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## OBSERVATIONS ON LEPTOTHORAX DULOTICUS.<sup>1</sup>

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In a previous paper (Wesson, 1937), a new species of *Leptothorax* was described, and shown to be dulotic or slavemaking. This was evident from the fact that it was found in a mixed colony containing, besides workers and a dealate female of the new species, workers of both *L. curvispinosus* and *L. longispinosus*, and from the fact that *duloticus* workers were observed to remove pupae from a nest of *curvispinosus* and carry them back to the home nest. Subsequently, in 1937, I was able to find 3 fine, additional colonies within 200 feet of the spot where the type colony was taken. Two of these colonies, containing respectively 40 and 47 *duloticus* and 50 and 70 *curvispinosus*, were transferred to an artificial nest where it was possible to observe their behavior and also to compare them with *Harpagoxenus americanus* (Wesson, 1939) which was being studied at the same time. These observations are presented below.

### I. OBSERVATIONS ON WORKERS DEPRIVED OF THEIR SLAVES.

Twenty workers of *L. duloticus*, together with about 15 medium-sized larvae, were separated from their slaves. Workers and larvae were placed in a bottle which was connected with a darkened chamber by a 2-in. tube through the cork. The bottle was placed in a strong light. At first the *duloticus* clustered in small groups in the bottle. A few of the ants, especially the darker, older ones persisted in running around and up the sides of the bottle. One or 2 carried a larva apiece to a pile. Several workers found the dark chamber and continued making trips between it and the bottle where most of the workers were clustered. They would go to the dark chamber, stay in it for 10 or 15 seconds, then return to the

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