

Two new Prioninae (Coleoptera, Cerambycidae) genera from China

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Abstract: Two new genera are described: *Unilaprionus* **gen. nov.** - type species: *Prionus unilamellatus* Pu, 1987 and *Plumiprionus* **gen. nov.** - type species: *Prionus boppei* Lameere, 1912. Males and females of *Unilaprionus unilamellatus* (Pu, 1987) **comb. nov.**, *Plumiprionus boppei* (Lameere, 1912) **comb. nov.** and *Plumiprionus plumicornis* (Pu, 1987) **comb. nov.** are figured.

The system of Prioninae genera of China fauna is not studied completely up to now. A publication of Cerambycidae type specimens deposited in National Zoological Museum of China (Lin, 2015) shows that poorly known *Prionus unilamellatus* Pu, 1987 and *P. plumicornis* Pu, 1987 have no connection with genus *Prionus* Geoffroy, 1762 and in reality belong to new genera described below. Besides *P. boppei* Lameere, 1912 must be placed in one genus with *P. plumicornis* Pu, 1987. All studied materials are deposited in IZAS = Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

Unilaprionus **gen. nov.**

Figs 1-10

Prionus, Hua, 2002: 226, part.; Drumont & Komiya, 2006: 2, part.; 2010: 93, part.; Li et al., 2014: 91, part.

Type species. *Prionus unilamellatus* Pu, 1987.

Etymology. The generic name is composed of Unila- (referring to the antennae with lamellae in one side) and *Prionus* (the type genus of the subfamily Prioninae). Gender masculine.

Males: big brown beetles; frons transverse, deeply concave, eyes

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big, finely granulated, strongly emarginated; the distance between dorsal eye lobes smaller than width of 1st antennal joint; temples narrow, narrower than eyes, parallelsided; genae very short, about as wide as width of apical joint of maxillary palpi, palpi light brown, slightly longer than mandibles; apical palpal joints elongated, considerably widened distally.

Antennae long, scarcely shorter than body, 13-jointed; 1st joint thick, coarsely, densely granulated, about 1.5 times as long as wide; 2nd joint transverse, 1.5 times as wide as long; 3rd joint is the longest, about twice length of 1st, basal parts of 4th and 5th joints about as long as 1st joint; further distal joints shorter; 3rd joint with rasp-shaped surface, its outer angle attenuated in a short sharpened plate; joints 4-12 with short flat lamellae, each lamella slightly longer than basal part of corresponding joint; cuticula of 4th-5th joints granulated, big granules sharpened; cuticula of further distal joints striated.

Prothorax transverse, its basal width about 2 times of its length; anterior and middle lateral thoracic spines long and narrow, middle spine much longer than anterior; posterior thoracic angles triangularly attenuated, without distinct spines; pronotum strongly depressed, its anterior and posterior borders banded and raised; anterior border straight, convex at middle; posterior border triangularly projected; pronotal surface covered by long erect setae, with irregular dense coarse punctation and 4 low tubercles, with short central ridge, which transformed posteriorly in a short furrow; ventral thoracic process convex, slightly widened distally; scutellum round, about as long as wide.

Elytra about 2.1 times as long as basal width, lusterless, with very fine sculpture, widest near middle, gradually attenuated behind middle, rounded along outer apical margin, with short distinct spines at internal angles; elytral costae hardly pronounced; metepisternum and metasternum with long erect dense setae.

Legs long and thin; tarsi narrow; 1st tarsal joint about as long as 2nd and 3rd combined and subequal in length to apical joint; lobes of 3rd joints angulated but not attenuated in spines; 1st-3rd joints with well developed wide pads, totally covering ventral surfaces; each pad with distinct shining central line.

Abdomen shining, partly covered with long pubescence; erect

setae of first visible abdominal segment rather dense; setae of 2nd segment are concentrated near middle and diminished laterally; pubescence of other segments rather sparse and short; last sternite deeply emarginated; pygidium and postpygidium with very small emarginations.

