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STUDY ON THE GENUS *MERIONOEDA* PASCOE, 1858 (COLEOPTERA: CERAMBYCIDAE, CERAMBYCINAE) FROM HUBEI PROVINCE OF CHINA

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Summary. Totally three species of the genus *Merionoeda* Pascoe, 1858 are recorded from Hubei Province of China. Among of them, *Merionoeda* (*Macromolorchus*) *curtipennis* (Pic, 1922) is newly recorded from China, *Merionoeda* (s. str.) *indica* (Hope, 1831) and *Merionoeda* (s. str.) *jeanvoinei* Pic, 1933 are new for the fauna of Hubei Province, China.

Key words: longhorn beetle, fauna, new record, morphology, male genitalia, Hubei Province, Central China.

П. Ванг, М.-И. Лю, Г.-Л. Хи, В.-К. Ванг. Исследование усачей рода *Merionoeda* Pascoe, 1858 (Coleoptera: Cerambycidae, Cerambycinae) из китайской провинции Хубэй // Дальневосточный энтомолог. 2022. N 455. С. 7-13.

Резюме. Из провинции Хубэй в Китае приводятся три вида рода *Merionoeda* Pascoe, 1858. Из них *Merionoeda* (*Macromolorchus*) *curtipennis* (Pic, 1922) впервые указывается для Китая, а *Merionoeda* (s. str.) *indica* (Hope, 1831) и *Merionoeda* (s. str.) *jeanvoinei* Pic, 1933 являются новыми для фауны провинции Хубэй.

INTRODUCTION

The genus *Merionoeda* Pascoe, 1858 was established based on *Merionoeda puella* Pascoe, 1858. Niisato & Lin (2013) organized the specimens of the genus *Merionoeda* from the Institute of Zoology, Chinese Academy of Sciences, Beijing, and it turned out that there are a total of 20 species/subspecies recorded in China. Up to now, the genus *Merionoeda* comprises 124 species/subspecies of three subgenera, 21 of which are known from China. However, none of them are recorded in Hubei Province (Niisato & Lin, 2013; Chen *et al*., 2019; Tavakilian & Chevillotte, 2021).

In the past several years, the authors had several survey trips in Hubei province of China, especially in Houhe National Nature Reserve and Shennongjia Forestry District. Many interesting specimens were collected during the survey activities. Among them, some specimens belong to the genus *Merionoeda*.

In this study, *Merionoeda* (*Macromolorchus*) *curtipennis* (Pic, 1922) is recorded from China (Hubei Province) for the first time, *Merionoeda* (*Merionoeda*) *indica* (Hope, 1831) and *Merionoeda* (*Merionoeda*) *jeanvoinei* Pic, 1933 are newly recorded from Hubei Province, China. The redescription and the male genital description of *M. curtipennis* are given based on the Chinese specimens; the photographs of these three species are also presented.

MATERIAL AND METHODS

All habitus photographs were taken with a Canon 7D Mark II digital camera equipped with a Canon EF 100mm f/2.8L IS USM and genitalia images were taken with a Leica DFC450 digital camera mounted on a Leica M205A microscope. Images of genitalia were taken by keeping them in glycerin. All images were edited using Adobe Photoshop 2020. The genitalia were prepared by first soaking the whole beetle in boiling water for several minutes, then opening the abdomen from the abdominal apex along the dorsopleural margin. The genitalia were then removed with fine forceps and ophthalmic scissors, and later cleared in 10% KOH at 80–100ºC for several minutes.

NEW RECORDS

***Merionoeda* (*Macromolorchus*) *curtipennis* (Pic, 1922)**
Figs 1, 2, 5–11, 13–16

Macromolorchus curtipennis Pic, 1922: 28; Hayashi, 1979: 71.
Merionoeda (*Macromolorchus*) *curtipennis*: Gressitt & Rondon, 1970: 116.

