

SMITHSONIAN MISCELLANEOUS COLLECTIONS

VOLUME 94, NUMBER 16

Thomas Lincoln Casey Fund

THE GENUS
PANSCOPUS SCHOENHERR
(COLEOPTERA: CURCULIONIDAE)

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(PUBLICATION 3376)

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
FEBRUARY 6, 1936

The Lord Baltimore Press
BALTIMORE, MD., U. S. A.

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THE GENUS *PANSCOPUS* SCHOENHERR (COLEOPTERA: CURCULIONIDAE)

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The following descriptions and synoptic keys have been prepared in order that names may be available for several undescribed species of *Panscopus* in the United States National Museum collection, including two submitted for identification by W. W. Baker, of the Division of Truck Crop and Garden Insect Investigations, United States Bureau of Entomology and Plant Quarantine.

Panscopus may be briefly characterized as a group of North American scarred-snout weevils with a prothoracic ocular lobe and a rounded to narrowly elliptic scale in each serial puncture of the elytra. The shape of the serial scale varies considerably, but in only one species (*alternatus* Schaeffer) does it become hairlike. In one subgenus (*Parapanscopus*) there is a well-defined double row of spines at the apex of the hind tibiae enclosing an oblique, narrowly fusiform, subglabrous area (corbellary plate, fig. 2, a). All the species are flightless, and some of them doubtless are in the nature of geographic forms; but their exact status cannot be determined with certainty at present. The rostral length of the descriptions is the straight-line distance between the tips of the closed mandibles and the point where the upper surface of the rostrum meets the globular basal portion of the head. The terms anterior, posterior, dorsal, and ventral, as applied to the surfaces and edges of the leg segments, indicate the relative positions that would be assumed by these surfaces if the leg were extended in a straight horizontal line at right angles to the longitudinal axis of the body.

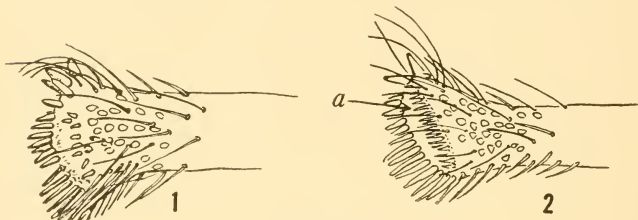
KEY TO SUBGENERA OF *PANSCOPUS*

1. Mentum with a single setigerous puncture each side of middle (rarely two); metepisternal suture invisible (fused with metasternum); rostrum above with a scale-covered, sometimes feeble, median carina in about basal two-thirds; species east of 100th meridian.....2.

¹ This is the third contribution to be published by the Smithsonian Institution under the Thomas Lincoln Casey Fund.

Mentum without setigerous punctures; a short length of metepisternal suture almost always visible opposite rear coxa; rostral sculpture variable; species west of 100th meridian.....3.

2. Setigerous punctures located on face of mentum, sometimes near sides, and usually about one-fourth distance from apex; basal margin of elytra more or less prominent, especially laterally, the side margin sinuate just behind humerus (sinuation feeble or wanting in *alternatus*); alternate elytral intervals elevated (feebly so in *erinaceus*), the seventh and ninth coalescent some distance from base (about opposite mid coxa); anterodistal edge of hind tibia (in front view) less oblique and with only one well-defined row of spines, the corbellary plate, though often discernible, vaguely defined (effaced in *alternatus*) (fig. 1).....*Panscopus* Schoenherr (sens. str.).



FIGS. 1 and 2.

Setigerous punctures located on declivous apical margin of mentum, usually toward sides (not easily seen when mentum is retracted); basal margin of elytra not or hardly prominent, side margins not sinuate; alternate elytral intervals not elevated, the seventh and ninth reaching base independently, or coalescent at base; anterodistal edge of hind tibia more oblique and with two well-defined rows of spines enclosing corbellary plate (fig. 2)

Parapanscopus, n. subg.

3. Both prothorax and elytra with small, shiny tubercles; dorsal scales, in part, usually green; length, 6-10 mm.....*Phymatinus* LeConte.
Elytra without tubercles, the prothorax usually with smaller and less distinctly isolated ones, or rugose tuberculate beneath the scales; dorsal scales not green (except in *johnsoni*); length, 5-9 mm.....4.
4. Antennal scape, when bisecting eye, reaching its hind margin; dorsum of rostrum and of front subcontinuous in profile; prevailing color dull brownish black5.
Antennal scape, which normally is densely coated with scales and setae, not reaching beyond middle of eye; color usually paler brown, or cinereous mottled with brown (more or less green in *johnsoni*); dorsum of rostrum and of front subcontinuous or discontinuous in profile.....6.
5. Female abdomen 4-segmented, its derm not concealed by the vestiture. Male abdomen 5-segmented, hairy and setose, the hairs longer and rather conspicuous in basal concavity; antennal scape hairy or setose; pronotum with usually scanty setae or slender scales, the granular sculpture plainly visible; some of the serial scales on elytral disk elliptical to sublinear and narrower than the punctures.....*Nocheles* LeConte.

Abdomen of both sexes 5-segmented and densely scaly-setose, the derm concealed except apically; antennal scape rather densely clothed with setae and slender scales; pronotum with broad, usually densely placed scales; serial scales on elytra mostly subcircular and covering, or almost covering, the punctures *Dolichonotus*, n. subg.

6. Trochanters without a bristlelike seta; a fine line, marking position of metepisternal suture, usually visible; scales everywhere very dense; alternate elytral intervals costate and setose, even intervals practically nonsetose

Pseudopanscopus Buchanan.

Trochanters with a bristlelike seta; metepisternal suture almost always visible for a short distance only opposite hind coxa (or obsolete); even intervals usually with at least a sparse row of setae.....7.

