. Limborg, ex Godwin-Austen, NHMUK 1903.7.1.1266a (err. NHMUK 1998130). Paratypes: same locality and data, NHMUK 1903.7.1.1266b (err. NHMUK 1998130) [4]. Four further, juvenile shells of the same original sample are excluded from the paratypes (NHMUK 1903.7.1.1266c, err. NHMUK 1998130).

Description The light yellowish-corneous, torpedo-shape shell of 9.3 to 9.5 whorls has pointed apex. The glossy surface of the whorls is



Figure 7 *Oospira insignis* (Gould), Myanmar, Dawei, lectotype, NHMUK 1996183a, 26.1mm (a); *O. insignis* (Gould), Myanmar, Mawlamyine, lectotype of *Clausilia insignis gracilior* Hanley & Theobald, NHMUK 1907.12.30.243, 25.5mm (b); *O. limborgi* Grego & Szekeres sp. nov., Myanmar, Tanintharyi Region, holotype, NHMUK 1903.7.1.1266a, 21.0mm (c); *O. loosjesiana* (Ray & Roychoudhuri), India, Noa Dihing Valley, NHMUK 1903.7.1.1106, 34.1mm (d) and NHMUK 1903.7.1.1107, 38.4mm (e); *O. loxostoma* (Benson), India, Khasi Hills, Therrighat, NHMUK 1903.7.1.36, 24.6mm (f).

finely and densely striate, becoming densely costate only over the neck. The whitish, triangular peristome is detached, its margin is reflexed. The lamella superior is continuous with the lower lamella spiralis, which becomes higher inward. The lower part of the steeply descending lamella inferior is almost straight before turning toward and ending at the peristome. It is clearly visible in apertural view. The lamella subcolumellaris is deeply retracted and it cannot be viewed through the aperture. The plica principalis starts lateral-ventrolaterally and reaches to the left lateral side. Below it there are three strong lateral plicae of equal length. The edge of the clausilium plate is visible in oblique view.

Measurements Holotype: Hs 21.0mm, Ws 5.2mm, Ha 5.1mm, Wa 5.1mm. Paratypes (4): Hs 19.5–20.8mm, Ws 4.9–5.1mm, Ha 4.8–5.1mm, Wa 4.0–4.1mm.

Derivation of name The species is named after the Swedish naturalist Ossian Limborg who collected the type material.

Remark Morphologically *O. limborgi* sp. nov. is closest to *O. gouldiana* and *O. insignis*, which also occur in the Tanintharyi Region, but differs from both of these species by the smaller size and convex outline of its shell, as well as its costate neck and fewer (three, rather than four to six) palatal plicae.

Oospira loosjesiana (Ray & Roychoudhuri, 1968)
(Fig. 7d–e)

Pseudonenia (*Pseudonenia*) *loosjesiana* Ray & Roychoudhuri, 1968: p. 91, figs 1–2

Oospira loosjesiana — Nordsieck, 1973: p. 81, pl. 3 fig. 13

Oospira (*Oospira*) *loosjesiana* — Nordsieck, 2002b: p. 86

Oospira (*Oospira*) *loosjesiana* — Nordsieck, 2007a: p. 23

Type locality “Namchik in the Tirap Division, NEFA” (India, Arunachal Pradesh State, Namchik, 27°25' N 96°00' E).

Material India, Arunachal Pradesh State, valley of the Noa Dihing (27°30' N 96°20' E): “Noa Dihing, Assam”, leg. Ogle, ex Godwin-Austen, NHMUK 1903.7.1.1106 (err. NHMUK 1998133)

[1], NHMUK 1903.7.1.1107 (err. NHMUK 1998127) [1].

Oospira loxostoma (Benson, 1836)
(Fig. 7f)

Clausilia loxostoma Benson, 1836: p. 353

Clausilia bengalensis Pfeiffer, 1842: p. 60

Clausilia bengalensis — Küster, 1844: plate 2 figs 11–13

Clausilia bengalensis — Küster, 1847: p. 24

Clausilia loxostoma — Pfeiffer, 1848: p. 404

Clausilia (*Phaedusa*) *loxostoma* — Adams & Adams, 1855: p. 184

Clausilia (*Phaedusa*) *loxostoma* — Pfeiffer, 1855: p. 180

Clausilia loxostoma — Hanley & Theobald, 1870: p. 12, plate 24 fig. 7

Clausilia (*Phaedusa*) *loxostoma* — Blanford, 1872: p. 201, plate 9 fig. 6

Clausilia loxostoma — Sowerby, 1875: plate 7 fig. 61

Clausilia [*Phaedusa* (*Pseudonenia*)] *loxostoma* — Boettger, 1878: p. 55

Clausilia (*Phaedusa*) *loxostoma* — Gude, 1914: p. 324

Oospira (*Oospira*) *loxostoma* — Nordsieck, 2002b: p. 86

Oospira (*Oospira*) *loxostoma* — Nordsieck, 2007a: p. 23

Type locality “North-east frontier of Bengal” (India, Assam and Meghalaya States).