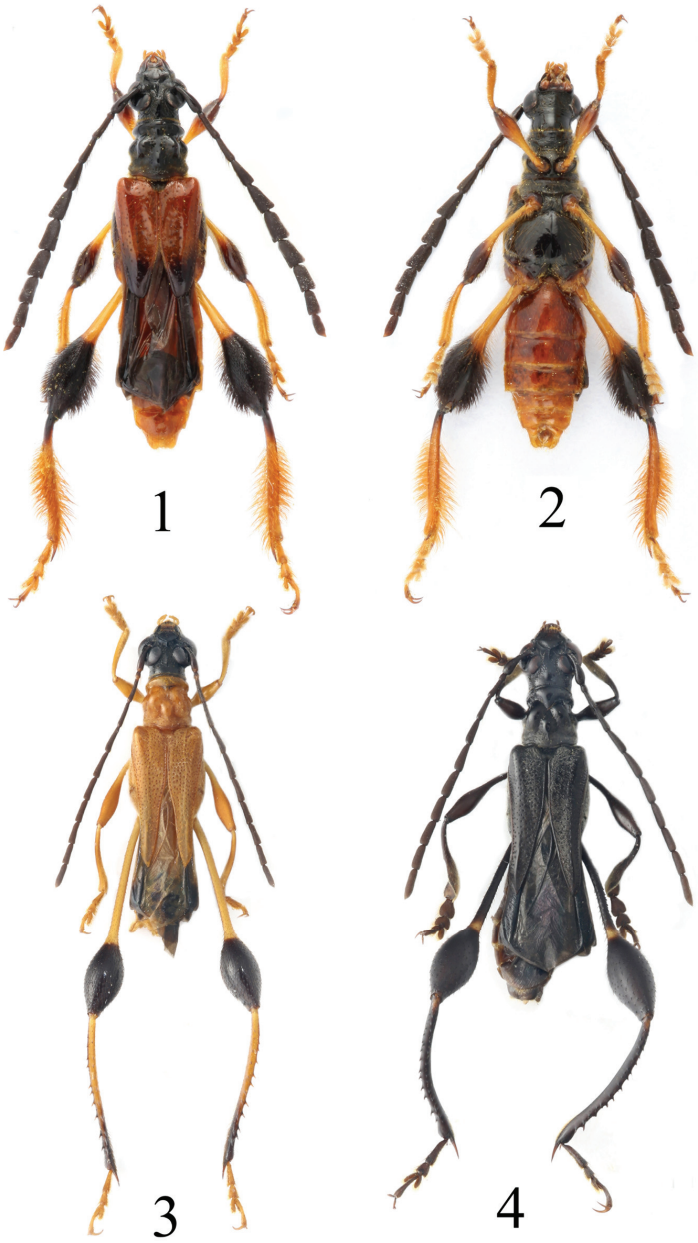
MATERIAL EXAMINED. China: Hubei, Shennongjia Forestry District, Dongxi village, 31°35′18″ N, 110°07′53″ E, alt. 621 m, 01.VII 2018, 6 ♂, coll. by Xinyue Wang and Ping Wang.

REDESCRIPTION. Male (Figs 1, 2). Body length: 10.68–14.05 mm (measured from apical margin of clypeus to abdominal apices), humeral width: 2.32–3.40 mm.

Body dark reddish brown. Head black except for mandibles dark reddish brown with black apex, maxillary and labial palpi light yellow. Antennae dark brown to blackish brown, antennomere XI blackish brown except for apical light yellow. Pronotum blackish brown. Elytra reddish yellow or yellow with blackish brown or black apex, or elytra uniform black reddish brown. Ventral surface reddish brown to blackish brown, blackish brown in prosternum excluding metacoxa and metacoxal cavity reddish brown; abdominal ventrites light reddish brown, lighter in distal two ventrites. Legs light yellow, extreme base of pro- and mesotibiae and base of metatibiae blackish brown; femoral clubs reddish brown to blackish brown.

Body thinly clothed with short yellow pubescence; pronotum sparsely clothed with light yellow pubescence, slightly denser near basal margin. First five or six antennomeres fringed with suberect yellowish brown setae ventrally. Ventral surface with sparse light yellow pubescence. Legs moderately clothed with suberect light yellow pubescence, metafemoral clubs densely furnished with longer and denser suberect blackish brown pubescence, metatibiae with a tuft of long yellow bristles, the length of bristles about 0.80 times as long as metatibiae.

Head with frons short, transverse, with an obvious longitudinal median sulcus; frons densely, coarsely punctured, lateral sides moderately concave. Eyes coarsely faceted and deeply emarginate; gena extremely short, distinctly shorter than lower eye lobe. Antennae shorter than body, about 0.72–0.80 times as long as body; scape slightly arched, weakly thickened apically, sparsely, finely punctured; scape slightly longer than antennomere III, antennomeres III–V nearly equal in length, antennomeres VI–X gradually decreasing in length, antennomere XI sharply pointed apically; antennomeres V–IX obviously expanded apically.



Figs 1–4. Habitus of *Merionoeda* spp. males. 1, 2 – *M. curtipennis* (Pic, 1922); 3 – *M. jeanvoinei* Pic, 1933; 4 – *M. indica* (Hope, 1831); 1, 3, 4 – dorsal view; 2 – ventral view.