Female: large-sized black beetle; frons transverse, deeply concave, eyes smaller, finely granulated, slightly emarginated; the distance between dorsal eye lobes bigger than width of 1st antennal joint; temples narrow, narrower than eyes, less converging posteriorly; genae very short, about as wide as width of apical joint of maxillary palpi; palpi brown, longer than mandibles; apical palpal joints elongated, not dilated apically.

Antennae short, not reaching elytral middle, 13-jointed; 1st joint thick, with small sparse irregular punctation, about 2 times longer than wide; 2nd joint transverse, about 1.5 times as wide as long; 3rd joint is the longest, about 1.5 times as long as 1st, without process, but slightly angulated apically; basal parts of 4th and 5th joints about as long as 1st joint; further distal joints shorter; joints 4-12 with short flat lamellae, each lamella shorter than basal part of corresponding joint, except joints 9-11 with lamellae subequal to basal part of corresponding joint; cuticula of 4th-5th joints granulated; cuticula of further distal joints striated.

Prothorax transverse, its basal width about 2 times of the length; three lateral thoracic spines are well developed; middle spine much longer than anterior and posterior spines; pronotum strongly depressed, its anterior and posterior borders banded and raised; anterior border straight, convex at middle; posterior border triangularly projected; pronotal surface covered by long erect setae, with irregular dense coarse punctation and 4 low tubercles, with short central ridge, which transformed posteriorly in a short furrow; ventral thoracic process convex, slightly widened distally; scutellum round, about as long as wide..

Elytra about 2.5 times as long as basal width, with very fine sculpture, widest near middle, gradually attenuated behind middle, rounded along outer apical margin, with short distinct spines at internal angles; elytral costae hardly pronounced; metepisternum and metasternum with long erect but sparse setae; wings well developed.

Legs long and thin; tarsi narrow; 1st tarsal joint about as long

as 2nd and 3rd combined and subequal in length to apical joint; lobes of 3rd joints angulated but not attenuated in spines; 1st-3rd joints with well developed wide pads, totally covering ventral surfaces; each pad with distinct shining central line.

Abdomen shining, partly covered with long pubescence; erect setae of first visible abdominal segment rather dense; setae of 2nd segment are concentrated near middle and diminished laterally; pubescence of other segments rather sparse and short; last sternite deeply emarginated; pygidium and postpygidium with very small emarginations.

Discussion. The genus seems to be similar to *Lobarthron* Semenov, 1900 by formal characters: antennal joints are not numerous (12 in *Lobarthron*), most of joints with flat lamellae (3rd-11th in *Lobarthron*); anterior and middle thoracic spines well developed (sometimes poorly developed in *Lobarthron*), metathorax with long, dense setae; but in fact two genera are not relatives because: in *Lobarthron* basal parts of antennal joints are relatively shorter, and lamellae are relatively longer; pronotum is strongly convex, glabrous, shining; lobes of tarsi joints attenuated in spines; pads of tarsi joints narrow, with wide shining line along middle of each joint; wings in females are partly reduced.

Pogonarthron (s. str.) Semenov, 1900 also has most of antennal joints with a single long lamellae each, but in *Pogonarthron* antennal joints are numerous, from 20 to 26 joints in each antenna; anterior lateral thoracic spines reduced, pronotum convex, tarsi joints with spined lobes.

Only the type species is combined in this genus:

***Unilaprius unilamellatus* (Pu, 1987) comb. nov.**

Prionus unilamellatus Pu, 1987: 90, 96, figs. 1A-B.

Materials examined. Holotype, male (body length: 28 mm, width (at elytral middle) 12 mm), Xizang (Tibet), Namulin (Namling), Tubujia, 3800 m, 1983.VII.5, Xu-Qiang Lei & Ciduo, IOZ(E) 217638.

