

Ecological succession in bovine cattle dung pads - 60 years after Carl Mohr.

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The study of ecological succession in bovine dung pads is important for they are considered temporary microhabitats used by several insect species as ovipositing and feeding places. The objective of this research was to study the ecological succession occurring in dung pads from its excretion until they are not attractive to fimicolous insects anymore. Freshly excreted pads were placed in a pasture at 9:00 AM (F1), 9:00 PM (F2), 3:00 AM (F3) and 3:00 PM (F4), and insects were collected thereafter. More than 6,700 insects were collected and identified, mainly in Sepsidae, Sarcophagidae, Muscidae, Fanniidae and Chloropidae (Diptera), as well as Histeridae, Staphylinidae and Scarabaeidae (Coleoptera) plus Pteromalidae (Hymenoptera). The majority of the species visited the pads in higher numbers the first day after deposition. Paracoprids and endocoprids (Scarabaeidae) were mostly nocturnal; Sepsidae and Muscidae were most active in the morning and Sarcophagidae and Staphylinidae species in the afternoon. There were both diurnal and nocturnal Histeridae species. Muscidae and Staphylinidae were most abundant in F1 pads, paracoprids in F2 pads and Sepsidae in F3 pads; in endocoprids results varied. F3 pads took the longest (cerca 9 days) and F2 the shortest time (cerca 4 days) to be decomposed by Scarabaeidae.