7. Elytral intervals flat or subequally convex, the setae, which usually are slender and subacute at tip, about equally developed on all intervals; or, if the setae are evidently more numerous on alternate intervals, some of the serial scales on elytra are slender; rostrum not or faintly carinate; pronotum smooth or rugose-tuberculate..... *Neopanscopus* Pierce.

Alternate intervals elevated (sometimes very feebly so), their setae more abundant than on even intervals; elytral setae blunt (except in *longus*); serial scales on elytra rounded; rostrum often carinate; pronotum more or less rugose-tuberculate and, at middle, usually sulcate.. *Nomidus* Casey.

Subgenus PANSCOPUS Schoenherr (sens. str.)

Panscopus SCHOENHERR, Genera et species Curculionidum, vol. 6, pt. 2, p. 266, 1842. (Monobasic type, as designated by Schoenherr, loc. cit., p. 267, *Barynotus erinaceus* Say, Descriptions of new species of Curculionites of North America, p. 12, 1831.)

An examination of two cotypes of *P. alternatus* Schaeffer shows that this species has been misinterpreted in the literature. The error is corrected in the following key:

1. Each serial puncture of elytra with a hair or seta, none with a rounded scale; alternate intervals costate and setose, the even intervals usually with a sparse irregular row of setae (♀) or practically nonsetose (♂); scape reaching two-thirds to almost entirely across eye at middle; side of elytra at humerus straightly oblique, or at most faintly sinuate; corbellary plate effaced; length, 5.5–7 mm [Black Mountain, N. C. (type locality); Mount Mitchell, N. C. (A. Nicolay)]..... *alternatus* Schaeffer.
Scales of serial punctures oblong to rotund in general, a few sometimes setalike but not hairlike; humeral situation usually distinct; corbellary plate present though poorly defined as a rule and not limited anteriorly by a distinct second row of spines.....2.
2. All the elytral intervals setose, the alternate intervals, which usually are slightly prominent, with more abundant setae (rarely are the alternate intervals evidently costate and the second and fourth devoid of setae except toward base and apex); front often broadly concave; rostrum wider, its median carina usually coarse and, in profile, distinctly arched; scape reaching one-half to three-fourths across middle of eye; length, 6–7 mm; ♂ un-

known (New Hampshire, New York, New Jersey, Pennsylvania, Maryland, District of Columbia, Virginia, West Virginia, Michigan, Wisconsin; type locality, United States).....*crinaceus* Say (*carinatus* Pierce).

Alternate intervals distinctly costate and conspicuously setose, the even intervals practically nonsetose; rostral carina less prominent, feebly arched in profile; scape reaching three-fourths to entirely across middle of eye (Virginia and southward).....3.

3. Length, 8.5-9 mm; scape reaching or slightly passing hind margin of eye in ♀ (♂ unknown) [Lee County, Va. (type locality); Tryon, N. C.]

impressus Pierce.

Length, 6-8 mm; scape a trifle shorter (North Carolina)

impressus thoracicus, n. subsp.

PANSCOPUS (PANSCOPUS) IMPRESSUS THORACICUS, n. subsp.

Panscopus (*P.*) *alternatus* PIERCE, Proc. U. S. Nat. Mus., vol. 45, p. 394, 1913; BUCHANAN, Proc. Ent. Soc. Washington, vol. 29, p. 27, 1927; not Schaeffer.

Length, 6.7-7.3 mm; width, 2.7-3.3 mm. Derm black, densely clothed with striated brown scales, which in general have a dull coppery tinge, paler on head, rostrum, and vertex of head, and sometimes greenish toward apex of rostrum above; elytra with or without a few blackish mottlings. Prothorax of male inflated, the sides strongly rounded.

Rostrum stout, somewhat shorter than prothorax, above densely scaly, a little wider and more nearly flat than in *alternatus*, the rather feeble scale-covered median carina not reaching beyond apical third; front flat to broadly and feebly concave; first and second funicular segments elongate and subequal, other segments longer than wide except fifth and sixth, which are usually about as wide as long. Prothorax a little wider than long in both sexes, about seven-eighths (♂) and five-sevenths (♀) as wide as elytra; pronotum with a shallow median sulcus, which is wider and deeper apically, usually interrupted at middle and sometimes obsolescent basally, the general surface with small, scale-covered, setigerous tubercles. Elytra distinctly narrower in ♂, the sides parallel (♂) or slightly rounded and convergent (♀) from behind the distinct humeral sinuation to apical third, alternate intervals costate and with a crowded row (double in places) of long setae; even intervals usually nonsetose, or second and fourth with a few at base and apex, the sixth occasionally with a widely spaced row, the serial scales variable in shape, but at least some of them oblong or ovate (not all subcircular). Fifth sternite of male with a feeble submedian impression. Ventral edge of tibiae with a few erect denticulations, strongest on front pair, feeblest on hind pair.

Type locality.—Round Knob, N. C., June 23, 24, and 26, Hubbard and Schwarz collection; 4 ♂♂, 1 ♀.

Other locality.—Black Mountain, N. C., September 13, Brooklyn Museum collection; 3 ♂♂, whose pin label data are same as on 2 cotypes of *alternatus*; same locality, May 1910, F. Sherman, 1 ♀; same locality, June and July 1912, Beutenmüller, 2 ♂♂, 2 ♀♀ in Casey collection.

Type.—♂, U.S.N.M. no. 50831.

Looks much like *alternatus* from the same region but with prothorax of ♂ more strongly dilated at sides, pronotal sculpture not so rough, rostrum flatter above, and serial scales of elytra much broader. The rostrum is longer than in *erinaceus*. There are at hand single females from Pyziton and Wadley, Ala., and a fragmentary male (the last from a toad's stomach) from Thompsons Mill, Ga., which are more or less closely related to *thoracicus*, but which cannot be definitely associated with any described form.

