

A NEW SUBGENUS AND TWO NEW SPECIES OF THE  
GENUS *PTEROSTICHUS* FROM JAPAN  
(Carabidae, Coleoptera)

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***Pterostichus* (*Badistrinus*) *bandotaro* sp. nov.** (Fig. 1)

Length:  $5\frac{1}{2}$ – $5\frac{4}{5}$  mm. Width:  $2$ – $2\frac{1}{5}$  mm. Winged.

General aspect elongate-oblong, convex; colour black, shining; base of antennae, palpi and legs brown, joints 4–11 (or 2–11) of antennae, apical joint of palpi and femora darker; mandibles, middle of prothoracic base and apex of elytra more or less brownish.

Head a little convex with moderately prominent eyes; surface scattered with minute punctures; clypeus slightly emarginate; frontal furrows rather shallow, short and parallel; an indistinct oblique line on each side between hind end of the furrows and front supraorbital pores; intervals between the furrows and lateral grooves slightly convex; lateral grooves curved outwards behind eye at hind end; hind supraorbital pores placed at post-eye level; temporae very short. Labrum truncate. Submentum 4-setose. Mentum only a little convex at middle with a median tooth emarginate. Apical joint of palpi fusiform with apex subacuminate, a little longer than penultimate. Antennae subfiliform (joint 6 about twice as long as wide); joint 2 unisetose; joint 3 as long as 4 and shorter than 1.

Prothorax discoid-quadrata, widest at middle, a fourth wider than long, two-thirds wider than head; surface smooth; apical margin narrower than basal margin, emarginate, bordered on both sides (sometimes faintly bordered at middle, too); apical angles a little produced and rounded at apex; lateral margins regularly arcuate and bordered, the border and lateral groove narrow and constant in width from apex to base; basal margin bordered and somewhat oblique on both sides (in holotype, the border rather indistinct); basal angles obtuse and rounded; basal area not depressed with two foveae on each side and sparsely punctured around them, the inner foveae, linear, fairly deep, parallel, placed a little nearer basal angle than median line and dividing the interval in the ratio of 2 to 3, the outer foveae very shallow, short and wide; apical transverse impression faint; median line fine, abbreviated at extremities. Front marginal setae placed at about apical third, hind ones just at basal angles.

Elytra oblong, widest at about middle, two-thirds (holotype) or three-fifths (allo- & paratypes) longer than wide, a fifth wider than and two-fifths times as long as prothorax; basal border arcuate, joining stria 1 inwards and lateral border outwards forming an obtuse and edentate humeral angles; striae smooth, clearly and equally cut throughout except stria 7 which is shallowing towards

base and not reaching basal border; scutellar striole on interstice 2, rather short; interstices flat and smooth. Basal pore placed at base of striole; dorsal pores small, generally 2 on interstice 3 adjoining stria 3 at basal two-fifths and apical fourth respectively, sometimes one more pore appearing at basal fourth; pre-apical pore on stria 7 near apex; apical pore at apex of interstice 8; marginal pores (4-5)+1+(6-7).

Underside smooth but traces of punctulation visible on mesepisterna, metasternum and its episterna; prosternum shallowly sulcate, the process unborded, rounded at apex, with hind vertical side constricted at middle; metepisterna narrow, about three-fourths longer than wide, bordered along front and inner margins.

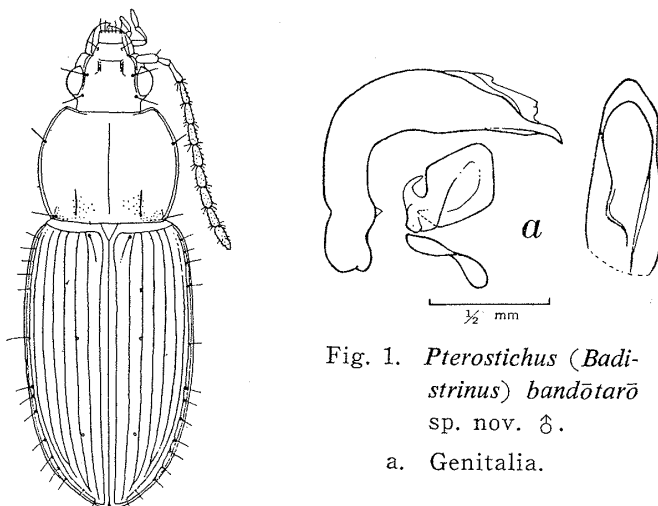


Fig. 1. *Pterostichus (Badi-strinus) bandōtarō* sp. nov. ♂.  
a. Genitalia.

Legs: basal three joints of meso- & metatarsi sulcate on outer side; joint 5 with two setae on each side beneath.

