

Updated world catalogue of the family *Jacobsoniidae* (Coleoptera: Derodontoidea)

Jiří Háva

Prague-west, Czech Republic

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INTRODUCTION

The small family Jacobsoniidae (Coleoptera) has had an uncertain classification for some time. Crowson (1955, 1959) placed this family in the superfamily Derodontoidea (together with Derodontidae and Nosodendridae). Sen Gupta (1979) included a new subfamily, Derolanthrinae, in the family Merophysyiidae (recently subfamily in Endomychidae). Lawrence and Newton (1995) placed this family as “incertae sedis” in the series Bostrichiformia but Bouchard et al. (2011) included this family with the series Derodontiformia.

Representatives of this species occur very sporadically in the Australian, Oriental and Neotropical regions. The Jacobsoniidae family includes 3 genera and 27 species worldwide. No fossil species are currently known. A list of the world species in this family was recently provided by Háva and Löbl (2005); species from the Palaearctic region were covered by Löbl (2007), genera were covered by Háva in Zahradník & Háva (2014). All of this species in this family are extremely rare and little is known about their biology. The catalogue presents all known species and their distribution, described to 2017. This catalogue follows the catalogue published with additions of faunistic data and new taxa.

MATERIAL AND METHODS

The type material is deposited in the following institutional collections:

- AMNH American Museum of Natural History, New York, USA
- ANIC Australian National Insects coll., SCIRO Entomology, Canberra, Australia
- BMNH British Museum Natural History [= The Natural History Museum], London, United Kingdom
- BPBM Bernice P. Bishop Museum, Honolulu, Hawaii, U.S.A.
- CMNC Canadian Museum of Nature, Canada
- DSIR Department of Scientific and Industrial Research, Auckland, New Zealand
- GPIH Geologisch-Paläontologisches Institut und Museum der Universität Hamburg, Germany
- HFWC private collection H. Franz, Wien Austria
- MCSN Museo Civico di Storia Naturale „G. Doria“, Genova, Italy
- MHNG Museum d’histoire naturelle, Genève, Switzerland
- MNHN Muséum National d’Histoire Naturelle, Paris, France
- NIGP Nanjing Institute of Geology and Palaeontology, Nanjing, China
- SMTD Staatliche Museum für Tierkunde, Dresden, Germany
- SNUC Shanghai Normal University, Shanghai, China
- ZSIC Zoological Survey of India, Calcutta, India



CATALOGUE

Family Jacobsoniidae Heller, 1926

Jacobsoniidae Heller, 1926: 127.
 Sarothriidae Crowson, 1955: 75.
 Derolathriinae (sic!) Sen Gupta, 1979: 692.

genus *Sarothrias* Grouvelle, 1918

Sarothrias Grouvelle, 1918: 7 - type species: *Sarothrias eximius* Grouvelle, 1918: 8.
Jacobsonium Heller, 1926: 126 - type species: *Jacobsonium dimerum* Heller, 1926: 128.
Jacobsonium: Crowson, 1955: 75 (synonymy).

1. *Sarothrias amabilis* Slipinski et Löbl, 1995

Sarothrias amabilis Slipinski et Löbl, 1995: 49.
 Type locality: Malaysia, Pahang, Tioman Is., Kg. Tekek Umg.
 Type depository: MHNG.
 Sex of type: male.
 Distribution: Malaysia: Pahang Is.

2. *Sarothrias audax* Slipinski et Löbl, 1995

Sarothrias audax Slipinski et Löbl, 1995: 52.
 Type locality: Tanimbar Is., Yamdera Sangliat Krawain.
 Type depository: MHNG.
 Distribution: Indonesia: Tanimbar Is.

3. *Sarothrias bournei* Slipinski, 1986

Sarothrias bournei Slipinski, 1986: 59.
Sarothrias bournei: Löbl & Burckhardt, 1988:10. (redescription)
 Type locality: Neu-Britannien, Pomio.
 Type depository: MHNG.
 Distribution: Papua New Guinea: New Britain Is.

4. *Sarothrias cretaceus* Cai, Slipinski, Leschen, Yin, Zhuo & Huang, 2017

Sarothrias cretaceus Cai, Slipinski, Leschen, Yin, Zhuo & Huang, 2017: 2.
 Type locality: Hukawng Valley, Kachin State of northern Myanmar.
 Type depository: NIGP.
 Distribution: Manmar (fossil: Burmese amber)

5. *Sarothrias crowsoni* Löbl et Burckhardt, 1988

Sarothrias crowsoni Löbl et Burckhardt, 1988: 7.
Type locality: Malaysia, Sabah, Poring Hot Springs.
Type depository: MHNG.
Sex of type: male.
Distribution: Malaysia: Sabah.

