

Article VII.—NEW SPECIES OF BEES OF THE GENUS *ANDRENA*,
FROM EQUATORIAL AFRICA, IN THE AMERICAN
MUSEUM OF NATURAL HISTORY.

BY HENRY L. VIERECK, WASHINGTON, D. C.

The following descriptions are based on two of the three species of *Andrena* known from Equatorial Africa, the other being *Andrena africana* Friese, collected by Sjostedt's Kilimandjaro Expedition.

***Andrena (Andrena) æquatorialis*, new species.**

Type.—American Museum of Natural History, New York, N. Y.

Type locality.—Boga, (1° N., 30° E.: Boom.), Eastern Belgian Congo; July, 1914 (J. Bequaert).

Related to *A. (A) helvola* Linnæus and may prove to be a race of *Andrena africana* Friese.

Female.—Length 9 mm.; body black, mostly covered with pale ochreous hairs; head with its facial line : transfacial line :: 62 : 80; axial line : temporal line :: 34 : 21; malar line : joint 3 of antennæ :: 1 : 10; ocelloccipital line : greatest diameter of lateral ocellus :: 7 : 5; elevated portion of malar space virtually wanting; head covered with pale ochreous hairs except on the vertex and in the foveæ; front rather distinctly, longitudinally striate, not elevated into a welt along the fovea; fovea at most : ocellocular line :: 14 : 16; foveal band wanting at upper end of the inner eye margin; distance between fovea and ocelli : ocellocular line :: 2 : 16; fovea somewhat attenuated below its middle to a plane apparently a little below the clypeal line, fovea filled with dark seal brown hairs except below its middle where the hairs are pale golden, fovearea wanting; vertex and temples along the upper edge of the eye with blackish hairs; face shiny, indistinctly reticulate, with well defined punctures that are one or two puncture widths apart; clypeus slightly elevated above the apical margin, slightly convex, sculptured like the face except that the punctures are larger and mostly adjoining, clypearea wanting, clypeus very hairy, its sculpture nearly hidden by hairs; labrarea slightly subemarginate, nearly truncate, its width at base : length down the middle :: 13 : 6; width at apex : length down the middle :: 6.5 : 6; labrarea at base : width of labrum :: 13 : 23, the latter with a fringe of golden hairs; labrum apparently without a median longitudinal crista between the labrarea and apical edge of labrum, joint 3 of antennæ : joints 4+5 :: 10 : 8; joints 4 and 5 thicker than long, the succeeding joints as thick as long or a little longer than thick except joints 11 and 12 which are distinctly longer than thick; antennæ blackish excepting joints 5 and following joints which are reddish beneath; mandibles typical, robust, extending to a little beyond the outer edge of the labrum, black except for the apical third which is very dark reddish; palpi typical; thorax covered with an abundance of pale ochreous hairs which are as long as the dorsulum where they are darker, almost tawny, than the pale hairs on the mesopleuræ; dorsulum dullish, finely reticulated

and punctured like the face but not so deeply or closely; notauli represented by a shiny line; mesopleuræ sculptured somewhat like the dorsulum but more closely and less distinctly punctured, scutel hairy and sculptured much like the dorsulum, except that the punctures are sparser and the interstices smoother; metanotum hairy and sculptured like the dorsulum except that the sculpture is denser and less distinct; tegulæ dark brown, shiny; wing base partly blackish brown, subcosta blackish brown, stigma reddish brown, rest of veins dull brownish stramineous, first recurrent vein received by the second submarginal cell a little before the middle and distinctly nearer to the first transverse cubitus than the first transverse cubitus is to the stigma on the radial vein, nervulus almost interstitial and forming a nearly acute angle with the first abscissa of the discoidal vein, membrane uniformly tinged with brown; legs blackish except for the small joints of the tarsi which are more or less dark brown, legs covered with brownish and ochreous hairs; scopa typical, its hairs reddish except the hairs at base above which are decidedly blackish brown; hind metatarsi at most apparently a little narrower than mid metatarsi; propodeum with its enclosure poorly defined, with a loose network of fine carinæ, dullish and finely reticulated, rest of upper face of propodeum sculptured somewhat like the dorsulum but with less distinct punctures, and covered with longer tawny hair, propodeal pleuræ with sparse shallow punctures and almost hidden by the pale tawny floccus; abdomen with its tergum shiny and sculptured much like the face but with shallow, sparser punctures, the punctures from two to six or more puncture widths apart on the first tergite, the punctures apparently closer on the succeeding tergites, first, second, third, and fourth tergites with an entire apical, ochreous hair band, apical edge of first, second, third, and fourth tergites with a stramineous border; second tergite with its elevated portion down the middle: depressed portion :: 15 : 11; fifth tergite shiny, indistinctly reticulate, its punctures coarser and closer together than on the other tergites; pygidium nearly planate, with a shallow furrow on each side, nearly pointed at apex; tergum with conspicuous, pale nearly erect ochreous hairs, in addition to the hair bands with an admixture of black hairs on the fourth; fimbria blackish.

