

Studies on Scolytidae III.

By

Akira NOBUCHI*

In the course of my studies on the Scolytid-beetle fauna of Japan, I have discovered five new fauna species, of which one seems to be new to science. In this paper, I raise the number of Japanese species to 170 by the addition of five species. And also, I have found three male forms of dimorphous species, which have not yet been described. Descriptions of a new species and some new male forms are given in this report together with some records.

The specimens used in the present report were for the most part deposited in the Second Laboratory of Forest Entomology, Government Forest Experiment Station.

I am much grateful to Prof. Dr. Karl E. SCHEDL of Österr. Forstliche Bundes-versuchsanstalt for his kind advice.

Descriptions

Cryphalus montanus sp. nov.

Larger, oblong, lateral sides narrowing anteriorly and posteriorly; weakly shining, blackish brown, elytra yellowish brown, mouth-parts (except mandibles), antennal scapes, funicles and legs yellow. Body closely clothed with setae.

Head finely reticulate and minutely punctured; in male frons flattened, gently emarginate at anterior margin, with an indistinct longitudinal carina, weakly depressed over mouth, and slightly elevated above the depression, finely but rather closely granulate at each side, finely setigerous; in female frons slightly elevated over mouth, other points the same as male. Antennal funicles 4-segmented, 1st segment larger and globular, 3rd and 4th widened; clubs oval, with three procurved sutures inside and three weakly curved sutures outside. Eyes oval, weakly emarginate at anterior margin. Prothorax wider than its length, widest before base, front margin strongly rounded and with eight marginal tubercles, lateral margins very narrowly marginate at posterior one-third in prothoracic length, strongly narrowing toward front, basal margin nearly straight and very narrowly marginate, basal corners strongly rounded; disk strongly convex, boss situated at posterior fifth in prothoracic length, ground surface moderately scattered with thin asperities and closely setigerous before the boss, the setae longer at apical and lateral sides, interstices of the asperities and basal portion closely granulate. Scutellum very small, triangular, shining. Elytra slightly wider than base of prothorax, 1.5 times as long as its width, parallel-sided, strongly rounded at apex; dorsum strongly convex, humeral callosities elevated, striae narrow, slightly depressed, finely punctured; interstices wide, and almost flattened, rugose, finely and closely covered with minute and decumbent setae and sparsely covered with long setae in a row. Body beneath finely punctured and setigerous. Proventriculus and male genitalia as shown in Figs. 7 and 8.

* Second Laboratory of Forest Entomology, Division of Forest Protection.

Body length : 1.8~2.2 mm.

Holotype: 1 ♂, Shirotoge, Okunikko, Gunma Pref., *Abies mariesii* MAST., Sept. 12, 1957, Akira NOBUCHI leg.

Allotype: 1 ♀, the same as Holotype.

Paratypes: 15 exs., Shirotoge, Okunikko, *Abies mariesii* MAST., Sept. 12, 1957, Akira NOBUCHI leg.; 28 exs., Shirotoge, *Abies veitchii* LINDL., Sept. 12, 1957, Akira NOBUCHI leg.; 8 exs., Sanpeitoge, Oze, Gunma Pref., *Abies veitchii* LINDL., Sept. 13, 1958, Akira NOBUCHI leg.; 1 ex., Fujimitoge, Oze, *Abies veitchii* LINDL., Sept. 15, 1957, Akira NOBUCHI leg.; Mt. Kinpu, Yamanashi Pref., *Abies veitchii* LINDL., April 28, 1958, Akira NOBUCHI leg.; 15 exs., Karisakatoge, Saitama Pref., *Abies veitchii* LINDL., Oct. 8, 1960, Akira NOBUCHI leg.

The types are preserved mostly in the collection of the Second Laboratory of Forest Entomology, Government Forest Experiment Station.

This new species somewhat resembles the *Cryphalus kurenzovi* STARK from Siberia, but may be easily identified from the latter by the absence of scales on the apical portion of the elytra. This species is one of very destructive bark-beetles to the fir forest in high mountain areas of Honshu.