PARAPANSCOPUS, n. subgen.

Body scaly and setose, the setae slender, narrowly truncate at apex but appearing acute in side view. Rostrum stout, upper surface arcuate and broadly discontinuous with front in profile, moderately widened apically, slightly so basally, thicker at middle than at base, nasal plate not sharply elevated, interantennal fovea or groove usually present; eyes rather small, separated above by basal width of beak, feebly convex, subacute below; scrobe beginning near apex of rostrum becoming rapidly shallower posteriorly and obsolete some distance before eye, arcuate and directed toward lower part of eye or beneath eye; scape setose, or scaly and setose, reaching two-thirds to three-fourths across eye at middle; funicular segments as long as or longer than broad, the first two longer and subequal. Prothorax with feeble ocular lobe; pronotum without median sulcus, though the tubercles are sometimes nearly wanting along a narrow median line; pronotal sculpture tuberculate, the tubercles in *maculosus* indistinct and covered by scales. Elytra of a characteristic ovoid shape, the sides converging posteriorly from a little behind the broadly rounded humeri, intervals with subregular rows of long setae, the serial scales ovate or round, the alternate intervals not costate, the sutural one more or less distinctly vittate, at least on declivity. First abdominal suture arcuate at middle (in female, the male unknown), intercoxal piece wide and subtruncate or slightly advanced at middle, fifth sternite not or very feebly impressed, hind femur nearly reaching apex of abdomen, tibiae

micronate, ventral edge denticulate, at least on front pair; third tarsal segment bilobed.

Type of subgenus.—*Panscopus maculosus* Blatchley (The Rhynchophora or Weevils of Northeastern America, p. 105, fig. 45, 1916).

1. Length, 5.75–7.75 mm (most specimens between 6 and 7 mm); general color paler brown, the head and rostrum clothed with cinereous scales and setae; pronotal tubercles normally obscured by scales; antennal scape clothed with fine setae that do not conceal derm; sutural interval somewhat elevated, especially from middle to part way down declivity and here with a double row of setae; pale stripes often present on sutural and base of fifth elytral intervals and on middle and sides of pronotum. [Ohio, Kentucky, Illinois, Iowa (Nat. Mus.), Missouri (Casey collection), Indiana, New York (Blatchley); type locality, Posey County, Ind., as subsequently designated by Blatchley (Blatchleyana, p. 39, 1930)].....*maculosus* Blatchley.
Length 6 mm or less; color darker brown; pronotal tubercles individually distinct; antennal scape clothed with brown, inclined setae and prostrate scales, the latter more or less completely covering derm apically, the scape reaching middle of eye; sutural interval at most just perceptibly elevated near top of declivity and here with a few extra setae, elsewhere with a single row; pale markings indistinct.....2.
2. Prothorax at middle considerably wider than at base, the sides rather strongly rounded; groove-like intervals between the pronotal tubercles more or less scaly (Ontario)*ovatipennis*, n. sp.
Prothorax faintly expanded at middle, the sides very broadly rounded; intervals between pronotal tubercles almost devoid of scales (Pennsylvania)*ovatipennis verrucosus*, n. subsp.

PANSCOPUS (PARAPANSCOPUS) OVATIPENNIS, n. sp.

Length, 6 mm; width, 2.8 mm. Derm piceous black to rufopiceous, antennae and tarsi reddish, body setose and densely scaly, prevailing color of scales brown with dull, aeneous luster, lighter and in part greenish on pronotum, vertex of head, and apex of rostrum, a vague lateral stripe along prothorax behind the eyes and along elytral suture on declivity paler; dorsal setae brown and conspicuous; pronotum with small, closely set tubercles, most of those on disk isolated individually.

Rostrum stout, twice as long as thick at middle, feebly arcuate, a little shorter than prothorax, above with sparse, erect setae, which form on each side two irregular, longitudinal rows, one lateral and one each side of median carina, the two rows uniting at side margin above antennal socket and forming a single row thence to apex, surface transversely convex and densely scaly in basal three-fourths, flat and sparsely scaly apically, median carina distinct, though obtuse, in middle half, ending anteriorly at the interantennal fovea, the nasal plate feeble and merging into the adjacent rather closely punctate

surface; head with a group of erect setae above eye, frontal fovea absent; scape clothed from near base to apex with inclined setae and prostrate scales, the latter setalike and sparser basally, broader and covering derm apically. Funicular segments elongate, the seventh longer than broad. Prothorax transverse (5 to 4), widest a little before middle, base wider than apex, sides distinctly rounded, scarcely constricted apically; pronotal tubercles at sides obscured by the scales, all the tubercles covered by appressed scales (usually 5 or 6), which do not close the seta-bearing puncture at the summit, the setae slender and posteriorly inclined in general. Elytra one-third longer than wide, wider than prothorax (4 to 3), sides progressively more strongly convergent from about basal fifth to apex, disk moderately declivous from about middle to the broadly emarginate base, surface densely clothed with striated scales, the discal intervals faintly and subequally convex, the third and fifth near base slightly more prominent, each interval with a single row of long, slender, inclined setae, the serial punctures not entirely closed by the small, rounded scales. Beneath and legs setose and densely scaly; tibiae rather slender and denticulate on ventral margin, hind pair obsoletely so.

Type locality.—"Hamilton, Canada" (undoubtedly province of Ontario); 1 ♀.

Type.—U.S.N.M. no. 50646.

P. ovatipennis looks much like some specimens of *erinaceus*, but there the sides of the elytra are more nearly parallel, the beak wider and flatter, the pronotal tubercles less distinct, the alternate elytral intervals with more setae than the even ones, the elytra sinuate laterally at humerus, etc.

PANS COPUS (PARAPANS COPUS) OVATIPENNIS VERRUCOSUS, n. subsp.

