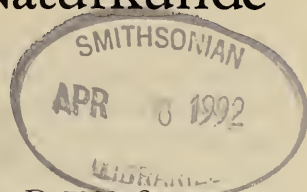


Stuttgarter Beiträge zur Naturkunde

Serie A (Biologie)



Herausgeber:

Staatliches Museum für Naturkunde, Rosenstein 1, D-7000 Stuttgart 1

Stuttgarter Beitr. Naturk.	Ser. A	Nr. 470	18 S.	Stuttgart, 31. 12. 1991
----------------------------	--------	---------	-------	-------------------------

Lagriini of the Nepal-Himalayas*) (Coleoptera: Tenebrionidae)**)

By Ottó Merkl, Budapest

With 26 figures and 1 table

Summary

This contribution on the Lagriini of the Nepal-Himalayas treats 22 species. One new genus (*Arunogria* n. gen.) and 6 new species (*Arunogria pubescens* n. sp., *Cerogria montana* n. sp., *Lagria paracomosella* n. sp., *Lagria schawalleri* n. sp., *Xanthalia clavata* n. sp., *Xanthalia martensi* n. sp.) are described. 7 species are indicated for Nepal for the first time.

Zusammenfassung

Dieser Beitrag über die Lagriini des Nepal-Himalaya behandelt 22 Arten. Von diesem Material werden eine Gattung (*Arunogria* n. gen.) und 6 Arten (*Arunogria pubescens* n. sp., *Cerogria montana* n. sp., *Lagria paracomosella* n. sp., *Lagria schawalleri* n. sp., *Xanthalia clavata* n. sp., *Xanthalia martensi* n. sp.) beschrieben. 7 Arten sind Neunachweise für Nepal.

Contents

1. Introduction	2
2. Acknowledgements	2
3. List of collecting localities	2
4. List of the species	5
4.1. Genus <i>Lagria</i>	5
4.9. Genus <i>Neogria</i>	9
4.10. Genus <i>Bothynogria</i>	9
4.14. Genus <i>Cerogria</i>	10
4.18. Genus <i>Xanthalia</i>	12
4.21. Genus <i>Arunogria</i> n. gen.	14
4.22. Genus <i>Arthromacra</i>	17
5. References	17

*) Results of the Himalaya Expeditions of J. MARTENS, No. 171. — For No. 170 see: Stuttgarter Beitr. Naturk., (A) 468, 1991. — J. M. sponsored by Deutscher Akademischer Austauschdienst and Deutsche Forschungsgemeinschaft.

**) 10th contribution to the knowledge of Lagriini.

1. Introduction

The first lagriine beetles from Nepal were described by HOPE (1831) from the collection of THOMAS HARDWICKE. During the next 150 years a modest number of species were described or recorded from various parts of the Himalayan system but very few from Nepal itself. These records have been scattered in the literature and no comprehensive study has been published on the lagriine fauna of Nepal or the entire Himalayas.

The purpose of this paper is to contribute new data towards a better knowledge of the Lagriini of the Nepal-Himalayas. It is based on the following research trips organized by Dr. JOCHEN MARTENS:

J. MARTENS, 1969–70, 1973; J. MARTENS & A. AUSOBSKY, 1980; J. MARTENS, B. DAAMS & partly W. SCHAWALLER, 1983; J. MARTENS & W. SCHAWALLER, 1988.

Specimens collected by these expeditions have largely been deposited in the Staatliches Museum für Naturkunde (Stuttgart), while a few duplicates have been retained for the Coleoptera Collection of the Hungarian Natural History Museum (Budapest). For the designation of type specimens, material of other collectings were also taken into consideration.

The following abbreviations are used in the text: *HNHM* = Hungarian Natural History Museum, Budapest; – *NHMB* = Naturhistorisches Museum, Basel; – *NMPR* = National Museum, Prague; – *SMNS* = Staatliches Museum für Naturkunde, Stuttgart.

2. Acknowledgements

It is an agreeable duty to express my sincere thanks to Prof. Dr. JOCHEN MARTENS (Mainz) as well as Drs MICHAEL BRANCUCCI (Basel), SVATOPLUK BILÝ (Prague) and WOLFGANG SCHAWALLER (Stuttgart) for providing valuable material for study. My thanks are also due to Mr. JÁNOS PÁL (Budapest) for preparing drawings.

3. List of collecting localities

Collecting data are submitted in the language as written in the original locality labels. A map showing the localities is depicted in Fig. 1 *Locality numbers* were obtained from the manuscript diaries of the participants of the expeditions.

[*without* Loc. No.]: Chordung/Jiri, 2900 m, 30. Aug. – 3. Sept. 1970, MARTENS [19 in map].

[*without* Loc. No.]: Kathmandu-Tal, westlicher Teil, 1300–1900 m, Sept. 1969, MARTENS

[14].

[*without* Loc. No.]: Kathmandu-Tal, westlicher Teil, 1300–1400 m, 29. Apr. 1973, MARTENS

[14].

[*without* Loc. No.]: Kathmandu-Tal, Mt. Phulchoki, 2500–2000 m, Aug. 1970, MARTENS

[18].

[*without* Loc. No.]: Mahabarat-Geb., Daman, 2500–2900 m, Feb. 1970, MARTENS [12].

Loc. No. 104: Kathmandu, Balaju Park, Mischwald, 1400 m, 17. März 1980, MARTENS & AUSOBSKY [15].

Loc. No. 116: Ilam Distr., Mai Pokhari, Wald, 2100–2200 m, 25.–27. März 1980, MARTENS & AUSOBSKY [31].

Loc. No. 124: Tanhu Distr., Marsyandi, Turture, Hauswand, 550 m, 7. Apr. 1980, MARTENS & AUSOBSKY [5].

Loc. No. 125: Tanhu Distr., Marsyandi, Turture-Purkot, 500–600 m, 8. Apr. 1980, MARTENS & AUSOBSKY [4].

Loc. No. 129: Lamjung Distr., Marsyandi, 640–750 m, Phalesangu-Lamjung, baumreiches Kulturland, 9. Apr. 1980, MARTENS & AUSOBSKY [3].

Loc. No. 135: Lamjung Distr., Marsyandi, Senghe-Jagat, Laubmischwald, Unterholz, 1100–1250 m, 11. Apr. 1980, MARTENS & AUSOBSKY [2].

Loc. No. 168: Parbat Distr., Ghara bis Sikha, 1700–2150 m, buschreiches Kulturland, 3. Mai 1980, MARTENS & AUSOBSKY [1].

Loc. No. 185: Ilam Distr., zwischen Mai Pokhari und Ilam, 1330 m, quelliger Hang, Kulturland, 1. Apr. 1980, MARTENS & AUSOBSKY [32].

