

Materials and Methods

I studied the eight species during several decades in Ohio, Maryland, Michigan, and Minnesota. The main materials of the study are galls I collected, adults that issued from them, and data obtained at many galler sites. A few pinned museum adults were also used, such as types and specimens of plausible identity that provide additional foodplant and distribution records. Study sites mostly were abandoned fields (old fields) in various stages of secondary succession. Distribution records plotted on range maps are at least one-half point apart (≈ 20 km); some records are omitted because they would overlap others.

Genitalia were prepared for study using standard methods such as described by Powell and Brown (1992). Nomenclature of genital parts follows Klots (1956). Apophyses attached to the ovipositor are considered posterior here in keeping with Klots (1956); Busck (1939) seems to have considered apophyses attached to the sterigma as posterior. Wing venation was examined with permanent preparations and additional temporary ones made using standard methods, such as described by Zimmerman (1978). Forewings, genitalia, shed larval head capsules, bungs, and larval silk glands were measured under a stereomicroscope, wing length with a ruler from base to apex (including fringe and excluding tegula) to the nearest 0.5 mm, dimensions of other structures with an optical micrometer at nominal magnifications of 10–45X to the nearest 0.1 mm or less.

Because the gender of the name *Gnorimoschema* has been interpreted as neuter, I end all species names here except new patronyms with *-um*, following Povolny (1967) and Powell and Povolny (2000).

Foodplant records originating in this study are based on expert identifications by specialists named in the *Acknowledgments* section. Botanical nomenclature follows Fernald (1950) for eastern North America, McGregor and Barkley (1986) for the Great Plains, and Munz and Keck (1973) for western North America. I refer to certain foodplants as complexes: the *S. altissima* L.-*S. canadensis* L. complex, and the *S. juncea* Ait.-*S. missouriensis* Nutt. complex. The species comprising each complex are taxonomically similar, often grow together in mixed stands, hybridize, and are not readily separable in field surveying by nonbotanists (Fernald 1950, Miller 1981, Melville and Morton 1982, Abrahamson et al. 1983).