1. Introduction

While SANDERSON and FARR (1960) published a preliminary report on the fossiliferous amber from the Dominican Republic, it was not until 1978 that the first thorough study of the amber itself and its fauna was published. This was done by SCHLEE on the basis of his experience establishing a large scientific collection of amber fossils for the State Museum of Natural History, Stuttgart, Germany (SCHLEE & GLÖCKNER 1978).

It is from this material that the present study dealing with the first fossils of gardening ants is based. The results of other studies have already been published in this journal: Arachnida: Scorpionida and Amblygygi (SCHAWALLER 1979a, b); Insecta: Strepsiptera (KINZELBACH 1979), Diptera — Keroplatidae (SCHMALFUSS 1979). Further papers are in preparation covering different groups such as: Crustacea: Oniscoidea; Arachnida: Pseudoscorpionida and Araneae-Thomisidae; Insecta: Psocoptera and Formicidae, and others. — Apart from this, only one Termite (EMERSON 1971) and one fly and one midge (SCHLÜTER 1976, 1978) have been reported from this amber fauna.

My own experience from a visit to the Dominican Republic and collecting for the Natural History Museum, Basel, Switzerland, Dominican amber pieces containing ants will be published in a series of papers in the near future and will be treated together with the rich material belonging to the Stuttgart Museum.

2. Acknowledgements

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I am grateful to John B. Saunders, Natural History Museum, Basel, for his contribution concerning the age of the amber (cf. chapter 4).

3. Material and methods

The material examined consists of a total of 13 entire or nearly entire specimens plus a few fragments embedded in a single piece of Dominican amber (1 cm^3) cut and polished for jewellery. During this investigation the stone has been cut into seven pieces in order to allow better observation. All specimens run under the collection number Do-377 of the amber collection of the State Museum of Natural History, Stuttgart (cf. chapter 6.1.). The holotype is the specimen represented in the photograph (Fig. 5) of this paper and is the ant nearest to the groove excavated by the goldsmith into the amber piece (Do-377-K-1).

The drawing showing the full dorsal view of the ant (Fig. 2) published here is a true reconstruction in the sense that every detail has been seen, but in different specimens, some of differing size. The body proportions have been combined into a single ideal specimen.