

subapical as well as apical spines; spurs subopposite, the basal pair a little before the middle of the tibiae, scarcely longer than the tibial depth, set at an angle of about 40° with the tibiae, and about 100° with those of the opposite side; inner middle calcaria as long as the metatarsus, twice as long as their mates. Hind tarsi about two-fifths as long as the tibiae, the first joint as long as the rest together, the second twice as long as the third. Cerci tapering regularly, not more than half as long as hind femoral breadth. Ovipositor about four-fifths as long as the hind femora, nearly straight and slender, but apically upcurved and finely pointed, the inner valves very bluntly and feebly crenulate.

Length of body, ♂ 13 mm., ♀ 12 mm.; pronotum, ♂ 3.75 mm., ♀ 4 mm.; fore femora, ♂ 4.4 mm., ♀ 4.75 mm.; hind femora, ♂ 10 mm., ♀ 10.5 mm.; hind tibiae, ♂ 10.5 mm., ♀ 11.25 mm.; ovipositor, 8 mm.

2 ♂, 5 ♀.—Eight-mile Station, about 5,500 feet, on the road from Wawona to the Yosemite Valley, Cal., A. P. Morse.

This species is easily recognized, at least in the male sex, by the antennae discoloured at base and the dark patch on the hind femora.

12. *Ceuthophilus vinculatus* Scudd.—There are specimens in the National Museum from California and Washington, and the Cambridge Museum has a pair, apparently belonging here, from Santa Barbara, Cal.; the species is also found in Nevada, Iowa, and Nebraska.

13. *Ceuthophilus testaceus* Scudd.—A single specimen, apparently of this species, was taken at Los Angeles, Cal., July 29, by A. P. Morse. It had previously been known only from Missouri, Nebraska, and Wyoming.

14. *Ceuthophilus californianus* Scudd.—This has been reported from Vancouver Island, and from many places in California, in Contra Costa, Sonoma, Marin, San Francisco, Alameda, San Mateo, Santa Clara, Santa Barbara, Los Angeles and San Bernardino Counties, as well as from Utah and Arizona. Mr. Morse brought home a specimen from Corvallis, Benton Co., Oregon, taken April 19. (See below, under *Hemideopsylla californiana*).

15. *Ceuthophilus pacificus* Thom.—This has been taken by many persons in California without closer specification of locality, and by others in Contra Costa and Los Angeles Counties, and at Lake Tahoe. It also occurs in Nevada.