1 female (body length: 52 mm, width (at elytral middle) 22 mm), Xizang, Jiacha, 1984.VI.13, Qusang; 1 male (body length:

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41 mm, width (at elytral middle) 17 mm), Xizang, Jiacha, 1984.VI.14, Qusang, Zhandou by light trap; 1 male (body length: 36.5 mm, width (at elytral middle) 15 mm), same data to holotype but 1983.VII.20, no. 0170; 1 male (body length: 44 mm, width (at elytral middle) 18 mm), Xizang, Langxian, 1981.VII.5, Tai-Lu Chen; 1 male (body length: 38 mm, width (at elytral middle) 16 mm), Xizang, Tongmenxian, Tamaqu, 1983.VI.28, Bale; 1 male (body length: 42 mm, width (at elytral middle) 17 mm), Xietongmen, Tama, 1983.VI.28, Zhao-Xing Yan, Luosang & Basang; 1 male (body length: 46 mm, width (at elytral middle) 20 mm), Xizang, Bayi, No. 295; 1 male (body length: 37mm, width (at elytral base) 14mm), Xizang, Gongbujiada, 1980.VI.16, De-Niu Chen.

Distribution. China (Xizang).

***Plumiprionus* gen. nov.**

Figs 11-18

Prionus, Lameere, 1912: 185, part.; 1913: 71, part.; Gressitt, 1951: 18, 24, part.; Hua, 2002: 226, part.; Drumont & Komiya, 2006: 2, part.; 2010: 93, part.; Hua et al., 2009: 266, part.; Li et al., 2014: 91, part.

Type species. *Prionus boppei* Lameere, 1912

Etymology. The generic name is composed of Plumi- (referring to the antennae with 23 joints and with lamellae in two sides so that look like plume) and *Prionus* (the type genus of the subfamily Prioninae). Gender masculine.

Males: small dark brown beetles; frons strongly transverse, deeply concave, eyes big, finely granulated, strongly emarginated; the distance between dorsal eye lobes very short, much smaller than width of 1st antennal joint; temples narrow, narrower than eyes, strongly converging posteriorly; genae very short, about as wide as width of apical joint of maxillary palpi; palpi light brown, slightly longer than mandibles; apical palpal joints elongated, apical joint of maxillary palpi widened distally, apical joint of labial palpi parallelsided.

Antennae long, but distinctly shorter than body, reaching apical elytral 5th, 23-jointed; 1st joint moderately thick, about 1.6 times longer than wide, smooth, with small sparse irregular punctation; 2nd joint transverse, about 2 times wider than long;

3rd joint is the longest, about 1.3 times longer than 1st, with 2 apical processes, dorsal process as a triangular appendage, ventral process as a plane lamella; dorsal basal part of 3rd joint smooth with small irregular sparse punctation, apical third of 3rd joint with very small dense punctation as well as basal parts of all other joints; 4th-22nd joints short, with two narrow apical lamellae each; lamellae of central joints about 2 times longer than basal part of joint; 23rd joint bilobated.

Prothorax transverse, its basal width about 2 times of the length; only middle lateral thoracic spines are well developed; anterior thoracic angles triangularly sharpened, posterior angles rounded; pronotum convex, glabrous, smooth and shining, with small irregular sparse punctation; its anterior and posterior borders banded; anterior border almost straight; posterior border roundly projected; ventral thoracic process convex, narrow; scutellum round, about as long as wide.

Elytra about 2.0 times as long as basal width, widened at middle, slightly shining, with very fine punctation and microsculpture, apically rounded; elytral costae hardly pronounced; metepisternum and metasternum with long erect dense setae.

Legs long and thin; tarsi narrow; 1st tarsal joint about as long as 2nd and 3rd combined and subequal in length to apical joint; lobes of 3rd joints angulated but not attenuated in spines; 1st-3rd joints with well developed wide pads, totally covering ventral surfaces; pads of middle and hind tarsi with poorly developed shining central lines.