***Neohyorrhynchus niisimai* EGGERS masc. nov.**

Body oblong oval, broader than female; weakly shining, reddish brown, eyes black, closely covered with yellowish long setae.

Head with vertex finely punctured and minutely reticulate; frons slightly convex, with a longitudinal carina, which extends to just before connecting line of upper margin of upper division of eyes, sparsely granulate, moderately covered with soft setae. Antennal funicles 5-segmented; clubs narrower at apex, with only two sutures on each side. Pronotum distinctly wider than long, apical margin weakly rounded, not or slightly emarginate at middle, lateral margins rounded, widest just before base, thence narrowing anteriorly, basal margin truncate, nearly straight, basal corners strongly rounded; disk convex, without longitudinal elevation at median line, punctures weaker and sparser than those of female, setae nearly equal to those of female. Scutellum very small, shining; upper surface strongly convex. Elytra nearly equal in width to prothorax, distinctly shorter than those of female, anterior margin rounded and crenate, lateral sides weakly widened at basal half, and thence narrowly rounded; disk strongly convex, striae not or slightly wider than those of female, interspace of striae with small granules, closely covered with long setae, which at apical portion are 1.5 times as long as setae at basal portion, declivity beginning at apical third. Genitalia as shown in Fig. 10.

Body length : ca. 1.2 mm.

Specimens examined: 1 ♀, Mt. Takao, Tokyo., *Chamaecyparis obtusa* ENDL., Aug. 31, 1957, Akira NOBUCHI leg.; 1 ♀, Mt. Takao, Sept. 22, 1957, Akira NOBUCHI leg.; 2 ♀♀, Mt. Takao, *Carpinus carpinoides* MAKINO, Dec. 24, 1957, Akira NOBUCHI leg.; 3 ♀♀, Mt. Kasuga, Nara Pref., *Quercus sieboldiana* BLUME, Jan. 3, 1958, Akira NOBUCHI leg.; 5 ♀♀, Mt. Kasuga, *Quercus glauca* THUMB., Jan. 3, 1958, Akira NOBUCHI leg.; 2 ♀♀, Mt. Takao, *Styrax japonica* SIEB. et ZUCC., May 19, 1958, Akira NOBUCHI leg.; 3 ♀♀, Mt. Amagi, Shizuoka Pref., *Prunus donarium* SIEB., Mar. 23, 1959, Akira NOBUCHI leg.; 3 ♀♀, Yugashima, Shizuoka Pref., *Lithocarpus edulis* REHD., Mar. 23, 1959, Akira NOBUCHI leg.; 4 ♂♂ 7 ♀♀, Mt. Hiko,

Fukuoka Pref., Mar. 6, 1960, Akira NOBUCHI leg.; 1 ♀, Yokokawa, Shizuoka Pref., Nov. 5, 1963, Akira NOBUCHI leg.; 1 ♀, Ikesiro, Shizuoka Pref., Nov. 6, 1963, Akira NOBUCHI leg.; 1 ♂ 13 ♀ ♀, Suzaki, Shizuoka Pref., Nov. 8, 1963, Akira NOBUCHI leg.

***Xylosandrus compactus* EICHHOFF masc. nov.**

Body impressed, oblong, lateral sides narrowing anteriorly and posteriorly; weakly shining, yellowish brown, rather sparsely covered with long setae.

Head with frons moderately convex, finely reticulate, shining, finely granulate and sparsely setigerous; mouth-ciliae rather long. Eyes elongate, triangularly emarginate at anterior margin. Antennal clubs somewhat smaller and narrower than those of female. Prothorax slightly wider than long, widest at middle, anterior margin strongly rounded and moderately produced, lateral margins slightly rounded, basal margin truncate and slightly bisinuous, basal corners rounded; disk moderately convex but without boss, declivous at anterior half, with a weak elliptical impression at anterior portion, with a broad smooth median line from base to apex, anterior half sparsely covered with narrow asperities, posterior half distinctly punctured; disk rather closely covered with short setae, which become longer at lateral and apical portion, without tuft of setae at base. Scutellum small, nearly triangular, with a few hairs. Elytra with base slightly narrower than base of prothorax, widest at basal third of elytral length, basal margin nearly straight, lateral margins rounded, declivity weakly carinate below; upper surface moderately convex, somewhat elevated at posterior part of suture, declivity beginning at basal third of elytral length, first three striae distinct and each striae with short setae and distinct punctures in a row, the setae longer at apex. Male genitalia as shown in Fig. 9.

