

Supplementary Notes on *Platycerus sue* IMURA, 2007 (Coleoptera, Lucanidae)

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Abstract Detailed locality of *Platycerus sue* IMURA, 2007 is given, with a brief comment on its distributional range, habitat, food and estimated annual life cycle.

Platycerus sue was described very recently by IMURA (2007) as a remarkable new species of the genus discovered in Japan for the first time in twenty years. The distributional range of this lucanid beetle is narrowly restricted to the high altitudinal area of a certain mountain range, and it is obvious that, if once exposed to an excessive hunting pressure, the new species will have a harmful effect. On the other hand, neither relevant laws nor measures for conservation of the wildlife are enacted in that area, though the greater part of the distributional range of the new species is located in a quasi-national park. Detailed locality of the new species was therefore tentatively masked at the time of original description to avoid disturbance caused by collectors or dealers aimed at this beetle. On March 24, 2008, the species was designated by the Minister of Environment as a species temporarily protected according to Article 5 of the Law for the Conservation of Endangered Species of Wild Fauna and Flora. The species will be protected provisionally for the next three years, and further field researches entrusted by the Ministry of Environment will be carried out in the meantime under the leadership of the Japanese Society of Coleopterology. Final decision on the way of protecting the species will be made after taking the result of these searches into account.

In this paper, I am going to give detailed collecting data of the type series of *P. sue*, with a brief comment on its distributional range and habitat as well as some bionomical notes obtained through my field works made from June to November, 2007. Their details will be presented at a joint meeting of the Japanese Society of Coleopterology, Japan Coleopterological Society and Japanese Society of Systematic Entomology to be held in Matsuyama on 22–23 November 2008.

Platycerus sue IMURA, 2007

Platycerus sue IMURA, 2007, *Elytra*, Tokyo, **35**, p. 492, figs. 1–3; originally designated type area: mountainous region of Japan. — IMURA, 2008 a, *Saikaku Tsûshin*, Tokyo, (16), p. 51, fig. 5; 2008 b, *Coleopterists' News*, Tokyo, (162), pp. 17, figs. 1–3; 2008 c, *Gekkan-Mushi*, Tokyo, (450), p. 5, figs. 6, 10.

Detailed collecting data of the type series. Holotype: ♂, eastern shoulder of Mt.

Ishizuchi-san [石鎚山], 1,600–1,700 m in altitude, on the borders of Saijô-shi and Kumakôgen-chô in Ehime Prefecture, Southwest Japan, 4–VI–2007, Y. IMURA leg. Paratypes: 7♂♂, 1♀, same data as for the holotype; 7♂♂, 9♀♀, same locality, larvae collected in the field from June to July, 2007 and emerged in the laboratory in September, 2007.

Type depository. As was designated in the original description, the holotype is deposited in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo. Paratypes are now in the author's collection, but a part of them will be deposited in the following institutions after following prescribed procedure: 1) Hokkaido University Museum, Sapporo; 2) Department of Zoology, National Museum of Nature and Science, Tokyo; 3) Osaka Museum of Natural History; 4) Entomological Laboratory, Faculty of Agriculture, Ehime University; 5) Omogo Mountain Museum (Kumakôgen-chô in Ehime Prefecture); 6) Graduate School of Social and Cultural Studies, Kyushu University; 7) Museo di Storia Naturale della Università di Firenze; 8) Natural History Museum, London.

Distribution. High altitudinal area (from 1,520 m to 1,820 m in altitude, usually above 1,600 m) on the Ishizuchi Mountains (the Ishizuchi Mountain Range in a narrow sense and its northeastern continuation, the Hôsei Mountain Range) lying in the northern part of Shikoku, Southwest Japan. The westernmost locality hitherto known is Tengu-dakê, the main peak of Mt. Ishizuchi-san. In the southern part of the distributional range, the species is recorded from Mt. Tebako-yama of Ino-chô in Kôchi Prefecture which may become the southern limit. The northeasternmost point known up to the present is the alpine area of Mt. Higashi-akaishi-yama.

Bionomical notes. The main habitat of the present species is deciduous broadleaved forests mainly composed of *Acer*, *Fagus*, *Fraxinus*, *Quercus*, *Lindera*, *Symplocos*, *Viburnum* and several kinds of azalea, etc., lying from the upper temperate to lower subarctic zones. In the lowermost part of its distributional range (1,500–1,600 m in altitude), the species often occurs sympatrically with *P. sugitai*, the latter of which is considered to be ranged from ca. 1,000 to 1,600 m in the Ishizuchi Mountains. General habit of *P. sue* is almost the same as in other members of the genus belonging to the group of *P. acuticollis*. Adult has its main activity peak for reproduction from late in the spring to early in the summer, corresponding to the end of May to the beginning of June in the alpine zone of the Ishizuchi Mountains. Adult male occasionally comes flying to young leaves of *Quercus crispula* or *Fraxinus* sp. The female starts ovipositing to the surface of food plant (rotten branch) usually from the beginning of June. Their larvae prefer to feed on brown- or softly rotten part of rather narrow branch lying on the forest floor. As is observed in other members of the genus distributed in East Asia, this species leaves a peculiar oviposition mark on the surface of its food plant. Preimaginal development takes one year and a few months at the shortest, or presumably two full years and several months in certain cases. From the end of September to the next spring, newly hatched adults in hibernation are found, together with the larvae, from the withered wood.

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要 約

井村有希：タカネルリクワガタに関する補足知見。——タカネルリクワガタ *Platycerus sue* は 20 年ぶりに発見された邦産同属の新種として、2007 年の秋に記載された。しかしながら、同種の生息範囲は特定の山塊の高所に限定されている可能性がきわめて高いうえ、同地域においては野生動物の捕獲に関する法的規制がとくに設けられておらず、採集者の殺到による個体数の減少が強く危惧されたため、原記載の時点では具体的な産地名の公表を敢えて控え、保全策の整備を待つという方針がとられた。本種はその後、環境省から種の保存法に基づく緊急指定種に指定されることになり、2008 年 3 月 24 日づけで公示が行われ、法的規制下に置かれている。今後、最長 3 年間にわたる指定期間中に、より詳細な学術調査が行われ、本種の保全に対する最終的な方針がたてられる予定である。これを受けて本稿では、昨年の本学会において予告したとおり、本種の具体的な生息地をあきらかにし、あわせて分布域や生息環境、生態など、これまでに判明している知見の概要について述べた。本種は四国西部の石鎚山系（狭義の石鎚山塊と法星山脈）の高所のみに分布し、これまでに確認されている水平分布の西限は石鎚山天狗岳、南限は手箱山、北東限は東赤石山である。垂直分布は標高 1,500 m 強から 1,800 m 強に及ぶが、主たる生息域は 1,600 m 以上の地域である。また、垂直分布の下限にあたる標高 1,500~1,600 m 近辺では、シコクリクワガタ *P. sugitai* との混生が確認されている。おもな生息環境は温帯林帯上部から亜寒帯林帯下部に位置する落葉広葉樹林で、ブナ帯の上部にあるカエデ、トネリコ、ミズナラ、ツツジなどを主体とした疎林を好む。幼虫の食餌資源は広葉樹の細い接地材で、♀は材の裏面にリクワガタ類特有の産卵マークをつける。成虫は 5~6 月頃にミズナラやトネリコ類の新芽に飛来することがあり、卵から成虫の繁殖活動までに 2 ないし 3 年の期間を要するものと推測される。

References

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