Abstract

Stemborers of maize and their associated indigenous parasitoids were studied at Katumani, Kiboko and Ithookwe in the semi-arid areas of eastern Kenya over a period of four seasons (short rains, 1996—long rains, 1998). Maize fields established at each site were sampled at least weekly up to plant maturity, and all the stemborer life stages recovered were reared individually in the laboratory for possible parasitoid emergence. The stemborers that attacked maize at the three sites were *Chilo partellus*, the dominant and most widespread stemborer, *Sesamia calamistis*, *Cryptophlebia leucotretci* and *Busseola fusca*. A complex of 22 mainly larval parasitoids attacked the stemborers, but the parasitism was generally low. *C. partellus* was the most frequently parasitized stemborer. The most widespread larval parasitoid was *Cotesia sesamiae*, followed by *Chelonus curvimaculatus*, while *Dentichasmia busseolae* and *Pediobius furvus* were the most common pupal parasitoids. The low percentage parasitism by indigenous parasitoids and the knowledge that the exotic stemborer *C. partellus* was dominant suggest the potential of classical biological control in reducing stemborer damage in this region. The need for suitable conservation measures to enhance the parasitoid populations and their effectiveness is emphasized, and ideas on how to implement this suggested.