Material India, Meghalaya State, Garo Hills, Habiang tribal area (25°27' N 90°26' E): “Habiang, Garo Hills”, ex Godwin-Austen, NHMUK 1903.7.1.37 [6]. India, Meghalaya State, Garo Hills, Habiang tribal area, Cherrapunji (25°16' N 91°44' E): “Cherra, Habian”, ex Blanford (as “*Clausilia austeni* Blanford n. sp.”), NHMUK 1906.3.3.91 [2]. India, Meghalaya State, Khasi Hills, Therriaghat (25°10'40" N 91°45'10" E): “Teria Ghat”, ex Theobald, NHMUK 1888.12.4.1024–1026 [3]; “Teria Ghat, Khasi”, ex Godwin-Austen, NHMUK 1903.7.1.36 [21]; “Teria Ghat”, ex Indian Museum, Calcutta, ex Godwin-Austen, NHMUK 1903.7.1.2472 [1]; “Teria Ghat”, ex Godwin-Austen, NHMUK 1903.7.1.4025 [3]; “Teria Ghat”, ex Harvey, NHMUK 1907.12.30.216 [1]. India, Meghalaya State, Khasi Hills (25°30' N 91°30' E): “Khasi Hills”, ex Blanford, NHMUK 1906.2.2.192 [3+1 fragment]; “Khasi Hills”, ex Damon,

NHMUK 1871.9.23.177 [2]. India, Assam State, Dima Hisao District (25°20' N 93°00' E): "North Cachar", ex Godwin-Austen (as "*Clausilia austeni* Nevill M.S."), NHMUK 1903.7.1.1119 [1]. India: "India", ex Cooke, NHMUK 1933.3.1.181 [1, as "*Clausilia (Phaedusa) austeni* W. Blan. mss"]; "India", ex Damon (as "*Clausilia austeni* W. Blan."), NHMUK 1871.9.23.179 [2]; "Assam?", ex Godwin-Austen, NHMUK 1903.7.1.4024 [6+4 apices]. Combined samples: "Cherra Poonjee", NHMUK 1840.8.18.35 [1, ex Cantor, ex Sowerby I]; "Himalaya", NHMUK 1841.7.23.13 [1, ex Benson, ex Horsfield]; "India", NHMUK 1842.7.4.460–461 [2, ex Stevens].

Oospira ovata (Blanford, 1872)
(Fig. 8a–b)

Clausilia (Oospira) ovata Blanford, 1872: p. 206, plate 9 fig. 17

Clausilia ovata — Hanley & Theobald, 1874: p. 48, plate 118 fig. 4

Clausilia ovata — Sowerby, 1875: plate 7 fig. 60

Clausilia ovata — Pfeiffer, 1877: p. 468

Clausilia [Phaedusa (Oospira)] ovata — Boettger, 1878: p. 56

Clausilia (Oospira) ovata — Gude, 1914: p. 334

Oospira (Oospira) ovata — Nordsieck, 2002b: p. 86

Oospira (Oospira) ovata — Nordsieck, 2007a: p. 24

Type locality "Ad Nattoung, juxta ripam Attaran fluminis, haud procul a Moulmain" (Myanmar, Mon State, valley of the Ataran River at Natyadaung, near Mawlamyine, 16°16'10" N 97°57'28" E).

Material Type locality: "Ataran Valley", ex Blanford, NHMUK 1906.2.2.378 [lectotype]; "Ataran, Tenasserim", ex Blanford, NHMUK 1906.2.2.370 [paralectotype]; "Nattaang on the Ataran", ex Theobald, NHMUK 1888.12.4.1059–1060 [2]. Myanmar, Mon State, Mawlamyine (16°29' N 97°38' E): "Moulmein, Burmah", Verkrüzen, NHMUK 1883.10.22.950 [1]. Myanmar, Mon State, valley of the Ataran River, Pathein Taung (16°13'42" N 97°56'32" E): "Pathingtoum on the Ataran", ex Theobald, NHMUK 1888.12.4.1049 [1], NHMUK 1888.12.4.1050 [1]. Myanmar, Tanintharyi Region: "Tenasserim", leg. Limborg, ex Godwin-Austen, NHMUK 1903.7.1.1281 [3]. Myanmar: "Burma", ex Hanley, NHMUK 1907.12.30.242 [1, figured in Hanley &

Theobald 1874]; "Burmah", ex Cooke, NHMUK 1933.3.1.122–123 [2].

Remark The syntype NHMUK 1906.2.2.378 (Fig. 8a) is designated here lectotype of *Clausilia (Oospira) ovata*.

Oospira philippiana (Pfeiffer, 1847)
(Fig. 8c)

Clausilia philippiana Pfeiffer, 1847: p. 69

Clausilia philippiana — Küster, 1850: plate 11 figs 7–9

Clausilia philippiana — Küster, 1853: p. 100

Clausilia (Phaedusa) philippiana — Adams & Adams, 1855: p. 184

Clausilia (Phaedusa) philippiana — Pfeiffer, 1855: p. 180

Clausilia (Phaedusa) philippiana — Stoliczka, 1871: p. 174, plate 6 figs 7–10

Clausilia (Oospira) philippiana — Blanford, 1872: p. 205, plate 9 fig. 14

Clausilia philippiana — Hanley & Theobald, 1874: p. 48, plate 118 fig. 10

Clausilia philippiana — Sowerby, 1875: plate 4 fig. 35

Clausilia [Phaedusa (Oospira)] philippiana — Boettger, 1878: p. 56

Clausilia (Oospira) philippiana — Kobelt, 1880: p. 289, plate 86 fig. 29

Clausilia (Oospira) philippiana — Gude, 1914: p. 333

Oospira (Oospira) philippiana — Nordsieck, 2002b: p. 86

Oospira (Oospira) philippiana — Nordsieck, 2007a: p. 24

Oospira philippiana — Szekeres *et al.*, 2021: p. 45

Type locality "Mergui" (Myanmar, Tanintharyi Region, Myeik, 12°26' N 98°36' E).