6. *Sarothrias dimerus* (Heller, 1926)

Jacobsonium dimerum Heller, 1926: 128.
Sarothrias dimerus: Crowson, 1955:75 (new combination).
Sarothrias dimerus: Löbl et Burckhardt, 1988: 11 (new combination).
Sarothrias dimerus: Burckhardt et Löbl, 1990: 238 (redescription).
Type locality: Indonesia, Sumatra, Monte Singgalang.
Type depository: SMTD.
Distribution: Indonesia: Sumatra Is.

7. *Sarothrias eximius* Grouvelle, 1918

Sarothrias eximius Grouvelle, 1918: 8.
Sarothrias eximius: Löbl et Burckhardt, 1988: 8 (redescription).
Type locality: Seychellen, Silhouette, Wald Mont Pot-a-eau.
Type depository: MNHN.
Distribution: Seychelles Is.

8. *Sarothrias fijianus* Löbl et Burckhardt, 1988

Sarothrias fijianus Löbl et Burckhardt, 1988: 9.
Type locality: Fiji, Viti Levu, Nandarivatu.
Type depository: DSIR.
Sex of type: male.
Distribution: Fiji Is.

9. *Sarothrias hygrophilus* T. K. Pal 1998

Sarothrias hygrophilus T. K. Pal 1998: 3.
Type locality: India, Arunachal Pradesh, Lohit District, Zerogaon, 12 km O-Hayuliang.
Type depository: ZSIC.
Distribution: India: Arunachal Pradesh.

10. *Sarothrias indicus* Dajoz, 1978

Sarothrias indicus Dajoz, 1978: 322.
Sarothrias indicus: Löbl et Burckhardt, 1988: 10 (redescription).
Type locality: India, Madras, Cardamon Hills, 2 km N of Kumily.
Type depository: MHNG.
Distribution: India: Madras.

11. *Sarothrias lawrencei* Löbl et Burckhardt, 1988

Sarothrias lawrencei Löbl et Burckhardt, 1988: 11.
Type locality: Australia, Queensland, Bellenden Ker Range, 1 km S of Cable Tower 6.
Type depository: ANIC.
Sex of type: male.
Distribution: Australia: Queensland.

12. *Sarothrias morokanus* Poggi, 1991

Sarothrias morokanus Poggi, 1991: 677.
Type locality: New Guinea SE, Moroka.
Type depository: MCSN.
Sex of type: female.
Distribution: Papua New Guinea.

13. *Sarothrias pacificus* Slipinski et Löbl, 1995

Sarothrias pacificus Slipinski et Löbl, 1995: 50.
Type locality: New Caledonia, Mt. Koghi.

Type depository: BPBM.
Sex of type: female.
Distribution: New Caledonia.

14. *Sarothrias papuanus* Slipinski, 1986

Sarothrias papuanus Slipinski, 1986: 61.
Sarothrias papuanus: Löbl et Burckhardt, 1988: 16 (redescription).
Type locality: Papua New Guinea, EH province, Onerunka, Kainantu.
Type depository: MHNG.
Sex of type: female.
Distribution: Papua New Guinea.

15. *Sarothrias sinicus* Bi & Chen, 2015

Sarothrias sinicus Bi & Chen, 2015:54
Type locality: China, Wizang, Motuo, 1850 m.
Type depository: SNUC
Sex of type: male.
Distribution: China: Xizang, Yunnan.

16. *Sarothrias songi* Yin & Bi, 2018

Sarothrias songi Yin & Bi, 2018:13
Type locality: China, Hainan, Ledong Co., Jianfengling N.R., Minfeng Valley
Type depository: SNUC
Sex of type: male.
Distribution: China: Hainan.

genus *Saphophagus* Sharp, 1886

Saphophagus Sharp, 1886: 393 - type species: *Saphophagus minutus* Sharp, 1886: 3.