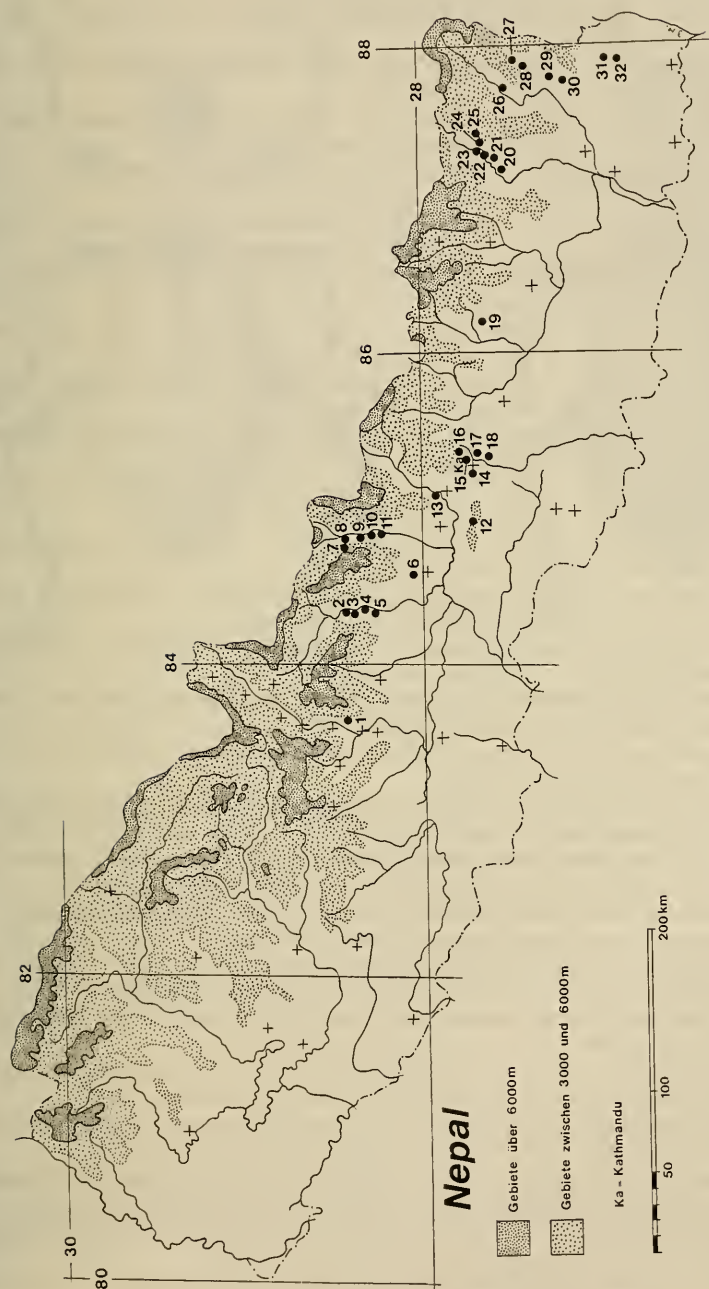


Fig. 1. Collecting localities of Lagriini in Nepal by the expeditions of J. MARTENS 1969–1988. — For the numbers see list of localities. Map by J. MARTENS.

- Loc. No. 200: Kathmandu-Tal, Ganabahal u. Baneshwar, Kulturland, 1350 m, 17.–20. Juli 1983, MARTENS & SCHAWALLER [17].
- Loc. No. 204: Kathmandu-Tal, Nagarjung, Jamacok, Sekundär-Wald, 1900–2100 m, 18. Aug. 1983, MARTENS & SCHAWALLER [15].
- Loc. No. 207: Nuwakot Distr., Trisuli, Kulturland, Waldreste, 600–650 m, 22. Juli 1983, MARTENS & SCHAWALLER [13].
- Loc. No. 220: Gorkha Distr., Buri Gandaki, Labubesi-Gorlabesi, Laubwald, 900–1000 m, 29. Juli 1983, MARTENS & SCHAWALLER [11].
- Loc. No. 221: Gorkha/Dhading Distr., Gorlabesi-Dobhan, Schlucht-Mischwald, 1000–1100 m, 30. Juli 1983, MARTENS & SCHAWALLER [10].
- Loc. No. 222: Dhading/Gorkha Distr., Buri Gandaki, Dobhan-Jagat, Laubwald, 1100–1300 m, 30. Juli 1983, MARTENS & SCHAWALLER [9].
- Loc. No. 227: Gorkha Distr., Buri Gandaki, Nyak bis unteres Chuling Kola Tal, Almen, *Pinus excelsa*, 2450–2870 m, 2. Aug. 1983, MARTENS & SCHAWALLER [8].
- Loc. No. 228: Gorkha Distr., Chuling Khola, *Quercus semecarpifolia*, 2800 m, 2.–3. Aug. 1983, MARTENS & SCHAWALLER [7].
- Loc. No. 249: Gorkha Distr., Darondi Khola, zwischen Naya Sangu und Gorkha, Bachtal/Gebüsch, 1200 m, 14. Aug. 1983, MARTENS & SCHAWALLER [6].
- Loc. No. 269: Taplejung Distr., Tada Khola, Khebang, Kulturland/Bachrand, 1600–1800 m, 2. Sept. 1983, MARTENS & DAAMS [28].
- Loc. No. 271: Taplejung Distr., Kabeli Khola, Yamputhin, Kulturland/Mischwald/Bambus, 1650–1800 m, 3.–4. Sept. 1983, MARTENS & DAAMS [27].
- Loc. No. 272: Taplejung Distr., Kabeli Khola, N Yamputhin, Süd-Hang, Kulturland, Busch, 1700–2200 m, 5. Sept. 1983, MARTENS & DAAMS [27].
- Loc. No. 290: Taplejung Distr., Tamur Khola, Chirua, 1200 m, feinerdiger Boden, Schlucht-Wald, 14. Sept. 1983, MARTENS & DAAMS [26].
- Loc. No. 304: Kathmandu Distr., Kathmandu Valley, Baneshwar, cultural land, gardens, 1400 m, 23.–26. June 1988, MARTENS & SCHAWALLER [15].
- Loc. No. 305: Kathmandu Distr., Sheopuri Mt., degraded forest, bushes, 1700–2100 m, 25. June 1988, MARTENS & SCHAWALLER [16].
- Loc. No. 318: Ilam Distr., between Ilam and Mai Pokhari, cultural land, trees, 1600–2000 m, 9. Apr. 1988, MARTENS & SCHAWALLER [32].
- Loc. No. 328: Panchthar Distr., Paniporua, 2300 m, mixed broadleaved forest, 16.–20. April 1988, MARTENS & SCHAWALLER [30].
- Loc. No. 332: Taplejung Distr., from Yektin to Worebung Pass, cultural land, 1500–1800 m, 21. Apr. 1988, MARTENS & SCHAWALLER [29].
- Loc. No. 340: Taplejung Distr., from Sablako Pass to Limbudin, tree-rich cultural land, bushes, 1600–1300 m, 22. Apr. 1988, MARTENS & SCHAWALLER [28].
- Loc. No. 348: Taplejung Distr., from Khebang to pass NW Khebang, degraded forest, bushes, 1700–2100 m, 25. Apr. 1988, MARTENS & SCHAWALLER [28].
- Loc. No. 350: Taplejung Distr., SE Yamputhin to Yamputhin, forest, mainly *Alnus*, 2000–1650 m, 26. and 30. Apr. 1988, MARTENS & SCHAWALLER [27].
- Loc. No. 351: Taplejung Distr., Yamputhin, cultural land, open forest, 1650–1800 m, 26. Apr. – 1. May 1988, MARTENS & SCHAWALLER [27].
- Loc. No. 352: Taplejung Distr., above Yamputhin, left bank of Kabeli Khola, bushes, open forest, 1800–2000 m, 27.–29. Apr. 1988, MARTENS & SCHAWALLER [27].
- Loc. No. 356: Taplejung Distr., Omje Kharka, NW Yamputhin, mature mixed broad-leaved forest, 2300–2500 m, 1.–6. May 1988, MARTENS & SCHAWALLER [27].
- Loc. No. 404: Sankhua Sabha Distr., above Pahakhola, *Quercus semecarpifolia*, *Rhododendron*, 2600–2800 m, 31. May to 3. June 1988, MARTENS & SCHAWALLER [25].
- Loc. No. 405: Sankhua Sabha Distr., betw. Pahakhola and Karmarang, open forest, bushes, 2300–1800 m, 4. June 1988, MARTENS & SCHAWALLER [24].
- Loc. No. 406: Sankhua Sabha Distr., betw. Pahakhola and Karmarang, cultural land, bushes, 1800–1500 m, 4. June 1988, MARTENS & SCHAWALLER [24].
- Loc. No. 407: Sankhua Sabha Distr., below Karmarang to Hedangna, tree-rich cultural land, 950–1350 m, 5. June 1988, MARTENS & SCHAWALLER [23].
- Loc. No. 408: Sankhua Sabha Distr., Arun Valley, bottom between Hedangna and Num, sub-

