Snail arboreality: The microdistribution of Sitala jenynsi (Gastropoda: Ariophantidae)

Author(s)
Peter F. Kasigwa

Abstract
The habitats and patterns of vertical migration of the shell banding morphs of the snail Sitala jenynsi (Pfeiffer) were studied in Dar es Salaam and Wazo regions of central coastal Tanzania. Both dimorphic and trimorphic populations were arboreal throughout the year. The snails occurred randomly within mid-heights 180 to 360 cm, without apparent morph differences in micro-distribution. The pattern of circadial vertical distribution consisted of upward migrations during mornings and downward shifts during late evenings. These oscillations regressed negatively on relative humidity (RH), a unit advance in RH representing an eight-fold descent of snails on day-time height. Variations in RH accounted for much of the total variance in the mean vertical distance. During high RH, however, temperature and mating behaviour probably exerted major influences on snail micro-distribution. The effects of arboreality on snail survival and initiation of differentiating subpopulations are proposed.