Microsculpture rather faint on upper side, distinct on under side, and consisting of isodiametric meshes on head, scutellum, meso- & metepisterna and at sides and apex of abdomen, of much less transverse ones otherwise.

Male genitalia (Fig. 1a): median lobe, in lateral view, rectangularly curved at middle and narrowed stepwise towards apex, with apical membranous part placed on dorsal side; left paramere diamond-shaped.

Holotype ♂, Lake Wadanuma in the river-bed of the Toné, Chiba Pref., Honshu, Japan, Apr. 9, 1949, K. Tanaka leg.

Allotype ♀ and paratypes 1 ♂ & 2 ♀ ♀, Toride on the river Toné, Ibaragi Pref., Honshu, Japan, July 1, 1954, K. Tanaka leg.

The types are preserved in my collection and in the National Science Museum of Ueno.

*Pterostichus goschi* Jedlička (Časp. Čsl. Spol. Ent. XXVII, 1930, p. 21) from Nikolsk-Ussurijsk and Szetschuan is closely allied to the new species, but in that species, the prothorax is equally narrowed in front and behind and has a carina inside the basal angles, and the striae of elytra are finely punctured (ex Jedlička,

1. c. & 1938, Versuch einer Bestimmungstabelle der mir bekannten *Pterostichus*-Arten aus Ost-asien, p. 2).

***Pterostichus* (*Nialoë* subg. nov.) *muranishii* sp. nov. (Fig. 2)**

Length:  $11\frac{1}{2}$ –13mm. Width:  $4$ – $4\frac{1}{2}$ mm. Apterous.

General aspect elongate, parallel-sided and depressed; colour pitchy black with somewhat subdued lustre; labrum, palpi, base of mandibles, antennae, tibiae and tarsi brown or pitchy brown.

Head large, robust, only slightly narrower than prothorax and a little convex; surface entirely smooth; clypeus slightly emarginate; frontal furrows moderately deep, a little diverging behind and reaching mid-eye level; intervals between the furrows and lateral grooves convex; lateral grooves deep, straight and extending to hind supraorbital pores which are placed behind post-eye level; eyes small and flattened; tempora developed, little converging behind, then abruptly curved towards neck, longer than and as convex as eye. Labrum truncate. Submentum 4-setose. Mentum costate at middle; median tooth bifid with apices rather acuminate. Apical joint of labial palpi subfusiform with apex truncate, widest at apical third and about as long as penultimate; that of maxillary palpi cylindrical with apex truncate and a little longer than penultimate. Antennae subfiliform (joint 6 two and a fourth times as long as wide), long with apical 4 joints extended beyond base of prothorax, and pubescent from apical half of joint 3; joint 2 trisetose; joint 3 shorter than 1 and as long as 4.

Prothorax cordate, widest at apical fifth, very slightly wider than long and a little less than a half wider than basal margin which is narrower than apical margin; surface smooth; apical margin unbordered and slightly sinuate; apical angles a little produced and somewhat sharp at apex; lateral margins arcuate from apex to basal sixth, then sinuate and nearly parallelly falling to basal angles, often crenate in the parallel part, bordered from apex to point of sinuation; the border narrow, somewhat widened towards apex; lateral grooves narrow and shallow; basal margin unbordered and widely emarginate; basal angles right and sharp; basal fovea 1 on each side, long nearly parallel and punctured; intervals between the foveae and lateral margins flat and punctured; median line clearly impressed but abbreviated at extremities; apical transverse impression distinct; base with two shallow transverse impressions. Front marginal setae placed at about widest portion, hind ones a little before basal angles.

Elytra nearly parallel (or very slightly widened from base to apical third), two-thirds longer than wide, a fourth wider than and two and a third times as long as prothorax; basal border a little arcuate and joining striole which is rather short and placed on interstice 1; shoulders rounded and edentate; striae clearly impressed throughout and indistinctly crenulate; interstices rather convex, smooth, sometimes with traces of punctulation in ♀, 8 not ridged and about as wide as 9; lateral border narrow; apex rounded in ♂, subtruncate in ♀; apical sinuation moderate in ♂, feeble in ♀; epipleuron gradually narrowed towards apex; inner plica scarcely visible. Basal pore placed at base of stria 1; 3 to 5 dorsal pores on interstice 3, anterior one or two adjoining stria 3 and others adjoining stria 2; preapical and apical pores on stria 7 before apex and closely set each other;

16—17 marginal pores arranged at wider intervals at middle.

