

INSECTS OF CAMPBELL ISLAND.

COLEOPTERA : PSELAPHIDAE

By Orlando Park

NORTHWESTERN UNIVERSITY

Abstract: The ♂ (holotype) and ♀ (allotype) of *Pselaphotheseus hippolytae*, n. gen. n. sp. from Campbell I. collected under *Tillaea*, in earth of Penguin colony, 18. II. 1963 is described and illustrated for the first time.

Introduction: The following description of a new genus of pselaphid beetles from Campbell I., New Zealand is based on material sent to me for examination by Dr. J. Linsley Gressitt of the B. P. Bishop Museum, Honolulu. I am indebted to Mr. T. Nagatani for preparation of a dorsal view of the type of this new genus.

Genus *Pselaphotheseus* Park, n. gen.

Pselaphid beetles of the tribe Pselaphini which have in common the following combination of critical structural characters: 1) Dorsal surface of head with a median, longitudinal, entire sulcus from frontal margin to cervicum. 2) Antennae 11-segmented, of which the last 3 segments form a club. 3) Maxillary palpi 4-segmented. Distal segment 4 smooth, shining, beset with a few very short, stiff setae; segment slightly narrower at base, sessile on segment 3 and slightly subfusiform for distal 2/3, the latter slightly wider than the short, subpedunculate base and ending in a slightly arcuate, rounded apex; distal 1/3 bearing a longitudinal sulcus on dorsal face, this shallow sulcus broadest distally, rapidly narrowing and becoming difficult to discern; the segment bearing a short, truncate palpal cone. 4) Pronotum with a pair of lateral, antebasal foveae and a median foveoid impression, these 3 free. 5) Pronotum with posterior margin not bearing a setose fringe. 6) Elytra with obsolete humeri; each elytron with a pair of antebasal foveae; sutural stria entire; flank lacking a subhumeral fovea; a short, broad discal impression from the discal fovea, this sulcoid impression not extending beyond basal 2/5 of elytron. 7) Elytra with posterior margins not bearing a setose fringe. 8) Both sexes with 5 visible tergites and 6 visible sternites; tergites 1-3 with broad lateral margins; tergite 1 conspicuously longer than any other tergite.

Type species: *Pselaphotheseus hippolytae*, n. sp.

This new genus keys out to *Pselaphophus* Raffray in both the generic analysis of pselaphid genera of the world by Raffray (1908), and the revision of genera of the tribe Pselaphini of the world by Jeannel (1951). *Pselaphophus* differs basically from the new genus in many ways, including a pronotum in which the 2 lateral foveae are connected by an antebasal sulcus; the elytra each have an entire discal stria; posterior margins of the ely-

1. Results of field work supported by the National Science Foundation grant (G-23720) from the U. S. Antarctic Research Program.

tra bear a setose fringe. *Pselaphophus* is known only from Tasmania, Australia, and New Guinea.

***Pselaphotheseus hippolytae* Park, n. sp. Figs. 1-4.**

Type ♂: Head 0.63 mm long \times 0.51 mm wide; pronotum 0.51×0.49 ; elytra 0.8 (lateral) or 0.7 (median) \times 0.98 (apex); abdomen 0.94×1.2 (widest part of body, posterior margin 1st tergite); total length 2.78 mm.

Shining reddish brown, except for disc of tergite 1 which is dark brown, giving a bicolored pattern; pubescence sparse and prostrate; integuments with punctation sparse to absent.

