



Schistosomiasis control in Borgu Kingdom, Niger state, Nigeria.

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2014 ESRI User Conference

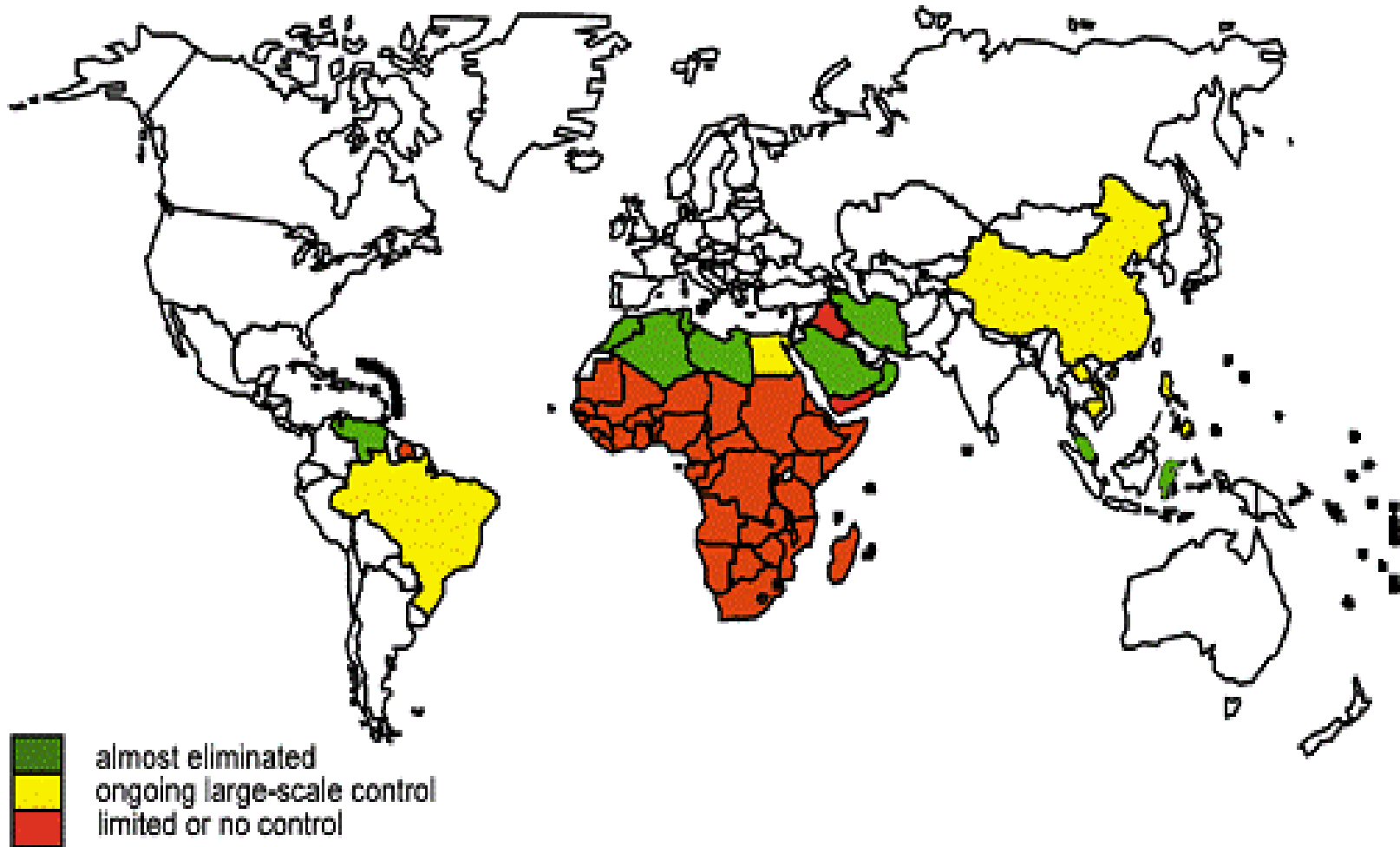
Thursday, July 17, 2014

Schistosomiasis



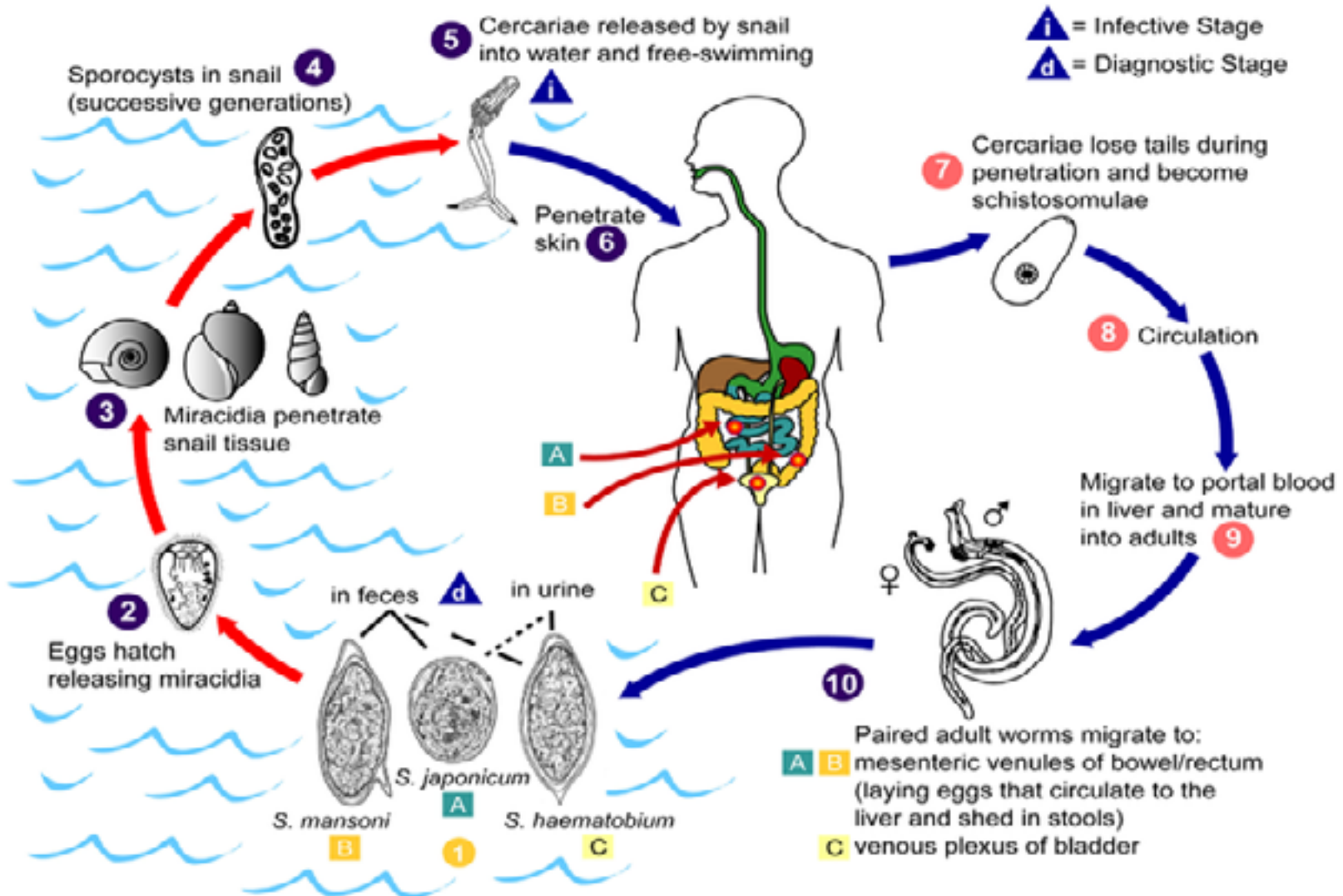
- Second most prevalent human parasite after malaria.
- Over the last 50 years, distribution of Schistosomiasis has changed but number of infections has not been reduced.
- 200 million people are infected worldwide; 800 million are at risk of infection
- 85% of infections are in Africa
- Neglected Tropical Disease (NTD)