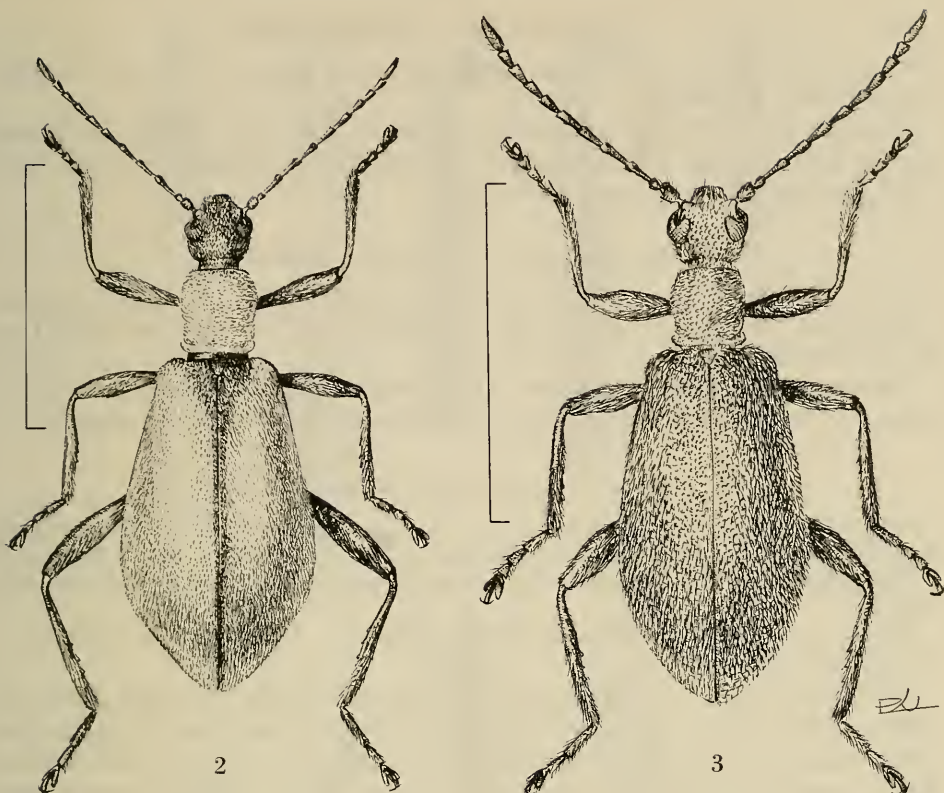


Fig. 2. *Lagria paracomosella* n.sp. ♂; habitus. — Scale: 5 mm.

Fig. 3. *Lagria schawalleri* n.sp. ♂; habitus. — Scale: 5 mm.

tropical forest, 950–1000 m, 6.–8. June 1988, MARTENS & SCHAWALLER [27].

Loc. No. 409: Sankhua Sabha Distr., Arun Valley, bottom, ascent to Num, broad-leaved forest, 1100–1450 m, 8. June 1988, MARTENS & SCHAWALLER [21].

Loc. No. 412: Sankhua Sabha Distr., Arun Valley, between Mure and Hurure, mixed broad-leaved forest, 2050–2150 m, 9.–17. June 1988, MARTENS & SCHAWALLER [20].

Loc. No. 413: Sankhua Sabha Distr., Arun Valley, between Hurure and Chichila, tree-rich cultural land, 2000 m, 17. June 1988, MARTENS & SCHAWALLER [20].

Loc. No. 414: Sankhua Sabha Distr., Arun Valley, Chichila, 1900–2000 m, *Quercus* forest, bushes near village, 18.–20. June 1988, MARTENS & SCHAWALLER [20].

4. List of the species

4.1. *Lagria subcostata* Fairmaire 1896

Material: Loc. No. 227 (2 ex. SMNS).

Remarks: Described from Chamba and Dalhousie (Himachal Pradesh, India). New to Nepal.

4.2. *Lagria conspersa* Reitter 1880

Material: [without Loc. No.] Chordung/Jiri (1 ex. SMNS).

Remarks: Described from Darjeeling (West Bengal, India). New to Nepal.

4.3. *Lagria ventralis* Reitter 1880

Material: [without Loc. No.] Kathmandu-Tal (1 ex. SMNS); Loc. No. 207 (1 ex. SMNS); Loc. No. 220 (1 ex. SMNS).

Remarks: Described from Darjeeling (West Bengal, India). Widely distributed all over the Himalayas. Known also from South China, Thailand, Burma, Viet Nam, Laos, Kampuchea. First record for Nepal.

4.4. *Lagria comosella* Fairmaire 1894 (Fig. 4)

Material: [without Loc. No.] Mahabarat-Geb. (1 ex. SMNS); Loc. No. 116 (3 ex. SMNS; 1 ex. HNHM from SMNS); Loc. No. 269 (1 ex. SMNS); Loc. No. 272 (1 ex. SMNS); Loc. No. 414 (2 ex. SMNS).

Remarks: Described from Konbir (West Bengal, India). Confined to the Himalayas, it is known from India (Sikkim, West Bengal) and Nepal (new record).

4.5. *Lagria paracomosella* n. sp. (Figs 2, 5–7)

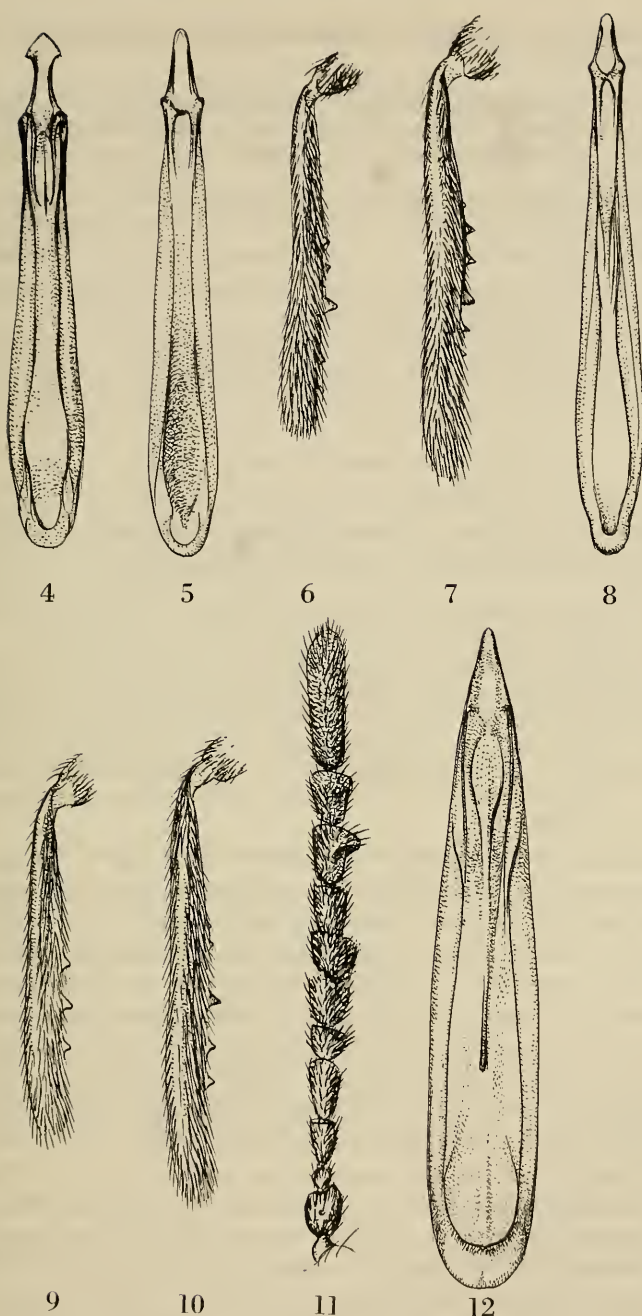
Holotype: ♂, labelled as follows: „Nepal, 352 Taplejung Distr., above Yamputhin, left bank of Kabeli Khola, bushes, open forest, 1800–2000 m, 27.–29. Apr. 1988, J. MARTENS & W. SCHAWALLER leg.“; „Holotypus ♂ *Lagria paracomosella* Merkl, 1991“ [red]. Deposited in SMNS.

Paratypes: Nepal: labelled as holotype (1 ♀ SMNS; 1 ♀ HNHM from SMNS); Loc. No. 351 (1 ♂ SMNS).

