

Species Treatments

The species are discussed in the following arbitrary order: *G. gallaesolidaginum*, *G. jocelynae* N. Sp., *G. salinarum*, *G. septentrionellum*, *G. gallaespeciosum* N. Sp., *G. gibsoniellum*, *G. slabaughi* N. Sp., and *G. gallaeasterellum*. Wing venation of all eight species (Fig. 1) matches the venation previously illustrated for putative *G. gallaesolidaginum* (figure 20 of Busck 1903b) (4n per species: two permanent preparations, two temporary). This venation differs in two respects from that illustrated for the holarctic *G. valesiellum* (Staudinger) (figure 8 of Povolny 1991): forewing M_3 and CuA_1 are separate at their origins rather than connate, and hindwing R_2 and M_1 are separate rather than long-stalked beyond the discal cell.

Although Povolny (1991) mentioned male genitalic differences among *G. gallaesolidaginum*, *G. salinarum*, and *G. gallaeasterellum*, I found the characters involved to be variable, and the differences individual rather than specific. No consistent distinguishing features in male genitalia emerged in this study for any of the eight species, and only one weak distinguishing feature in female genitalia, the quantitative PAL/FW. Therefore, genitalia of only one species, *G. jocelynae*, are illustrated here (Figs. 10 and 11).

Female genitalia preparations stained with chlorazole black E reveal two structures not evident in previous illustrations of the species studied here (figure 36 of Busck 1939; figures 21, 23, and 25 of Povolny 1967). One is a duct opening into the ductus bursae at the sclerotized partial ring near the ostium bursae, perhaps the ductus seminalis (Fig. 10, a). The second is a pair of invaginations or pockets in the intersegmental membrane between terga 8 and 9 (Fig. 10, b). The pockets are surrounded by wrinkled membrane, and their centers are separated by approximately the same distance as that between the anterior apophyses. The function of these pockets is unknown, but could be sexual. The duct and the paired pockets are present in all eight species studied here, and neither feature varies sufficiently to be of taxonomic value. In contrast, Powell and Povolny (2000) found the paired pockets to vary in separation distance, or to be entirely absent, among California *Gnorimoschema*.

Although foodplant leaves and lateral branches often arise from galls, the larval-prepared adult exits always open clear of such obstructions without departing from their characteristic locations in the upper or middle one-third of galls (Front cover; Figs. 25, 27, 28, 33, and 35).