

A New Genus and Species of Orchid Weevils (Coleoptera, Curculionidae, Barinae)

BY L. L. BUCHANAN

Bureau of Entomology and Plant Quarantine, U.S. Department of Agriculture

(Presented by Mr. Swezey at the meeting of October 4, 1934)

The genus described herein as *Orchidophilus* will include *peregrinator* new species, *aterrimus* Waterhouse, *orchivora* Blackburn, and *gilvonotatus* Barber, the last three being listed at present in *Acythopeus* Pascoe. *Acythopeus* was described as having median or postmedian antennal insertion, basally gibbous rostrum, unarmed femora, and elytra scarcely wider than prothorax, characters that are at variance with the four species mentioned above. *Orchidophilus* is noteworthy because, as far as known, it is confined to orchidaceous plants, and also because the exact habitat of none of the species is known, all recorded specimens having been collected in greenhouses of North America, Hawaii, or England, or intercepted by plant quarantine inspectors at North American or Hawaiian ports. In several instances the records show that infested orchids were received from the Philippine Islands or the Straits Settlements, indicating that the genus is indigenous in the upper Malayan region. It is probable that many more species than are treated in this preliminary study will be discovered eventually; and two apparently undescribed forms, represented by inadequate material, have been seen in the collections examined. The writer is indebted to Mr. O. H. Swezey of the Hawaiian Sugar Planters' Association for the opportunity to study a good series of Hawaiian specimens, including most of the specimens of the new species. The bibliographic references given in Barber's paper on orchid weevils (Proc. Ent. Soc. Wash., vol. 19, 1917, pp. 19-20) are not repeated here.

Orchidophilus, new genus (*Acythopeus* of authors, in part, not Pascoe)

Related to *Acythopeus* Pascoe and *Apotomorphinus* Schoenherr, but differing from descriptions of both in having the antennal socket located about $\frac{1}{3}$ from apex of rostrum (submedian in the other two), in having the pygid-

ium short, abruptly deflexed, and visible from beneath (often simulating a short 6th sternite), and (except in *gilvonotatus*) in having the peduncle of submentum of male elevated in a short, erect, subconical or tubercle-like process.

Derm black, rarely piceous or castaneous, shagreened, at least the elytra opaque or subopaque; true scales wanting above (except in *gilvonotatus*); mandibles feebly decussate; funicle sparsely setose, 1st segment nearly or quite as long as 2nd plus 3rd, outer segments progressively broader, club rather small and narrow, 1st segment of same texture as funicle (though much more densely hairy) and comprising $\frac{3}{8}$ to $\frac{3}{4}$ the total mass; scape failing to reach the eye by distinctly less than length of 1st funicular segment; scrobe rapidly descending, its upper edge forming the lower side margin of rostrum in about basal half; rostrum longer than prothorax, subevenly arcuate, slightly to moderately thicker at base, rising from head at a shallow, obtuse angle; eyes large, lateral; prothorax bisinuate at base; elytra wider than prothorax, conjointly rounded at apex, humeri obliquely rounded, the anteriorly rounded and slightly produced basal margin of each elytron fitting into a shallow excavation of basal margin of prothorax, striae punctate, the intervals aciculate-punctulate, 10th striae stronger near base and apex, sometimes effaced at middle, 9th usually much wider and deeper near apex; fore coxae separated by $\frac{1}{2}$ to nearly full width of a coxa, front margin of prosternum usually emarginate; femora feebly dilated, more or less distinctly multidenticulate (except *gilvonotatus*), but not sulcate, beneath; tibiae short, nearly straight to distinctly sinuate, uncinatate at apex, the inner apical angle not toothed; tarsi short and broad, 2nd and 3rd segments, and 1st in part, spongy-pubescent beneath, claws small, subapproximate at base, but free. Male with base of abdomen broadly and shallowly impressed, and often with uncus of mid- and hind-tibia minutely toothed.

Genotype, *Orchidophilus peregrinator*, new species

***Orchidophilus peregrinator* n. sp.**

Length, 3.3-3.8 mm.; width, 1.5-1.8 mm. Integument black, elytra opaque, each puncture with a minute, silvery seta, interocular puncture generally indistinguishable from the numerous punctures on lower half of front of head; pronotum distinctly convex, rather coarsely and closely punctate; elytra with rows of deep punctures set in the much narrower and shallower striae. Male without tooth on inner edge of middle tibia, but with apical margin of last sternite minutely indented each side of middle, leaving at middle a shiny, subrectangular piece that is about 3 times as wide as long.