Description: ♂ – Body shape as of *Lagria comosella* Fairmaire; head, scutellum, antennae, legs, meso- and metathoracic sterna black; femoral base slightly paler brown; prothorax and abdominal sterna reddish brown; elytra reddish brown with a triangular periscutellar area and sutural margin black. Length 9.2 – 9.8 mm (2 males measured). – Head nearly as wide as pronotum; interocular distance much wider than eye diameter (20:14); frons with indistinct impressions; cranium densely rugulose-punctate, vested with short, recumbent hairs; clypeus and labrum weakly notched; antennae long and slender; segment length ratios as follows: 11:5:19:19:12:15:14:11:10:9:22; 7th to 10th segments a little asymmetrical, i. e. more widening inwards than outwards. – Pronotum subquadrate (length : width = 50:52); anterolateral angles broadly rounded; prebasal constriction weak; disc slightly convex, with indistinct midlongitudinal and lateral impressions; surface densely rugulose-punctate; vestiture short, decumbent. – Scutellum small, rounded triangular. – Elytra convex, considerably widened posteriorly; punctation coarser than that of head and pronotum; punctures separated but very close; separated by very narrow interspaces; pubescence short, dense, completely reclinate, silky. – Ventral surface finely and densely punctate; last abdominal sternite rounded at apex. – Legs fairly long and gracile; inner margin of middle (Fig. 6) and hind tibiae (Fig. 7) with a few denticles variable in size. – Aedeagus: Fig. 5. – Habitus: Fig. 2.

♀. Much broader; interocular distance nearly twice as wide as eye diameter (27:14); antennae shorter, with segment length ratios as follows: 11:5:19:18:18:14:14:12:11:10:19; pronotum slightly transverse (length : width = 48:58); elytra with distinct postscutellar impression; tibiae unarmed. Length 9.0 – 9.2 mm (2 females measured).

Remarks: This species is very closely related to *Lagria comosella* Fairmaire in having a similar structure of antennae, tibiae, elytral pubescence, etc. It differs only in coloration and the shape of aedeagus. Further details see in Table 1.



- Fig. 4. *Lagria comosella* Fairmaire; aedeagus, ventral view.
 Figs. 5-7. *Lagria paracomosella* n.sp. — 5. Aedeagus, ventral view; — 6. middle tibia ♂; — 7. hind tibia ♂. — Not to scale.
 Figs. 8-10. *Lagria schawalleri* n.sp. — 8. Aedeagus, ventral view; — 9. middle tibia ♂; — 10. hind tibia ♂. — Not to scale.
 Figs. 11-12. *Cerogria montana* n.sp. — 11. Antenna ♂; — 12. aedeagus, ventral view. — Not to scale.

Table 1. Comparison of *Lagria comosella* Fairmaire, *Lagria paracomosella* n. sp. and *Lagria schawalleri* n. sp.

	<i>comosella</i> Fairmaire	<i>paracomosella</i> n. sp.	<i>schawalleri</i> n. sp.
Colour of head	reddish brown	black	reddish brown
Punctuation of head and pronotum	finely rugulose	finely rugulose	dense, coarse
Colour of elytra	unicolorous	bicolorous (Fig. 2)	unicolorous
Pubescence of elytra	completely decumbent	completely decumbent	partly erect
Shape of apex of aedeagus	sagittiform (Fig. 4)	attenuating (Fig. 5)	attenuating (Fig. 8)

4.6. *Lagria schawalleri* n. sp. (Figs 3, 8–10)

Holotype: ♂, labelled as follows: „Nepal, 408 Sankhua Sabha Distr., Arun Valley, bottom betw. Hedangna ad Num, subtropical forest, 950–1000 m, 6.–8. June 88, J. MARTENS & W. SCHAWALLER“; „Holotypus ♂ *Lagria schawalleri* Merkl, 1991“ [red]. Deposited in SMNS.

Paratypes: Nepal: Labelled as holotype (2 ♀♀ SMNS; 1 ♀ HNHM from SMNS); Loc. No. 185 (1 ♀ SMNS; 1 ♂ HNHM from SMNS); Loc. No. 406 (1 ♂ SMNS); Loc. No. 407 (1 ♂ SMNS); Arunthan-Chichila, Arun V., 1300–1950 m, 29. V. 1983, M. BRANCUCCI (1 ♂ NHMB). – India: Darjeeling Distr., Chuba, 1000 m, 27.–28. III. 1983, BHAKTA B. (1 ♂ HNHM from NHMB); Darjeeling Distr., Goroo Bathan, 840 m, 22. VII. 1981, BHAKTA B. (1 ♀ NHMB); Darjeeling Distr., Umg. Kalimpong, 3. IV. 1977, BHAKTA B. (1 ♀ NHMB); Kalimpong, 1180 m, VII.–VIII. 1983, BHAKTA B. (1 ♂ NHMB); Fagu Kaman, Kalimpong Umg., 23. IX. 1976, BHAKTA B. (1 ♂ NHMB); Sikkim, Rhenock, 480 m, 11. IX. 1981, BHAKTA B. (1 ♂ NHMB).

Description: ♂ – Somewhat more slender than *Lagria comosella* Fairmaire; head, prothorax and scutellum reddish brown; elytra, meso- and metathoracic and abdominal sterna greyish brown, sometimes paler reddish brown; antennae and legs black except very base of femora; legs reddish in teneral specimens. Length 7.2 – 8.3 mm (9 males measured). – Head somewhat narrower than pronotum; interocular distance nearly equal to eye diameter (19:20); frons slightly uneven; cranium coarsely and densely punctate, vested with sparse, erected hairs; clypeus deeply, labrum weakly notched; antennae long and slender; segment length ratios as follows: 10:5:15:16:15:13:13:10:10:8:22. – Pronotum subquadrate (length : width = 41:45); anterolateral angles rounded; prebasal constriction weak to indistinct; disc weakly convex with shallow prebasal impressions; punctuation coarse and dense at middle, coalescent at lateral portions; pubescence sparse, partly reclinate, partly erect. – Scutellum small, rounded triangular. – Elytra convex, weakly dilated posteriorly; punctuation coarser than that of head and pronotum; punctures separated by 0.5 – 1.0 diameter, pubescence sparser and longer than that of *Lagria comosella* Fairmaire, decumbent, mixed with semierect to erect hairs. – Ventral surface finely and densely punctate; last abdominal sternite rounded at apex. – Legs rather long; inner margin of middle (Fig. 9) and hind tibiae (Fig. 10) with denticles variable in size. – Aedeagus: Fig. 8. – Habitus: Fig. 3.

♀. A little broader; interocular distance much wider than eye diameter (20:13); antennae shorter with segment length ratios as follows: 9:5:14:13:11:10:10:9:10:7:18; pronotum transverse (length : width = 40:48), with an indistinctly depressed

central area finely punctate; tibiae unarmed. Length 7.9 – 10.0 mm (6 females measured).

Remarks: It is related to *Lagria comosella* Fairmaire and *Lagria paracomosella* n. sp. but the dorsal pubescence is partly erect and the punctuation of forebody is much coarser. A comparison of this three species is given in Table 1.

Derivatio nominis: This new species is dedicated to Dr. WOLFGANG SCHAWALLER (Stuttgart), a participant of two of the expeditions concerned, who was always helpful with specimens and advice.

4.7. *Lagria tibetana* Blair 1926

Material: [without Loc. No.] Kathmandu-Tal, Mt. Phulchoki (1 ex. SMNS); Loc. No. 404 (2 ex. SMNS; 1 ex. HNHM from SMNS).

Remarks: Described from Tibet. New to Nepal.

4.8. *Lagria* sp. aff. *tibetana*

Material: Loc. No. 228 (2 ♀♀ SMNS).

Remarks: Two female specimens, obviously closely related to *Lagria tibetana* Blair, remained unidentified in the lack of male characters.

4.9. *Neogria cyanipennis* Borchmann 1911

Material: Loc. No. 124 (1 ex. SMNS); Loc. No. 125 (1 ex. SMNS; 1 ex. HNHM from SMNS); Loc. No. 129 (1 ex. SMNS).

Remarks: Described from Tenasserim (Burma), known also from Viet Nam. New to Nepal.