Abdomen shining, totally glabrous; last sternite deeply emarginated with several short sparse setae concentrated along its posterior border; pygidium and postpygidium with shallow round emarginations.

Females: middle-sized black beetles; frons strongly transverse, deeply concave, eyes smaller, finely granulated, slightly emarginated; the distance between dorsal eye lobes bigger, about 2 times of width of 1st antennal joint; temples narrow, narrower than eyes, less converging posteriorly; genae very short, about as wide as width of apical joint of maxillary palpi; palpi brown, slightly longer than mandibles; apical palpal joints elongated, not dilated apically.

Antennae short, hardly reaching elytral middle, 23-jointed; 1st joint moderately thick, about 2 times as long as wide, distinctly

curved, smooth, with small sparse irregular punctation; 2nd joint transverse, about 1.5 times as wide as long; 3rd joint is the longest, about as long as 1st, without process, but slightly angulated apically as well as 4th-6th joints; joints 7-22 with short plane bilobed rounded processes; all joints with sparse punctation, 23rd joint oval, elongated.

Prothorax transverse, its length about 2 times shorter, than basal width; only middle lateral thoracic spines are well developed; anterior thoracic angles triangularly sharpened, posterior angles rounded; pronotum convex, glabrous, smooth and shining, with fine irregular sparse punctation; its anterior and posterior borders banded; anterior border about straight, with very small central emargination; posterior border slightly roundly projected; ventral thoracic process convex, narrow, widened distally; scutellum round, about as long as wide.

Elytra about 2.0 times as long as basal width, widened at middle, slightly shining, with very fine punctation and microsculpture, apically rounded; elytral costae hardly pronounced; metepisternum and metasternum glabrous shining; wings well developed.

Legs long and thin; tarsi narrow; 1st tarsal joint about as long as apical, 2nd and 3rd combined a little shorter; lobes of 3rd joints slightly angulated, nearly rounded; 1st - 3rd joints with well developed wide pads, totally covering ventral surfaces; pads of middle and hind tarsi with poorly developed shining central lines.

Abdomen shining, totally glabrous; last sternite and tergite rounded.

Discussion. The genus seems to be similar to *Pogonarthron* (*Multicladum* Danilevsky in Danilevsky & Komiya, 2014) by formal male characters - females of *P. (Multicladum)* are unknown: antennal joints in *Pogonarthron* are also numerous - 22-25 in *P. (Multicladum)*, most of antennal joints in *P. (Multicladum)* with bilobed lamellae - from 5th to the apex, but apical joint here with several lamellae; anterior and posterior thoracic angles in *Pogonarthron* without spines, metathorax with long, dense setae; but in fact two genera are not relatives because: pronotum in *Pogonarthron* never shining, with coarse sculpture and densely pubescent; 3rd and 4th antennal joints in *P. (Multicladum)* without lamellae; lobes of tarsi joints in *Pogonarthron* with long spines; pads

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of tarsi joints in *Pogonarthron* very narrow, with wide shining line along middle of each joint, females of *P. (Multicladum)* must be with reduced wings.

Two species are combined in this genus:

***Plumiprionus boppei* (Lameere, 1912) comb. nov.**

Figs 11-16

Prionus boppei Lameere, 1912: 195.

Materials examined. 1 male (body length: 24mm, width (at elytral middle) 9 mm) China, Yunnan Prov., Longling Co, Xiaoheishan, NankangYakou, 24.83124°N, 98.76843°E, 2210 m, 2005.V.23 day, Liang H.B.; 1 male (body length: 26 mm, width (at elytral middle) 11mm), Yunnan, Baoshanshi, Longyangqu, Gaoligongshan, Nankangbaohuzhan, 2010.V.22-28, 2156 m, 24°49'N, 98°46'E, Wei-Wei Zhang; 2 females (body length: 30-32 mm, width (at elytral middle) 11-12.5 mm), with 3 labels: China, Yunnan Prov., Longling Co, Longjiang, Xiaoheishan, tree & log, 2120 m, 24.83696°N, 98.75735°E, 2005.V.27 day, Liang H.B. Yang J.L.

