

Fungi Isolated from House Flies (Diptera: Muscidae) on Penned Cattle in South Texas

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Abstract : *Musca domestica* L. were collected from cattle diagnosed with bovine ringworm to evaluate the potential of the house fly to disseminate *Trichophyton verrucosum* E. Bodin, a fungal dermatophyte that is the causative agent for ringworm in cattle. Fungal isolates were cultured from 45 individual flies on supplemented Sabouraud dextrose agar, and isolates were identified using morphological and microscopic approaches. Each isolate was further identified by PCR amplification of the ribosomal DNA locus with fungal specific primers and subsequent amplicon sequencing. No *T. verrucosum* were identified using these approaches. However, 36 different fungal species representing 17 genera were cultured from these flies, including several allergenic and pathogenic species. Several species within the fungal orders Hypocreales, Microascales, Onygenales, Saccharomycetales, Xylariales, and Agaricales were observed for the first time on house flies. The most frequent fungus recovered was *Cladosporium cladosporoides*, which is known to be a ubiquitous, airborne allergen.

Keywords : bovine ringworm, *Cladosporium*, dermatophyte, *Musca domestica*

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