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Foraging behaviour of ants Messor in relation with the characteristics of the seeds

C. Delalande, A. Lenoir

Laboratoire d'Ethologie et de Psychophysiologie, Faculté des Sciences, Parc de Grandmont, 37200 Tours, France.

One large colony of Messor structor was studied in Touraine. Seed distributors with photoelectric cells were placed on the foraging arena of the colony. They allowed to record the number of passages and the number of seed retrieved for periods of 24 h.

The following factors were studied : the preference for some seed species (specially graminae), the size and the maturity of the seeds, the choice between full and empty seeds, the selectivity in homogenous or heterogenous sources. It is demonstrated that the harvest varies according to the nature of the seed. Messor ants adopt a foraging mass strategy which permit the complete and rapid exploitation of food sources. They are opportunistic. It could explain why in dry climates harvesting ant could be a danger for homogenous populations or plantations of graminae.