

**FIRST REPORT OF *ALLONEMOBIUS GRISEUS* AND *PSINIDIA FENESTRALIS* IN OHIO
(ORTHOPTERA: GRYLLIDAE AND ACRIDIDAE)**

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ABSTRACT

Occurrences of *Allonemobius griseus* and *Psinidia fenestralis* in Ohio are published for the first time. Apparent restriction of these species to the sand deposits of northwestern Ohio, their localized distribution in scattered, non-contiguous blowouts, and habitat loss presently occurring from residential and commercial development nearby, are justifications provided for the formal state listing and conservation of these Orthoptera in Ohio.

During mid-August, 1990 in the Oak Openings region west of Toledo in Lucas County, Ohio, I discovered populations of two Orthoptera previously unreported from Ohio. The grizzled ground cricket, *Allonemobius griseus griseus* (E. M. Walker), sang frequently from the thatch surrounding clumps of big bluestem grass in the sparsely vegetated sand barrens around sand blowouts, where it commonly associated with *A. allardi* (Alexander & Thomas). The sand locust, *Psinidia fenestralis fenestralis* (Audinet-Serville), was found on the unstabilized open sand of one blowout, but was greatly outnumbered by other acridids. Other Orthoptera in the immediate vicinity of the blowouts and their depauperate sand barrens included the gryllids *Allonemobius allardi* and *Oecanthus quadripunctatus* Beutenmueller; and the acridids *Melanoplus sanguinipes* (Fabricius), *Spharagemon bolli bolli* (Scudder), and *Spharagemon collare* (Scudder). I found *A. griseus* to be frequent in appropriate habitat at both The Nature Conservancy's Kitty Todd Preserve in Sec. 11, Harding Township, and at the Oak Openings Metropark in Sec. 21, Swanton Township where I secured a male and female as vouchers. I noted two individuals of *P. fenestralis* at the Kitty Todd Preserve, where I captured a male as a voucher. Specimens are deposited at the University of Michigan Museum of Zoology.

Cantrall (1968) recorded *A. griseus* from Michigan as far south as Washtenaw County, but excluded it from southwestern Michigan. However, I recently discovered populations of the species in Berrien and Van Buren Counties in sand barrens of old dunes. McCafferty & Stein (1976) reported it from a very few counties in northwestern Indiana. Neither Blatchley (1920) nor Vickery & Kevan (1985) reported it from Ohio. The two sites in the Oak Openings region represent the southernmost extent of the currently known range of *A. griseus*.

Blatchley (1920) reported the species in the Midwest as reaching as far east as Indiana, but surmised that *P. fenestralis* might someday be found in Michigan and Ohio. Later, Cantrall (1968), Otte (1984), and Vickery & Kevan (1985) reported *P. fenestralis* from Berrien County, Michigan, and Otte noted it also from Monroe

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County, MI, just north of Lucas County, Ohio. The single confirmed site for Ohio represents the easternmost occurrence of this species in the Midwest, but it also ranges along the Atlantic Coast (Otte 1984).

During methodical searches for natural communities in the Oak Openings region, I noted several other sand barrens sites, and a smaller number of unvegetated sand blowouts, which would probably support additional populations of *A. griseus* and *P. fenestralis*, respectively. These were scattered sporadically across approximately 40 square miles of the extant Oak Openings region and were usually isolated from each other by large expanses of cropland or forest. Both species might also occur near Lake Erie on sand dunes east of Toledo.

It is fortunate that *A. griseus* and *P. fenestralis* have been found thus far on tracts protected for their natural values. Nevertheless, residential and commercial development is proceeding at a staggering pace in the Oak Openings region, and the survival of both species is threatened in this area of Ohio. The occurrence of both species at the edges of their known Midwest distributions, the localized occurrence of suitable habitat in northwestern Ohio, and increasing alteration of the landscape by residential and commercial development, justify the formal listing and monitoring of these species as a first step in the conservation of the state's imperiled orthopteran fauna.

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