Length, 5.7 mm; width, 2.8 mm. Derm rufopiceous (perhaps immature); body densely scaly, general color dark brown, with small paler blotches here and there on elytra, a vague pale line on sides of prothorax behind eyes, and a pale sutural vitta on declivity of elytra, the prothoracic scales in part iridescent; prothorax feebly rounded at sides, the disk with small, closely set but isolated, setigerous tubercles.

Rostrum about twice as long as thick, shorter than prothorax, upper surface broadly and rather strongly discontinuous with front in profile, transversely convex and densely scaly in basal two-thirds, subplanate and sparsely scaly apically, the median carina distinct and extending from the groovelike interocular puncture to the interantennal fovea, nasal plate obsolescent, surface behind it subglabrous and roughly punctate, the erect brown setae arranged in two irregular

rows each side, about as in *ovatipennis*. Scape scaly and setose, funicular segments in general a little shorter than in *ovatipennis*, the seventh about as wide as long. Head with a few setae above eye, some of the scales iridescent. Prothorax slightly transverse (about 10-9), apex not constricted; pronotum with small, scale-covered, setigerous tubercles, those on disk more distinctly isolated than in *ovatipennis* because of the virtual absence of scales in the groovelike network of the interspaces, the scales on tubercles more or less iridescent. Elytra ovoid, about as in *ovatipennis*; discal intervals feebly convex, especially laterally, the third and fifth slightly more prominent at base, the suberect setae in a nearly regular row on each discal interval, the serial punctures rather coarse, the serial scales round and not entirely closing the punctures. Beneath scaly and setose, the fifth sternite (♀) broadly, faintly impressed and rugosely punctate. Legs as in *ovatipennis*, the tibiae denticulate on ventral edge.

Type locality.—Rockville, Pa., March 30, 1909, Kirk and Champlain; 1 ♀.

Type.—U.S.N.M. no. 50832.

Differs from *ovatipennis* in its very feebly expanded prothorax, the more distinctly isolated pronotal tubercles, and the slightly shorter intermediate segments of the funicle.

Subgenus PHYMATINUS LeConte

Phymatinus LeConte, Ann. Mag. Nat. Hist., 1869, p. 382. (Monobasic type, *Tyloderes gemmatus* LeConte, Zool. Rep. Expl. and Surv. . . Route . . Miss. . . to Pacific, p. 56, 1857; type locality, Shoalwater Bay, Wash.)

Specimens of *gemmatus* have been examined from various localities in Washington and Oregon. Recorded from California also in Leng catalog. The majority of the specimens seen have at least part of the dorsal scales green, but a few are grayish white with brownish mottlings, and one specimen is predominantly brown above. The rostrum is relatively long, often being at least three times as long as thick at base.

Panscopus (*Phymatinus*) *sulcirostris* Pierce is a synonym of *Agasphaerops nigra* Horn (see Buchanan, Proc. Ent. Soc. Washington, vol. 29, p. 26, 1927).

Subgenus NOCHELES LeConte (PANS COPIDIUS Pierce)

Nocheles LeConte, Amer. Nat., vol. 8, p. 453, 1874. Though it is evident that LeConte had no intention of founding a new genus at this time, his statement "in one specimen of *Nocheles* but 4 (abdominal segments) are visible" can be considered as establishing the name. The earliest formal description

of *Nocheles* is by Horn, Proc. Amer. Phil. Soc., vol. 15, p. 54, 1876. Monobasic type, *Hylobius torpidus* LeConte, Zool. Rep. Expl. and Surv. . . Route . . Miss. . . to . . Pacific, p. 55, 1857.]

Panscopidius PIERCE, Proc. U. S. Nat. Mus., vol. 45, p. 394, 1913. (Type of subgenus, by original designation, *P. squamosus* Pierce, loc. cit., p. 394.)

In this subgenus the rostrum usually has a fine but distinct median carina, and the last sternite of the female is broadly and shallowly impressed.

1. Length, 6.5–8 mm; alternate elytral intervals elevated, rather strongly so in ♂, more feebly but still evidently so in ♀; legs piceous black; elytral setae longer and more conspicuous, especially on alternate intervals (Rochester, Puyallup, and Olympia, Wash.; Portland, Oreg.; type locality, Oregon) *torpidus* LeConte.
Length about 7 mm; elytral intervals even, or at most faintly elevated in ♂; legs reddish; elytral setae shorter.....2.
2. Elytral scales apparently a little larger, and broadly overlapping on disk of elytra [Hilgard, Oreg. (type locality); known from the single ♂ type] *squamosus* Pierce.
a. Elytral scales apparently smaller and not or only slightly overlapping. [Pullman, Wash. (type locality); 6 specimens, ♂ and ♀] *squamosus* var. *dentipes* Pierce.

Several specimens (♂ and ♀) collected by M. C. Lane in the Blue Mountains of Washington, elevation 6,000 feet, are smaller (about 5.5 mm in length) and probably represent another local variant of *squamosus*.

DOLICHONOTUS, n. subgen.

Body elongate, scaly and setose, scales very dense on elytra, the elytral sides converging posteriorly from behind the rounded humeri, form unusually slender in male. Rostrum stout, nearly twice as long as wide at apex, feebly arcuate, medially unicarinate, gradually widened basally, abruptly widened at about apical fourth so that the apical portion of scrobe becomes broadly visible from above, upper edge of scrobe toward apex elevated above the general surface; scrobe faintly arcuate, obsolete in basal half or more, beginning practically at apex of rostrum; scape nearly straight, gradually and feebly widened apically, first two funicular segments longer, fourth, fifth, and sixth moniliform, seventh about as broad as long. Eyes very feebly convex, broadly rounded above, narrowed below, separated above by a little less than basal width of beak. Prothorax relatively long, ocular lobe well developed; pronotum more or less distinctly sulcate at middle, scales dense, setae slender. Scutellum small, depressed. Elytra with basal margin perpendicular from side to side, alternate (odd) intervals elevated, more strongly so in ♂, the sutural

costa behind middle more prominent than the others, setae numerous on elevated intervals, sparse or practically wanting on some of the flat intervals; side margin of elytra rather abruptly bent downward behind rear coxa. Beneath and legs setose and densely scaly. Intercoxal piece of first sternite wide and subtruncate. Tibiae mucronate, third tarsal segment bilobed. A short length of the metepisternal suture visible opposite rear coxa.