Material Type locality: Myanmar, Tanintharyi Region, Myeik (12°26' N 98°36' E): "Mergui, Burmah", ex Verkrüzen, NHMUK 1883.10.22.1001–1003 [3]. Myanmar, Mon State, Mawlamyine (16°29' N 97°38' E): "Moulmein", ex Godwin-Austen, NHMUK 1903.7.1.1275 [1]; "Moulmein", ex Theobald, NHMUK 1888.12.4.1021–1023 [3]; "Moulmein, Tenasserim", ex Blanford, NHMUK 1906.2.2.191 [7]; "Moulmein, Burmah", ex Verkrüzen, NHMUK 1883.10.22.1004 [1]; "Moulmein", ex Blanford, NHMUK 1906.2.2.376 [8]; "near Moulmain", leg. Limborg, ex

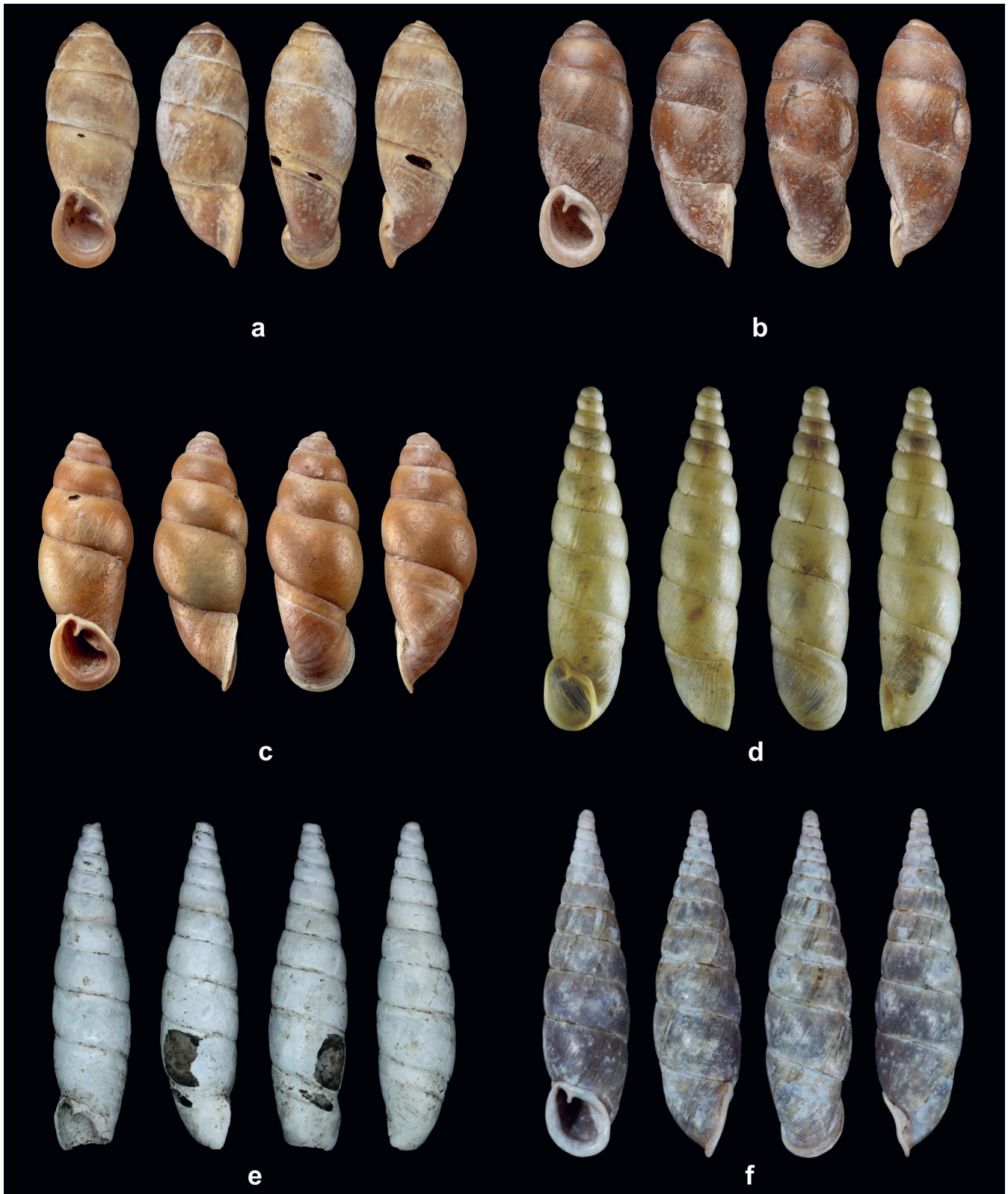


Figure 8 *Oospira ovata* (Blanford), Myanmar, Ataran Valley at Natyadaung, lectotype, NHMUK 1906.2.2.378, 18.0mm (a); *O. ovata* (Blanford), Myanmar, NHMUK 1907.12.30.242, 18.1mm (b); *O. philippiana* (Pfeiffer), Myanmar, Myeik, NHMUK 1883.10.22.1001, 21.4mm (c); *O. rissomensis* Grego & Szekeres sp. nov., India, Dumsong Range, holotype, NHMUK 1903.7.1.1615a, 14.9mm (d); *O. shanensis* Grego & Szekeres sp. nov., Myanmar, Shan State, holotype, NHMUK 1903.7.1.3544, 20.9mm (e); *O. shanensis* Grego & Szekeres sp. nov., Myanmar, Kalaw, HU, 25.5mm (f).

Godwin-Austen, NHMUK 1903.7.1.1104 [5]. Myanmar, Mon State, Mawlamyine, Kha Yone Caves (16°32'00" N 97°42'53" E): "Farm Caves, Moulmein", ex Godwin-Austen, NHMUK 1903.7.1.4023 [2]. Myanmar: "Burma", ex Hanley, NHMUK 1907.12.30.240 [1, figured in Hanley & Theobald (1874)]; "Burma", ex Cooke, NHMUK 1933.3.1.124–135 [12]. India, Andaman and Nicobar Islands, South Andaman Island, Port Blair (11°37' N 93°43' E) (dubious): "Port Blair, Andaman Is.", ex Parish, NHMUK 1925.2.3.528 [1].

