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Salle de réunion

HUMAN SCHISTOSOMIASIS IN THE SENEGAL RIVER BASIN: DOES WILDLIFE MATTER?

par

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📍 Schistosomiasis is a neglected tropical disease caused by *Schistosoma* parasites, which inflict a significant burden on human and animal populations, particularly across sub-Saharan Africa. Anthropogenic land-use change affected the distribution and availability of suitable definitive and intermediate hosts, increasing opportunities for hybridisation between human and animal schistosomes and, potentially, for zoonotic transmission.

📍 The aim of this study was to elucidate the role of different hosts as reservoirs of potentially zoonotic *Schistosoma* species and hybrids in a region of the Senegal River Basin subject to important anthropogenic change. Extensive sampling from human, livestock, and rodent definitive hosts, combined with snail intermediate hosts, were performed over three years across key transmission sites in northern Senegal. Multi-locus molecular and phylogenetic analyses of *Schistosoma* isolates were used to infer transmission dynamics between the circulating parasitic lineages.

📍 The analyses confirmed the presence of widespread viable hybridisation within and between *Schistosoma* species of humans and animals, providing a unique insight into the role of different definitive host species in maintaining transmission. This work emphasises the need for a One Health multi-host framework for schistosomiasis control in both people and animals living in high zoonotic transmission zones of sub-Saharan Africa.