Abstract

The ontogeny of cypselae and their accessory parts were examined using light and scanning electron microscopy for the species Campuloclinium macrocephalum, Chromolaena stachyophylla, Mikania micrantha, Praxelis pauciflora, Symphyopappus reticulatus, and Vittetia orbiculata, some of these being segregated from the genus Eupatorium. A layer of phytomelanin observed in the fruit appears to be secreted by the outer mesocarp into the schizogenous spaces between the outer and inner mesocarp; its thickness was observed to vary among the different species examined. The bristles of the pappus are vascularized, except in M micrantha, and have cells that are superficially projected and arranged acropetally; in S. reticulatus some of the projections are retrorse and a fracture line on the floral disk that is only seen in this species may indicate a double dispersal process. Numerous differences observed among the cypselae examined here reinforce earlier segregations of the genus Eupatorium sensu lato.

Keywords

Anatomy, Asteraceae, carpopodium, fruit, pappus, phytomelanin.