

## P050

*Nest architecture and colony composition of a Malaysian sphecid wasp*

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Social life in the sphecid wasp presents various degrees of organization in different species especially in the tribe Pemphredonini. The eusocial stage is reached in the genus *Microstigma* by *M. comes*, a neotropical species (Matthews 1968). The genus *Spilomena* belongs to the same group of *Microstigma* and is also characterized by species where one can find colonies with various females at the same time. We found colonies of *Spilomena sp.* on the walls of buildings at Bukit Fraser, a mountain resort on the Central Range of Peninsular Malaysia at a height of about 1500 m a.s.l.. The nest consists of cells attached to a vertical plane substratum. Construction material is formed by tiny pieces of vegetal and mineral origin, parts of insects and fungal hyphae kept together by silk threads secreted by the wasps' glands. Cells are placed vertically side by side and form 'batteries' of up to 5 and more units. Nests composed by several batteries of cells are common. The upper part of a cell presents the entrance protected on one side by a sort of 'roof'. When various cells form a battery their roofs are transformed in a long tube which connects all the cell entrances and furnishes a shelter for the adults of the colony. Nests can contain up to 47 cells (average 10.39 cells, N=48). Colonies may be inhabited by several females (range=1-13, average= 4.3 females per nest, N=20) and some males. Females with developed ovaries increase significantly with the total number of females present. In 6 out of 24 colonies with more than 3 females only one female had developed ovaries. This species presents a relatively high degree of social organization.