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Mischocyttarus nomurae Richards, 1978 (Hymenoptera: Vespidae).

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Basal social wasps of the species *M. nomura*, are insects endemic to Brazil that have already been recorded in Bahia, Ceará, and Minas Gerais. They belong to the Vespidae family and are part of the Mischocyttarini tribe. *M. nomurae* is often found in heavily anthropized areas. The basic ecology of this group is still little known and, therefore, there is not much data on its distribution in Brazilian territory [1-4].

The dynamics of individuals in a nest is one of the fundamental characteristics that can be observed to better understand how insects explore their environment. These patterns help to understand the ethology of the animals as they are essential for the daily tasks of the nests, therefore, all tasks performed in the nest are considered important for maintaining the animals' lives (Figure 1) [4-6].

Figure 1. *Mischocyttarus* building its nest. Source: hhttps://ceb.wikipedia.org/wiki/Mischocyttarus

Temperature is one of the factors that interfere with the activity carried out in the nest, as it affects metabolism, accelerating activities in the insects' bodies. In a species of the same genus Mischocyttarus Saussure 1853, there is an increase in activity between 10 am and 4 pm, this being the hottest period of the day [6-7].

The same pattern was also observed in *Synoeca cyanea* (Fabricius, 1775). In *Polistes simillimus* Zikan, 1951, it was possible to notice this correlation between temperature. Even so, they noticed an interference in the photoperiod for nest activities, as it was strong for the maturation of juveniles and pupae [7-8].

From this perspective, these activities can be both outside the nest, as in the case of foraging, and inside the nest, which are the focus of this work. Nest activities can range from feeding the larvae to laying eggs, building new cells, or inspecting the nest cells. They are essential for the maintenance of the nest. All of these are also related to the establishment of hierarchies within the nest. Most of the work done on M. nomurae has focused on foraging and other external factors temperature, humidity, and food availability affect nest dynamics [9-10].

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