1. *Saphophagus minutus* Sharp, 1886

Saphophagus minutus Sharp, 1886: 394.
Saphophagus minutus: Löbl et Burckhardt, 1988: 16 (redescription).
Type locality: Neuseeland: Picton Helms.
Type depository: BMNH.
Saphophagus ferrugineus Broun, 1893: 1102.
Type locality: Neuseeland, Mount Cook.
Type depository: BMNH.
Distribution: New Zealand.

genus *Derolathrus* Sharp in Sharp & Scott, 1908

Derolathrus Sharp in Sharp & Scott, 1908: 430 - type species: *Derolathrus atomus* Sharp in Sharp & Scott, 1908: 431.

Lathridiomorphus Franz, 1969: 136 - type species: *Lathridiomorphus anophthalmus* Franz, 1969: 137.

Gomya Dajoz, 1973: 1051 - type species: *Gomya insularis* Dajoz, 1973: 1052.

Lathridiomimus (sic!): Dajoz, 1977: 1.

Derolathrus: Löbl et Burckhardt, 1988: 20 (new synonymy).

1. †*Derolathrus abyssus* Yamamoto & Parker, 2017

Derolathrus abyssus Yamamoto & Parker, 2017: 276.
Type locality: Hukawng Valley, Kachin State of northern Myanmar.
Type depository: AMNH.
Distribution: Manmar (fossil: Burmese amber)

2. *Derolathrus anophthalmus* (Franz, 1969)

Lathridiomorphus anophthalmus Franz, 1969: 137.
Derolathrus anophthalmus: Löbl et Burckhardt, 1988: 21 (new combination).
Type locality: Gran Canaria, El Brezal, Moya.
Type depository: HFWC.

Distribution: Canary Is.: Gran Canaria.

3. *Derolathrus atomus* Sharp in Sharp et Scott, 1908

Derolathrus atomus Sharp in Sharp et Scott, 1908: 431.

Derolathrus atomus: Peck, 2010: 5 (distribution).

Type locality: Sandwich Is., Oahu.

Type depository: BMNH.

Distribution: Hawaii Is.: Oahu, Kauai, Molokai, Sandwich; Virgin Is.; Buck Is.; St. Croix Is.

4. *Derolathrus cavernicolus* Peck, 2010

Derolathrus cavernicolus Peck, 2010: 2.

Type locality: USA, Florida, Citrus County, Withlacoochee State forest.

Type depository: CMNC.

Distribution: USA: Alabama, Florida; Hawai Is.: Makapala; Barbados

5. *Derolathrus ceylonicus* (Sen Gupta, 1979)

Gomya ceylonica Sen Gupta, 1979: 696.

Derolathrus ceylonicus: Löbl et Burckhardt, 1988: 21 (new combination).

Type locality: Sri Lanka, North Western, Rajakudaluwa.

Type depository: MHNG.

Distribution: Sri Lanka.

6. †*Derolathrus groehni* Cai, Leschen, Liu & Huang, 2016

Derolathrus groehni Cai, Leschen, Liu & Huang, 2016:2

Type locality: Baltic amber.

Type depository: GPIH.

Distribution: (fossil: Baltic amber)

7. *Derolathrus insularis* (Dajoz, 1973)

Gomya insularis Dajoz, 1973: 1052.

Derolathrus insularis: Löbl et Burckhardt, 1988: 21 (new combination).

Type locality: Mauritius, Triolet.

Type depository: MNHN.

Distribution: Mauritius Is.

8. *Derolathrus parvulus* (Rücker, 1983)

Gomya parvula Rücker, 1983: 685.

Derolathrus parvulus: Löbl et Burckhardt, 1988: 22 (new combination).

Type locality: Madeira, Funchal-Ajuda.

Type depository: MHNG.

Distribution: Portugal: Madeira Is.

9. *Derolathrus sharpi* Grouvelle in Grouvelle & Raffray, 1912

Derolathrus sharpi Grouvelle in Grouvelle & Raffray, 1912: 310.

Derolathrus sharpi: Peck, 2010: 5 (distribution).

Type locality: Guadeloupe.

Type depository: MNHN, BMNH.

Distribution: Guadeloupe Is.; Montserrat; USA: Virgin Is.: St. John Is.

10. *Derolathrus troglophilus* (Sen Gupta, 1979)

Gomya troglophila Sen Gupta, 1979: 694.

Derolathrus troglophilus: Löbl et Burckhardt, 1988: 22 (new combination).

Type locality: Fiji, Viti Levu, Wailotua Cave.

Type depository: MHNG.

Distribution: Fiji Is.