Remark *Oospira philippiana* has been recorded from Myanmar between Mawlamyine and the southern end of the Tanintharyi Region, as well as from Thailand's Kanchanaburi Province northwest of Sangkhla Buri (Gude, 1914; Szekeres *et al.*, 2021). The record from the Andaman Islands (NHMUK 1925.2.3.528) is somewhat surprising and needs confirmation.

Oospira rissomensis Grego & Szekeres sp. nov.
(Fig. 8d)

urn:lsid:zoobank.org:act:3E28C523-8248-48FB-B5FC-FD2683DD0CC5

Diagnosis Small *Oospira* with thin-walled, weakly papillate shell, separate lamellae superior and spiralis, retracted lamella subcolumellaris, and lateral plicae.

Type material Holotype: India, Sikkim State, Dumsong Range (27°08'40" N 88°34'20" E): "Damsang, Sikkim", ex Godwin-Austen, NHMUK 1903.7.1.1615a (err. NHMUK 1998135). Paratype: same locality and data, NHMUK 1903.7.1.1615b (err. NHMUK 1998135).

Description The thin-walled, dark yellowish-corneous shell consists of 9.0 to 9.3 whorls. The surface of the whorls is covered with fine and dense striae, which become stronger and less crowded on the last whorl and regular ribs on the neck. The suture is deep, weakly papillate. The aperture is oval with large sinus. The peristome is thin, its margin is detached, non-reflexed. The lamella superior is weak, its inner end is separated from the lamella spiralis by a short gap. The lower end of the steeply descending lamella inferior is only barely visible in apertural view. It initiates at the same depth as the

lamella spiralis, slightly deeper than the ventral side. The retracted lamella subcolumellaris ends dorsolaterally. The plica principalis runs from the ventral to the left lateral side. There are four to five widely spaced lateral plicae with gradually decreasing lengths toward the base. The wide, longitudinally bent clausilium plate with blunt tip is not visible through the aperture.

Measurements Holotype: Hs 14.9mm, Ws 3.6mm, Ha 3.2mm, Wa 2.3mm. Paratype (with opened last whorl): Hs 14.1mm, Ws 3.2mm.

Derivation of name The manuscript name of the species, attributed by Godwin-Austen in his collection, indicates that the type material was collected on Mt. Rissom/Rissisom (1970m) in the Dumsong Range.

Remark Up to now *O. rissomensis* sp. nov. is the westernmost representative of its genus. It resembles *O. naga* Grego & Szekeres, 2021 that occurs in the Naga Hills (Szekeres *et al.*, 2021), about 500km east-southeast of the type locality of the new species. It is distinguishable from *O. rissomensis* sp. nov. by its convex whorls, non-papillate suture, fused lamellae superior and spiralis, as well as the less deeply positioned, stronger plicae.

Oospira shanensis Grego & Szekeres sp. nov.
(Fig. 8e–f)

urn:lsid:zoobank.org:act:56C6E0A0-7F58-4BD4-A5A3-95C70AA16809

Diagnosis Medium-size *Oospira* with tumid, spindle-shaped shell, non-papillate suture, attached peristome, and lateral plicae of which the uppermost is longest.

Type material Holotype: Myanmar, Shan State: "Shan", leg. Woodthorpe, ex Godwin-Austen, NHMUK 1903.7.1.3544.

Further material Myanmar, Shan State, Kalaw, cliffs near the Shwe Oo Min Pagoda (20°37'15.7" N 96°33'28.4" E), 1340m, leg. Hunyadi, HU [1].

Description The tumid, spindle-shaped shell of the holotype with damaged aperture and broken apex consists of 9.5 whorls. The surface of the whorls is smooth, the suture between them is not papillate. The peristome is attached. The

strong lamella superior is continuous with the lower lamella spiralis which is, however, becoming higher further inward. The end of the steeply descending lamella inferior is visible in apertural view. The plica principalis starts ventrolaterally and ends left laterally. There are four widely spaced lateral plicae, of which the uppermost is longer than the others. In the holotype the end of the lamella subcolumellaris, the basal part of the peristome, and the clausilium are missing.

Measurements Holotype (partly damaged): Hs 20.9mm, Ws 5.1mm.

Derivation of name The name refers to the occurrence of the new species in the Shan State.

Remark *Oospira shanensis* sp. nov. is clearly distinguishable from other species of its genus in eastern Myanmar and northern Thailand. It differs from *O. malaisei* Nordsieck, 1973 by its smaller shell and attached peristome, from *O. mongmitensis* Grego & Szekeres, 2021 and *O. sardicola* Grego & Szekeres, 2021 by its larger size and non-papillate suture, whereas from all three species by its more ventricose shape. A less eroded shell of the new species (Fig. 8f) from Kalaw, leg. Hunyadi, consists of 12.5 whorls with fine striae toward the apex and on the neck. The end of its lamella subcolumellaris is visible in oblique view of the aperture.

Oospira stoliczkana (Sykes, 1893)
(Fig. 9a)

Clausilia vespa — Stoliczka, 1872: p. 209, plate 9 fig. 15a

Clausilia vespa (partim) — Pfeiffer, 1877: p. 468

Clausilia (*Oospira*) *stoliczkana* Sykes, 1893: p. 166

Clausilia (*Oospira*) *stoliczkana* — Gude, 1914: p. 335

Oospira (*Oospira*) *stoliczkana* — Nordsieck, 2002b: p. 86

Oospira (*Oospira*) *stoliczkana* — Nordsieck, 2007a: p. 24

Type locality "Tavoy, Burmah" (Myanmar, Tanintharyi Region, Dawei, 14°04' N 98°11' E).

Material Type locality: "Tavoy, Burmah", ex Theobald, NHMUK 1888.12.4.1031 [holotype]. Myanmar, Mon State, Mawlamyine (16°29' N

97°38' E): "Molmein", ex Blanford (as *Clausilia vespa* Gould, 1859), NHMUK 1906.2.2.369 [1], NHMUK 1906.2.2.377 [1].