Type of subgenus.—*Panscopus (Dolichonotus) convergens*, n. sp.

♂ and ♀, length about 8 mm; ♂, fifth sternite about two-thirds as long as broad, hind tibia nearly straight, its mucro subacute at tip . . . *convergens*, n. sp.

♂, length 6.5 mm; fifth sternite nearly as long as broad, hind tibia broadly emarginate on ventral margin, its mucro rounded at tip. . . . *oregonensis*, n. sp.

PANSCOPUS (DOLICHONOTUS) CONVERGENS, n. sp.

Length, ♂ 7.8, ♀ 8.1 mm; width, ♂ 2.8, ♀ 3.3 mm. Derm black to rufopiceous, prevailing color of scales fuscous, ♂ with elytral flanks paler, the elytra of ♀ dull yellowish brown with small, irregular blackish areas. Pronotum feebly sulcate along middle, the sulcus present only toward apex in ♀, interrupted at middle in ♂, the general surface densely scaly and with small, shining black, setigerous tubercles showing through the vestiture; elytral costae with a crowded, double (in places triple) row of stiff, rather coarse, slightly curved setae, posteriorly inclined on disk, more nearly erect on declivity; fifth sternite of ♂ two-thirds as long as broad; hind tibia of ♂ nearly straight, its mucro subacute at tip.

Rostrum one-sixth shorter than prothorax, upper surface continuous with front in profile, broadly convex basally, subplanate apically, above, except at apex, densely clothed with small brown scales and short, curved setae, surface densely punctate, apical one-fifth thinly scaly and rugosely punctate; nasal plate not sharply defined; median carina fine but distinct, and extending from base nearly to antennal socket; rostrum at sides densely scaly in basal half; interocular puncture minute; head finely and densely punctate, the small scales becoming quite slender on vertex, a few subprostrate setae above eye. Prothorax slightly longer than wide (♂) or slightly wider than long (♀), widest before middle, base wider than apex (about 5 to 4), sides broadly rounded, more strongly so in ♀, feebly constricted near base, scarcely so apically; pronotum, except median line, with small, shiny, setigerous tubercles or granules, which are not entirely covered by the scales and some of which are connected by fine, irregular carinae, rest of surface densely and irregularly punctate beneath the scales.

Elytra with rows of well separated punctures, each covered by a sub-circular scale, sides converging from behind humeri, more strongly so in the attenuated male, costae feebler basally, strong apically, the sutural one very prominent at top of declivity, second interval in both sexes with a few setae near base and on declivity, fourth interval same in ♂, but in ♀ with a widely spaced row from base to middle, sixth in ♀ with a similar row its entire length, sixth in ♂ with a few basally and apically; declivity subvertical in ♂, slightly reflexed in ♀. Legs densely scaly, tibiae subcylindrical in basal half, ventral edge in apical half with a few erect denticulations, which are obsolescent on hind legs; in ♂ the posterior face of the hind tibia is more or less flattened in the apical third and slightly hollowed near apex, the two anterior tibiae with a similar but feebler modification, the anterior pair slightly sinuate; ♀ with posterior tibia modified as in ♂, the two anterior pairs nearly simple; posterior femur in ♂ longer and slenderer than the other femora; mucro on posterior tibia of ♂ stout, tapering to apex, and with a short, erect spur at base. First sternite of ♂ rather deeply depressed, the concavity densely clothed with subprostrate setae, rest of abdomen densely scaly and setose, the broad scales confined to about lateral third of the first to fourth sternites and to the latero-anterior part of the fifth, rest of surface with dense, inclined setae and a few prostrate scales; abdomen of ♀ densely clothed with scales and setae, the fifth sternite with finer vestiture, the first sternite convex, the fifth sternite shorter and more narrowly rounded at apex than in ♂.

Type locality.—Corvallis, Oreg., May 20, 1925, E. R. Buckell, 2 specimens (♂ and ♀).

Type.—♂, U.S.N.M. no. 50647.

The male of this species is the narrowest of any *Panscopus* (sens. lat.). Superficially *convergens* resembles *torpidus* LeConte, but there the scape and abdomen are setose but not scaly, the legs at most thinly scaly, the body form stouter, the hind tibial mucro of male without spur, and the abdomen of female 4-segmented.

PANSCOPUS (DOLICHONOTUS) OREGONENSIS, n. sp.

Length, ♂ 6.5 mm; width, 2.4 mm (♀ unknown). Derm piceous to rufopiceous, prothorax and rostrum blackish. Body setose and densely scaly, general color of scales pale brown, becoming fuscous toward apex of elytra, paler in a short vague humeral line and at sides of pronotum. Elytral sides converging posteriorly from about basal fourth, the general form somewhat less slender than in *convergens*.

Fifth sternite about seven-eighths as long as broad. Ventral edge of hind tibia emarginate.

