



Description of a new species of the genus *Prionus* Geoffroy, 1762 from northern Vietnam (Coleoptera: Cerambycidae: Prioninae)

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ABSTRACT

Prionus sontinh new species, from Lai Chau, Lao Cai and Yen Bai provinces in northern Vietnam, is described and illustrated. The new species is compared with its closest taxa in the genus *Prionus*.
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Introduction

Prionus Geoffroy, 1762 is a genus of the subfamily Prioninae, tribe Prionini. As discussed in taxonomic history of the genus by Santos-Silva et al. (2016), *Prionus* was described by Geoffroy in 1762 to allocate a single specimen from Paris, France. But his work was rejected by International Commission on Zoological Nomenclature (ICZN) in 1954 because *Prionus* was not a binominal name of a species. Later the same commission (ICZN) in 1994, (Opinion 1754) considered *Prionus* as by Geoffroy (1762), and *Cerambyx coriarius* Linnaeus, 1758 its type species. The known members of *Prionus* now are widespread in Europe, Asia and North America.

After studying specimens of the genus *Prionus* collected in Lai Chau, Lao Cai and Yen Bai, provinces in northern Vietnam, we found that they belong to a new species of the subgenus *Prionus* (*prionus*).

Prionus sontinh new species

Material examined. Holotype

♂ Tam Duong, Lai Chau Province, Vietnam, June 2016, leg. Cuong Do, deposited in Royal Belgian Institute of Natural Sciences, I.G.: 33.477 (RBINS, Brussels, Belgium). Allotype 1 ♀, same data as holotype deposited in Cuong Do Collection (Hanoi, Vietnam). Paratypes: 1 ♂, same data as holotype, deposited in Vietnam National Museum of Nature (Hanoi, Vietnam), 15 ♂♂, same data as holotype deposited in Cuong Do Collection (Hanoi, Vietnam); 5 ♂♂, same data as holotype

deposited in Alain Drumont Collection (Brussels, Belgium); 1 ♂, same data as holotype deposited in Norbert Delahaye Collection (Plaisir, France); 1 ♂, Van Chan, Yen Bai province, July 2014, leg. Nguyen Quang in Alain Drumont Collection (Belgium, Brussels).; 2 ♂♂, 1 ♀, Lao Cai Province, Sa Pa, V.2015, in Ziro Komiya Collection (Tokyo, Japan).

Etymology

The species name is taken from the name of the god Son Tinh, who appears in Vietnamese mythology. He protects Vietnamese people from Thuy Tinh, a water god who lives in Da River. This river flows through Vietnam from north-west direction to the sea and runs along the Hoang Lien Mountains Range, where the type locality of *Prionus sontinh* is located. Thuy Tinh battles with Son Tinh every year by inflicting northern Vietnam with tremendous rain which threatens to flood the local villages. Son Tinh uses his power to help these villages by raising the mountains, lands and keeping them from sinking under water.

Description. Male (based on Holotype, Figs. 1–5)

Body moderately small, stout, dark brown to black, dorsoventrally flattened.

Head shorter than wide, remarkably punctured at apical half; jugular process short, triangularly pointed apically. Eyes small, narrow, separated distantly; distance between upper eye lobes about half width of head; distance between lower eye lobes 3/4 of width of head. Labrum

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Fig. 1. ♂ *Prionus sontinh* sp. nov., holotype: dorsal view.



Fig. 2. ♂ *Prionus sontinh* sp. nov., holotype: lateral view.



Fig. 3. ♂ *Prionus sontinh* sp. nov., holotype: ventral view.

covered with long setae. Mandibles punctate, robust, acute at apex, slightly bent inwards, with external surface rather strongly bent (curved) at middle, furnished with distinct but not acute inner tooth and with obtuse dorsal carina. Antennae short, about two thirds of body length, with 12 segments. Scape short, robust, narrow basally, strongly expanded to apex, bent inward just after base. Segment II about one third as long as the scape. Segment III with about length of segments I



Fig. 4. ♂ *Prionus sontinh* sp. nov., holotype: tegmen.

and II combined, dorsoventrally flattened, narrow at base, expanded apically. Segment IV about two thirds as long as segment III, flattened, thicker than segment V; segments V, VI, VII, and VIII similar to IV, gradually reducing in width; segment V as long as IV; segments VI–XI almost equal in length; segments V–XI nearly triangular in dorsal view, acutely pointed apically; segment XII truncate apically; basal area of segments IV–XII strongly narrowed. Ventral side of head flattened and granulate apically.

Prothorax long when compared to allied species (*P. gahani* Lameere, 1912, *P. lameerei* Semenov, 1927, *P. sifanicus* Plavilstshikov, 1934), length about one third of maximum width (measured between tips of middle spines). Surface deeply punctate; disk convex at middle, flattened laterally; each flattened area with about one fifth of pronotal width; with two spines each side, curved backward, anterior spine smaller than middle one; posterior angles almost forming right angle; hind edge slightly roundly expanding posteriorly; anterior and posterior edges fringed with row of long golden setae.