Remark Prior to its description by Sykes (1893) this species was thought to be identical with the poorly described *O. vespa* (Gould, 1859) by Stoliczka (1872) and Pfeiffer (1877).

Oospira telizoensis Grego & Szekeres sp. nov.
(Fig. 9b)

urn:lsid:zoobank.org:act:A524AB40-1115-41EF-893A-0B95AF07314E

Diagnosis Small, fusiform *Oospira* with non-papillate suture, deeply retracted lamella subcolumellaris, and lateral plicae of varying length.

Type material Holotype: India, boundary of Nagaland and Manipur States, Naga Hills, Mt. Telizo/Solepe (25°30'08" N 94°12'31" E): "Tellizo H. S., Naga Hills", ex Godwin-Austen, NHMUK 1903.7.1.696a (err. NHMUK 1998137). Paratype: same locality and data, NHMUK 1903.7.1.696b (err. NHMUK 1998137).

Description The spindle-shaped, light yellowish-corneous shell consists of 9.5 to 10.3 convex whorls. The very finely and densely striate, partly translucent whorls are separated by a non-papillate suture. The striae become stronger on the last whorl and change into fine riblets on the neck. The peristome is oval, its detached, slightly reflexed margin is incised at the lamella superior. The lamella superior is continuous with the lamella spiralis, which is lower at the fusion but becomes higher inward. The almost straight descending lamella inferior terminates at the peristome, its end is visible as a hump in apertural view. The lamella subcolumellaris cannot be viewed through the aperture. The plica principalis starts laterally and ends left laterally. Lateral-dorsolaterally there are four plicae of comparable lengths and a fifth, very short one near the base. The clausilium plate is not visible through the aperture.

Measurements Holotype: Hs 14.0mm, Ws 3.7mm, Ha 3.1mm, Wa 2.4mm. Paratype: Hs 14.6mm, Ws 3.7mm, Ha 3.1mm, Wa 2.6mm.

Derivation of name The species is named after Mt. Telizo, its type locality.



Figure 9 *Oospira stoliczkana* (Sykes), Myanmar, Dawei, holotype, NHMUK 1888.12.4.1031, 24.6mm (a); *O. telizoensis* Grego & Szekeres sp. nov., India, Naga Hills, Telizo Summit, holotype, NHMUK 1903.7.1.696a, 14.0mm (b); *Oospira vespa* (Gould), Myanmar, NHMUK 1850.12.9.55, 24.4mm (c); *O. wuellerstorfi* (Zeilebor), India, Camorta Island, NHMUK 1903.7.1.3764, 19.6mm (d); *Phaedusa bocki menglunanensis* (Luo, Chen & Zhang), Myanmar, Mekong Valley near Laos, NHMUK 1903.7.1.3652, 30.2mm (e); *P. bocki thompsoni* Grego & Szekeres, Myanmar, Shan State near the Thai border, NHMUK 1903.7.1.1163, 26.4mm (f).

Remark Morphologically *O. telizoensis* sp. nov. is closest to *O. sardicola*, which occurs near Mongmit in Myanmar's Kachin State. However, it is easily distinguishable from the new species by its larger shell, papillate suture and smooth, glossy surface. The nearby occurring *O. naga* is comparable in size but differs from *O. telizoensis* sp. nov. in its almost conical shape and reduced lamellae.

Oospira vespa (Gould, 1859)
(Fig. 9c)

Clausilia vespa Gould, 1859: p. 13

Clausilia vespa — Pfeiffer, 1868: p. 409

Clausilia [*Phaedusa* (*Oospira*)] *vespa* — Boettger, 1878: p. 56

Clausilia vespa — Sykes, 1893: p. 166, text fig.

Clausilia (*Oospira*) *vespa* — Gude, 1914: p. 336, fig. 116

Oospira (*Oospira*) *vespa* — Nordsieck, 2002b: p. 86

Oospira (*Oospira*) *vespa* — Nordsieck, 2007a: p. 24

Type locality "Tavoy" (Myanmar, Tanintharyi Region, Dawei, 14°04' N 98°11' E).

Material Myanmar: "Burma", ex Laidlay, NHMUK 1850.12.9.55 [1].

Oospira wuellerstorfi (Zeilebor, 1867)
(Fig. 9d)

Clausilia wuellerstorfi Zeilebor, in Pfeiffer & Zeilebor 1867: p. 806

Clausilia wuellerstorfi — Pfeiffer, 1868: p. 411

Clausilia [*Phaedusa* (*Hemiphaedusa*)] *wuellerstorfi* — Boettger, 1878: p. 59

Clausilia nevilleana Möllendorff, 1882: p. 11, plate 1 fig. 11

Clausilia (*Phaedusa*) *nevilleana* — Godwin-Austen, 1895: p. 443

Clausilia (*Phaedusa*) *wuellerstorffi* (sic!) — Godwin-Austen, 1895: p. 443

Clausilia (*Phaedusa*) *nevilleana* — Gude, 1914: p. 325

Clausilia (*Phaedusa*) *wuellerstorfi* — Gude, 1914: p. 327, fig. 113

Phaedusa wuellerstorfi — Peile, 1925: 255

Acrophaedusa wuellerstorfi — Loosjes, 1953: p. 178, fig. 53

Oospira (*Oospira*) *wuellerstorfi* — Nordsieck, 2002b: p. 86

Oospira (*Oospira*) *wuellerstorfi* — Nordsieck, 2007a: p. 24

Type locality "Insulas Nicobaricas" (India, Andaman and Nicobar Islands, Nicobar Islands, 8°00' N 93°30' E).

