

Tsetse, Wildlife and Land-cover Change in Ruma National Park, South-western Kenya

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ABSTRACT Human population pressure and accompanying intensification of cultivation has exacerbated natural resource overuse in sub-Saharan Africa. This is evident in the Lambwe Valley of south-western Kenya, where intensified cultivation could be a threat to natural resource conservation in Ruma National Park. Land-cover change in the park towards bush encroachment separates wildlife herds leading to reduced growth of these herds. It also favours the persistence of tsetse, *Glossina pallidipes*, which have been a threat to the survival of livestock and a hindrance to human settlement in the adjacent areas. This study sought to investigate land cover change in the park over the past 50 years, using four-time-series aerial photo interpretation, questionnaires and participatory rural appraisals. Findings showed a more than 10% increase in shrublands and a commensurate decrease in grasslands between 1948 and 1993. Considering the enormous efforts placed on tsetse control in the past, the proliferation of prime tsetse habitat could have serious implications on agricultural development and human health of the settled community in Lambwe Valley. The sustenance of tsetse and bush control to avert conflicts in resource use is a prerequisite for harmonious co-existence of the park with the people.

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