Distribution. China (Yunnan, Xizang).

***Plumiprionus plumicornis* (Pu, 1987) comb. nov.**

Figs 17-18

Prionus plumicornis Pu, 1987: 90, 97, figs. 2A-B.

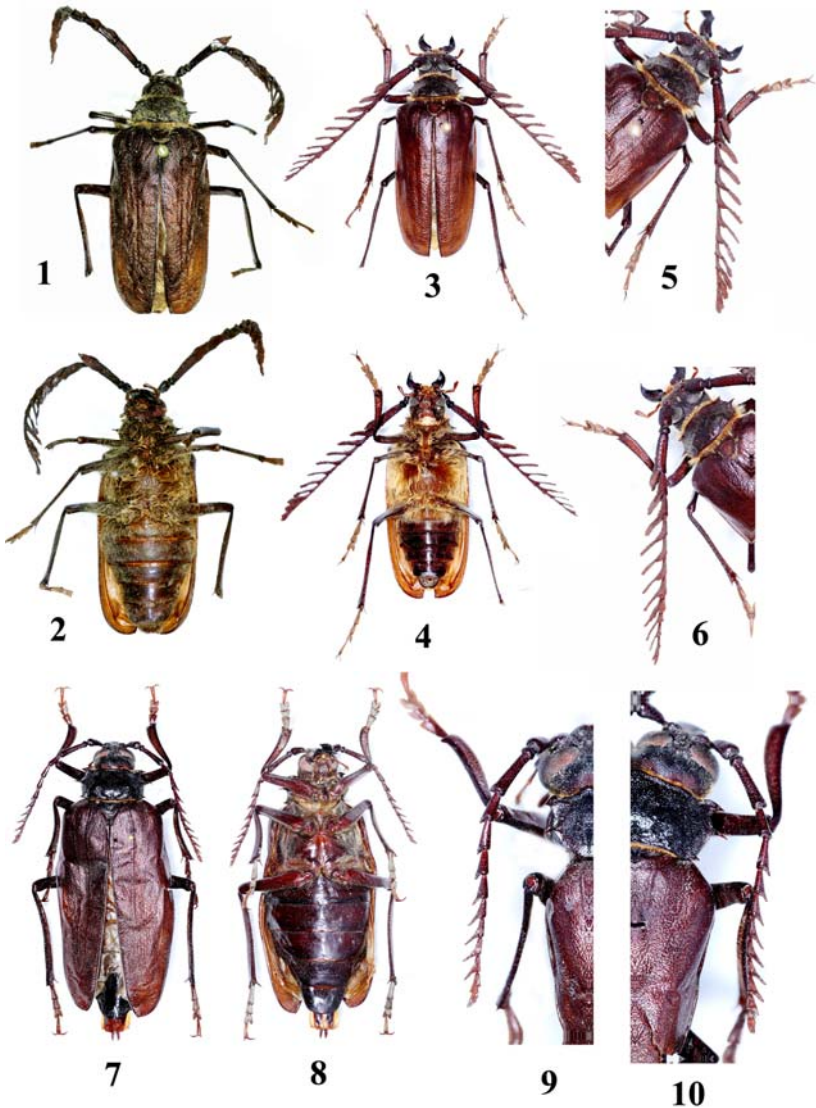
Materials examined. Holotype, male (body length: 29 mm, width (at elytral middle) 13 mm), Xizang (Tibet), Baxiu (Baxoi County = Baxo in Pu, 1987), Baima, 3400 m, 1984.VI.26, Jiangba, IOZ(E) 217636; paratype, 1 male (body length: 28 mm, width (at elytral middle) 11.3 mm), same data but 1984.VI.21, IOZ(E) 217637.