Pronotum subequal in length and basal width, about 1.13 times as long as apical width, transversely swollen just behind apex, lateral tubercles situated at middle, rounded apically; disc with three distinct callosities, of which the postmedian one relatively small, elongate drop-shaped, and one on each side of the middle, semi-elliptical; disc with a few coarse punctures in parts of depressed areas, glabrous on callosities.

Scutellum trapezoidal, shallowly emarginate at apex.

Elytra about 1.45–1.58 times as long as humeral width, exposing the sides of metathorax; sides weakly projected at humeri, almost straightly narrowed to acutely rounded apices; suture strongly arcuately dehiscent from near middle; disc almost flattened, sparsely provided with medium-sized punctures, though punctures becoming shallower near scutellum and apical part.

Figs 5–11. Male genitalia of *Merionoeda curtipennis* (Pic, 1922). 5, 6 – tergite VIII with sternites VIII and IX; 7, 8 – tegmen; 9–11 – median lobe; 5, 7, 9 – ventral view; 6, 8, 10 – dorsal view; 11 – lateral view. Scale bar: 0.5 mm.

Ventral surface sparsely, finely punctured. Abdomen with first ventrite longest, shorter than following two segments combined, ventrite V shortest and arcuate at apical margin; anal ventrite concave at middle of apical margin.

Legs long and slender, metafemur strongly swollen; metatibia nearly straight, with a pair of long ventral apical teeth; first metatarsal segment slightly shorter than following two segments combined; claws divergent.

Male genitalia (Figs 5–11). Median lobe spindle shaped, moderately curved, distinctly longer than tegmen; median struts about half length of median lobe. Tegmen with unilobed paramere, almost straight line to apical sixth, then arcuate narrowed to apices, slightly concave in middle, length 1.19 times as long as wide, with sparse and medium sized setae; ring part with a stubby stem at each apical corner. Tergite VIII nearly transverse, deeply emarginate at middle of apical margin; length 1.67 times as long as wide, with sparse and medium sized setae. Sternites VIII deeply emarginate at middle of apical margin, with sparse and medium sized setae on the inner side of each apical corner.

DISTRIBUTION. Vietnam, China: Hubei (new country record).

HABITAT. Specimens were collected on *Castanea mollissima* Bl. in Shennongjia Forestry District, Hubei, China.

Figs 12, 13. Alive specimens of *Merionoeda* from Hubei Province. 12 – *M. jeanvoinei* Pic, 1933; 13 – *M. curtipennis* (Pic, 1922).

***Merionoeda* (*Merionoeda*) *indica* (Hope, 1831)**
Fig. 4

Molorchus indicus Hope, 1831: 28.
Heliomanes indicus: White, 1855: 181.
Merionoeda indica: Gahan, 1906: 171; Heller, 1924: 33; Weigel, 2006: 499; Niisato & Yokoi, 2008: 158.
Merionoeda (*Merionoeda*) *indica*: Löbl & Smetana, 2010: 204; Niisato & Lin, 2013: 74, 81; Chen *et al.*, 206.

MATERIAL EXAMINED. China: Hubei, Shennongjia Forestry District, Xiaguping, Jinjiaping village, 31°21′35″ N, 110°14′46″ E, alt. 949 m, 21.VI 2018, 1 ♂, coll. by Lei Li and Ping Wang; Shennongjia Forestry District, Dongxi village, 31°35′18″ N, 110°07′53″ E, alt. 621 m, 30.VI 2019, 3 ♂, 2 ♀, coll. by Xinyue Wang and Ping Wang; Shennongjia Forestry District, Dajiuhu town, Luoyanghe, 31°34′31″ N, 110°12′11″ E, alt. 680–911 m, 31.V 2019, 5 ♂, 1 ♀, coll. by Xinyue Wang and Ping Wang.

DISTRIBUTION. India, Nepal, Laos, China: Hubei (new province record), Sichuan, Yunnan.

HABITAT. Specimens were collected on *Castanea mollissima* Bl. in Shennongjia Forestry District, Hubei, China.

Figs. 14–16. Holotype of *Merionoeda curtipennis* Pic, 1922, male. 14 – habitus, dorsal view; 15 – habitus, lateral view; 16 – labels. (Photographs taken by Xavier Gouverneur).

***Merionoeda* (*Merionoeda*) *jeanvoinei* Pic, 1933**

Figs 3, 12

Merionoeda (*Merionoeda*) *jeanvoinei* Pic, 1933: 9; Niisato & Lin, 2013: 74, 81; Nga & Long, 2014: 28; Chen *et al.*, 206.

Merionoeda (*Merionoeda*) *jeanvoinei* var. *atricornis* Pic, 1933: 10.