4.10. *Bothynogria ruficollis* (Hope 1831)

Material: Loc. No. 305 (1 ex. SMNS); Loc. No. 405 (2 ex. SMNS); Loc. No. 412 (1 ex. SMNS).

Remarks: Described from Nepal. Known from West Nepal only (MERKL 1990).

4.11. *Bothynogria bicolor* (Kollar & Redtenbacher 1848)

Material: Loc. No. 408 (1 ex. SMNS); Loc. No. 409 (1 ex. SMNS).

Remarks: Described from Kashmir. Known also from Northern India (Mussoorie in Uttar Pradesh; Darjeeling in West Bengal; Sikkim) and Nepal (MERKL 1990).

4.12. *Bothynogria himalayana* Borchmann 1936

Material: Loc. No. 407 (2 ex. SMNS); Loc. No. 408 (1 ex. SMNS); Loc. No. 409 (1 ex. SMNS).

Remarks: Described from Dehra Dun (Uttar Pradesh, India). Known also from Nepal (MERKL 1990).

4.13. Gen. et sp. near *Bothynogria* or *Xenocera*

Material: Loc. No. 407 (1 ♀ SMNS).

Remarks: This female specimen cannot yet be assigned with certainty to one of the two above genera.

4.14. *Cerogria nepalensis* (Hope 1831)

Material: Loc. No. 168 (8 ex. SMNS; 1 ex. HNHM from SMNS); Loc. No. 332 (5 ex. SMNS; 1 ex. HNHM from SMNS); Loc. No. 340 (1 ex. SMNS); Loc. No. 350 (2 ex. SMNS); Loc. No. 351 (1 ex. SMNS); Loc. No. 407 (1 ex. SMNS).

Remarks: Described from Nepal, where it is quite common. Apparently endemic to the Himalayas, known also from Northern India (Kumaon in Uttar Pradesh; Darjeeling in West Bengal; Sikkim).

4.15. *Cerogria rufina* (Fairmaire 1894)

Material: Loc. No. 104 (1 ex. SMNS); Loc. No. 304 (1 ex. SMNS).

Remarks: Described from Barway (West Bengal, India). Distributed in the Indian Subcontinent. Specimens are known from Pakistan (Karachi) and various localities of states of India (Himachal Pradesh, Madras, West Bengal). New to Nepal.

4.16. *Cerogria quadrimaculata* (Hope 1831)

Material: Loc. No. 204 (2 ex. SMNS); Loc. No. 221 (1 ex. SMNS); Loc. No. 304 (2 ex. SMNS); Loc. No. 305 (1 ex. SMNS); Loc. No. 405 (1 ex. SMNS); Loc. No. 406 (5 ex. SMNS; 1 ex. HNHM from SMNS); Loc. No. 412 (8 ex. SMNS; 2 ex. HNHM from SMNS); Loc. No. 413 (1 ex. SMNS); Loc. No. 414 (2 ex. SMNS).

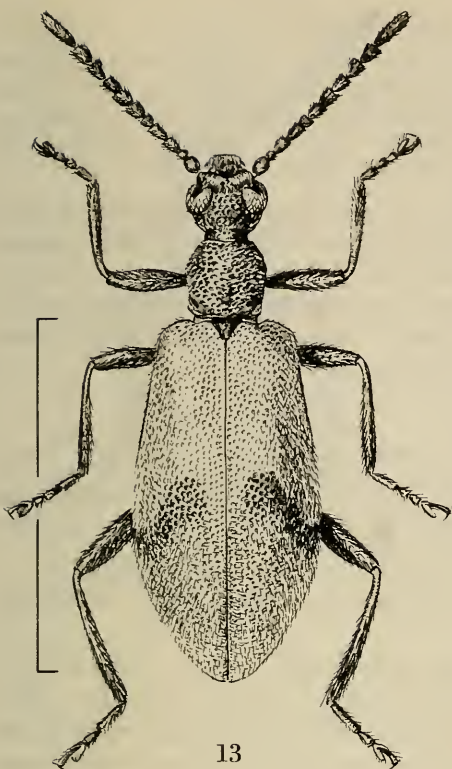
Remarks: Described from Nepal. Distributed all over the Great Himalaya range. Specimens are known also from north-western Pakistan (Swat), northern Thailand (Chiang Mai) and northern Viet Nam (Vinh phu).

4.17. *Cerogria montana* n. sp. (Figs 11–13)

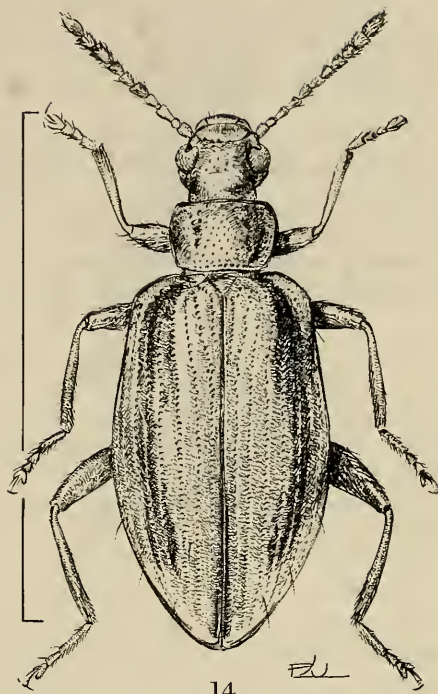
Holotype: ♂, labelled as follows: „Tiger Hill Darjeeling India 23-V-1982“; „Holotypus ♂ *Cerogria montana* Merkl, 1991“ [red]. Deposited in HNHM.

Paratypes: India: Labelled as holotype (2 ♀♀ HNHM); Tiger Hill, District Darjeeling, 2500 m, 7. V. 1975, W. WITTMER (2 ♂♂, 2 ♀♀ NHMB); same locality and collector, 27. V. 1975 (1 ♀ NHMB). — Nepal: Loc. No. 328 (1 ♀ SMNS); Hille, 28. IV. 1988, Sv. BILÝ (1 ♂ NMPR). — Bhutan: 21 km O Wangdi Phodrang, 1700–2000 m, 15. VI. 1972, NHMB-Bhutan Exp. (2 ♀♀ NHMB; 1 ♀ HNHM from NHMB); Nobding, 41 km O Wangdi Phodrang, 2800 m, 17. III. 1972, NHMB-Bhutan Exp. (2 ♀♀ NHMB; 1 ♀ HNHM from NHMB); Tongsa, 2150 m, 24. VI. 1972, NHMB-Bhutan Exp. (1 ♀ NHMB).

Description: ♂ — Body elongate; head, pronotum, scutellum, ventral surface, antennae and legs dark brownish black, last abdominal sternite slightly paler; head and centre of pronotum sometimes partly reddish; elytra dark stramineous, with a black oblique strip-like spot of variable extent in posterior half or posterior part infusate beyond spots. Length 6.8 – 7.9 mm (4 males measured). — Head nearly as wide as pronotum; interocular distance equal to eye diameter (12:12); frons uneven; punctation coarse, rugose, dense; clypeus feebly, labrum deeply notched; vested with sparse, short, semierect hairs; antennae strong, somewhat deformed (Fig. 11); segment length ratios as follows: 10:5:8:8:5:7:6:7:9:8:20; 4th to 7th segments with a keel on inner side, 9th segment abruptly widened inside; 11th segment simple, shorter than 3 preceding combined. — Pronotum slightly wider than long (length : width = 31:37), subparallel-sided to weakly arcuate laterally; anterolateral angles broadly rounded; prebasal constriction slight; disc gently convex, with two indistinct, oblique prebasal impressions laterally; punctation coarse, rugose, tending to be coalescent laterally, interspaces narrower than puncture diameter; vestiture sparse,



13



14

Fig. 13. *Cerogria montana* n.sp. ♂; habitus. — Scale: 5 mm.Fig. 14. *Xanthalia martensi* n.sp. ♂; habitus. — Scale: 5 mm.

short, decumbent. — Scutellum regularly triangular. — Elytra elongate, moderately convex, slightly widened posteriorly; punctation less coarse and less dense than that of pronotum; punctures separated by 0.5 – 2.0 diameters; in lateral regions, punctation tending to form short transverse rows; pubescence whitish, very sparse and short, completely reclinate. — Ventral surface finely and sparsely punctate; last abdominal sternite rounded at apex. — Legs long and gracile; femora feebly clavate; tibiae without denticles or any other modification. — Aedeagus: Fig. 12. — Habitus: Fig. 13.