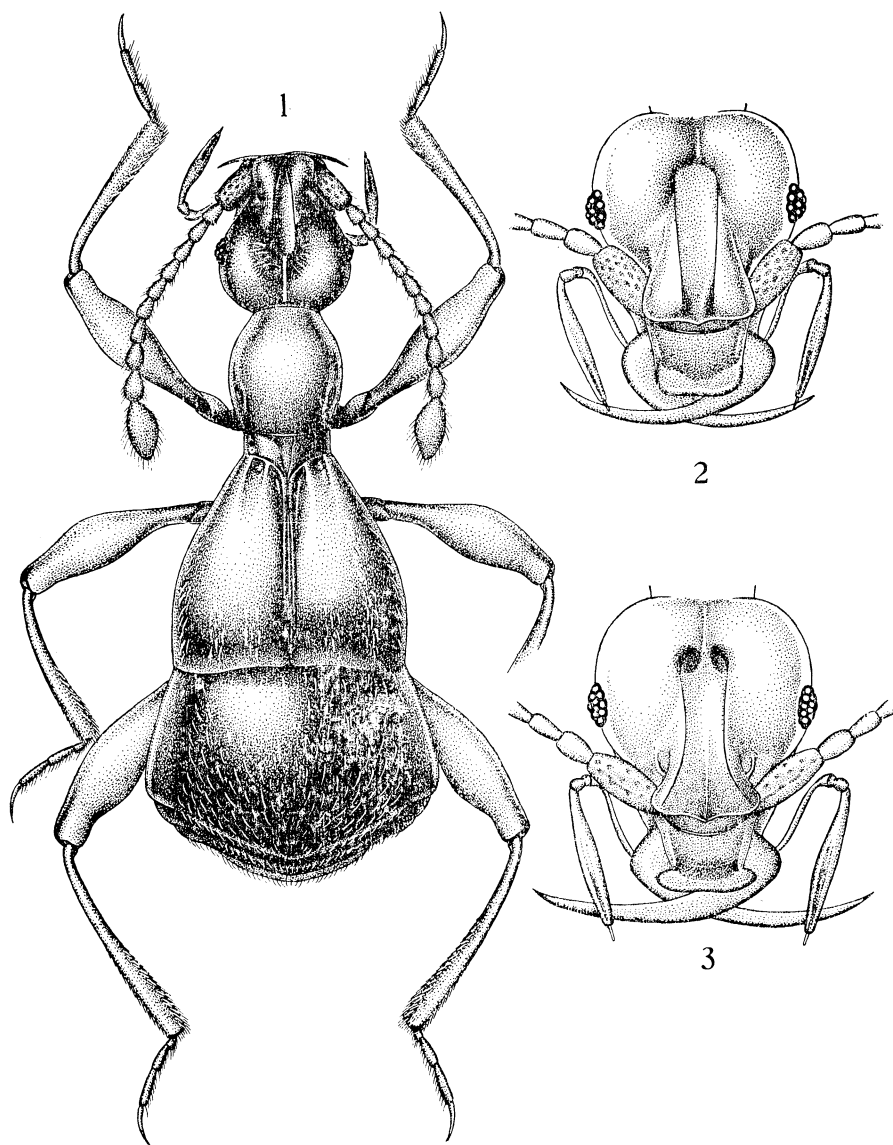
Head with a pair of obliquely ovoidal, inconspicuous compound eyes of 14 flattened corneal facets; frontal rostrum obvious; dorsal surface of head bisected by a cephalic sulcus which extends from frontal margin posteriorly, over vertex, to end on cervicum; this sulcus glabrous and in 2 steps, viz., an anterior portion which is sharply limited, ending in a pair of vertexal foveae (these foveae not visible from a dorsal view), and a posterior portion which continues over occiput; anterior portion of sulcus widest at vertexal foveae and posterior portion of sulcus widest on cervicum; vertexal foveae with oblique, pubescent orifices placed on a hypothetical line which passes through posterior eye margins, and these foveae seen only when examined from anterior viewpoint; occiput with pair of short longitudinal carinae which bound cephalic sulcus. Frontal margin produced slightly in a median, ventrally-directed cusp; front simple, bisected subvertically by short carinoid extension of the median frontal cusp; clypeus simple, with carinoid clypeo-frontal margin; labrum unusual in that it has 3 teeth which project from its anteroventral surface, and so are invisible from above (usually, if labral teeth are present in pselaphids, they extend from its anterodorsal margin, and are obvious from above); labral teeth acute, with median longer than laterals; mandibles conspicuous, left crossed dorsal to right, with very slender rami which are acute and arcuate; inner margin of ramus of left mandible with 7 teeth which decrease gradually in size toward base, and with 1st tooth bicuspid; inner margin of right mandible with 9 or 10 teeth similarly formed to those of left mandible, and also with 1st tooth bifid.

Maxillary palpi 4-segmented; segment 1 long, subcylindrical; 2 as long as 1 but swollen distally to about $3 \times$ its basal width; 3 rounded-triangular, but irregularly so, about as wide as distal swelling of 2; sessile segment 4 largest, and as described in the generic diagnosis.

Antennae 11-segmented; segment 1 large, elongate, dorsoventrally flattened, and bearing a few coarse punctures; 2 shorter and narrower; 3-8 narrower than 2, subequal, elongate; club of last 3 segments, 9 & 10 obviously larger than 8, subequal, elongate, tapering at both ends; 11 largest antennal segment, about as long as preceding 2 united, and slightly more than $2 \times$ as long as wide, with truncate base and rounded-acute apex.

Pronotum almost glabrous, with a pair of lateral antebasal foveae and a median impression; this median impression connected to basal margin by a carina; foveae and median impression not connected with each other by antebasal sulcus; posterior margin not bearing a setose fringe.

Elytra bifoveate, as noted in generic diagnosis; elytral flank simple, glabrous, lacking subhumeral fovea or sulcus or carina; humeri obsolete; elytral disc with an interesting



Figs. 1-3. *Pselaphotheseus hippolytae*. 1, dorsal aspect; 2, frontal aspect of head of ♂; 3, frontal aspect of head of ♀.

pubescence, viz., each elytron with 3 longitudinal bands of setae, a lateral band from near humeral area to near apex, a median band just lateral of discal antebasal fovea to near apex, and an inner band from between the 2 antebasal foveae to near apex; the 2 outer bands each have 2 setal rows, and the inner band has 3 setal rows.