Material India, Andaman and Nicobar Islands, Camorta Island (8°08' N 93°29' E): "Camurta, Nicobars", ex Hungerford, ex Sowerby III (as *Clausilia nevilleana*), NHMUK 1891.3.17.153–154 [2]; "Camorta, Nicobars", ex Beddome (as *Clausilia nevilleana*), NHMUK 1912.4.16.42 [1]; "Camorta, Nicobars", leg. Roepstorff, ex Godwin-Austen, NHMUK 1903.7.1.3764 [5], NHMUK 1903.7.1.3765 [11], NHMUK 1903.7.1.3766 (2); "Camorta, Nicobars", leg. Roepstorff, ex Roepstorff, NHMUK 1888.8.6.123–128 [6]; "Camorta, Nicobars", ex Godwin-Austen (as *Clausilia nevilleana*), NHMUK 1903.7.1.1271 [1]. India, Andaman and Nicobar Islands, Nancowry Island (7°59' N 93°33' E): "Nancowry, Nicobars", leg. Roepstorff, ex Godwin-Austen, NHMUK 1903.7.1.3763 [11]; "Nancowry, Nicobars", leg. Roepstorff, ex Roepstorff, NHMUK 1888.8.6.37–41 [5].

Phaedusa Adams & Adams, 1855

Type species: *Clausilia corticina* Pfeiffer, 1842; SD by Martens in Albers 1860

The genus *Phaedusa* comprises nearly 40 species that occur in continental East Asia south of the 30th parallel, as well as in most of Southeast Asia to Timor. Toward west a few of its species reach Bhutan and Sri Lanka.

Phaedusa bocki (Sykes, 1895)

The species includes three subspecies. *Phaedusa bocki bocki* and *P. bocki menglunanensis* (Luo, Chen & Zhang, 1998) occur in China's Yunnan Province close to its border with Vietnam and Laos, whereas *Phaedusa bocki thompsoni* Grego & Szekeres, 2021 inhabits mountainous areas along the border of Myanmar's Shan State with Thailand.

Phaedusa bocki menglunanensis (Luo, Chen & Zhang, 1998)
(Fig. 9e)

Hemiphaedusa menglunanensis Luo, Chen & Zhang, 1998: p. 34, fig. 2

Hemiphaedusa menglunanensis Chen & Zhang, 1999: p. 162, plate 5 fig. 1a–b

Phaedusa (*Phaedusa*) *bocki* — Nordsieck, 2003: p. 125

Phaedusa (*Phaedusa*) *bocki menglunanensis* — Nordsieck, 2007a: p. 32

Hemiphaedusa menglunanensis — Chen, 2016: p. 111, fig. 2–52A

Phaedusa bocki menglunanensis — Szekeres *et al.*, 2021: p. 46

Type locality China, Yunnan Province, Xishuangbanna Prefecture, Mengla County, Menglun, 21°56'10" N 101°15'05" E.

Material Myanmar, Shan State, along the Mekong near the border with Laos (21°22' N 101°11' E): “On the Mekong R. (21°22' N 101°11' E)”, leg. Woodthorpe 1895, ex Godwin-Austen, NHMUK 1903.7.1.3652 (err. NHMUK 1998138) [5].

Remark This taxon was described as “*Hemiphaedusa menglunanesis* sp. nov.” by Luo, Chen and Zhang (Luo *et al.*, 1998), and then also in Chen & Zhang (1999). Due to priority the authors are those of the 1998 publication.

Phaedusa bocki thompsoni Grego & Szekeres, 2021 (Fig. 9f)

Phaedusa bocki thompsoni Grego & Szekeres, in Szekeres *et al.*, 2021: p. 46, fig. 2d

Type locality Thailand, Chiang Rai Province, Doi Tung (20°20'32" N 99°50'21" E), 1320m.

Material Myanmar, Shan State, near the border with Thailand: “Shan and Siam boundary”, leg. Woodthorpe, ex Godwin-Austen, NHMUK 1903.7.1.1163 (err. NHMUK 1998138) [1].

Phaedusa burmanica (Gude, 1914)
(Fig. 10a)

Clausilia (*Phaedusa*) *burmanica* Gude, 1914: p. 311, fig. 106

Phaedusa burmanica — Nordsieck, 1974: p. 46, fig. 5, plate 2 figs 3–4

Phaedusa (*Phaedusa*) *burmanica* — Nordsieck, 2002b: p. 88

Phaedusa (*Phaedusa*) *burmanica* — Nordsieck, 2007a: p. 32

Phaedusa burmanica — Grego *et al.*, 2021: p. 27

Type locality “Tonghu” (Myanmar, near the Kayin-Kayah state boundary, mountains E of Taungoo, about 19°00' N 96°50' E).

Material Type locality: “hills east of Tongu”, ex Mason, ex Theobald, NHMUK 1888.12.4.1058 [holotype, figured in Nordsieck (1974)]. Myanmar, Kachin State, Bhamo (24°15' N 97°13' E): “Bhamo”, ex Hungerford, ex Sowerby III, NHMUK 1891.3.17.144–145 [2]. Myanmar, Rakhine State, Mwa-ywa (19°32' N 94°01' E): “Arakan, Mai-i, Sandoway Distr.”, ex Godwin-Austen (as *Clausilia theobaldi*), NHMUK 1903.7.1.1269b [1]. Myanmar: “Burmah”, ex Cooke (as *Clausilia theobaldi*), NHMUK 1933.3.1.137 [1]

Phaedusa ceylanica (Benson, 1863)
(Fig. 10b)

Clausilia ceylanica Benson, 1863b: p. 89

Clausilia (? *Medora*) *ceylanica* — Blanford, 1872: p. 201, plate 9 fig. 4

Clausilia ceylanica — Hanley & Theobald, 1874: p. 48, plate 118 fig. 1

Clausilia [*Phaedusa* (*Euphaedusa*)] *ceylanica* — Boettger, 1878: p. 53

Euphaedusa ceylanica — Jousseume, 1894: p. 290

Clausilia (*Phaedusa*) *ceylanica* — Gude, 1914: p. 309

Phaedusa (*Phaedusa*) *ceylanica* — Nordsieck, 2002b: p. 88

Phaedusa (*Phaedusa*) *ceylanica* — Nordsieck, 2007a: p. 32

Type locality “Fort McDonald ... 4500 feet” (Sri Lanka, Uva Province, Fort McDonald, 6°57' N 80°53' E, 1100m).

