

Fungivory by *Nala lividipes*: understanding its ecological impact on powdery mildew

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Earwigs, with their frugivorous behaviour, consume fungi as part of their diet, but the specific fungal species and ecological implications vary. The present study specifically investigates the interaction between the black field earwig, *Nala lividipes* and powdery mildew fungus *Golovinomyces cichoracearum* that affects dahlias. The earwig was molecularly identified (accession number-OQ102948) as *N. lividipes*, with 99.70% similarity. The morphological examination of the fungi aligns with characteristics of powdery mildew attributed to *G. cichoracearum*, including upright and segmented conidiophores ($195\text{--}239 \times 11\text{--}16\text{ }\mu\text{m}$) bearing three to four short chains of conidia in a basipetal arrangement. The conidia, which are hyaline, single-celled, ovoid, and barrel-shaped ($31\text{--}48 \times 13\text{--}17\text{ }\mu\text{m}$), exhibited no fibrosin bodies. The present study provides insight into the fungivorous association of *N. lividipes* with *G. cichoracearum*, highlighting its potential and feasibility as a future biocontrol agent.

Keywords: Biocontrol agent, earwig, frugivorous, molecular identification, powdery mildew.