Body length: 1.1 mm.

Specimens examined: 2 ♂ 15 ♀ ♀, Amakusa, Kumamoto Pref., *Acacia mollissima* WILLD., July, 1959, Zentaro KURANAGA leg.; 17 ♀ ♀, Meguro, Tokyo, *Nyssa sylvatica* MARSHALL, July 9, 1958, Akira NOBUCHI leg.; 4 ♀ ♀, Sakasegawa, Amakusa, *Acacia mollissima* WILLD., May 10, 1960, Katsura MORIMOTO leg.

The male of this species is closely allied to *Xylosandrus germanus* BLANDFORD as in the female, but may differ in the smaller body, shorter setae on the frons, having an impression at the front of the prothorax and denser setae on the elytra.

***Cnestus murayamai* SCHEDL masc. nov.**

Body oblong; shining, reddish brown, eyes black, basal half of prothorax and scutellum darker and elytra paler.

Head finely reticulate; frons feebly impressed at middle, microscopically punctured and minutely setigerous, strongly shining at posterior half, mouth-ciliae rather long. Eyes large, slightly emarginate at anterior margin. Antennae almost similar to those of female, but clubs somewhat smaller. Prothorax longer than wide, apical side strongly projected, reflexed, sharply edged and somewhat bisinuous, lateral margins nearly parallel in basal half and slightly narrowing in anterior half, basal margin truncate, almost straight, basal corners rounded; disk strongly convex, anterior half declivous, with a strong oval impression at frontal portion, the impression with a key-hole-like flattened area at middle, ground surface of the impression sparsely and finely punctured, moderately covered with fine and decumbent

setae, the punctures denser and stronger laterally, basal half of disk finely reticulate and strongly punctured, the punctures sparser at lateral sides, denser and larger at middle, except an oblong smooth part of median line, longer setae situated at lateral and anterior parts, not forming a patch of setae before scutellum. Scutellum nearly semicircular; upper surface slightly elevated and smooth. Elytra longer than wide, slightly narrower than base of prothorax, lateral margins somewhat rounded, widest at middle and thence strongly rounded at apical third, apex gently rounded; dorsum remarkably convex, declivity beginning at about one-third of elytral length, gradually and roundly declivous, 1st striate punctures somewhat sparser in male than those in female, apex of elytra not rough, other points almost the same as female on elytra.

Body length : 2.1 mm.

Specimens examined : 1 ♂ 8 ♀ ♀, Naha, Loochoo, Seiho KUMIYOSHI leg.; 1 ♂ 2 ♀ ♀, Ganshoen, Shizuoka Pref., *Cinnamomum camphora* (LINN.) SIEB., Nov. 7, 1963, Akira NOBUCHI leg.

This form is quite different from the female as follows: The body a little smaller; the frons not convex; the prothorax strongly excavated at the anterior portion; the absence of asperities and patch of setae before the scutellum on the prothorax.

Records

Hylesinus oleiperda FABR. **

Ent. Syst., 1 (2) : 366 1792

Specimens examined : 2 exs., Usakumai, Chitose, Hokkaido, *Fraxinus mandshurica* RUPE. var. *japonica* MAXIM., July 28, 1956, Akira NOBUCHI leg.

Phthorophloeus spinulosus REY**

Rev. Ent., 3 : 127 1883

Specimens examined : 6 exs., Tenmakuzawa, Sounkyo, Hokkaido, *Picea jezoensis* CARR., June, 1955, Akira NOBUCHI leg.

Distr. : Europe, Siberia, Saghalien, Japan (Hokkaido).

