

***Doronomyrmex pocahontas*: not a workerless parasite but still an enigmatic taxon (Hymenoptera, Formicidae)**

A. Buschinger¹ and J. Heinze²

¹ Zoologisches Institut, Technische Hochschule Darmstadt, Schnittspahnstraße 3, W-6100 Darmstadt, Germany

² Theodor-Boveri-Institut, LS Verhaltensphysiologie und Soziobiologie, Am Hubland, W-8700 Würzburg, Germany

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Summary

New data suggest that the North American ant *Doronomyrmex pocahontas* Buschinger 1979, originally described as a workerless inquiline, is not a social parasite. Breeding experiments show a remarkable phenotypic plasticity, which is probably due to hybridization or to intraspecific polymorphism.

Introduction

The ant *Doronomyrmex pocahontas* was described as a workerless social parasite of a host species belonging to the nearctic *Leptothorax* (s. str.) “*muscorum*” complex (not *L. retractus* Francoeur, 1986, not *Leptothorax* sp. A and sp. B, sensu Heinze and Buschinger, 1987; Heinze, 1989 referred to this species as *Leptothorax* C). Three colonies were originally collected in July, 1977 at Maligne Canyon, Jasper National Park, Alberta, Canada. All colonies contained a black, shiny queen with extraordinarily long, tapering hairs and a distinctly trapezoidal postpetiole. It resembled most the European workerless parasite, *Doronomyrmex pacis* Kutter 1950. Workers were morphologically similar to those of the sympatric brownish *Leptothorax* C: they were brownish, with shorter pilosity and a much narrower postpetiole. Hence it was concluded that the black queens belong to a new, workerless *Doronomyrmex* species parasitizing colonies of *Leptothorax* C (Buschinger, 1979).

During the past years, additional material of *D. pocahontas* was collected at the type locality, and laboratory colonies reared offspring for up to eleven breeding cycles (shortened annual cycles). New data suggest that *D. pocahontas* is not a workerless species and probably not a parasitic species at all. We here report observations on the biology of this species and its queen polymorphism and discuss its possible life history.