Scutellum transverse, about twice as long, with yellowish setae basally, glabrous on remaining surface.

Elytra reddish brown, flattened, short, about 1 ½ times longer than wide; widest area at basal ninth, gradually, slightly narrowed toward base, nearly parallel-sided from basal ninth to apical fifth and rounded apically.

Legs flattened, robust. Femora smooth, thick, about as long as tibia. Tibiae granulate, sinuous, curved outward distally; inner side with deep groove which is widened from base to apex; with two tibial spurs. Tarsi with similar shape, combined length of tarsal segments I–V about as long as tibia; basal segment longest, tarsomeres II and III with similar length; tarsomere V as long as middle and apical segment combined.

Male aedeagus. (Fig. 4–5) Penis moderately short, furnished with



Fig. 5. ♂ *Prionus sontinh* sp. nov., holotype: penis.

normal apical point and apical lobes, with basal expansions about two thirds as long as penis. Tegmen rounded and short, with parameres slightly separated, apical setae moderately long.

Female (Fig. 6–8). Similar to male, with mandibles less developed, antennae shorter, with segments III–V more rounded, without distal projection, segments XI and XII imperfectly separated; middle lateral spines of pronotum broader.

Variation observed in the paratypes

There is rather poor variation among the paratypes except the size of the specimens, the elytra with color varying from reddish brown to shining black and with nearly parallel-sided or slightly narrowed from basal 1/9 to apical 1/5, and the tibia in males which can be granulate or spiny.



Fig. 6. ♀ *Prionus sontinh* sp. nov., allotype: dorsal view.



Fig. 7. ♀ *Prionus sontinh* sp. nov., allotype: lateral view.



Fig. 8. ♀ *Prionus sontinh* sp. nov., allotype: ventral view.

Measurements

Male holotype length (in mm, without mandible): 28;

Male holotype width (in mm, measure at widest point): 12;

Variation in size of males (in mm): length, 24–34, width, 10–15;

Variation in size of females (in mm): length 23–32 (allotype), width (allotype) 12–14.

Habitat: The species was collected in pristine forests in northern Vietnam which belong or connect to Hoang Lien Son Mountains Range with elevation over than 1000 m.

Notes on the genus *Prionus* from Vietnam and the adjacent countries

The only previously known species of the genus *Prionus* from Vietnam was *Prionus ohbayashii*, described from southern Vietnam by Komiya in 2009. However, this species was placed in the subgenus *Prionus* (*Meridianoprionus*), basing on antennal length and other anatomical features. Unlike *P. ohbayashii*, *Prionus sontinh* sp. nov. has closer affinities with the subgenus *Prionus* (*Prionus*). Previously, no species of this latter subgenus has ever been recorded from Indo-China. Thus, the discovery of *P. sontinh* sp. nov. in Vietnam is the first record of the this subgenus, not only for this country, but also for the whole Indochinese Peninsula (including Thailand, Cambodia, Laos and southern Myanmar).

It is remarkable that while the subgenus *Prionus* (*Prionus*) is so poorly represented in Indo-China, it is very rich in China, the northern neighbouring country (Gressitt, 1951; Drumont & Komiya, 2006; Drumont & Komiya, 2010). More than 10 species of this subgenus has been recorded from southwestern China (Yunnan and Sichuan), which are near to Vietnam (Drumont & Komiya, 2010). *Prionus sontinh* sp. nov. seems to belong to a species group represented by *P. gahani* La-meere, 1912 and species in this group are mainly distributed in Yunnan

and Sichuan. We tentatively call this group as “*gahani*” species group. It is characterized in having the distance between the upper eye lobes much longer than the width of an upper eye lobe, and the antennae usually much shorter than four-fifths of the body length. We think that *P. gahani*, *P. sifanicus*, *P. lameerei*, and *P. sontinh* sp. **nov.** make up this group.

Diagnosis

Prionus sontinh sp. **nov.** is close to *P. gahani*. Male differs from that of *P. gahani*: longer head (longer than prothorax in *P. sontinh* and shorter in *P. gahani*); distance between upper eye lobes narrower; mandibles with external side abruptly tumid at about middle and nearly straight toward acute apex, while in *P. gahani* it is rather smoothly arched and rounded toward apex; longer antennae (longer than 0.6 times of body length in *P. sontinh*, shorter than 0.6 times in *P. gahani*); lateral teeth of the pronotum separated (close each other in *P. gahani*); and slenderer hind tarsus. Concerning differences in the female, we do not have enough specimens to compare.

Prionus sontinh sp. **nov.** is also similar to *P. sifanicus*, but differs as follows: elytra smoother (scabrous in *P. sifanicus*); antennum XII in male clearly separated from XI and movable (fused in *P. sifanicus*).

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Author statement

All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work.

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