

typical *C. herculeanus* of boreal and alpine Europe, but I must admit that the differences which, according to Forel, separate the two forms are very slight, not to say elusive. These differences are merely a somewhat coarser sculpture and slightly longer and more abundant, oblique or sub-erect hairs on the antennal scapes and tibiae in the American specimens. After carefully comparing a couple of the cotypes of *whymperi* kindly given me by Professor Forel with many specimens of *C. herculeanus* collected by myself during two summers in the high Alps, I have some doubts as to the validity of *whymperi* as a true variety. Moreover, the specimens I have examined from Newfoundland and Isle Royale, Michigan, have the hairs on the scapes and tibiae neither longer nor more erect than in European specimens and the differences in sculpture are to me imperceptible. Forel states that the female of *whymperi* measures only 12–13.5 mm. and is therefore smaller than that of the typical *herculeanus*, but I have before me a number of females from British America and the Rocky Mts. which measure 15–16 mm. Emery states that the var. *whymperi* occurs also in Siberia and Mongolia and has therefore included it in the palearctic fauna.

The list of localities given above shows that the true home of *C. whymperi* is British America, Alaska and high elevations in the Rocky Mts. (8000 ft. and over) and White Mts. (3000 ft. and over). When it strays to lower levels, it is found only in cold tamarack bogs (in Wisconsin), coniferous forests (in Maine, Michigan, Oregon and Washington) or in the cold woods of the Alleghanies (in Pennsylvania). It is therefore quite as clearly a boreal or alpine form in America as is the typical *herculeanus* in Europe. Its habits, too, are the same. It forms large colonies nesting in logs and stumps, especially of conifers, and may be regarded as the prototype of our various North American "carpenter ants."

27. *C. herculeanus* L. var. *modoc* nom. nov.

*C. pennsylvanicus* var. *semipunctatus*, FOREL (nec Kirby), Bull. Soc. Nat., XVI, p. 57, 1881; Ann. Soc. Ent. Belg., XLVIII, p. 152, 1904.

*Worker major and minor.*

Differing from *whymperi* in sculpture, pilosity and color. The shagreening of the head is coarser, so that it is even more opaque, especially on the sides and posterior corners. The punctures of the gaster are larger and the whole surface rougher and more opaque. Hairs and pubescence golden yellow, the former much as in *whymperi*, except that they are shorter and more appressed on the scapes and tibiae. The pubescence is much longer and more conspicuous, especially on the upper surface of the gaster, but decidedly shorter than in *pennsylvanicus*. Head, thorax, petiole and gaster black; legs deep red. Coxæ dark brown; antennæ varying from black to dark brown, the funiculus usually