

FIVE NEW STATE RECORDS FOR
THE AFRO-ASIAN DUNG BEETLE *ONTHOPHAGUS GAZELLA*
(COLEOPTERA: SCARABAEIDAE)

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Onthophagus gazella Fabricius was introduced into this country in 1972 to aid the native dung beetle fauna in rapidly removing livestock feces from pasture surfaces. Increasing the population of dung beetles on pasture includes such benefits as the rapid return of pasture area normally covered by dung to grazing, faster recycling of nutrients, reduction of helminth parasites, and reduced pest fly populations on livestock (Fincher, G. T. 1981. The potential value of dung beetles in pasture ecosystems. J. Ga. Entomol. Soc. 16: 316-33). Since the initial release of *O. gazella* in Texas, additional releases have been made in Arkansas, California, Georgia, and Mississippi, and by 1981, the beetles were established in California, Georgia, Louisiana, and Texas (Fincher et al. 1983. The 1981 distribution of *Onthophagus gazella* Fabricius from releases in Texas and *Onthophagus taurus* Schreber from an unknown release in Florida. Coleopt. Bull. 37: 159-63). We report here the addition of five new states to the current distribution of *O. gazella* in this country.

On June 20 - 21, 1983, *O. gazella* was captured either in pitfall traps baited with swine feces or collected from cattle dung in Cotton, Harmon, Jackson, Jefferson, and Tillman Counties in southern Oklahoma, all of which border the Red River between Oklahoma and Texas. Afterwards, correspondence with extension entomologists in Oklahoma revealed that *O. gazella* was first collected in blacklight traps in that state in July, 1981, in Jackson, Jefferson, and Tillman Counties. This was probably the first year of their establishment in that state and undoubtedly originated from populations in Texas.

On October 8, 1983, *O. gazella* was collected in cattle dung in Miller and Lafayette Counties in extreme southwest Arkansas and on October 15, 1983, an examination of cattle dung revealed *O. gazella* in Wilkinson and Adams Counties in extreme southwest Mississippi. These beetles probably dispersed from Louisiana and/or Texas populations which came from the original Texas release sites. Although released in Oktibbeha County, Mississippi, in 1979 (Fincher 1981), *O. gazella* has not become established in that part of the state.

On August, 26, 1983, *O. gazella* was collected in Henry and Houston Counties in southeast Alabama and in Jackson County, Florida. The beetles were also found in the adjoining southwestern Georgia counties, indicating they had dispersed from Georgia populations established from releases made in Calhoun County, Georgia, in 1975 (Fincher et al. 1983). As these beetles have not been found in southwest Alabama or southeast Mississippi, *O. gazella* from the Georgia release sites have not met populations of *O. gazella* from the Texas release sites.

These five states bring to nine the total number of states known for the distribution of *O. gazella*. While they have not yet been reported from New Mexico or Arizona, the California and Texas populations will probably meet at some point in the near future in the southern portions of those states and in the bordering states of Mexico. The spread westward in Texas and beyond has perhaps been hindered by the severe drought conditions in many west Texas counties and in much of the state of New Mexico during the last two beetle activity seasons.

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