REFERENCES

ARNETT R. H., SAMUELSON G. A. & NISHIDA G. M. 1993: *The Insects and Spider Collections of the World*.
Second Edition. Sandhill Crane press, INC., Gainesville, 308 pp.

- BI W-X., CHEN CH-CH. & LIN M-Y. 2015: First record of Jacobsoniidae (Coleoptera) from China with description of a new species of *Sarothrias* Grouvelle. *Zookeys* 496: 53-60.
- BROUN T. 1893: *Manual of the New Zealand Coleoptera. Parts V-VII*. Government Printing Office, Wellington: 975-1504.
- BOUCHARD P., BOUSQUET Y., DAVIES A. E., ALONSO-ZARAZAGA M. A., LAWRENCE J. F., LYAL CH. H. C., NEWTON A. F., REID CH. A. M., SCHMITT M., SLIPINSKI S. A. & SMITH A. B. T. 2011: Family-group names in Coleoptera (Insecta). *ZooKeys* 88: 1-972.
- BURCKHARDT D. & LÖBL I. 1990: Redescription of *Jacobsonium dimerum* Heller 1926, member of the rare tropical Indo-Australian genus *Sarothrias* Grouvelle 1918 (Coleoptera, Jacobsoniidae). *Tropical Zoology* 3: 237-241.
- CAI CH., LESCHEN R. A., LIU Y. & HUANG D. 2016: First fossil jacobsoniid beetle (Coleoptera): *Derolanthrus groehni* n. sp. from Eocene Baltic amer. *Journal of Paleontology* 90: 1-6.
- CAI CH., SLIPINSKI A., LESCHEN R. A., YIN Z., ZHUO D. & HUANG D. 2017: The first Mesozoic Jaconson's beetle (Coleoptera: Jacobsoniidae) in Cretaceous Burmese amber and biogeographical stasis. *Journal of Systematic Palaentology* 16: 543-550.
- CROWSON R. A. :1955: *The natural classification of the families of Coleoptera*. London, Nathaniel Lloyd & Co., Ltd., 187 pp.
- CROWSON R. A. 1959: Studies on the Dermestioidea (Coleoptera) with special refence to the New Zealand fauna. *Transactions Royal Entomological Society of London* 111: 81-94.
- DAJOZ R. 1973: Coléoptères Lathridiidae de Madagascar et des Mascareignes. *Bulletin du Muséum National d' Histoire Naturelle* 64: 1049-1056.
- DAJOZ R. 1978: Une espèce nouvelle de l'Inde de genre *Sarothrias* Grouvelle (Coleopteres, Sarothriidae). *Bulletin Mensuel Societe Linneenne Lyon* 47: 322-324.
- FRANZ H. 1969: Eine neue Gattung und Art aus der Familie Colydiidae von den Kanarischen Inseln (Coleoptera). *Eos*, Madrid 44: 135-139.
- GROUVELLE A. 1918: Coleoptera of the families Ostomidae, Monotomidae, Colydiidae and Notiophygidae from Seychelles and Aldabra Islands. *Transactions of Entomological Society London* 1918: 1-57.
- GROUVELLE A. & RAFFRAY A. 1912: Supplement a la liste des Coleopteres de la Guadeloupe. *Annales de la Société Entomologique France* 81: 289-312.
- HÁVA J. 2014: Dermestidae, Derodontidae, Jacobsoniidae, Nosodendridae. In: ZAHRADNÍK P. & HÁVA J.: Catalogue of the world genera and subgenera of the superfamilies Derodontoidea and Bostrichoidea (Coleoptera: Derodontiformia, Bostrichiformia). *Zootaxa* 3754: 301-352.
- HÁVA J. & LÖBL I. 2005: A World catalogue of the family Jacobsoniidae (Coleoptera). *Studies and Reports of District Museum Prague-east, Taxonomical Series* 1: 89-94.
- HÁVA J. 2016: Updated world catalogue of the family Jacobsoniidae (Coleoptera: Derodontoidea). *Studies and Reports, Taxonomical Series* 12(2): 345-352.
- HELLER K. M. 1926: Fauna Sumaterensis (Beitrag Nr. 29). Rhysodidae et Familia nova Jacobsoniidae (prope Rhysodidae? Col.). *Supplementa Entomologica* 14: 126-128.
- HELLER K. M. 1927: Fauna sumatrensis (Beitrag Nr. 41). Jacobsoniidae (Col.): *Sarothrias* Grouv. Und *Jacobsonium* Hllr. *Supplementa Entomologica* 15: 111-112.
- HETSCHKO A. 1933: Tretothoracidae, Jacobsoniidae. In: SCHENKLING S. (ed.): *Coleopterorum Catalogus. Vol. IV*. Berlin: W. Junk, 1 page [unnumbered].
- LAWRENCE J. F. & NEWTON A. F. 1995: Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family-group names). pp. 779-1006 + 48 (inedx). In: PAKALUK J. & SLIPINSKI S. A. (eds.): *Biology, Phylogeny, and classification of Coleoptera. Papers Celebrating the 80 Birthday of Roy A. Crowson. Vol. 2*. Muzeum i Instytut Zoologii PAN, Warszawa.
- LAWRENCE J. F., HASTINGS A. M., DALLWITZ M. J., PAINE T. A. & ZURCHER E. J. 1999a: *Beetles of the World: A Key and information system for families and subfamilies*. CD-ROM, Version 1.0 for MS-Windows. CSIRO Publishing, Melbourne.
- LAWRENCE J. F., HASTINGS A. M., DALLWITZ M. J., PAINE T. A. & ZURCHER E. J. 1999b: *Beetle larvae of the World: Descriptions, illustrations, identification and information retrieval for families and subfamilies*. CD-ROM, Version 1.1 for MS-Window. CSIRO Publishing, Melbourne.
- LÖBL I. 2007: Jacobsoniidae p. 362. In: LÖBL I. & SMETANA A. (eds.): *Catalogue of Palaearctic Coleoptera. Volume 4. Elateroidea-Derodontoidea-Bostrichoidea-Lymexyloidea-Cleroidea-Cucujoidea*. Stenstrup: Apollo Books, 935 pp.
- LÖBL I. & BURCKHARDT D. 1988: Revision der Gattung *Sarothrias* mit Bemerkungen zur Familie Jacobsoniidae (Coleoptera). *Stuttgarter Beiträge zur Naturkunde, Ser. A* 422: 1-23.
- PAL T. K. 1998: A new species of *Sarothrias* Grouvelle from Northeast India. *Doriana*, Genova, vol. VII, N. 307, 7 pp.
- PAULIAN R. 1949: Ordre des Coléoptères, deuxième sous-ordre. Haplogastra. In: GRASSÉ P. P. (ed.): *Traité de*