Rostrum stout, upper surface subcontinuous with head in profile, median carina reaching from base to nasal plate. Antenna about as in *convergens*. Prothorax about as long as wide, widest before middle, sides more strongly rounded than in *convergens*, and slightly constricted near apex, faintly so near base; pronotum medially sulcate, general surface rather densely clothed with broad, striated scales, which toward middle do not entirely conceal the small, shiny black, setigerous tubercles or granules, the latter joined here and there (and especially each side of sulcus), with irregular carinae, the scales denser toward sides. Elytral costae with a crowded row (double for the most part) of posteriorly inclined setae similar to those in *convergens*, second and fourth intervals without setae except near base and apex, sixth with a widely spaced single row, serial punctures and scales about as in *convergens*. Beneath scaly and setose, the abdominal scales dense basally, somewhat sparser on third and fourth sternites, and replaced by inclined setae on apical portion of fifth sternite; intercoxal piece relatively broader and not so deeply impressed as in ♂ *convergens*; femora, especially hind pair, shorter and stouter than in *convergens*; hind tibia broadly emarginate on ventral edge from basal three-sevenths to apex, the posterior face in apical half flattened, shiny, and sparsely setose; mid tibia similarly but more feebly modified, fore tibia sinuate; fore and mid tibiae denticulate on ventral edge; hind tibial mucro ♂ broad, flattened, and faintly curved, the apex rounded.

Type locality.—Forest Grove, Oreg., June 18, 1923; 1 ♂.

Type.—U.S.N.M. no. 50648.

The unusually long fifth sternite, the structure of the hind tibia, and the subspatulate hind tibial mucro distinguish the male of this species from that of *convergens*.

Subgenus PSEUDOPANSCOPUS Buchanan

Pseudopanscopus BUCHANAN, Proc. Ent. Soc. Washington, vol. 20, p. 33, 1927.

[Monobasic type, *P. costatus* Buchanan, loc. cit., p. 33; type locality, Chilliwack, British Columbia. Specimens have been examined also from "Was.," Puyallup, Wash. (W. W. Baker), and Seattle, Wash.]

Subgenus NEOPANSCOPUS Pierce

Neopanscopus PIERCE, Proc. U. S. Nat. Mus., vol. 45, p. 397, 1913. (Type as designated by Pierce, loc. cit., *Nocheles aequalis* Horn, Proc. Amer. Philos. Soc., vol. 15, p. 55, 1876.)

1. Pronotal tubercles plainly visible among the scales, the pronotal surface considerably roughened or rugose, with the median sulcus more or less developed; a feeble humeral swelling usually present (between origins of sixth and ninth striae); pronotal scales striated; prevailing color cinereous or cinereous mottled with brown (western North America)

aequalis Horn (*cinereus* Horn; *vestitus* Casey).

Pronotal surface smooth and completely covered with appressed, in part nonstriated scales, the median sulcus wanting or faintly indicated; humeral swelling wanting2.

2. Length, 6.7 mm; elytral intervals evidently, though rather feebly, convex; elytral setae long (about as in *aequalis*); prothorax wider than long, the sides strongly rounded (♀) [Placer County, Calif. (type locality)]

squamifrons Pierce.

Length, 4.4 mm; elytral intervals subplanate, the setae short and inconspicuous; prothorax as long as wide (♂) (Placer County, Calif.)

wickhami, n. sp.

PANS COPUS (NEOPANS COPUS) WICKHAMI, n. sp.

Length, ♂ 4.4 mm; width, 1.7 mm. Body slender, subparallel, densely scaly, the prothorax as long as broad; color irregularly and feebly variegated brown and cinereous, the scales in part somewhat varnishlike in luster, especially on head, prothorax, and femora; rostrum above densely scaly to apex, only the nasal plate bare, the apical region faintly impressed; surface sculpture of pronotum completely covered by an even coating of flat, closely appressed scales; elytral intervals nearly flat, each with an irregular row of rather fine, short, pale brownish setae, the serial punctures quite widely spaced.

Rostrum practically straight, a little more than twice as long as thick, about five-sixths as long as prothorax, narrowest about middle, gradually and very feebly widened basally, abruptly and strongly so toward apex, upper surface subcontinuous with front in profile, setae above short, scales dense, no indication of carinae through the vestiture. Eyes feebly convex, separated above by basal width of rostrum; no frontal fovea visible. Antennal scape setose and densely scaly, reaching a little past middle of eye, fourth to sixth funicular segments submoniliform, seventh distinctly broader than long. Prothorax nearly as wide at apex as at base, widest in front of middle, sides converging and just perceptibly sinuate toward base, not constricted apically, ocular lobe distinct; pronotum evenly convex, the setae subprostrate and inconspicuous. Elytra broadly emarginate at base, sides nearly straight and slightly convergent behind the unusually narrow shoulders, surface even, the sutural interval not elevated on declivity; scales in serial punctures rounded, about same size and sometimes same color as the surface scales, the former then scarcely

distinguishable from the latter. Beneath and legs densely covered with cinereous scales; anterior tibial denticulations distinct, ventral edge of posterior tibia slightly convex longitudinally and with a few yellowish spines in addition to the fine hairs. A very short length of metepisternal suture visible opposite rear coxa.

Type locality.—Truckee, Calif., 5,800 feet, August; Wickham; 1 ♂.

Type.—U.S.N.M. no. 50651.

The small size, narrow form, relatively wide apex of prothorax, smooth pronotum, and short elytral setae are distinctive features of this species. The single specimen is the only recorded male in *Neopanscopus*.

P. wickhami and *squamifrons* differ from all described *Panscopus* (sens. lat.) in the smooth coating of scales on the pronotum. Horn's species *aequalis* is a complex unit that ranges from Colorado, Utah, Nevada, and California north to Alberta, Saskatchewan, and North Dakota. Horn's original description calls for "Kansas to British Columbia."

Subgenus **NOMIDUS** Casey

Nomidus CASEY, Ann. New York Acad. Sci., vol. 8, p. 818, 1895 (Coleopterological Notices 6). (Monobasic type, *N. abruptus* Casey, loc. cit., p. 819.)