Underside; mesosternum, apical half of mesepisterna, sides of metasternum and base of abdomen punctured; metepisterna with only several fine punctures along inner margin; sides of abdomen finely rugose, otherwise smooth. Prosternum finely sulcate at middle, the process unbordered and subtruncate at apex with hind vertical side nearly flat and not constricted at middle. Metepisterna rhomboidal, as long as wide and bordered along front margin. Male apical ventral segment (Fig. 2a) excavated at middle along apical margin which is emarginate and has a short but stout projection at middle; the projection regularly rounded at apex, projecting obliquely downwards and straight in lateral view (not curved as in *P. spiculifer* Bates); left sinus (in ventral view) of the emargination imperceptibly deeper and longer than right.

Legs rather slender; joint 1 of protarsi scarcely grooved on upper side, but with 1 or 2 very fine ridges, joints 2 and 3 sulcate on upper and outer sides, the median sulcus doubled or tripled by 2 or 3 very fine ridges in ♂, single in ♀, joint 4 only with a single and vary shallow median sulcus; mesotarsi with basal 3 joints 3-sulcate (inner sulcus of joint 1 obsolete), joint 4 with median sulcus only; basal 4 joints of metatarsi sulcate on upper and outer sides, but median sulcus of joint 1 rudimental, that of joints 2 and 3 irregular, doubled or tripled as in protarsal joints 2 and 3, a rudimental inner sulcus visible on joints 2 and 3; joint 5 glabrous beneath.

Microsculpture consisting of isodiametric meshes on head, elytra (except interstices 9 and 10) and abdomen, of a little or moderately transverse ones on prothorax, under side of head and sterna, and of obliquely longitudinal ones on elytral interstices 9 and 10.

Male genitalia (Fig. 2b) voluminous; median lobe acutely bent at basal two-

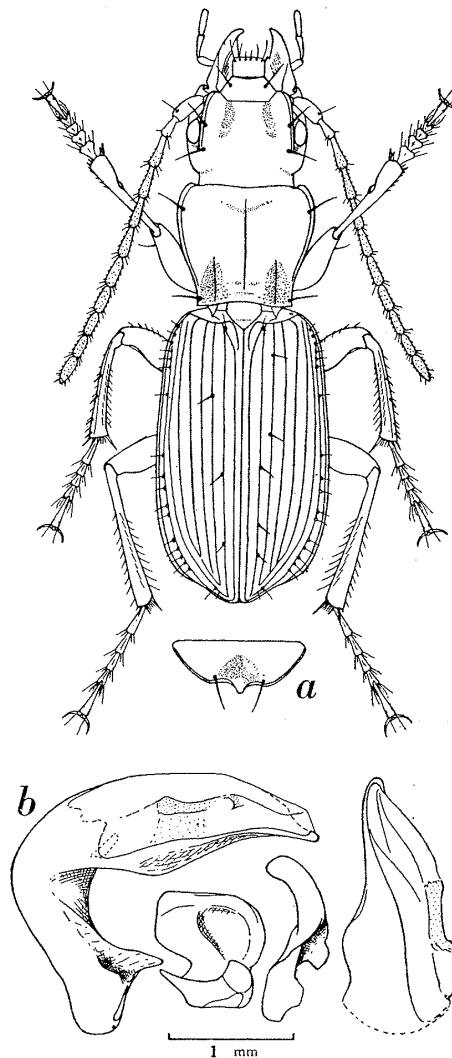


Fig. 2. *Pterostichus* (*Nialoë* subg. nov.) *muranishii* sp. nov., ♂.  
a. Apical ventral segment.  
b. Genitalia.

fifths, twisted leftwards and with a tumour on right-ventral side, under side with a longitudinal ridge and a wide sulcus on left side of it, apical membranous part long and placed on left-dorsal side, apical lamella very small and a little inclined to left; right paramere rather short and little curved and wide at apex; left one quadrate, very wide and hollowed at middle.

I examined 7 specimens, all were brought from Mt. Daisen, Tottori Pref., Honshū, Japan.

Holotype ♂, July 22, 1956, Tetsuo Muranishi leg., under stone at the mountainside about 900 m. in elevation, preserved in my collection.

Allotype ♀, Aug. 24, 1941 (I. Otsubo), in Prof. T. Nakane's collection.

Paratypes: ♂ ♀, July 3, 1939 (Yoshio Yano), ♀, July 1938 (S. Fukki leg.) in Prof. T. Nakane's collection; ♂, Aug. 20, 1954 (Teruki Maruyama leg.), in Mr. H. Ishida's collection; ♀, July 1938 (S. Fukki leg.), in the collection of the National Science Museum of Ueno.

The species has two peculiar structures: one is the pubescent 3rd joint of the antennae, it will be one of the most eccentric characters for *Pterostichus* and makes the species distinct from all the other Japanese species of the genus, another is the median sulcus of the upper surface of the tarsi, such sulcus is found also in the subgenus *Lagarus*, but *P. muranishii* differs widely from this subgenus in other main characters.