Material Type locality: “Fort McDonald, Central Mountains, Ceylon, alt. 4500ft.”, leg. Layard, ex Hawkins, NHMUK 1954.6.2.1062–1063 [2]. Sri Lanka: “Ceylon”, ex Harvey, 1907.12.30.237 [1]; “Ceylon”, ex Godwin-Austen, NHMUK 1903.7.1.4037 [2].

Phaedusa corticina nicobarica (Gude, 1914)
(Fig. 10c)

Clausilia wüllerstorffi (sic!) — Möllendorff, 1882: p. 11, plate 1 fig. 12

Clausilia (*Phaedusa*) *corticina* — Godwin-Austen, 1895: p. 443

Clausilia (*Phaedusa*) *nicobarica* Gude, 1914: p. 328, fig. 114



Figure 10 *Phaedusa burmanica* (Gude), Myanmar, Taungoo, holotype, NHMUK 1888.12.4.1058, 21,1mm (a); *P. ceylanica* (Benson), Sri Lanka, Fort McDonald, NHMUK 1954.6.2.1062, 11.1mm (b); *P. corticina nicobarica* (Gude), India, Camorta Island, NHMUK 1903.7.1.4096, 25.0mm (c); *P. kazueae* Hunyadi & Szekeres, Myanmar, Montawa Cave, holotype, NHMUK 20200187, 7.9mm (d); *P. lypra* (Mabille), India, Imphal, Langol Hill, NHMUK 1903.7.1.4077, 17.3mm (e); *P. lypra* (Mabille), Myanmar, War Lee Kwey Cave, NHMUK 20200188, 16.8mm (f).

Phaedusa nicobarica — Peile, 1925: p. 255
Phaedusa corticina nicobarica — Loosjes, 1953:
 p. 25, fig. 3
Phaedusa (Phaedusa) corticina nicobarica —
 Nordsieck, 2007a: p. 32

Type locality “Nicobar Islands” (India, Andaman
 and Nicobar Islands, Nicobar Islands, 8°00' N
 93°30' E).

Material India, Andaman and Nicobar Islands,
 Camorta Island (8°08' N 93°29' E): “Kamorta”, leg.
 Roepstorff 1881, ex Godwin-Austen, NHMUK
 1903.7.1.4096 [3].

Phaedusa kazueae Hunyadi & Szekeres, 2021
 (Fig. 10d)

Phaedusa kazueae Hunyadi & Szekeres, in Grego
et al., 2021: p. 25, fig. 5b

Type locality Myanmar, Shan State, Montawa
 Cave, WSW of Taunggyi (20°45'16.9" N
 97°01'03.4" E), 1260m.

Material Type locality, leg. Hunyadi, Okubo &
 Otani 05.10.2018, NHMUK 20200187 [holotype].

Phaedusa lypra (Mabille, 1887)
 (Fig. 10e–f)

Clausilia lypra Mabille, 1887: p. 117
Clausilia houssayi Fischer, 1898: p. 325, plate 17
 figs 32–36
Clausilia backanensis Bavay & Dautzenberg, 1899:
 281, plate 12 fig. 5
Clausilia eupleura Bavay & Dautzenberg, 1899:
 291, plate 12 fig. 11
Clausilia hamonvillei Bavay & Dautzenberg, 1899:
 295, plate 12 fig. 14
Clausilia backanensis — Fischer & Dautzenberg,
 1904: p. 408
Clausilia hamonvillei — Fischer & Dautzenberg,
 1904: p. 409
Phaedusa backanensis — Zilch, 1954: p. 30
Phaedusa debaoensis Chen, 1994: p. 414, figs 11–15
Euphaedusa naponensis Chen & Zhang, 1999:
 p. 117, fig. 96
Phaedusa (Phaedusa) lypra — Nordsieck, 2002b:
 p. 88
Phaedusa (Phaedusa) subgranulosa Nordsieck, 2003:
 p. 132, plate 2 fig. 12
Phaedusa (Phaedusa) lypra — Nordsieck, 2003:
 p. 132

Phaedusa (Phaedusa) lypra — Nordsieck, 2007a:
 p. 32
Phaedusa (Phaedusa) lypra — Nordsieck, 2007b:
 223
Phaedusa (Phaedusa) lypra — Nordsieck, 2011:
 p. 151
Phaedusa (Phaedusa) pereupleura Nordsieck, 2011:
 p. 159, fig. 13
Phaedusa (Phaedusa) lypra — Nordsieck, 2012:
 p. 21, plate 6 fig. 42
Phaedusa (Phaedusa) percostata Nordsieck, 2016:
 p. 49, fig. 16
Phaedusa (Phaedusa) lypra — Nordsieck, 2016:
 p. 50
Phaedusa lypra — Grego *et al.*, 2021: p. 27, fig. 5c

Type locality “Tonkin” (northern Vietnam).

Material India, Manipur State, Imphal, Langol
 Hill (24°50'45" N 93°53'55" E): “Langol Hill,
 Imphal, Munipur”, ex Godwin-Austen, NHMUK
 1903.7.1.4077 (err. NHMUK 1998131) [7+5 frag-
 ments]. Myanmar, Shan State, Nam Pam, 29km
 from Pinlaung toward the Lanelli Bridge, right
 side of the road near the War Lee Kwey Cave
 (19°58'31.7" N 96°40'14.7" E), 700m, leg. A.
 Hunyadi, K. Okubo & J.U. Otani 04.10.2018,
 NHMUK 20200188 [1].

