NEW DEPARTMENTAL RECORDS FOR *Digitonthophagus gazella* (COLEOPTERA: SCARABAEIDAE) IN COLOMBIA

Nuevos Registros Departamentales de *Digitonthophagus gazella* (Coleoptera: Scarabaeidae) en Colombia

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ABSTRACT

The introduced dung beetle *Digitonthophagus gazella* was reported for the Caribbean Region of Colombia in the 90's. During a survey carried out along the Magdalena river, new records of the presence of this species were found in the departments of Boyacá, Caldas, Cundinamarca, Santander and Tolima for the first time.

Key words: dung beetle, invasive species, dispersion.

RESUMEN

El escarabajo coprófago introducido *Digitonthophagus gazella* fue reportado en la región Caribe de Colombia en los años 90. Durante un estudio que se realizó a lo largo del río Magdalena nuevos registros de la presencia de esta especie se reportan para los departamentos de Boyacá, Caldas, Cundinamarca, Santander y Tolima por primera vez.

Palabras clave: escarabajos coprófagos, especies invasoras, dispersión.

INTRODUCTION

The introduced dung beetle *Digitonthophagus gazella* (Fabricius, 1787) is an Indo-African species that was intentionally released in Texas in 1970 for the biological control of

helminthes and the horn fly (*Haematobia irritans*), as well as for removing cattle feces (Fincher *et al.*, 1983). From 1972-1982, *D. gazella* migrated to other states and began to colonize Mexico; between 1992-2002 this species rapidly spread through Mexico, Guatemala and Nicaragua, becoming established in different countries in Central America (Rivera-Cervantes and García-Real, 1991; Kohlmann, 1994; Maes *et al.*, 1997; Montes de Oca and Halffter, 1998).

In 1995, the presence of this species was reported in Colombia for the first time in San Andrés Island (Noriega, 2002). Nine years later, *D. gazella* was recorded from four Colombian departments in the continental territory: Atlántico, Casanare, Magdalena, and Vichada (Noriega *et al.*, 2006). A year later, its presence was recorded in the departments of Bolívar, Cesar, and Guajira (Noriega *et al.*, 2006; Rivera and Wolff, 2007), and in 2008 in the department of Sucre (Navarro *et al.*, 2009). The presence of *D. gazella* in the Caribbean region of Colombia anticipated its presence in the valley of the Magdalena river considering the large dispersal capacity, high reproductive rate, and open habitats, particularly in active cattle pastures of this species (Montes de Oca and Halffter, 1998). Herein we report new departmental records for *D. gazella* for Boyacá, Caldas, Cundinamarca, Santander and Tolima.

MATERIALS AND METHODS

During a survey carried out from 17–21 December 2009, samples of beetles were gathered from along the Magdalena river using 10 pitfall traps (Noriega and Fagua, 2009) per locality, baited with a mix of 50 g of human and pig dung and also through direct collections from feces of cattle and horses. Specimens are deposited in the reference collection of J.A. Noriega (CJAN) and in the Entomological Collection at Museum of Natural History of Los Andes University (E-ANDES) in Bogotá - Colombia.

RESULTS

In our survey, *Digitonthophagus gazella* was the dominant species in all the studied area, finding records of its presence in the departments of Boyacá, Caldas, Cundinamarca, Santander, and Tolima for the first time (Fig. 1).

***Digitonthophagus gazella* Fabricius**

Material examined. COLOMBIA. Boyacá: 3 F, 1 M. Puerto Boyacá, about 5 km from Puerto Serviez. 06°09'54,04"N 74°34'13,70"W. 127 m. 17-dec-2009. Noriega, J.A. Caldas: 2 F, 3 M. La Dorada, about 2 km outside de town of La Dorada. 05°26'20,93"N 74°40'47,95"O. 195 m. 15-dec-2009. Noriega, J.A. Cundinamarca: 3 F, 4 M. Puerto Salgar, about 5 km from Puerto Libre. 05°42'24,47"N 74°37'08,96"O. 154 m. 16-dec-2009. Noriega, J.A. Santander: 3 F, 3 M. Barrancabermeja, outside de town of La Rochela. 06°52'16,61"N 73°45'42,20"W. 97 m. 20-dec-2009. Noriega, J.A. 1 F, 4 M. Cimitarra, outside the town of Puerto Araujo, 06°31'28,09"N 74°04'51,40"W. 106 m. 19-dec-2009. Noriega, J.A. 2 F, 5 M. Sabana de Torres, about 10 km from Sabana de Torres. 07° 28'42,31"N 73°33'16,31"W. 82 m. 21-dec-2009. Noriega, J.A. Tolima: 4 F, 5 M. Honda, about 5 km outside the town of Honda. 05°14'28,59"N 74°43'44,17"O. 203 m. 14-dec-2009. Noriega, J.A.

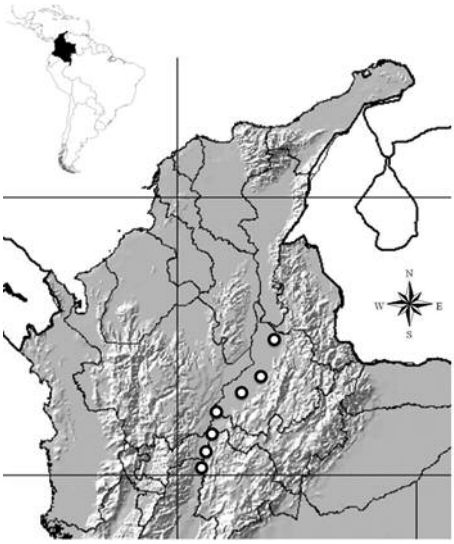

Figure 1. New departmental records of *Digitonthophagus gazella* in Colombia.

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