♀. Broader; interocular distance much wider than eye diameter (25:15); antennae simple, with segment length ratios as follows: 11:5:15:13:10:10:11:11:10:10:13; pronotum transverse (length : width = 47:65), with a shallow central impression of finer punctation. Length 7.5 – 13.0 mm (14 females measured).

Remarks: This species somewhat resembles *Cerogria quadrimaculata* Hope, in having spotted elytra. However, it sharply differs in having body parts other than elytra black (light reddish brown in *quadrimaculata*); one strip-like spot on each elytra (two spots on each elytra in *quadrimaculata*) and dorsal pubescence very short and reclinate (much longer and erect in *quadrimaculata*). The eight female paratypes from Bhutan are considerably larger than the specimens from Nepal and Darjeeling District, India.

4.18. *Xanthalia franzi* Kaszab 1973

Material: [without Loc. No.] Kathmandu-Tal (1 ex. SMNS); Loc. No. 135 (3 ex. SMNS; 1 ex. HNHN from SMNS); Loc. No. 200 (1 ex. SMNS); Loc. No. 204 (1 ex. SMNS); Loc. No. 222 (3 ex. SMNS); Loc. No. 249 (11 ex. SMNS; 3 ex. HNHN from SMNS); Loc. No. 269 (1 ex. SMNS); Loc. No. 271 (2 ex. SMNS); Loc. No. 318 (1 ex. SMNS); Loc. No. 328 (1 ex. SMNS); Loc. No. 348 (1 ex. SMNS); Loc. No. 414 (1 ex. SMNS).

Remarks: Described from Nepal. The specimens examined are identical with KASZAB's paratypes deposited in HNHN. Nevertheless, it is possible that *Xanthalia franzi* Kaszab is conspecific with one of the *Heterogria* species described by PIC. PIC's types are not available, so at the moment the question remains unresolved. KASZAB described *Xanthalia franzi* as a member of Lupropini. *Xanthalia* and *Heterogria* are, however, apparently identical and assigned to Lagriini.

4.19. *Xanthalia martensi* n. sp. (Fig. 14)

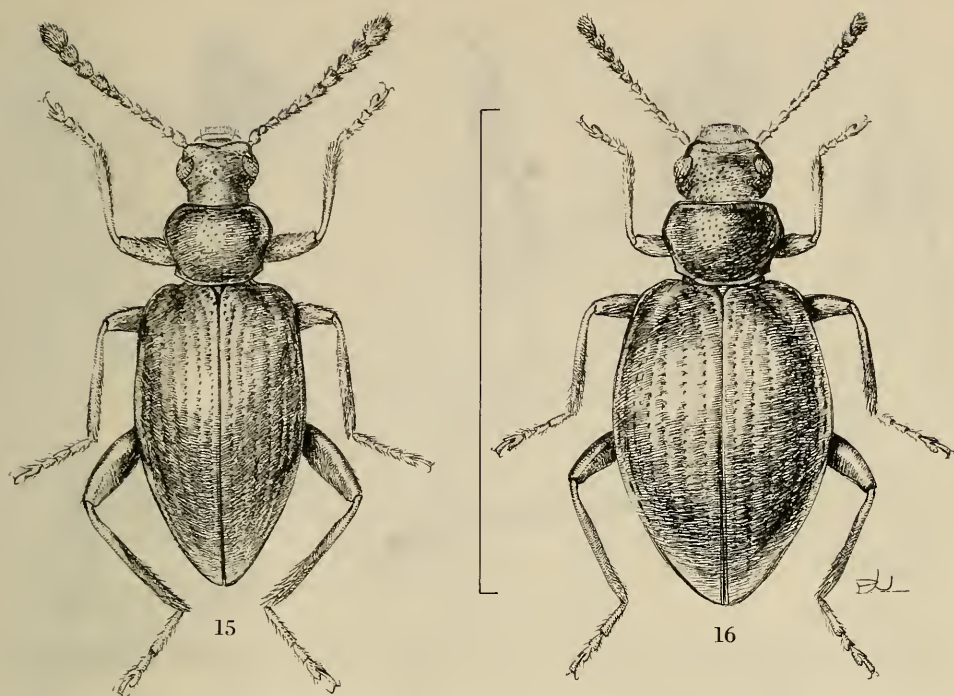
Holotype: ♀, labelled as follows: „Nepal, 290 Taplejung Distr., Tamur Khola, Chirua, 1200 m feinerdiger Boden, Schlucht-Wald, 14. Sept. 1983, MARTENS & DAAMS leg.“; „Holotypus ♀ *Xanthalia martensi* Merkl, 1991“ [red]. Deposited in SMNS.

Paratypes: Nepal: Khandbari-Arunthan, 1100–1300 m, 22. V. 1980, W. WITTMER (1 ♀ NHMB; 1 ♀ HNHN from NHMB). – India: Meghalaya, Mawphlang, 1850 m, 15. V. 1976, WITTMER & BARONI U. (1 ♀ NHMB).

Description: ♀ – Body shape typical to *Xanthalia*; dorsal surface shining; head, pronotum and legs unicolorous brownish yellow; elytra slightly paler with a longitudinal black marking extending from 2nd or 4th interval to 6th; borders of this marking ill-defined inside; ventral surface including elytral epipleure brown, metasternum and abdominal sterna partly black; first 3 antennal segments yellowish, rest of antenna more or less infusate. Length 5.1 – 5.3 mm (4 females measured). – Head a little narrower than pronotum, nearly glabrous; interocular distance much wider than eye diameter (19:10); frons uneven, with coarse punctures; temples coarsely punctate; rest of cranium with a few extremely fine, indistinct punctures; clypeus weakly emarginate; labrum weakly notched; ultimate segment of maxillary palpi broadly triangular; antennae short, with segment length ratios as follows: 5:3:6:5:5:5:5:5:11. – Pronotum glabrous, gently convex, transverse (length : width = 28:42), subtrapezoidal; widest anterior to middle; anterolateral angles rounded, posterolateral angles obtuse angled; lateral margins well-visible in whole length from above; punctation moderately coarse, interspaces 3–5 times wider than puncture diameter. – Scutellum broadly triangular. – Elytra elongate ovoid, moderately convex; punctural rows weakly impressed, ending before apex; intervals weakly convex to flat, 5 times wider than puncture diameter; punctures coarser than those of pronotum; 1st, 5th and paired intervals without setigerous punctures; 3rd interval with 6, 7th with 3, 9th with 8 setigerous punctures scattered throughout the whole length; setae short and pale. – Ventral surface without modifications; last abdominal sternite rounded at apex. – Legs simple. – Habitus: Fig. 14. ♂. Unknown.

Remarks: The bicoloured elytral pattern of this new species is a unique feature among the hitherto described species of *Xanthalia*/*Heterogria*.

Derivatio nominis: This species is dedicated with pleasure to Prof. Dr. JOCHEN MARTENS (Mainz), head of the expeditions to the Nepal Himalayas.



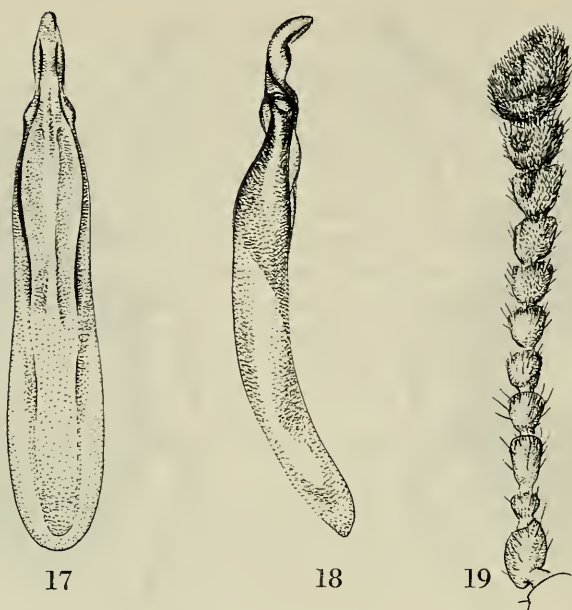
Figs. 15–16. *Xanthalia clavata* n.sp. ♂ (15) and ♀ (16); habitus. — Scale: 5 mm.