*P. muranishii* resembles to the species of *Lianoë* in the flat and parallel form and the small eyes with long developed temporae, on the other hand the construction of the male apical ventral segment remembers that of *P. spiculifer*, *P. janoi* or *P. kamikochii*, but, I arrange the new species in the line of *P. asymmetricus*, *P. rhanis* and *P. brunneipennis* regarding the male genitalia. The median lobe, in these species, has a conspicuous tumour on the right or right-ventral side, and the right paramere which exhibits specific differences is always short and not or only little curved. In *Lianoë* (according to Jeannel, Faune de France, Col. Carab. II, 1942, p. 823—827) and *P. spiculifer* and its allies, no such tumour presents and the right paramere is usually very long (in *Lianoë*), slender and curved. Referred to the section *Lianoë* by Csiki (Col. Cat. II, pars 112, 1930, p. 691—629), *P. asymmetricus* and *P. rhanis* are better to be excluded from it by above diagnosis, and I establish a new subgenus for them.

Subg. **Nialoë** nov. (type: *P. asymmetricus* Bates)

Body apterous. Head robust with frontal furrows deep and impunctate; temporae variable; submentum 4-setose; mentum costate at middle with median tooth bifid; apical joint of maxillary palpi cylindrical; antennae with joint 3 about as long as 4 and shorter than 1, joint 2 plurisetose (3- to 5-setose). Prothorax cordate, sinuate-narrowed behind with basal angles right or acute; both marginal setae present, front one sometimes doubled or tripled in *P. brunneipennis*, hind one placed a little before basal angle. Elytra bordered at base, sinuate before apex; inner plica generally scarcely visible, sometimes distinctly visible; epipleuron gradually narrowed towards apex; shoulders edentate; scutellar striole on interstice 1, short or rudimental, sometimes absent (variable individually); basal pore placed at base of stria 1; dorsal pores on interstice 3 variable in number, 3 to 8, sometimes additional 1 to 4 pores appearing on interstices 2, 4

or 5; preapical and apical pores on stria 7 closely set each other; marginal pores 16-21. Prosternal process unbordered with hind vertical side flat and not or only little constricted at middle; metepisternum as long as or shorter than wide, bordered only along front margin, smooth or sparsely and finely punctured; apical ventral segment of ♂ excavated at middle along apical margin which is deeply emarginate and armed with a process at middle, the structure most often asymmetrically constructed; the segment 2-setose in ♂, 4- or 6-setose in ♀. Legs with at least basal 3 joints of meso- & metatarsi grooved on outer side; joint 5 glabrous beneath. Male genitalia with median lobe strongly bent in lateral view and twisted leftwards; apical membranous part placed on left-dorsal side; apical lamella rather wide in *P. asymmetricus*, or very small in the others and more or less inclined to left; right paramere short, nearly straight or little arcuate; left paramere wide and hollowed at middle.

琉球産ウンカ科2種について

高 良 鉄 夫

1. *Purohita taiwanensis* Muir タイワンヒゲブトウンカ

*Purohita taiwanensis* Muir, Proc. Haw. Ent. Soc., vol. 3, 1914, p. 52 (Formosa).

1954年9月筆者が九大昆虫学教室留学中に安里清景氏(琉球植物防疫所長)から若干の昆虫の同定を依頼された。江崎教授御指導の下に調査した結果, その中に石垣島産の本種が数匹含まれていた。その後筆者が琉球各地を調べたところ石垣島の他, 沖繩島, 西表島にも産することがわかった。琉球列島から従来その記録がないので, これらの島々を新しい分布地として報告する。いずれの島でもダイサンチク *Leleba vulgaris* に多く寄生し, メダケ *Pleioblastus simonii* には極めて稀である。

2. *Peregrinus maidis* (Ashmead) トウモロコシウンカ

*Delphax maidis* Ashmead, Psyche, vol. 5, 1890, p. 323 (N. America).

本種は台湾, インド, ジャバ, ハワイ, オーストラリア, 北アメリカ, アフリカなどに分布するものであるが, 琉球からは未だかつてその報告を見ない。琉球における新産地として沖繩島, 石垣島, 西表島があげられるが, いずれの島でも殆んど年中幼虫, 成虫が見られる。サトウキビ *Saccharum officinarum* には稀であるがトウモロコシ *Zea mays* には発生が多く, 殊に西表島の新開地では被害が著しい。近年米国からトウモロコシ, サトウキビなどが輸入されているので, これらの種苗とともに侵入したものである。

以上の外に種の確認し難いものが2種あるが, これについては後日発表する。