Hylurops longipilis REITTER*

Verh. Bruenn., 33 : 63 1894

Specimens examined : 2 exs., Narusawa, Mt. Fuji, Yamanashi Pref., *Picea jezoensis* CARR. var. *hondoensis* REHD., Oct. 4, 1960, Akira NOBUCHI leg.

Distr. : Siberia, Saghalien, Japan (Hokkaido, Honshu).

Hylurgops transbaicalicus EGGERS*

Stett. Ent. Zeitschr., 102 : 119 1941

Specimens examined : 3 exs., Narusawa, Mt. Fuji, *Picea jezoensis* CARR. var. *hondoensis* REHD., Oct. 4, 1960, Akira NOBUCHI leg.

Distr. : Siberia, Japan (Hokkaido, Honshu).

Hylurgops palliatus GYLL.*

Ins. Suec., 3 : 340 1813

** First record from Japan

* First record from Honshu

Specimens examined : 3 exs., Gotenba, Mt. Fuji, *Larix leptolepis* MURRAY, Sept. 26, 1959, Yasuo HAYASHI leg. ; 13 exs., Narusawa, *Picea jezoensis* CARR. var. *hondoensis* REHD., Oct. 4, 1960, Akira NOBUCHI leg.

Distr. : Europe, Siberia, Saghalien, Manchuria, Korea, Japan (Hokkaido, Honshu).

Cryphalus carpini* BERGER*

Rev. Russe d'Ent., 16 (3-4) : 234 1916

Specimens examined : 2 exs., Mt. Takao, Tokyo, *Carpinus laxiflora* BLUME, May 19, 1958, Akira NOBUCHI leg. ; 23 exs., Oyama, Kanagawa Pref., *Carpinus laxiflora* BLUME, June 15, 1958, Akira NOBUCHI leg.

Distr. : Siberia, Japan (Honshu).

Cryphalus scopiger* BERGER*

Rev. Russe d'Ent., 16 (3-4) : 228 1916

Specimens examined : 1 ex., Sanpeitoge, Oze, Gunma Pref., *Fagus crenatus* BLUME, Sept. 13, 1957, Akira NOBUCHI leg. ; 23 exs., Numaziri, Oze, *Fagus crenatus* BLUME, Sept. 14, 1957, Akira NOBUCHI leg. ; 11 exs., Nippara, Okutama, Tokyo, *Fagus crenatus* BLUME, Nov. 24, 1957, Akira NOBUCHI leg. ; 2 exs., Mt. Takao, Tokyo, *Fagus japonica* MAXIM., May 19, 1958, Akira NOBUCHI leg. ; 12 exs., Mt. Hiko, Fukuoka Pref., *Fagus japonica* MAXIM., Mar. 6, 1960, Akira NOBUCHI leg.

Distr. : Siberia, Japan (Honshu, Kyushu).

Explanation of Plates

Plate 1

1. *Cryphalus montanus* sp. nov.
2. *Xylosandrus compactus* EICHHOFF, male
3. Ditto, lateral aspect of prothorax and elytra
4. *Cnestus murayamai* SCHEDL, male
5. Ditto, lateral aspect
6. *Neohyorrhynchus niisimai* EGGERS, male

Plate 2

7. *Cryphalus montanus* sp. nov., proventricular plate
8. Ditto, male genitalia
9. *Xylosandrus compactus* EICHHOFF, male genitalia
10. *Neohyorrhynchus niisimai* EGGERS, male genitalia
11. Ditto, nest