4.20. *Xanthalia clavata* n. sp. (Figs 15–19)

Holotype: ♂, labelled as follows: „Nepal, 305 Kathmandu Distr., Sheopuri Mt., degraded forest, bushes, 1700–2100 m, 25. June 1988, J. MARTENS & W. SCHAWALLER leg.“; „Holotypus ♂ *Xanthalia clavata* Merkl, 1991“ [red]. Deposited in SMNS.

Paratype: Nepal: Labelled as holotype (1 ♀ HNHM from SMNS).

Description: ♂ — Body shape typical to *Xanthalia*; dorsal surface shining; practically glabrous; whole body yellowish brown; last 5 antennal segments slightly infusate. Length 4.7 mm (holotype). — Head distinctly narrower than pronotum; interocular distance much wider than eye diameter (26:10); frons with shallow, uneven depressions; frons and temples coarsely, rest of cranium very finely punctate; clypeus and labrum weakly notched; ultimate segment of maxillary palpi broadly triangular; antennae with segment length ratios as follows: 4:2:5:3:3:3:4:5:5:5:5:9; 8th to 10th segments slightly incavate in ventral surface; 11th segment large, ovoid, with an oblique keel at inner side (Fig. 19). — Pronotum fairly convex, distinctly transverse (length : width = 21:30), subcordiform; widest anterior to middle; anterolateral angles rounded, posterolateral angles rectangular; pronotal sides sinuate in front of posterolateral angles; lateral margins well-visible in whole length from above; punctation moderately coarse, interspaces 2–4 times wider than puncture diameter. — Scutellum broadly triangular. — Elytra elongate ovoid, fairly convex; punctural rows weakly impressed, vanishing before apex; intervals weakly convex, 5–6 times wider than puncture diameter; punctures coarse, well-defined; all the intervals glabrous. — Ventral surface without modifications; last abdominal sternite rounded at apex. — Legs simple. — Aedeagus: Figs 17–18. — Habitus: Fig. 15.



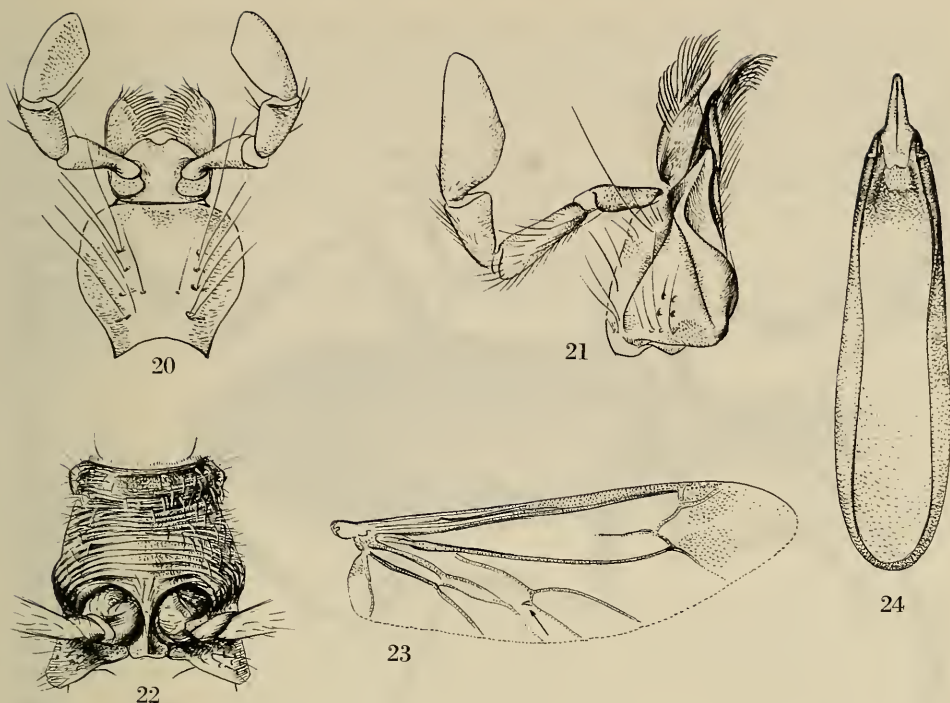
Figs. 17–19. *Xanthalia clavata* n.sp. — 17. Aedeagus, ventral view; — 18. aedeagus, lateral view; — 19. antenna ♂. — Not to scale.

♀. Much stouter; interocular distance wider (32:9); antennae with segment length ratios as follows: 5:2:5:3:3:3:3:4:4:4:6; last antennal segments simple; pronotum much more transverse (length : width = 22:33); elytra broadly oval. Length 4.9 mm (paratype). Habitus: Fig. 16.

Remarks: In KASZAB's (1973) key to the species of *Xanthalia* this new species would run to *Xanthalia franzi* Kaszab. However, the elytra are much broader and more convex (more elongate and less convex in *franzi*), the pronotum is distinctly subcordiform (subtrapezoidal in *franzi*) and the last antennal segment of male is globose and slightly shorter than two preceding segments combined (more elongate and about as long as the two preceding in *franzi*).

4.21. *Arunogria* n. gen. (Figs 20–23)

Description: ♂ — Body shape superficially resembling *Chlorophila* Fairmaire; medium-sized, narrow, parallel-sided with very long antennae and legs; fairly convex in cross section; colour metallic; dorsal surface distinctly pubescent. — Head with eyes protruding, transverse; vertex flat, uneven, coarsely sculptured; frontoclypeal suture deeply impressed; clypeus short; labrum and mandibles elongate; temples short; neck distinct; antennae without modified segments, ultimate segment about as long as four preceding combined; mandibles bifid; maxillae with ultimate segment of palpi narrowly securiform (Fig. 21); mentum flat, cordiform; labial palpi with ultimate segment oval (Fig. 20). — Pronotum truncated subconical, uneven, coarsely punctured, without lateral bordering. — Scutellum rounded triangular. — Elytra almost parallel-sided, with apex simple; punctuation scattered, without punc-