Including the two described herein, there are now 10 named forms referable to this subgenus. Though all of them appear to be at least subspecifically distinct, they are not susceptible of satisfactory dichotomous arrangement on external characters; and it is evident that some other approach (perhaps through a study of ♂ and ♀ genitalia) will be necessary to place the classification on a sound basis. The following key is intended merely as a guide to the original descriptions of the various forms:

1. Dorsal scales, in part, green; alternate elytral intervals distinctly costate; scape setose only, the derm plainly visible; rostrum rather slender, about 3 times as long as thick at base, and with a fine median carina (at least in ♂) [*Humtulpis*, Wash. (type locality) (*Pan-Pacific Ent.*, vol. 11, p. 9, 1935)] *johnsoni* Van Dyke.
- Dorsal scales not green; scape setose and squamose, the derm more or less completely covered (the prostrate scales are sometimes slender); rostrum usually stouter 2.
2. Hind tibia more or less bent, its lower edge broadly and feebly convex in profile and with some coarse brown or blackish spines in addition to the setae (at least in ♀); rostrum above feebly convex in basal three-fourths, more nearly continuous with front in profile, rostral carinae wanting or feeble 3.
- Hind tibia nearly straight, its lower edge with setae only (except some specimens of *tricarinatus*); rostrum a little longer in most species, usually rising

- more or less abruptly from head, above in basal three-fourths feebly convex to subplanate, and usually with distinct median and sometimes lateral carinae (all of which may be obscured by scales).....6.
3. Elytral costae faint, scarcely perceptible except near base, and with a mostly double row of setae; even intervals with a rather closely set row of setae which is partly double on fourth interval; length, 7 mm (1 ♀) [Inyo County, Calif. (type locality)].....*bufo* Buchanan.
Elytral costae evident, though not always strong; setae on even intervals sparser (except sometimes in *rugicollis*) or wanting.....4.
4. Color brownish black; even elytral intervals nonsetose; rostrum with or without a median carina; mentum sometimes with a trace of a median carina; metepisternal suture sometimes obliterated; apical declivity of elytra distinctly reflexed in profile (in ♀, the ♂ unknown); length, 7.5–9 mm ["Cal." (type locality); Fallen Leaf Lake, Calif.; Easton and Mount Adams, Wash.]*abruptus* Casey.
Color usually paler brown; even elytral intervals with at least a few setae; a short length of metepisternal suture visible opposite hind coxa; apical declivity of elytra (♀) subperpendicular or slightly reflexed in profile.....5.
5. Length, 6.25–7.5 mm; mentum with a feeble median carina in apical half; pronotal rugosities coarser; even elytral intervals setose their entire length [Mount Adams, Wash. (type locality); Mount Rainier and Easton, Wash. (W. W. Baker); Mount Hood, Oreg. (M. C. Lane)]...*rugicollis* Buchanan.
Length, 5.25–6.25 mm; mentum noncarinate; elytral costae stronger, elytral setae longer and in a double or partly triple row on the costae, the flat intervals sparsely and irregularly setose, or nonsetose except toward base. [Alta, Utah (type locality); Priest River, Idaho]...*schwarzi* Buchanan.
6. Elytral costae faint, all elytral intervals setose, the setae subsetaceous (about shape of those in *Neopanscopus aequalis*); denticulations on lower edge of fore and mid-tibiae strong; rostrum medially unicarinate; apical declivity of elytra (♀) more strongly reflexed; length, 7.6–8.3 mm (Washington)
longus, new species.
Elytral costae usually evident, often strong; elytral setae blunt; tibial denticulations feebler; declivity of elytra (♀) subperpendicular.....7.
7. All elytral intervals setose.....8.
Even intervals nearly or quite nonsetose.....9.
8. Length, 5.5–7.5 mm. Prothorax widest in front of middle; rostrum sometimes noncarinate, but usually with a more or less distinct median carina, and occasionally with lateral ones also [Kaslo, British Columbia (type locality); Salmon Arm, Kimberly, Vernon, and Grand Forks, British Columbia; Molson and Tieton, Wash.; Big Fork, Mont.]...*pallidus* Buchanan.
Length, 5–6 mm. Prothorax widest about middle; rostrum usually with three relatively coarse carinae [Parkdale, Oreg. (type locality); Mount Hood, Oreg.]*tricarinatus* Buchanan.
9. Elytral costae strong; seventh funicular segment only slightly wider than long; rostrum usually with median carina only; length, 6–7.5 mm (Electron, Wash.)*bakeri*, n. sp.
Elytral costae broader and feebler; seventh funicular segment about twice as broad as long; rostrum tricarinate; length, 6–6.5 mm [Banff Springs, Alberta (type locality); Olds, Alberta (Wickham collection)]...*ovalis* Pierce.

PANSCOPUS (NOMIDUS) LONGUS, n. sp.

Length, 7.6–8.3 mm; width, 3.1–3.8 mm. Relatively elongate; rostrum with a fine median carina; scape setose and scaly, nearly reaching the middle of eye, seventh funicular segment a little longer than broad, fourth to sixth segments not moniliform and about as long as broad; median pronotal sulcus distinct apically, interrupted at middle, and very feeble or obsolescent basally; elytra with alternate intervals not or very little elevated, the setae suberect and finer than usual. Derm blackish or piceous black, the scales dense, cinereous and brown, forming variable and irregular markings which sometimes are oblique, asymmetrical bars on the elytra.

