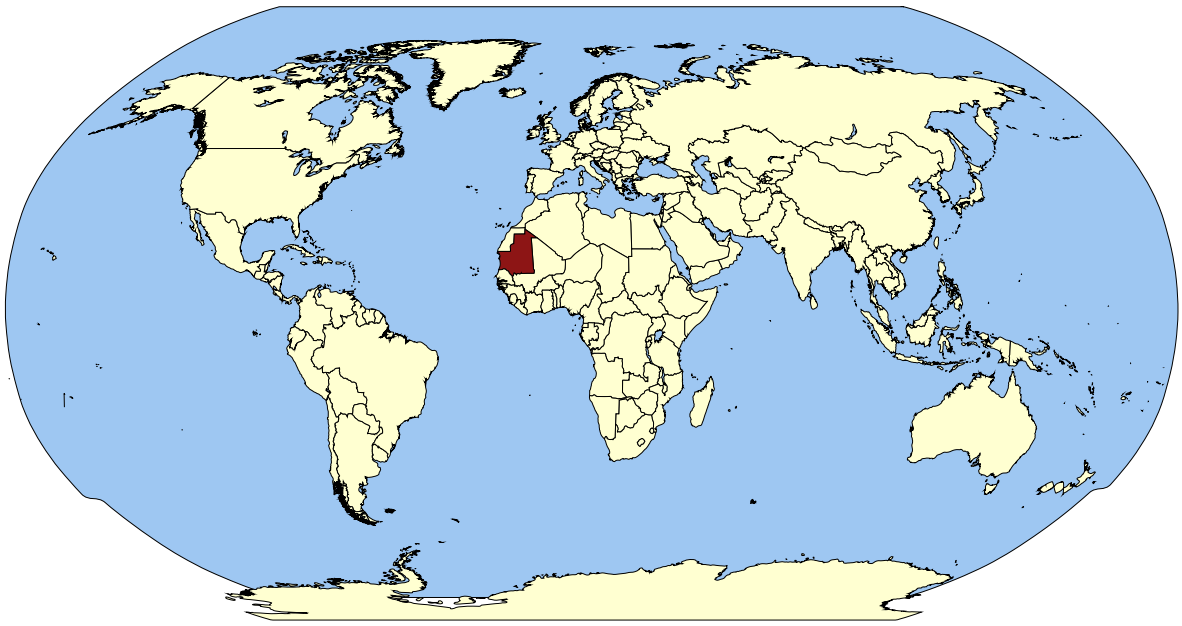
Mauritania



The History of Schistosomiasis in Mauritania

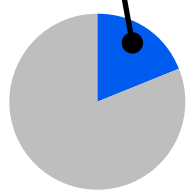
In the West African country of Mauritania, an overwhelming majority of the population lives near the Senegal River, in the southern portion of the country; the remainder of the country is arid Saharan desert, so it is no surprise that most Mauritanians have come to rely on the fishing, industrial, and agriculture trades provided by access to the Senegal River (1).

Both Schistosoma haematobium and S. mansoni are endemic in Mauritania (2). Irrigation along the Senegal River has completely changed the landscape of the Senegal River Basin – and heavily impacted schistosomiasis prevalence. In general, activity in the waters has increased, meaning more water contact and more schistosomiasis transmission. In Mauritania specifically, in the rural areas, nomads and cattle herder often become infected by schistosomiasis as they pass through commonly used oases. In more populated regions, children who play in the ponds most commonly contract the disease (3).

Schistosomiasis in Mauritania [7]

More than half a million people require treatment annually

18.9% of the population requires preventative chemotherapy for schistosomiasis



45% of the population requiring treatment for schistosomiasis are school-age children

Overview of Mauritania [8]

- Population in 2015: 3,596,702
- Official Languages: Arabic
- Capital: Nouakchott
- Presidential Republic
- Percentage of Population with Access to Improved Drinking Water in 2015: 57.9%
- Percentage of Population with Access to Improved Sanitation in 2015: 40%

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History Continued...

In 1981, construction on the Diama Dam began at the mouth of the Senegal River, and it was constructed with the intention of expanding and irrigating arable land (1). Completed in 1986, the dam displaced people from historically and culturally important land, decimated aquatic biodiversity in the Senegal River, and created more suitable environments for schistosomiasis (1). Because of the dam, more Mauritanians have year-round access to transmission hotspots. Furthermore, the dam produced ideal snail habitats, full of vegetation, and warm, shallow water (1). Before the Diama Dam was built, the four-country authority in charge of its construction (OMVS, Organisation pour la Mise en Valeur du fleuve Sénégal) was advised to take precautionary measures against schistosomiasis, such as molluscicide and mass drug administration, but despite having the resources to act on these warnings, the dam was built without necessary precautions taken, and schistosomiasis now thrives along the Senegal River (1).

Prevalence of Schistosomiasis in Mauritania

Schistosomiasis rates are at their highest in the permanent standing ponds surrounding the Senegal River (1, 3). From the valley of the Senegal River, schistosomiasis prevalence decreases as one increases elevation towards the mountainous parts of Mauritania, and as one goes west to the ocean, where salt water intrudes on the river system below the Diama Dam (3). S. haematobium is found more widely throughout Mauritania and the Senegal River Basin, whereas S. mansoni is limited to the lower Senegal River Basin (4). Schistosomiasis transmission occurs throughout Mauritania during the rainy seasons, but occurs year-round in the lower valley (4).

Several different snail species have been recorded as intermediate hosts for schistosomiasis in Mauritania: Bulinus senegalensis, B. globosus, and Biomphalaria pfeifferi (4). The first recorded survey of urinary schistosomiasis in Mauritania occurred in 1952, with prevalence estimated at 31% countrywide (3). The first recorded survey of intestinal schistosomiasis occurred much later, in 1996, and prevalence was estimated at 7.1% (5). Control of schistosomiasis in Mauritania is minimal. Some focal praziquantel control occurred in the late 1980s and 2010-2013, but large-scale, national control has not yet been initiated (6).

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