

Hybridisation in UroGenital Schistosomiasis (HUGS): Pilot study findings upon parasitological surveys in Mangochi and Nsanje Districts, Malawi

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The HUGS (Hybridisation in UroGenital Schistosomiasis) study is a 4-year Wellcome Trust funded collaboration between the Liverpool School of Tropical Medicine and the Malawi-Liverpool-Wellcome Trust Clinical Research Centre. In November of 2021, a pilot parasitological survey was carried out in eight primary schools in Mangochi District, along the shoreline of Lake Malawi, and in Nsanje District, along the Lower Shire River. The primary purpose of these surveys was to assess the prevalence of urogenital schistosomiasis, caused by infection with *Schistosoma haematobium* and collect various samples for molecular identification of schistosomes, specifically human-infecting (e.g. *S. haematobium*) and animal-infecting (e.g. *S. mattheei* and *bovis*) worms. A collection was also made of their associated intermediate freshwater snail hosts. In addition, the prevalence of intestinal schistosomiasis, caused by infection with *S. mansoni*, was surveyed following a recent outbreak of intestinal schistosomiasis in Mangochi District. The intention of the pilot was to help in careful selection of two communities in each district for later in-depth disease surveillance, inclusive of assessments of giardiasis and malaria in each area. Here, we report on initial epidemiological findings from the pilot study, as well as outline planned future work with respect to additional parasitological surveys implementing molecular genotyping/diagnostics assays. Collectively, we will explore *Schistosoma* hybrids and their molecular epidemiology concurrent alongside preventive chemotherapy campaigns.

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