Abstract:

In the Msambweni area of the Kwale District in Kenya, an area endemic for Schistosoma haematobium, potential intermediate-host snails were systematically surveyed in water bodies associated with human contact that were previously surveyed in the 1980s. Bulinus (africanus) nasutus, which accounted for 67% of the snails collected, was the only snail shedding S. haematobium cercariae. Lanistes purpureus was the second most common snail (25%); lower numbers of Bulinus forskalii and Melanoides tuberculata were also recovered. Infection with non-S. haematobium trematodes was found among all snail species. Rainfall was significantly associated with the temporal distribution of all snail species: high numbers of Bulinus nasutus developed after extensive rainfall, followed, in turn, by increased S. haematobium shedding. Spatial distribution of snails was significantly clustered over a range of up to 1 km, with peak clustering observed at a distance of 400 meters. Water lily (Nymphaea spp.) and several aquatic grass species appeared necessary for local colonization by B. nasutus or L. purpureus.