In their external morphology and size the intermorphic queens, thus, represent true intermediates between the ergatomorph and the gynomorph. Dissections of representative numbers of specimens were carried out in order to check the reproductive organs and to compare them with those of gynomorphs.

The results clearly demonstrated that all intermorphs had fully developed ovaries with 2 × 3 ovarioles and a spermatheca, without any visible difference to those of gynomorphs. The reproductive organs, thus, have the size and shape which is tpical for reproductive females of the genus. Ergatomorphs, on the contrary, never had a spermatheca, and their ovaries usually consisted of 2, rarely up to 5 ovarioles, as is also frequent in other *Leptothorax* pecies.

Evidence of functional monogyny in *Leptothorax sp. A.*

In about 25 % of the colonies collected we found more than one, and up to five females, either intermorphic or gynomorphic ones or both together. Dissectioning of all females of such colonies revealed that in all cases only one of them was egg-laying, whereas the others also had their receptacles filled with sperm, but their ovarioles were short and transparent like in virgin females. No yolk deposition could be seen in their oocytes.

One remarkable sample apparently consisted of two colonies which had been nesting in close vicinity, and thus were unfortunately aspirated together, which resulted in fighting among the ants. However, the sample contained two fully fertile intermorphs (the queens of the two colonies), nine inseminated but sterile intermorphs, and one gynomorph in the same reproductive state. So, in one of the original colonies, a potentially fertile gynomorph had been living alongside an intermorphic queen.

The " potential queens " certainly were living in the colonies, presumably their mother colonies, at least since the previous summer, since during the time of collecting the new sexual brood had not yet reached the adult instar. Such a presence of inseminated potential queens alongside of only one truly fertile queen was termed functional monogyny (PARDI, 1940, 1946 ; BUSCHINGER, 1968). It is a frequent phenomenon in the guest ant genus *Formicoxenus* (FRANCŒUR *et al.*, 1985), but also occurs in *Leptothorax gredleri* Mayr (BUSCHINGER, 1968), a close relative of *L. muscorum.*

Range of *Leptothorax species A* **and frequency of intermorphic queens in different populations**

In the map (*fig. 1*) the localities are indicated where we have collected colonies of *L. sp. A.* (*L. sp. B* was found in all these sites, too). Supposedly its actual range is much larger than is presently known, however, in some areas where we have collected, the species is apparently lacking. Thus, in quite dense and dark mixed and coniferous forests in the Gaspe peninsula (not indicated in the map), we only found *Lepthorax sp. B.* In acorn and hickory forests near Montreal (Mont Rigaud) with habitats apparently suitable for