- Zoologie, Paris, 9, 990-1026.
- PECK S. B. 2010: *Derolathrus cavernicolus* n. sp., a beetle family new for North America (Coleoptera: Jacobsoniidae). *Annals of the Entomological Society of America* 103: 1-6.
- POGGI R. 1991: Descrizione di una nuova species Papuana del genere *Sarothrias* Grouvelle. Estratto dagli *Annali del Museo Civico di Storia Naturale "G. Doria"* 88: 677-683.
- RÜCKER H. W. 1983: *Hexasternum* und *Lathrapion*, zwei neue Gattungen und weitere neue Arten der Familie Merophysiidae (Coleoptera). *Revue Suisse de Zoologie* 90: 679-687.
- SEN GUPTA T. 1979: A new subfamily of Merophysiidae (Clavicornis: Coleoptera) and descriptions of two new species of *Gomya* Dajoz and its larva. *Revue Suisse de Zoologie* 86: 691-698.
- SHARP D. 1886: On New Zealand Coleoptera, with descriptions of new genera and species. *Scient. Transactions Royal Dublin Society* 3: 351-452.
- SHARP D. & SCOTT H. 1908: Coleoptera III (various). *Fauna Hawaiiensis*. Cambridge, 3, 367-579.
- SLIPINSKI A. 1986: Description of two new species of *Sarothrias* Grouvelle (Coleoptera, Jacobsoniidae). *Revue Suisse de Zoologie* 93: 59-62.
- SLIPINSKI A. & LÖBL I. 1995: New species of *Sarothrias* (Coleoptera, Jacobsoniidae). *Bulletin de la Société Entomologique Suisse* 68: 49-53.
- YAMAMOTO S., TAKAHASHI Y. & PARKER J. 2017: Evolutionary stasis in enigmatic jacobsoniid beetles. *Gondwana Research* 45: 275-281.
- YIN Z-W. & BI W-X. 2018: New or little known Jacobsoniidae (Coleoptera) from China. *Acta Entomologica Musei Nationalis Pragae* 58(1): 11-16.