Global Distribution of Schistosomiasis



Life Cycle

Schistosomiasis





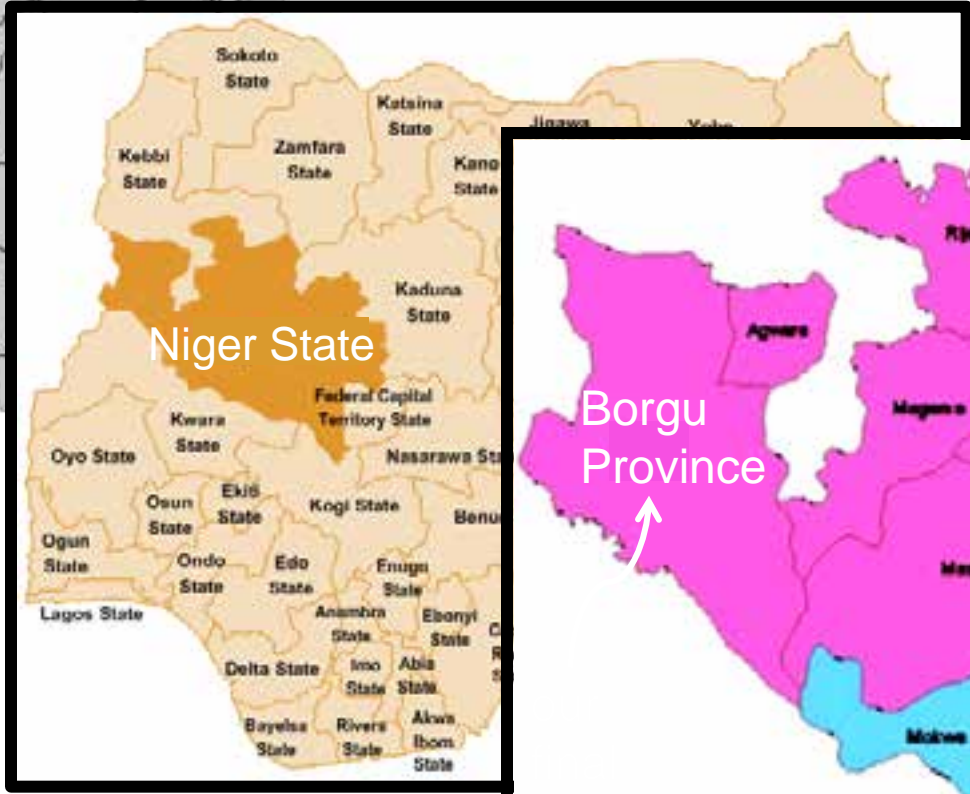
A symptom of Schistosomiasis: blood in the urine aka "*Terminal haematobium*" in a young schistosomiasis victim.