キクイムシ科の研究 第 3 報

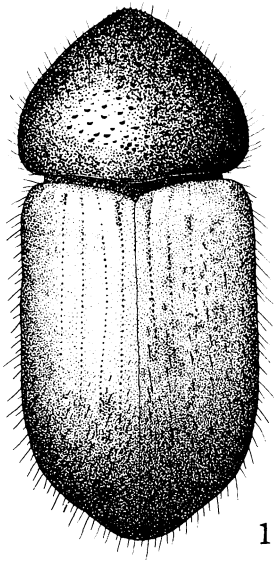
野 洸 輝⁽¹⁾

概 要

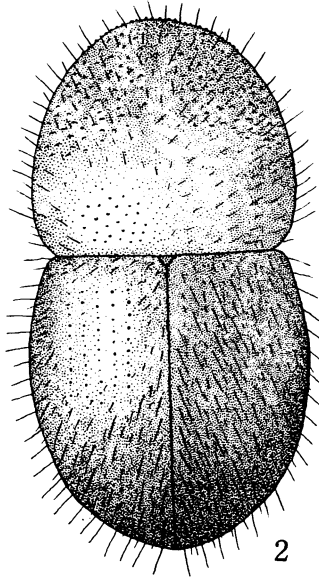
本報において、本州中部亜高山帯のシラベ、アオモリトドマツにかなりの被害をあたえているコキクイムシをミヤマコキクイムシ *Cryphalus montanus* NOBUCHI の名で新種として記載し、雌雄異型のニイシマキクイムシ *Neohyorrhynchus niisimai* EGGERS, シイノコキクイムシ *Xylosandrus compactus* EICHHOFF, ウスキイロキクイムシ *Cnestus murayamai* SCHEDL (= *Tosaxyleborus pallidipennis* MURAYAMA) の未記載雄型を報告した。

欧州より知られていたヤチダモノクロキクイムシ *Hylesinus oleiperda* FABR. を北海道から、欧州、シベリア、樺太に分布してるアラゲキクイムシ *Phthorophloeus spinulosus* REY を北海道から日本未記録種として報告した。シベリアに分布していたブナノコキクイムシ *Cryphalus scopiger* BERGER を本州、九州、シデノコキクイムシ *Cryphalus carpini* BERGER を本州の未記録種として記録した。同時に日本では北海道に分布することが知られていたケナガエゾキクイムシ *Hylurgops longipilis* REITTER, トランスバイカルキクイムシ *Hylurgops transbaicalicus* EGGERS, ウスイロキクイムシ *Hylurgops palliatus* GYLL. を本州から新記録として報告した。

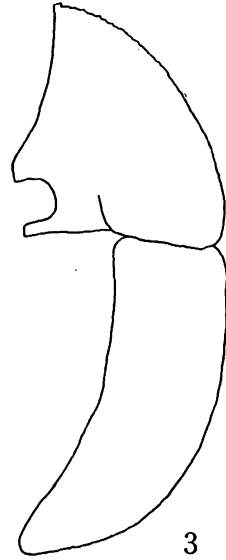
(1) 保護部昆虫科昆虫第 2 研究室



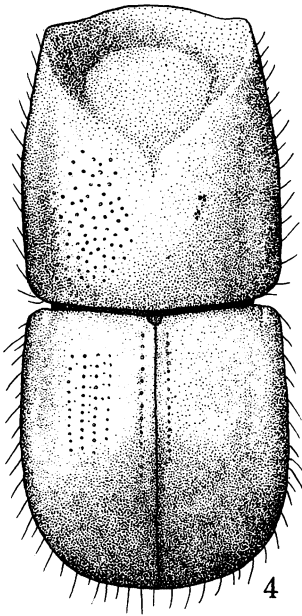
1



2



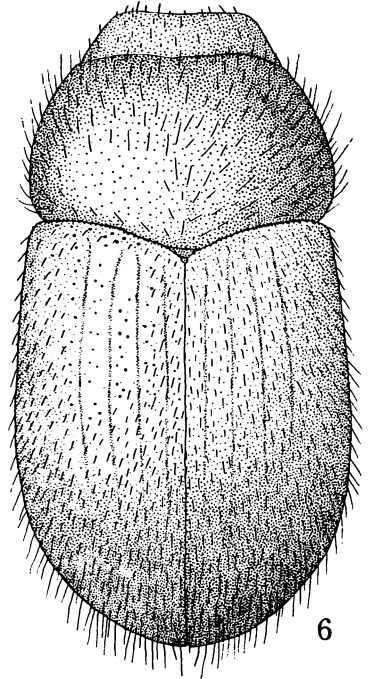
3



4



5



6