Abdomen with wide lateral margins on tergites 1-3; the 5 tergites in median length ratio of 10.0/1.8/1.4/2.0/2.2 with the very large 1st tergite having its posterior margin medi-

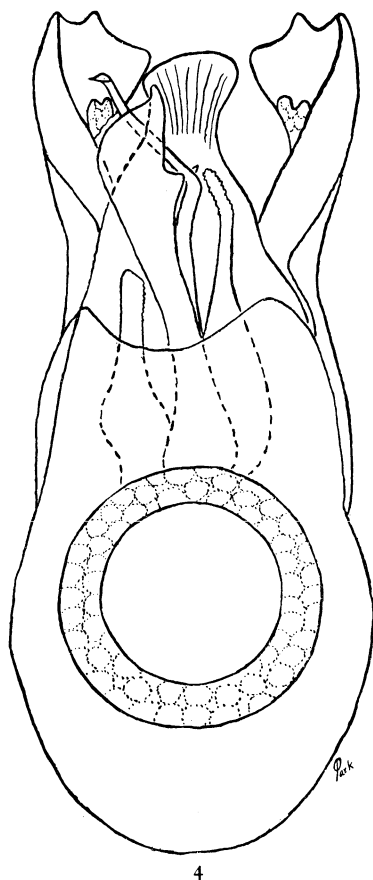


Fig. 4. Aedeagus of *Pselaphotheseus hippolytae*, $\times 430$.

only produced in a subacute projection.

Sternite 1 quite setose, almost invisible laterally and subvertical medially; 2 very large, $2.5\times$ the length of 1, and almost $2.5\times$ as long as sternites 3–6; sternite 1 dominated by a deep, broad median sinus for its entire segmental length, and terminated at posterior margin by a pair of setose cusps; sternites 3–5 invisible medially as a consequence of the setose cusps of sternite 2; 6 a little longer than 1 and medially depressed and coarsely punctate.

Metasternum medially, longitudinally impressed with lateral tumid areas setose. Legs typically macrosceline (cf. Park, 1953, p. 301, pl. III). Legs unarmed; single tarsal claw large, arcuate, aciculate and dorso-ventrally flattened.

DISTRIBUTION: Campbell I.

Holotype ♂ (D.S.I.R.), Rocky Bay, under *Tillaea* in earth of Penguin colony, 18.II.1963, Rennell; 8 ♂♂, 1 ♀ paratypes same data as holotype; 1 ♀ paratype, same data as holotype, Wise; 1 ♂ paratype, SW slopes Mt. Lyall, under stone, 280 m, 19.II.1960; 1 ♂ paratype, Mt. Lyall, 200–400 m, 5.XII.1961, Gressitt; 1 paratype, Tucker Cove, intertidal, XII.1961, Gressitt; 1 ♂ paratype, St. Col Peak, under moss, 300 m, 30.VIII.1962, Rennell; 1 ♂ paratype, Tucker Cove, berlese, tussock leaf mold, 0–30m, 3.III.1963; 1 ♀ paratype, Trig 15, Cars Harbor, 6.IX.1949, Sorensen; 1 headless ♀, no. add. data, Sorensen; 1, Tucker Cove, intertidal, XII.1961, Gressitt; 5, Rocky Bay, Penguin colony, Berlese funnel, 18.II.1963, Wise; 1, south coast below Mt. Dumas, Berlese funnel, 18.II.1963, Wise; 1, Tucker Cove, 4 m, 0–30 m, 0–100 m, Berlese funnel, tussock leaf mold, 26.II.1963; 1, Moubray Hill, 200 m, Berlese funnel, tussock base, 16.II.1963, Wise; 1, Smoothwater Bay, Berlese funnel, leaf mold under tussock, 16.II.1963; 1, Beeman Camp, 2–50 m, in *Poa* roots, 6–11.XII.1961, Gressitt; 1, Northwest Bay, 5 m, Middle Cove, Berlese funnel (no date), Wise; 5, Beeman Pt., *Pittosporum* leaf mold in Berlese funnel, 28.II.1963, Wise; 3, Moubray Hill, low plants nr. summit, 16.II.1963, Wise.

Paratypes in Bishop Mus., Dominion Mus., D.S.I.R., Chicago N. H. Mus. and Park coll.

LITERATURE CITED

- Jeannel, René. 1951. Sur la systématique des genres de la tribu Pselaphini Raffray. *Revue Française d'Entomologie* 18 (1): 5–11.
- Park, Orlando. 1953. Discrimination of genera of pselaphid beetles of the United States. *Bull. Chicago Acad. Sci.* 9 (16): 299–331.
- Raffray, Achille. 1908. *Genera Insectorum*, Fasc. 64: 1–487.