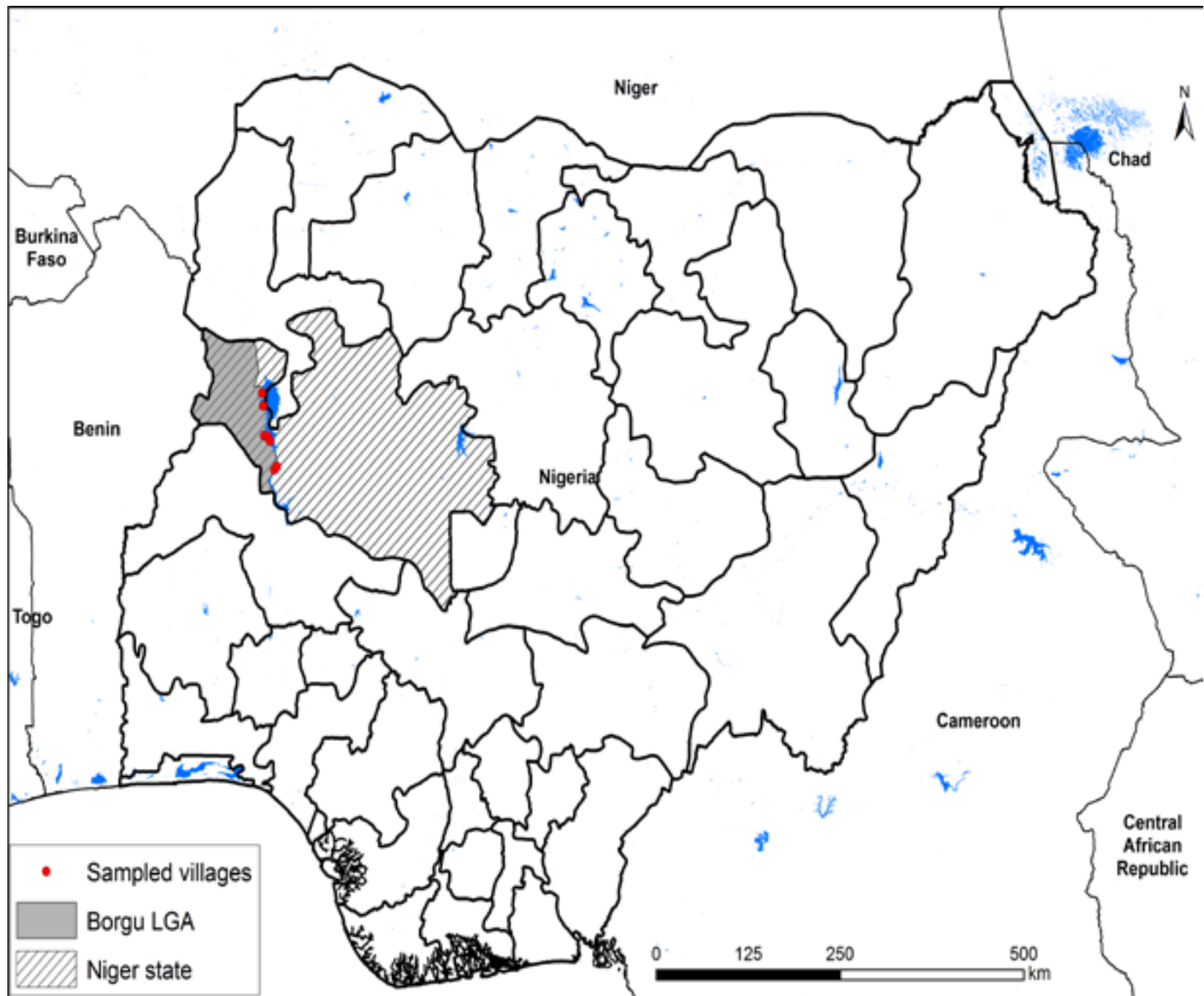
Methods of Control

- Cure — Chemotherapy (Praziquantel)
- Prevention
 - Health Education
 - Water Supply Sanitation
 - Snail Control

Methodology

- TIMEFRAME: Jul 7 – Jul 16., 2011
- DATA COLLECTION: Questionnaires were administered
- DATA ANALYSIS: ESRI, ARCGIS 10.2





The Cause

...the damming of the Niger river triggers the proliferation of the parasite *Bilharzia* (aka *Schistosoma*)