MATERIAL EXAMINED. China: Hubei, Shennongjia Forestry District, Xiaguping, Jinjiaping village, 31°21′35″ N, 110°14′46″ E, alt. 949 m, 21.VI 2018, 1 ♀, coll. by Lei Li and Ping Wang; Shennongjia Forestry District, Muyu town, Maohu Protection station, 31°20′18″ N, 110°27′55″ E, alt. 1400 m, 21.VII 2018, 1 ♀, coll. by Lei Li and Ping Wang; Shennongjia Forestry District, Dajiuhu town, Luoyanghe, 110°12′11″ E, 31°34′31″ N, alt. 680–911 m, 31.V 2019, 2 ♂, coll. by Xinyue Wang and Ping Wang; Shennongjia Forestry District, Dongxi village, 31°35′18″ N, 110°07′53″ E, alt. 621 m, 30.VI 2018, 5 ♂, coll. by Xinyue Wang and Ping Wang.

DISTRIBUTION. Vietnam, Laos, China: Hubei (new province record), Hainan, Guangxi.

HABITAT. Specimens were collected on *Castanea mollissima* Bl. and *Ligustrum lucidum* Ait. in Shennongjia Forestry District, Hubei, China.

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REFERENCES

Pic, M. 1922. Coléoptères exotiques en partie nouveaux (Suite*). L'Échange, Revue Linnéenne*, 38(409): 28.

Pic, M. 1933. Nouveautés diverses. *Mélanges Exotico-Entomologiques*, 61: 3–36.

Chen, L., Liu, Z.P. & Li, Z. 2019. Subfamily Cerambycinae Latreille, 1825. P. 98–216. In: Lin, M.Y., Yang, X.K. (Eds.). *Catalogue of Chinese Coleoptera. Volume 9. Chrysomeloidea. Vesperidae, Disteniidae, Cerambycidae*. Science Press, Beijing.

Gahan, C.J. 1906. *The Fauna of British India, including Ceylon and Burma. Coleoptera. – Vol. I. (Cerambycidae)*. London, C.T. Bingham. xviii + 329 pp., 107 figs.

Gressitt, J.L. & Rondon, J.A. 1970. Cerambycids of Laos (Disteniidae, Prioninae, Philinae, Aseminae, Lepturinae, Cerambycinae). *Pacific Insects*, 24: 1–314.

Hayashi, M. 1979. Study on Cerambycidae from West Malaysia (Col.) Part II. *Bulletin of the Osaka Jonan Women's Junior College*, 13: 51–87.

Heller, K. M. 1924. Bestimmungsschlüssel außereuropäischer Käfer. Cerambicidae, Molorchini: genera *Epania* und *Merionoeda*. *Entomologische Blätter*, 20(1): 26–34.

Hope, F.W. 1831. Synopsis of the new species of Nepaul Insects in the collection of Major General Hardwicke. *Gray's Zoologica Miscellanea*, 1: 21–32.

Löbl. I. & Smetana, A. (Eds). 2010. *Catalogue of Palaearctic Coleoptera. Volume 6: Chrysomeloidea*. Apollo books, Stenstrup. 924 pp.

Nga, C.T. & Long, K.D. 2014. A preliminary list of the subfamily Cerambycinae (Coleoptera: Cerambycidae) of Vietnam. *Academia Journal of Biology*, 36(1): 12–38.

Niisato, T. & Lin, M.Y. 2013. Collection list of the genus *Merionoeda* (Coleoptera: Cerambycidae: Cerambycinae: Stenopterini) preserved in the Institute of Zoology, Chinese Academy of Sciences, Beijing. P. 69–83. In: Lin, M.Y. Chen, C.C. (Eds). *In memory of Mr. Wenhsin Lin*. Formosa Ecological Company, Taiwan.

Niisato, T. & Yokoi, Y. 2008. New Records of *Merionoeda indica* (Coleoptera, Cerambycidae). *Elytra, Tokyo*, 36(1): 158.

Tavakilian, J. & Chevillotte, H. 2021. *Base de données Titan sur les Cerambycidés ou Longicornes, Online*. Available from: http://titan.gbif.fr/sel_genre2.php (accessed 30 October 2021).

Weigel, A. 2006. Checklist and Bibliography of Longhorn Beetles from Nepal (Insecta: Coleoptera: Cerambycidae). In: Matthias, H., Weipert, J. (Eds). *Biodiversität und Naturausstattung im Himalaya II. Verein der Freunde und Förderer des Naturkundemuseums Erfurt* eV: 495–510.

White, A. 1855. *Longicornia II. Catalogue of the Coleopterous Insects in the collection of the British Museum*, London, 8: 175–412, pls. 5–10.