

**Title** Effect of three stored-grain fungi on the development of *Typhaea stercorea*  
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#### **Abstract**

This study examined development times and ovipositional preference of hairy fungus beetles (*Typhaea stercorea* [L.] Col: Mycetophagidae), when reared on pure cultures of *Aspergillus flavus* Link, *Eurotium rubrum* König, Speck and Bremer, and *Penicillium purpurogenum* Stoll., and the ability of hairy fungus beetles to develop in the presence of high levels of aflatoxin when fed *A. flavus* grown on coconut agar medium. Results indicate that hairy fungus beetles can complete their life cycle when fed these mold species grown on a defined medium in pure culture. Developmental times were shortest and females laid more eggs on pure cultures of *A. flavus* compared to *E. rubrum*, and *P. purpurogenum*. Lastly, we tested to see the effects of aflatoxin on hairy fungus beetle development. Hairy fungus beetles can complete their life cycle while feeding on a fungal culture producing high levels of aflatoxin. The results suggest that the mold species in the grain mass can influence insect developmental rates and thus population growth rates.