Finally, preliminary results of electrophoretic studies also reveal that *species A* should represent a good species with polymorphic queen caste.
— Esterase IEF yields four to five major bands in *L. species A*, in *species B*, and in European *L. acervorum* and *muscorum* (*fig. 4*), which seem to be species-specific and quite invariable in all populations studied (37 colonies of *L. sp. A* from 10 different sites, 11 colonies of *sp. B* from 7 sites, and about 8 colonies each of *L. acervorum* and *L. muscorum* from sites near Nuremberg, Bavaria, and Nyehusen in Southern Sweden). No difference was found between *species A* colonies with intermorphic or gynomorphic queens (8 colonies with only gynomorphs, 5 with both gynomorph and intermorph offspring, and 24 with only intermorphs).

In addition to these invariable bands in all four species a set of variable bands was found ; one always appears in single (haploid) male pupae, one or two in female pupae, and one to three in whole colonies. These bands apparently represent allozymes of one locus. The bands (four in *L. sp. A*, four in *L. sp. B*, two in *L. acervorum* and *L. muscorum*) in each species have a different pI. No interspecific heterozygotes have been found.
— Isocitrate dehydrogenase (IDH) patterns are very similar in the major bands in *L. sp. A, L. acervorum* and *L. muscorum*. Only for *L. sp. B* a different pattern was found (*fig. 5*).

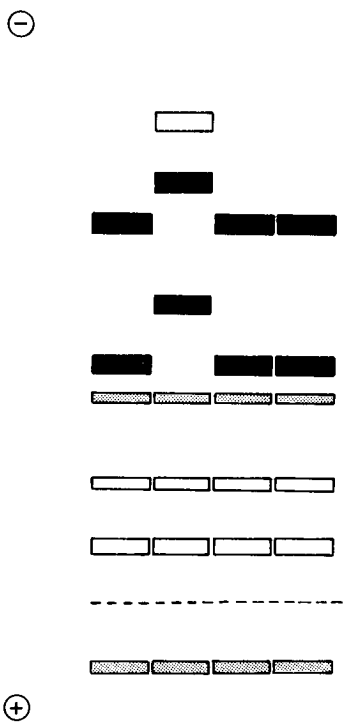

Fig. 5. — Schematic pattern of IDH (black and white bands) and SOD (dotted bands) isoenzymes. Application point is indicated by the dotted line. From left to right : *L. species A, L. species B, L. acervorum, L. muscorum.*

Abb. 5. — Schema der Isoenzymmuster von IDH (schwarze und weiße Benden) und von SOD (gerasterte Banden). Die unterbrochene Linie gibt den Auftragungspunkt an. Von links nach rechts : *L. species A, L. species B, L. acervorum, L. muscorum.*