



HBIGS Lecture

by

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„Slave rebellion: the evolution of a novel resistance trait “

Date: Wednesday, 8 July 2009

Start of Lecture: 14:00

Venue: INF 267 (Bioquant), R041

Abstract:

During evolution, social parasites evolved sophisticated strategies to exploit the brood care behavior of their social hosts. Slavemaking ants trick host workers into caring for the parasite brood, which in turn leads to the evolution of anti-parasite adaptations. All host defenses shown to date are active before parasitism, while anti-parasite strategies of already enslaved hosts were thought to be impossible to be selected for. We could demonstrate rebellion of enslaved workers, which actively kill the majority of the queen and worker pupae of the slavemaking ant by using species and caste specific chemical profiles of the pupae to identify and selectively destroy parasite brood. The novel anti-parasite strategy of enslaved ant workers constitutes a new level in the coevolutionary battle.