***Andrena (Andrena) boswendica*, new species.**

Type.— American Museum of Natural History, New York, N. Y.

Type-locality.— Boswenda (1° 20' S., 29° 20' E.; 1900 m.), Eastern Belgian Congo; October 22, 1914. At flowers of *Ranunculus pubescens* and *Geranium aculeatum* (J. Bequaert).

Apparently not related to any *Andrena* treated in Schmiedeknecht's *Apidae Europææ*.

Female.— Length 10 mm.; body black, mostly covered with pale ochreous almost whitish hairs; head with its facial line : transfacial line :: 73 : 89; axial line : temporal line :: 37 : 20; malar line : joint 3 of antennæ :: 15 : 13; ocellocapital line : greatest diameter of lateral ocellus :: 10 : 5; elevated portion of malar space nearly as long as depressed portion; head covered with pale ochreous hairs except on the vertex where the hairs are dark brown or brownish; front rather distinctly, longitudinally striatopunctate, not elevated into a welt along the fovea; fovea at most : ocellocular line :: 11 : 17; foveal band represented at upper end of the inner eye margin by a beveled space adjoining the eye; distance between fovea and ocelli : ocellocular line :: 5 : 17; fovea somewhat attenuated below its middle where it is apparently only a little nar-

rower than the greatest width of the fovea, the latter continued to a point apparently distinctly below the clypeal line; upper third of fovea filled with dull brownish hairs, the lower two-thirds mostly with pale ochreous hairs; fovea wanting; temples along the upper edge of the eye with brownish hairs, face mostly dullish, finely reticulate, with rather distinct punctures that are from adjoining to as many as two puncture widths apart; clypeus distinctly elevated above the apical margin, slightly convex, sculptured like the face except that the punctures are larger closer and better defined; clypearea present but poorly defined except on the lower fourth where it is a median polished welt; clypeus thinly hairy, its sculpture not at all hidden by hairs; labrarea truncate, its width at base : length down the middle :: 14 : 5.5; width at apex : length down the middle :: 7 : 5.5; labrarea at base presumably nearly half as wide as the labrum, the latter with a fringe of golden hairs, labrum apparently without a median longitudinal crista between the labrarea and apical edge of labrum; joint 3 of antennæ : joints 4+5 :: 13 : 9; joints 4 and 5 thicker than long, the succeeding joints apparently as thick as long or a little longer than thick, except joints 11 and 12 which are apparently distinctly longer than thick; antennæ blackish throughout except the apical joint which is brownish at tip and beneath; mandibles typical, robust, extending a little beyond the lower angle of the clypeus, black except for the apical third which is dark reddish; palpi nearly typical; thorax covered with an abundance of pale ochreous almost whitish hairs which are nearly as long on the dorsulum where they are darker, i. e., from tawney to dark brown, than the almost whitish hairs on the mesopleuræ; dorsulum dullish, finely reticulated and punctured much like the clypeus but not so closely; notauli represented by a shining line; mesopleuræ sculptured somewhat like the dorsulum but not so distinctly, scutellary hair and sculptured much like the dorsulum, metanotum with pale tawny hair and densely sculptured; tegulæ blackish except for a dark brown shiny reticulated area; wing base partly blackish brown, subcosta blackish brown, stigma dark reddish brown with a blackish border, rest of veins brown with a blackish tinge, first recurrent vein received by the second submarginal cell before the middle and nearer to the first transverse cubitus than the first transverse cubitus is to the stigma, on the radial vein, nervulus interstitial and forming an acute angle with the first abscissa of the discoidal vein, membrane uniformly strongly tinged with brown; legs blackish except for the small joints of the tarsi which are more or less pale brown, legs covered with brownish golden and ochreous hairs; scopa typical, its hairs uniformly golden with a reddish brown tinge except at base above where they are decidedly darkened; hind metatarsi at most apparently a little narrower than mid metatarsi; propodeum with its enclosure rather well defined, dullish and finely reticulated besides having a loose network of fine carinæ, rest of upper face of propodeum sculptured somewhat like the metanotum but not so densely, and covered with finer pale tawny hair, propodeal pleuræ finely reticulated and with sparse shallow punctures and almost hidden by the pale ochreous floccus; abdomen with its tergum shining and sculptured much like the face, the punctures from adjoining to three or four puncture widths apart on the first tergite, the punctures hardly closer on the succeeding tergites but smaller on the third and fourth; first, second, third, and fourth tergites with an apical, rather thin, pale ochreous hair band that is not interrupted in the middle; apical edge of first, second, third, and fourth tergites with a brownish-stramineous border; second tergite with its elevated portion down the middle : depressed portion :: 16 : 12; fifth tergite shining, reticulate, its punctures coarser than on the preceding tergite; pygidium nearly planate, convex near apex, with a shallow furrow on each side, nearly pointed

at apex, mostly blackish, reddish brown at base; tergum with inconspicuous, pale nearly erect hairs in addition to the hair bands, fimbria blackish brown, third and fourth tergites with blackish brown hairs.