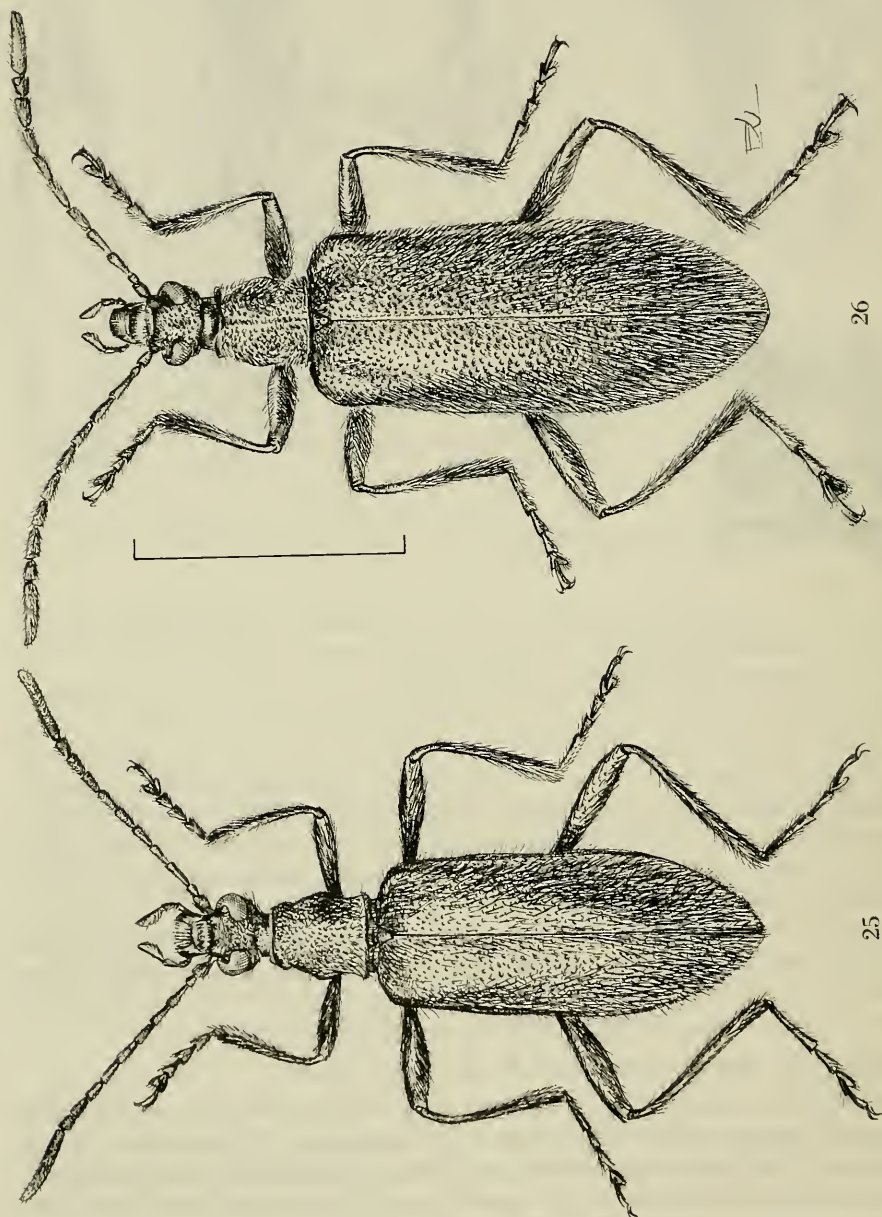
Figs. 20–24. *Arunogria pubescens* n. gen., n. sp. — 20. Labium; — 21. maxilla; — 22. prothorax, ventral view; — 23. hind wing, arrow indicating rudimentary cross-vein; — 24. aedeagus. — Not to scale.

tural rows. — Prosternal process raised, separating front coxae, narrow (Fig. 22). — Thoracic and abdominal sterna without modification; last abdominal sternite broadly rounded. — Legs long and fragile, unarmed; femora hardly clavate; tibiae nearly straight. — Hind wings with first anal cross-vein largely absent, except for a short branch of first anal vein (Fig. 23).

♀. Somewhat stouter; legs and antennae a little shorter; ultimate antennal segment about as long as three preceding combined; pronotum shorter; ovipositor of toxicine type (sensu TSCHINKEL & DOYEN 1980), with longitudinal baculi of paraprocts, shortened 1st and long, free 4th lobe of coxite and terminal gonostyles.

Type species: *Arunogria pubescens* n. sp., herewith designated.

Remarks: This genus is closely related to the *Arthromacra*-group that includes *Arthromacra* Kirby, *Chlorophila* Semenow, *Donaciolagria* Pic and other genera. BORCHMANN (1936) treated this complex of genera as belonging to the Lagriina (Lagriinae in his sense) but in reality they seem to occupy an intermediate position between such „typical“ Lagriina as *Lagria* Fabricius, *Cerogria* Borchmann, etc. and „true“ Statirina like *Statira* Audinet-Serville, *Sora* Walker or *Casonidea* Fairmaire. In contrast to the projecting front coxae and very low prosternal process as well as broadly securiform ultimate segment of maxillary palpi of Lagriina, members of the *Arthromacra*-group have much less projecting front coxae separated by a raised and apically dilated prosternal process and relatively narrow ultimate segment of maxil-



Figs. 25–26.. *Arnogria pubescens* n. gen., n. sp. ♂ (25) and ♀ (26); habitus. — Scale: 5 mm.

lary palpi. These features are characteristic for the Statirina, yet the typical statirine prosternal process is usually much higher and broader. In addition, the first anal cross-vein of hind wings is absent in Lagriina and present in Statirina, while genera of the *Arthromacra*-group have a rudimentary cross-vein starting from the first anal vein but not reaching the second one. MASUMOTO (1987, 1988) has already transferred *Arthromacra* Kirby and *Chlorophila* Semenow from the Lagriina to the Statirina but further study and a thorough revision of all the related genera are badly needed.

Arunogria n. gen. sharply differs from the related genera by having long and erect dorsal pubescence. The species of the *Arthromacra*-group are completely glabrous or have very reduced vestiture.

4.21.1. *Arunogria pubescens* n. sp. (Figs 24–26)

Holotype: ♂, labelled as follows: „E-Nepal, Dhankuta, Arun Valley, 25. 5. 1980 Mure-Num, 1900–1500 m leg. C. HOLZSCHUH“; „Holotypus ♂ *Arunogria pubescens* Merkl, 1991“ [red]. Deposited in HNHM.

Paratype: Nepal: Loc. No. 412 (1 ♀ SMNS).

Description: ♂ – Body black with weak aeneous tinge on head, pronotum, ventral surface and legs, elytra dark metallic green. Dorsal surface with rather long, dense semierect to erect pubescence, particularly on elytra. Length 10.8 mm (holotype). – Head with shallow impressions in the centre of vertex and along inner margin of eyes; punctuation coarse and dense; genae protruding; segment length ratios of antennae as follows: 10:7:15:14:13:15:14:13:13:10:50; 6th to 10th segment slightly conical; labrum feebly notched. – Pronotum widest basally, slightly attenuating towards anterior margin, weakly constricted behind middle (length : width = 42:54); disc with two shallow mediolateral impressions; punctuation coarse, dense, punctures separated by less than puncture diameter. – Elytra with punctuation irregular, coarse but sparser than that of pronotum; interspaces hardly raised, smooth and shiny; lateral margin well visible in dorsal view from humeral callus to apex. – Tarsi nearly as long as tibiae. – Aedeagus: Fig. 24. – Habitus: Fig. 25.

♀. Pronotum somewhat wider (length: width = 57:62); segment length ratios of antennae as follows: 11:6:16:14:13:13:13:14:10:37; 10th segment subquadrate. Habitus: Fig. 26. Length 12.3 mm (paratype).

4.22. *Arthromacra* sp.

Material: Loc. No. 356 (1 ♀ SMNS).

Remarks: This female specimen apparently represents a new species but the description must wait for males to become available.

5. References

- BORCHMANN, F. (1936): Coleoptera, Fam. Lagriidae. – *Genera Insectorum* 204: 1–561; Bruxelles.
- HOPE, F. W. (1831): Synopsis of the new species of Nepaul Insects in the collection of Major General HARDWICKE. – *Zool. Misc.* [no volume number]: 21–32; London.
- KASZAB, Z. (1973): Tenebrioniden (Coleoptera) aus Nepal. – *Acta zool. hung.* 19 (1–2): 23–74; Budapest.

- MASUMOTO, K. (1987): A study of the Japanese Lagriidae. — Ent. Rev. Japan (Suppl.) 42: 37–60; Osaka.
- (1988): A study of the Taiwanese Lagriidae. — Ent. Rev. Japan 43 (1): 33–52; Osaka.
- MERKL, O. (1990): A review of *Bothynogria* Borchmann (Coleoptera, Tenebrionidae: Lagriini). — Acta zool. hung. 36 (3–4): 279–294; Budapest.
- TSCHINKEL, W. R. & J. T. DOYEN (1980): Comparative anatomy of the defensive glands, ovipositors and female genital tubes of tenebrionid beetles (Coleoptera). — Int. J. Insect Morphol. & Embryol. 9: 321–368; Oxford.

Author's address:

Dr. OTTÓ MERKL, Hungarian Natural History Museum, Zoological Department, Baross u. 13, H-1088 Budapest (Hungary).

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Stuttgarter Beiträge Naturkunde Serie A \[Biologie\]](#)

Jahr/Year: 1991

Band/Volume: [470_A](#)

Autor(en)/Author(s): Merkl Ottó

Artikel/Article: [Lagriini of the Nepal-Himalayas \(Coleoptera : Tenebrionidae\) 1-18](#)