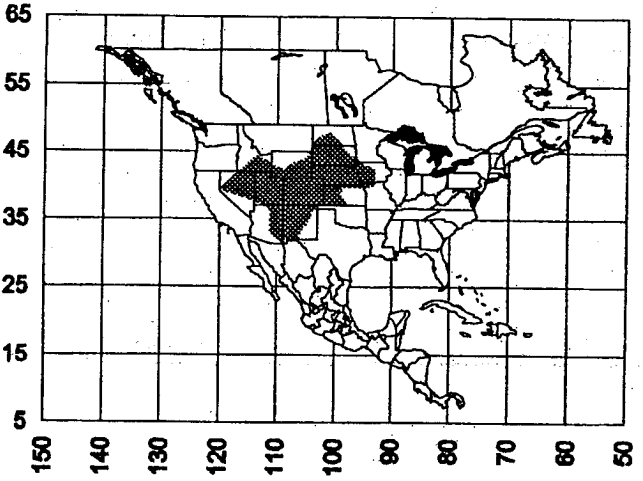
ground, side of mesosoma rugose, propodeal spines well developed, length about half distance between bases of spines, subpetiolar process moderately well developed, apex blunt, node of petiole moderately sharp, top of node obliquely truncate, top of petiole and postpetiole with rugae, background surface smooth, dorsum of gaster shiny.

Distribution: USA: North Dakota, South Dakota, Idaho, Wyoming, Utah, Nevada, Arizona, Colorado, New Mexico, Nebraska, Iowa. (Map 54).

Type series: Holotype worker (MCSN) [seen].



Map 54. Distribution of *Leptothorax tricarinatus*.

Discussion: *Leptothorax tricarinatus* could be confused with several other species, especially *L. stenotyle*, and *L. rugithorax*. It can be separated from *L. stenotyle* as the postpetiole is noticeably widened when compared with the petiole (compare Fig. 45 & 46). The head is much more coarsely sculptured, with coarse rugae, whereas the head of *L. rugithorax* is more finely sculptured, with fine rugulae, and even some areas that are nearly smooth and shining. Specimens of *L. rugosus* with a lightly sculptured gaster may key here. They differ in being much more coarsely sculptured, with coarse rugae on the head and dorsum of the mesosoma. The petiole is broader and not laterally "pinched" as it is in *L. rugosus*. The clypeus of *L. tricar-inatus* has the medial and 2 lateral clypeal carinae well developed, whereas they are not much more developed than any of the other carinae in *L. rugosus*.

Biology: This species nests under rocks and in moist soil in open grassy areas (Cole, 1953; DuBois, 1985), including foothill meadows, canyon deciduous forests, oak woodlands, oak-hickory forest (DuBois, 1985), ponderosa pine forests (Mackay et al., 1988), shortgrass prairie, sagebrush and pastures (Gregg, 1963), as well as cedar forests and areas with scant vegetation (Wheeler and Wheeler, 1963). It appears to do well in disturbed sites (Cole, 1952). Nests are small (Buren, 1944)