

The geographical distribution of the North American *Leptothorax*, though very incompletely known, is not altogether devoid of interest. So far as it is possible to generalize from existing data, it would seem that the species are rather uniformly distributed over the entire continent, not excepting at least a portion of the Arctic regions. By this I do not mean to say that the same species occur everywhere, or even that the distribution of a particular species is very wide, but that the ant-fauna of any given locality usually comprises a few species of *Leptothorax*. This indicates a wide range of adaptability to differences of soil, moisture, temperature, vegetation, etc., within the same genus. The extremes of this adaptation seem to be represented by forms like *L. curvispinosus*, which inhabits the humid shady woods of the North Atlantic States, and *L. Pergandei*, which occurs even on the sun-scorched soil of the Trans-Pecos deserts.

We have few species in common with Europe, probably only *L. acervorum* and *L. muscorum*, both presenting distinct American varieties or subspecies analogous to and occurring over the same territory as the American forms of *Formica fusca*, *rufa* and *sanguinea* and *Myrmica rubra*. All of these forms occur far to the north and to considerable altitudes, both in Europe and America, and undoubtedly constitute important elements of an ancient palæarctic ant-fauna.³ At low altitudes and within our territory the forms of *L. acervorum* and *muscorum* seem to be confined to the northernmost tier of States.

The twenty species of *Leptothorax* recognized in the present paper as occurring in America north of Mexico are about equally distributed between the two divisions of the genus, which are characterized respectively by the workers and females having 11- (the males 12-) jointed antennæ, and the workers and females having 12- (the males 13-) jointed antennæ. It is an interesting fact that the species with 11-jointed antennæ in the workers are mainly confined to the Northern and Eastern States, those with 12-jointed antennæ to the Western and Southwestern territory. Exceptions are *L. curvispinosus* and *acervorum*, which present varieties even in New Mexico (though at considerable altitudes!) and *L. tricarinatus*, which was described from South

1886, and III. Tomognathus sublaevis Mayr, *ibid.*, Bd. XXI, No. 4, 1896; Wheeler, "The Compound and Mixed Nests of American Ants," *Am. Natural.*, Vol. XXXV, Nos. 414, 415, 417 and 418, 1901, and "Ethological Observations on an American Ant (*Leptothorax Emersoni* Wheeler)," *Arch. f. Psych. u. Neurol.*, Bd. II, Heft 1 u. 2, 1903 pp. 1-31.

³ *L. acervorum* var. *convivialis* (q. v.) has been taken on the summit of Las Vegas Range, N. M., at an altitude of 11,000 feet, by Prof. T. D. A. Cockerell in xenobiosis with another boreal ant, *Myrmica brevinodis*. *L. acervorum* var. *Kincaidi* was described by Pergande from Alaska.