Spongillaflies (Neuroptera: Sisyridae) of North America with a key to the larvae and adults

DAVID E. BOWLES
National Park Service, Heartland Network Inventory and Monitoring Program, c/o Department of Biology, Missouri State University, 901 South National Avenue, Springfield MO 65897, U.S.A.

Abstract

The distributions of the two genera (Climacia and Sisyra) and six species of spongillaflies known to occur in Canada, Mexico and the United States are reviewed and summarized. Several new and significant distribution records are presented for states or provinces in these countries. Species diagnoses and a revised, illustrated key to the third instar larvae and adults of all species are presented.

Key words: Spongillaflies, Neuroptera, Sisyridae, Climacia, Sisyra, taxonomy, distribution

Introduction

Two genera and six species of Sisyridae, or spongillaflies, are known to occur in North America (Penny et al. 1997). Parfin and Gurney (1956) published a treatment of the spongillaflies of the western hemisphere that addressed these species and their known distributions at that time. Subsequently, several state or regional studies of spongillaflies in the United States have been published (Isom 1968, Poirrier 1969, Throne 1971, Poirrier & Arceneaux 1972, Brown 1974, Grigarick 1975, White 1976, Huggins 1980, Poirrier & Holzenthal 1980, Lago 1981, Stoaks et al. 1983, Lawson & McCafferty 1984, Clark 1985). Additionally, Penny et al. (1997) addressed the general distribution of sisyrids occurring in North America exclusive of Mexico, but their treatment did not include all of the previously published distribution records for the respective species. Oswald et al. (2002) listed the states of Mexico in which spongillaflies had been collected, but they did not provide specific locality data. Because of these various studies, spongillafly distributions are generally well documented from eastern North America north of Mexico. By comparison, the distributions of sisyrids in the western United States, Canada, and