Rostrum stout, feebly arcuate, somewhat more than twice as long as thick, about as long as prothorax, a little longer in ♂ than in ♀, upper surface broadly and shallowly discontinuous with front in profile, subplanate or feebly convex except at the nearly scaleless apical area which is, as usual, more or less impressed between the elevated edges of the scrobes, nasal plate well defined, its apex sometimes produced backward to the interantennal fovea; above densely scaly and with numerous suberect setae, the vestiture cinereous to fuscous and not entirely covering the median carina, which extends from the interantennal fovea to the fine interocular groove, the latter sometimes invisible; scrobe gradually evanescent posteriorly but sometimes nearly reaching the eye as a shallow, sparsely scaly sulcus. Prothorax slightly wider than long in the ♂, somewhat wider in the ♀, base wider than apex (about 5 to 4), sides nearly straight and divergent in about basal two-thirds, then converging and faintly constricted apically; pronotum rugose-tuberculate, the tubercles small and sometimes nearly covered with the dense scales, the summit of each tubercle with a slender, slightly curved seta. Elytra elongate for this subgroup, serial punctures moderately coarse, the setae slender, some of them subacute at tip and appearing bristlelike (much as in *aequalis* and *squamifrons*), sutural and third intervals slightly more prominent than second, at least in apical half, the fourth interval similarly convex in about apical half, the fifth, sixth, and seventh feebly and subequally convex throughout. Setae, in general, more numerous on alternate intervals, where they usually form a confused double or partly triple row; but where the convexity of adjacent intervals is the same, the setae may be almost or quite as abundant on even as on odd intervals. Beneath setose and densely scaly. A short length of metepisternal suture visible opposite rear coxa. Hind tibia nearly straight, the ventral edge hairy but without spines.

Type locality.—Peshastin, Wash., April 8, 1934, W. W. Baker, collector, Truck Crop no. 4995; 1 ♂ and 2 ♀♀. Same locality, April 7, 1934, P. M. Eide; 1 ♀.

Type.—♂, U.S.N.M. no. 50650.

Larger and more elongate, and with finer and more nearly erect elytral setae than in any of the nearly related forms of *Nomidus*. It is closest to *pallidus*, but that species has the prothorax stouter and more coarsely sculptured, the pronotal channel generally broader and deeper, the alternate elytral intervals more prominent, and the even ones with sparser and much stouter setae. In the female of *longus* the depth of the body at the metasternum is about half the length of the elytra; in the stouter female of *pallidus*, this depth is more than half the elytral length.

PANSCOPUS (NOMIDUS) BAKERI, n. sp.

Length, 6–7.6 mm; width, 2.4–3.7 mm, the females longer and stouter than the males. Scales dense, distinctly striated. Derm black, prevailing color of scales cinereous and brown, the pale scales, especially those in the serial punctures of the elytra, often more or less tinged with silvery or pale greenish blue, the brown scales often obscure aeneous and grouped into irregular and asymmetrical elytral brown markings that tend to form oblique bars, some specimens dark, more rarely nearly uniform cinereous; rostrum with a usually distinct median carina (it may be covered by scales) and occasionally faint lateral ones; antennal scape setose and scaly, reaching middle of eye; pronotal channel usually broad and deep apically, narrower and shallower, or sometimes obsolescent, in basal half, rest of surface rugose-tuberculate; sutural (except basally) and alternate elytral intervals costate, and with a crowded, in places double, row of blunt setae, the even intervals without setae except second along middle third of its length in some females.

Rostrum stout, feebly arcuate, somewhat more than twice as long as thick, about as long as prothorax, much thicker and wider apically, upper surface in profile plainly discontinuous with front, densely scaly and sparsely setose except on and behind the well-defined nasal plate, the surface from about apical third to apex usually lightly concave, more broadly and deeply so near apex, the median carina usually rather broad and conspicuous basally but finer or obsolescent beyond middle; interantennal fovea, when present, rather coarse and groove-like; interocular fovea often groove-like, and frequently produced backward onto the head as a very fine groove or smooth line, which

sometimes reaches the vertex; scrobe feebly arcuate, usually obsolescent at about basal third of rostrum; funicular segments 1 and 2 subequal or 1 longer, 4, 5, and 6 submoniliform, 7 a little wider than long. Prothorax one-seventh to one-fourth broader than long, wider at base than at apex, widest in front of middle, side margins irregularly scalloped and nearly straight and convergent to base, shallowly constricted toward apex, the constricting line rather deeply impressed behind the strong ocular lobe and across the prosternum; pronotal tubercles or granules coarse for this group, some of them partially coalescent, normally nearly covered by scales, those on disk often bare at summit, each with a puncture and seta at summit. Elytra with rows of coarse serial punctures each nearly closed by a subcircular scale; costae distinct, that on sutural interval at top of declivity most prominent; declivity in profile perpendicular in female, oblique in male. Beneath and legs setose and densely scaly. Ventral edge of hind tibia nearly straight, clothed with hairs and stiff setae, but without coarse spines. Fifth sternite of ♂, as usual in the genus, longer and more broadly rounded at apex. A short length of metepisternal suture visible opposite rear coxa.

Type locality.—Electron, Wash., W. W. Baker, collector, Truck Crop no. 4971; 64 specimens, mostly taken during June 1933, a few in September and October.

Other locality.—Montesano, Wash., March 30, 1932. W. W. Baker, 1 specimen. Mr. Baker states, in litt., that this specimen may have been washed down from the vicinity of Electron.

Type.—♂, U.S.N.M. no. 50649.

Closest to *ovalis* Pierce from Alberta, but that species has three distinct rostral carinae, the median strong throughout, the space between median and lateral carinae groovelike, the seventh funicular segment strongly transverse, the pronotal tubercles more numerous but smaller, the antennal scape not reaching middle of eye, and the alternate elytral intervals more feebly elevated. The elytral costae of *bakeri*, on the average, are at least as prominent as in any other *Nomidus*. The uniform dark brown color of *ovalis*, as previously recorded by the writer, was the result of discoloration; the type specimen, recently cleaned, proves to be light brown on the disk of the pronotum and elytra, paler at the sides.

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