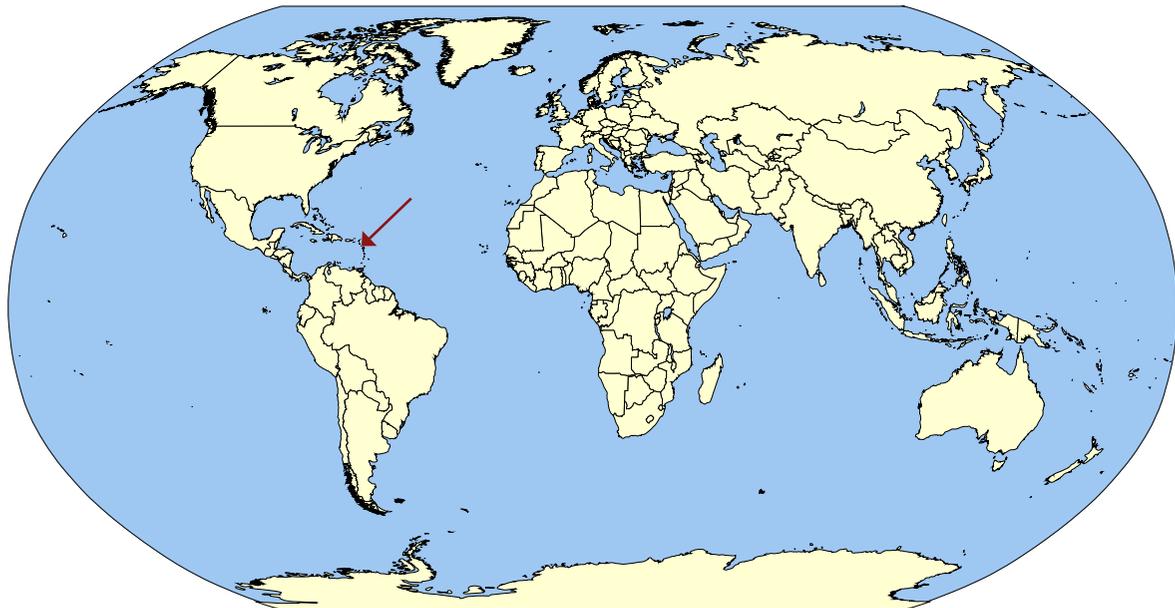


Montserrat



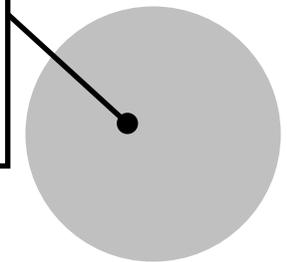
The History of Schistosomiasis in Montserrat

The Caribbean island of Montserrat suffered from low-level schistosomiasis transmission throughout the latter half of the 20th century. The disease has since been eradicated from the island's small endemic region. Early reports indicate cases of schistosomiasis in travelers to the island from nearby St. Kitts in 1932 [1], but as of 1947, Montserrat was still reportedly clear of endemic disease [2]. By 1974, Montserratian public health officials self-reported 'low endemicity' in a World Health Organization (WHO) questionnaire, but failed to provide prevalence data [3]. The total population on the island at the time was 11,620 individuals [4].

During the 1970's and 1980's, Montserrat had a few isolated endemic regions. A 1977 survey of the island found the intermediate host (*B. glabrata*) only in Barzey's Stream and Farms River, two small, sparsely inhabited watersheds [1].

Schistosomiasis in Montserrat

Schistosomiasis fortuitously **eliminated** due to low endemicity and transmission interruption due to a volcanic eruption



Overview of Montserrat [12]

- » Population in 2015: 5,241
- » An estimated 8,000 people left the island in 1995, seeking refuge from the eruption of the Soufriere Hills volcano.
- » The volcano is still active, and more than half of Montserrat is uninhabitable.
- » Official Language: English
- » Capital: Plymouth (now abandoned)

Schistosomiasis Prevalence

(Right) Schistosomiasis only affected two major areas in Montserrat. Those same areas became buried under volcanic residue after the 1995 eruption.

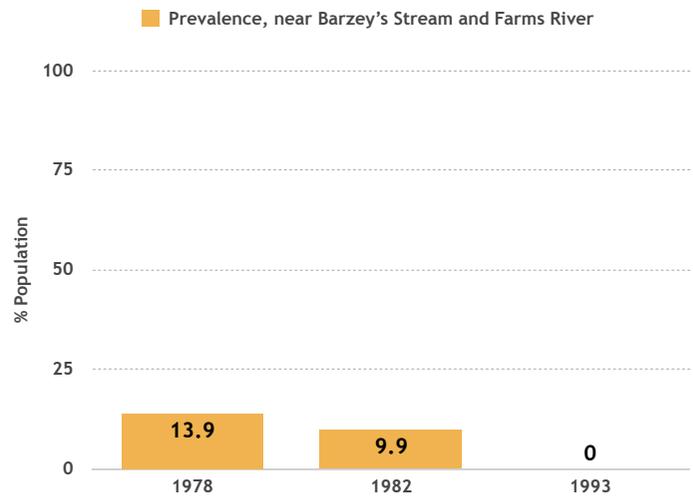
An Isolated Disease

In 1978, researchers tested schistosomiasis prevalence in the few individuals living close to the two small, infested watersheds. They found a 14% prevalence but, due to limitations in the sensitivity of the fecal tests they employed, estimated closer to 20-25% prevalence [5]. The same researchers also reported no schistosomiasis cases out of 251 school-age children tested from throughout the rest of the island [5]. In 1989, the WHO estimated that only 145 people out of the island's 11,200 were at risk of contracting schistosomiasis (1.3% at risk) [6].

Between 1987 and 1988 (at which point schistosomiasis prevalence was <1%), the Parasite Control Programme of Montserrat distributed albendazole to 95% of the island's schoolchildren to combat geohelminth infections on the island [7]. Although albendazole has been used in conjunction with praziquantel to treat schistosomiasis, it seems to have no effect on the parasite when used alone [8]. No evidence of any coordinated snail or schistosomiasis control campaign was found in the literature.

Fortuitous Elimination: The Soufriere Hills Eruption

Montserrat was removed from the list of countries with endemic schistosomiasis by the WHO in 1993 [9]. A large volcanic eruption in 1995 drove almost half of Montserrat's residents off the island and has been theorized to have helped eradicate schistosomiasis and prevent its recurrence [10]. Seeing as much of the previously endemic region lies in Montserrat's 'Exclusion Zone' due to the eruption, it is unlikely that endemic schistosomiasis will resurface, although the WHO has recently reinstated the island's place on the list of countries for which the epidemiological status of schistosomiasis remains 'uncertain' due to a lack of data [9]. The invasive snail *Melanooides tuberculata*, known to displace the host snail *B. glabrata* in other Caribbean islands like Martinique, was found on Montserrat in 2001 [11]



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