Distribution. China (Xizang).

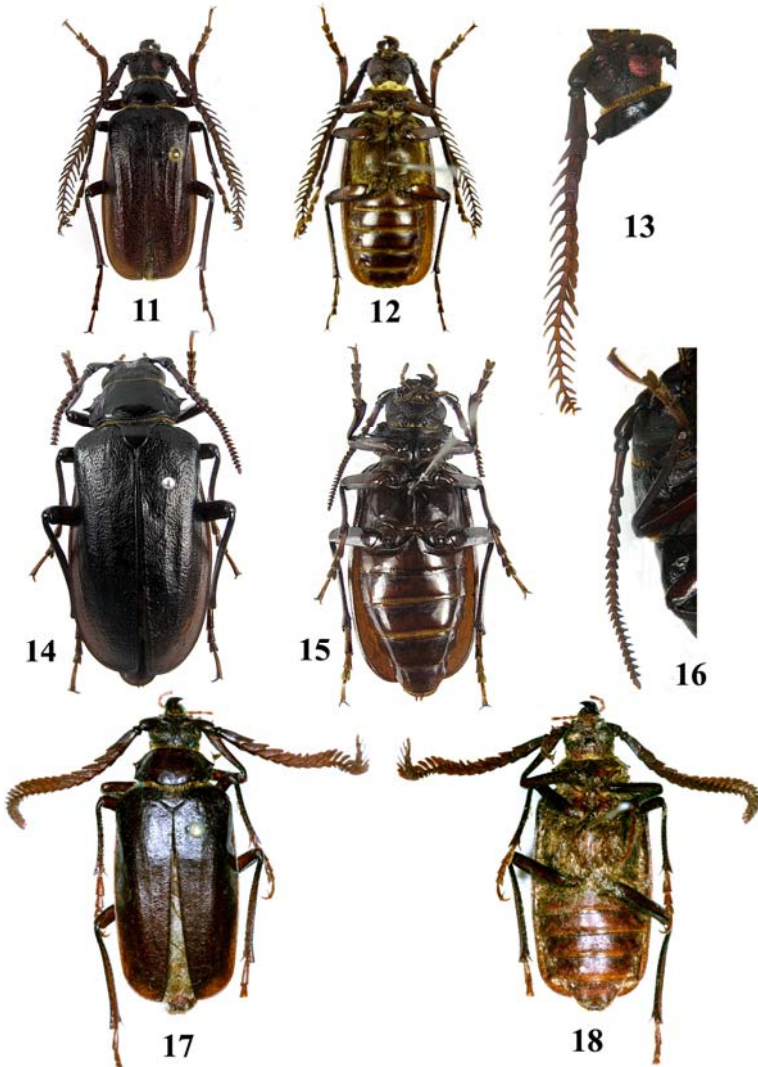
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Figs 1-10. *Unilaprinus unilamellatus* (Pu, 1987). 1 - holotype-male of *Prionus unilamellatus* Pu, 1987 dorsal view; 2 - same, ventral view; 3 - male, Xizang, Nanmulin, Tubujia, 1983.VII.20, dorsal view; 4 - same, ventral view; 5 - same, right antenna; 6 - same, left antenna; 7- female, Xizang, Jiacha, 1984.VI.13, dorsal view; 8 - same, ventral view; 9 - same, left antenna; 10 - same, right antenna.



Figs 11-16. *Plumiprionus boppei* (Lameere, 1912). 11 - male, Yunnan Prov., Longling Co, Xiaoheishan, NankangYakou, dorsal view; 12 - same, ventral view; 13 - same, left antenna; 14 - female, Yunnan Prov., Longling Co, Longjiang, Xiaoheishan, dorsal view; 15 - same, ventral view; 16 - same, right antenna.

Figs 17-18. *Plumiprionus plumicornis* (Pu, 1987). Holotype, male. 17 - dorsal view; 18 - ventral view.

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