

case of the genus *Leptomyrmex*, may suggest that the geographic distribution of ants narrowed in time contrarily to the expectations of the "center of origin" hypothesis and according to the thinking exemplified here by CROIZAT et al. (1974). Or, at least, species-group level extinction in the Hispaniolan ant fauna was greater than genus-level extinction since amber times.

The close relationship between Dominican amber and the Recent Notogean fauna at species-group level implies that the ants experienced an evolutionary speed even lower than the one we were already forced to assume by the simple presence of non-related congeners as was the case for *Leptomyrmex*. It is worth recalling here that *Pheidole tethepa* has been described from amber from La Toca which, with an estimated age of 15–45 million years (ČEPEK in SCHLEE, 1990: 53) or 30–40 million years (POINAR, 1992), is among the oldest deposits reported from the Dominican Republic.

However, suggestive the fact that these contemporary Old World elements survive today essentially in the Malayan, Australian and Oceanian realms (see Fig. 12), it is impossible to hypothesize previous privileged continental connections between these regions and the Caribic area.

The sole explanation reasonably applicable to these coincident Dominican and Notogean distributions is that already invoked for *Leptomyrmex* and *Mastotermes*, i. e. a former cosmopolitanism of these clades which survived today only or mainly in the refuge of the Notogea, as is the case for many other animal and plant relics. The broad Oceanian extension of "*Pheidolacanthinus*" visible in Fig. 12 is due essentially to the records of *Pheidole sexspinosa* EMERY, a New Guinean species which must have colonized several Polynesian islands in much more recent times.

An alternative explanation to the Old World affinities of the amber ant fauna would be considering the previously mentioned contemporary Notogean records as due to immigration from the New World instead of being due to area restriction since amber times. However, we have no evidence supporting this hypothetical migratory route from the probable relationships of the extant Notogean ant fauna.

The major changes affecting the world ant fauna since Dominican amber times, hence, seem not to concern the faunal composition in a remarkable way but are characterized essentially by dramatic contractions or extensions of the distribution areas. The Dominican amber is offering an increasing number of examples of former broader distribution of clades surviving only in relic areas today.

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