Allotopotype.— American Museum of Natural History, New York, N. Y.

Data the same as for the type.

Apparently related to *Andrena soror* Dours judging from Schmiedeknecht's report¹ on this species.

Male.— Length 9 mm.; body black, mostly covered with pale ochreous almost white hair; head with its facial line : transfacial line :: 62 : 79; axial line : temporal line :: 34 : 22; temples hardly produced, trapezoidal, the broadest part above the middle of the eye; malar line : joint 3 of antennæ :: 15 : 11; depressed portion of malar space virtually wanting; hairs between the upper ends of the eyes rather brownish; front sculptured as in the female; ocellocular line : ocelloccipital line :: 17 : 8.5; face sculptured as in the female; clypeus slightly convex, more shining and more distinctly punctured than the face, somewhat elevated directly above the apical margin; clypearea present on the lower fourth of the clypeus; sculpture of the clypeus not hidden by the moustache; labrarea with a broad rounded shallow emargination, almost truncate, polished, its width at base : greatest length :: 13 : 5, width at apex : length down the middle :: 9 : 4; labrarea at base at least half as wide as the labrum, the latter with a fringe of pale golden hairs; joint 3 of antennæ : joint 4 :: 11 : 6; joint 4 a little thicker than long, following joints from a little longer than thick to one and one-half times as long as thick, dullish, flagel, undulate in outline; antennæ blackish throughout; mandibles atypical, rather robust, extending a little beyond the outer edge of the labrum and approximately to the middle of its fellow, black except for the apical fourth which is more or less dark reddish; palpi nearly typical; thorax covered with an abundance of pale ochreous almost white hairs, hairs of dorsulum seemingly shorter than hair of mesopleuræ; dorsulum dullish, finely reticulated and sparsely punctured, the punctures shallow and from adjoining to three puncture widths apart, mostly one or two puncture widths apart; notauli represented by a shining line; mesopleuræ dullish with pale ochreous hairs throughout, finely reticulated and mostly covered with shallow pits, that are mostly two to three pit widths apart; scutel hairy and sculptured like the dorsulum; metanotum hairy like the dorsulum, densely sculptured; tegulæ blackish with brownish tips, shiny and finely reticulated, partly almost polished; wing base mostly blackish brown, subcosta blackish, stigma dark reddish brown with a blackish border on its lower side, first recurrent vein received by the second submarginal cell beyond the middle but not quite as near to the second transverse cubitus as the first transverse cubitus is to the stigma on the radial vein, nervulus interstitial, forming an acute angle with the first abscissa of the discoidal vein, membrane uniformly tinged with brown; legs blackish brown excepting the small joints of the tarsi which are rather dark brownish; legs covered with pale ochreous hairs, except on the tibæ and tarsi which are more or less covered with pale brownish hairs; hind metatarsi at most hardly wider than mid metatarsi and nearly half as wide as hind tibæ at apex of the latter; propodeum with its enclosure poorly defined, the enclosure mostly granular, with a finely rugulose, central, shallow impression, rest of upper face sculptured somewhat like the mesopleuræ, covered with pale ochreous hair; propodeal pleuræ sculptured as in the female, the sculpture nearly hidden by the uniformly distributed pale ochreous hairs; abdo-

¹ *Apidæ Europææ*.

men with its tergum shiny, finely reticulated and rather distinctly punctured, the punctures mostly two or three puncture widths apart; first, second, third, and fourth tergites with pale ochreous erect hairs, except on the apical margins where the hairs are nearly appressed and arranged in bands; second tergite with its elevated portion down the middle: depressed portion :: 17 : 9; fifth tergite with its basal blackish portion covered with poorly defined punctures that are as many as four puncture widths apart, rest of fifth tergite and exposed portion of sixth and seventh tergites with a stramineous margin, anal process narrow, with a subapical transverse carina, nearly triangular at apex, and with a brownish stramineous margin; fifth tergite with brownish hairs except for an apical fringe of pale hairs, hair at apex of abdomen of a brownish hue.