Rostrum about $\frac{1}{7}$ longer than prothorax, a little longer and stouter in male, gradually and only moderately thicker at base, sides above scrobe rugosely sculptured, with coarse, shallow, often indistinct punctures and 1 or 2 carinae, the lower carina faint or absent, the upper one stronger and reaching from antennal insertion to about basal fifth; rostrum above very feebly widened at apex, moderately shining, densely punctate to near apex, generally with a smooth median line or feeble carina from behind middle to the polished, impunctate apical area; head opaque; pronotum $\frac{5}{6}$ as long as wide, without smooth median line, the rather coarse interspaces encroaching on the margins of many of the discal punctures so that the outlines of the latter are not evenly curved in their entire circumference, but are more

or less angulated or truncated, especially around their anterior half; prothorax widest a little behind middle, sides nearly straight and slightly convergent from here to base, strongly converging to the slightly constricted apex which is about $2/5$ the greatest width, the apical constriction marked down flanks by a vertical row of deep punctures; ocular lobe feeble; basal margin of pronotum bisinuate, the median lobe rounded at middle; scutellum convex; elytra with sides converging from near base, striae 1 to 3 broader and deeper on declivity where the striae punctures are smaller than toward base, intervals flat, with fine, aciculate punctures which form toward apex a fairly regular single row, but become broadly and irregularly zigzag in basal half; subapical callus obsolescent; beneath with the setae larger than above; prosternum emarginate anteriorly, and generally with 2 large transversely placed punctures in line with the impressed row on flanks, rarely with a faint longitudinal impression; punctures beneath large and close-set, but not so dense as in *aterrimus*, the mesosternal side pieces with large, shallow punctures, those along posterior margin of meso-epimeron 5 to 8 in number and sometimes more or less coalescent; metepisternum at middle with a single (rarely partly double) row of punctures; sternite 1 with evenly distributed punctures, sternite 2 more sparsely and unevenly punctate, and with an impunctate space along anterior margin, 3rd and 4th sternites with a single row of punctures along apical margin, 5th sternite subrugosely punctate; pygidium short and, in strongly contracted specimens, only visible from below, more convex transversely in male, shorter and either flattened or slightly hollowed transversely in female; femora feebly dilated, the denticulations stronger in male, feeble in female where they are obsolescent on at least hind legs; mid- and hind-tibial unci of male with a minute, anteapical tooth, projecting at about a 45-degree angle.

Holotype, female, catalogue No. 50424, U. S. National Museum, labeled "Atherton's orchid house, Manoa Valley, Oahu, 3-1-1928, O. H. Swezey." Type and paratypes in U. S. National Museum; paratypes returned to Mr. Swezey.

Described from the following 11 specimens: 7 females collected in Atherton's orchid house, Manoa Valley, Oahu, Hawaiian Islands, 3-1-1928, O. H. Swezey; 1 female on orchid, intercepted at Washington, D. C., January, 1923, H. Y. Gouldman; 1 female on *Phalaenopsis schilleriana* from the Philippines, intercepted at Honolulu, Hawaii, June 1, 1930; 1 male, on stem of *Phalaenopsis schilleriana*, intercepted at Honolulu, Hawaii, May 12, 1932; 1 male, on bulb of *Grammatophyllum multiflorum* from Philippines, intercepted at Honolulu, Hawaii, April 10, 1933.

The chief diagnostic characters of *peregrinator* are the fine elytral striae which are considerably narrower and shallower than the contained punctures, the indistinct interocular puncture, and the minute indentations on last sternite of male.

Of the 3 other species, *gilvonotatus* Barber (3-3.5 mm.) is distinguished by the dense patches of pale scales near base of elytra, by the lack of submental tooth in male, and by the virtual absence of femoral armature; 4 of the 8 specimens examined were intercepted at Washington, D. C., San Francisco, Calif., and Honolulu, Hawaii, on orchids shipped from the Philippines. *O. aterrimus* (Waterhouse) is characterized by its rather large size (3.5-6 mm.), by the relatively wide, deep, and clean-cut elytral striae, the double or partly triple row of punctures on metepisternum, and by the tooth on inner edge of middle tibia of male; of about 40 specimens examined, several were intercepted on orchids from the Philippines, 3 on orchids from Straits Settlements, and 1 on orchid from Singapore. *O. aterrimus*, as interpreted here, is extremely variable, and may include more than one form. *O. orchivora* (Blackburn) is represented in the Museum collection by the 3 specimens taken in an orchid house at Rutherford, New Jersey, U.S.A., and discussed by Barber (1917, p. 18); it is distinguished by its small size (2.7-3.3 mm.), broad thorax ($\frac{1}{4}$ broader than long), and to some extent by the narrow impunctate space that separates the interocular puncture from the shallow punctures on head.

Apotomorrhinus orchidearum Kolbe (Gartenflora, vol. 55, 1906, p. 4) probably belongs in *Orchidophilus*, but appears to be different from any of the above species. Kolbe's species is described as being 3.75-4 mm. long, opaque-black, the pronotum with a smooth but not elevated median line, the eyes small and feebly convex, and the femoral tooth strongest on fore legs.