Remark *Phaedusa lypra* is a species of varying
 morphology, which was known to occur in north-
 ern Vietnam and China’s Guangxi, Guizhou and
 Yunnan Provinces (Nordsieck, 2016), and recently
 has also been found in Myanmar and Thailand
 (Grego *et al.*, 2021). Until now it was not recorded
 from India. Some local forms have been distin-
 guished as subspecies (see: Nordsieck, 2012,
 2016), but with the limited data available their
 morphological and geographical delimitation is
 uncertain (Nordsieck, 2012, 2016; Grego *et al.*,
 2021). Therefore, we prefer avoiding subspecific
 divisions in *P. lypra*.

Phaedusa shanica (Boettger & Ponsonby, 1888)
 (Fig. 11a–b)

Clausilia (Pseudonenia) shanica Boettger &
 Ponsonby in Godwin-Austen, 1888: p. 244
Clausilia (Phaedusa) shanica — Gude, 1914: p. 326,
 fig. 111
Phaedusa shanica (Boettger) — Zilch, 1954: p. 34,
 plate 3 fig. 46



Figure 11 *Phaedusa shanica* (Boettger), Myanmar, hills near Pyingyaung, probable paralectotype, NHMUK 1896.11.20.18a, 14.2mm (a) and lectotype, SMF 62260, 19.2mm (b); *P. theobaldi* (Blanford), Myanmar, Taungoo, lectotype, NHMUK 1888.12.4.1056, 18.4mm (c); *P. theobaldi* (Blanford), Myanmar, Shan State, NHMUK 1888.12.4.1032, 17.7mm (d); *P. theobaldi* (Blanford), Myanmar, Toungup Pass, NHMUK 1906.2.2.193, 17.2mm (e).

Phaedusa shanica (Boettger) — Nordsieck, 1974: p. 46, fig. 6, plate 2 fig. 6

Phaedusa (*Phaedusa*) *shanica* — Nordsieck, 2002: p. 88

Phaedusa (*Phaedusa*) *shanica* — Nordsieck, 2007a: p. 32

Phaedusa shanica — Grego *et al.*, 2021: p. 27

Type locality “Shan Hills, near Pingoung ... at about 2500 feet” (Myanmar, Mandalay or Shan State, hills near Pyingyaung, 20°50' N 96°25' E).

Material Type locality: “Burmah”, ex Ponsonby, NHMUK 1896.11.20.18a [probable paralectotype, figured in Gude (1914)], NHMUK 1896.11.20.18b [probable paralectotype].

Remark Although *P. shanica* was described in Godwin-Austen (1888), the text makes clear that the quoted description is from Boettger with some amendments made by Ponsonby. This has been clarified by Zilch (1954), who also pointed out that the size data in the description show that it had been based on the undamaged shell presently housed in the Senckenberg Museum (SMF 62260). It is not clear whether Boettger knew the other two shells (NHMUK 1896.11.20.18a–b) of the original lot. Therefore, the Senckenberg specimen should be regarded lectotype, rather than holotype as in Zilch (1954), whereas those of NHMUK 1896.11.20.18a (mentioned as type in Gude, 1914) and NHMUK 1896.11.20.18b are probable paralectotypes.

Phaedusa theobaldi (Blanford, 1872)

(Fig. 11c–e)

Clausilia (? *Medora*) *theobaldi* Blanford, 1872: p. 201, plate 9 fig. 5

Clausilia theobaldi — Pfeiffer, 1877: p. 521

Clausilia [*Phaedusa* (*Euphaedusa*)] *theobaldi* — Boettger, 1878: p. 53

Clausilia (*Phaedusa*) *theobaldi* — Gude, 1914: p. 310

Phaedusa theobaldi — Nordsieck, 1974: p. 45, fig. 4, plate 2 figs 1–2

Phaedusa (*Phaedusa*) *theobaldi* — Nordsieck, 2002: p. 88

Phaedusa (*Phaedusa*) *theobaldi* — Nordsieck, 2007a: p. 32

Phaedusa theobaldi — Grego *et al.*, 2021: p. 27, fig. 5d

Type locality “Tonghu” (Myanmar, near the Kayin-Kayah state boundary, mountains E of Taungoo, about 19°00' N 96°50' E).

Material Type locality: “Hills east of Tonghu”, ex Mason, ex Theobald, NHMUK 1888.12.4.1056 [lectotype], NHMUK 1888.12.4.1057 [paralectotype]; “Tonghu”, ex Mason, ex Theobald, ex Blanford, NHMUK 1906.2.2.381 [paralectotype, figured in Nordsieck (1974)]; “Tonghu, Burmah”, ex Godwin-Austen, NHMUK 1903.7.1.1274 [2+1 apex]. Myanmar, Bago Region or Rakhine State, Moditoung Hill, Toungup Pass (18°38'45" N 94°45'05" E): “Moditoung, Tongoop Pass”, ex Blanford, NHMUK 1906.2.2.193 [4]. Myanmar, Rakhine State, Mwa-ywa (19°32' N 94°01' E): “Maii, Arakan Coast”, ex Theobald, NHMUK 1888.12.4.1039 [1]; “Arakan, Mai-i, Sandoway Distr.”, ex Godwin-Austen, NHMUK 1903.7.1.1269c [4]. Myanmar, Shan State: “Shan States”, ex Theobald, NHMUK 1888.12.4.1032 [1, specimen figured in Gude (1914) as *Clausilia* (*Phaedusa*) *shanica*].

Remark The syntype NHMUK 1888.12.4.1056 (Fig. 11c) is designated here as the lectotype of *Clausilia* (? *Medora*) *theobaldi*.

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