NATURAL SCIENCES OF PHILADELPHIA.

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A REVISION OF THE NORTH AMERICAN ANTS OF THE GENUS LEPTOTHORAX Mayr.1

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The diminutive species of the cosmopolitan genus Leptothorax are among the most interesting though least conspicuous of our ants. No other group of Formicide appears to present such diversity of habits, while at the same time adhering so closely to certain rather definite generic peculiarities. The species all form small colonies, often of not more than twenty-five to fifty individuals, and occupy small cavities in the soil, or between stones, or in the tissues of plants. These cavities are either of their own excavation, or found ready to their use in the form of accidental openings or the burrows and galleries of larvæ, other ants, etc. Favorite nesting-places are the abandoned woody galls of the Cynipidæ, like the galls of Holcaspis cinerosus on the live-oaks of central Texas, the galls of Diptera, like Trypeta solidaginis on the golden-rod, etc. Even hollow nuts on the ground under the trees are sometimes tenanted by species of Leptothorax. Brief notes on the nesting habits, so far as these are known, are appended to the descriptions of the different species enumerated below.

The small size and obscure location of the Leptothorax nests, which form a remarkable contrast with the teeming, conspicuous formicaries of other ants like Formica rufa, F. exsectoides, Pogonomyrmex barbatus and Ischnomyrmex Cockerelli, will readily account for our rather limited knowledge of the North American species. Then, too, none of our Leptothorax are really common, except in certain circumscribed localities, so that the discovery of the species is more often a matter of accident than of deliberate search, even when one is out looking for ants and nothing else. Single workers are found running about on the ground or on the trunks and branches of trees in search of sweet exudations, small insects or the remains of large insects that have been rejected by spiders, birds, etc. The nests are most readily found by following up such single workers, often a tedious and time-consuming task, as these insects will sometimes run about for an hour or

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