Borgu Local Government Area Villages Population

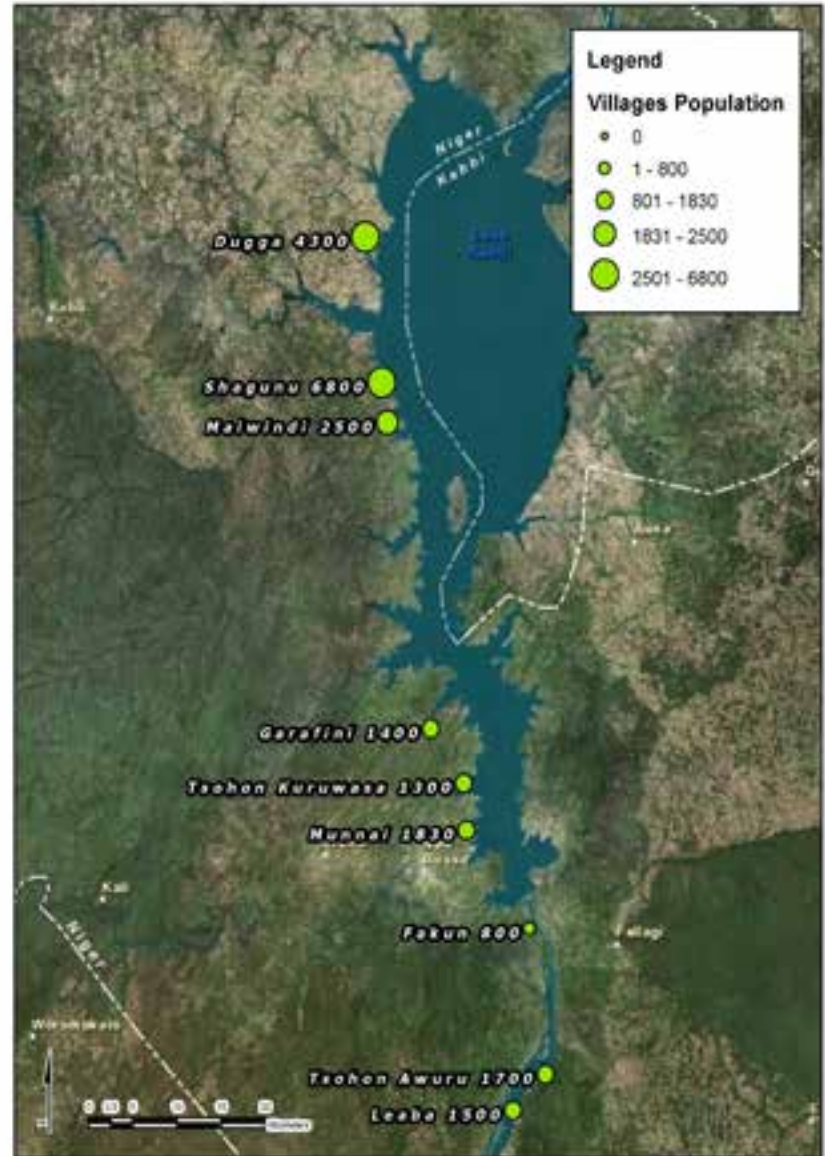
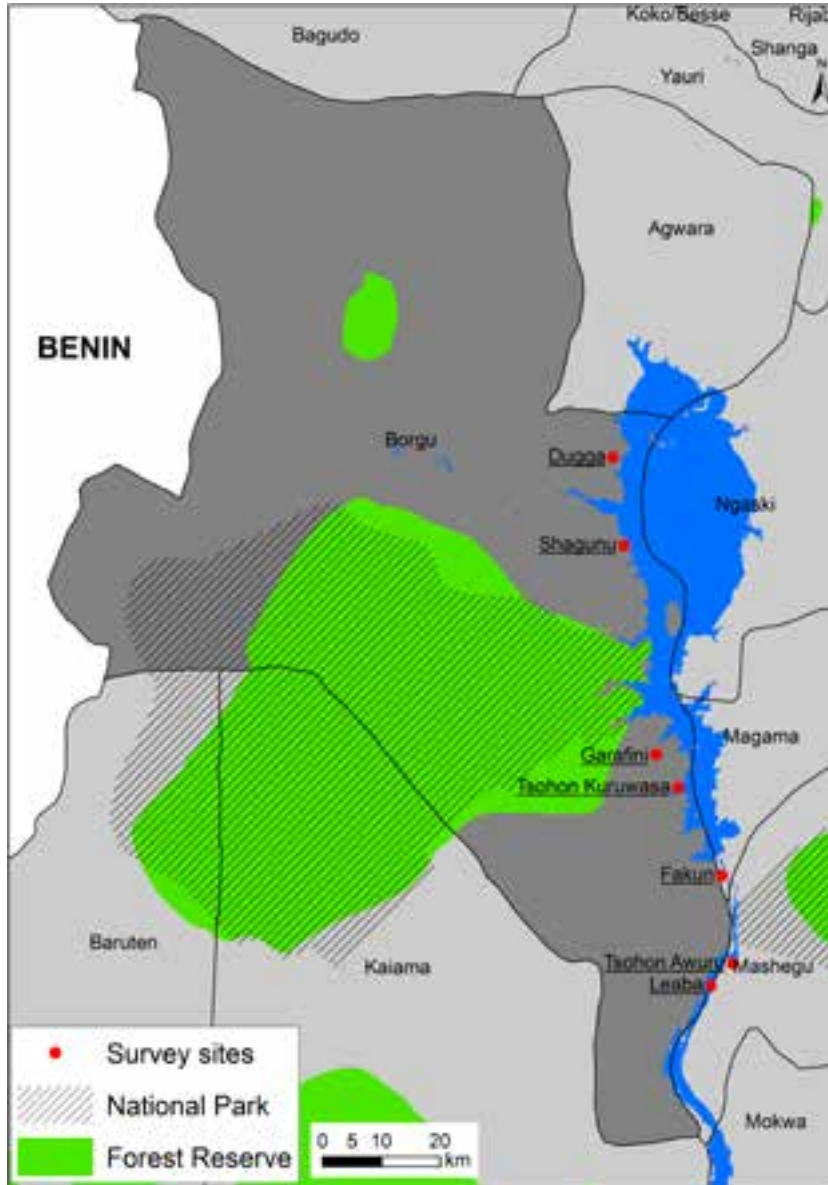


FIGURE A

Borgu Local Government Area Villages Population

Borgu Villages, Gender

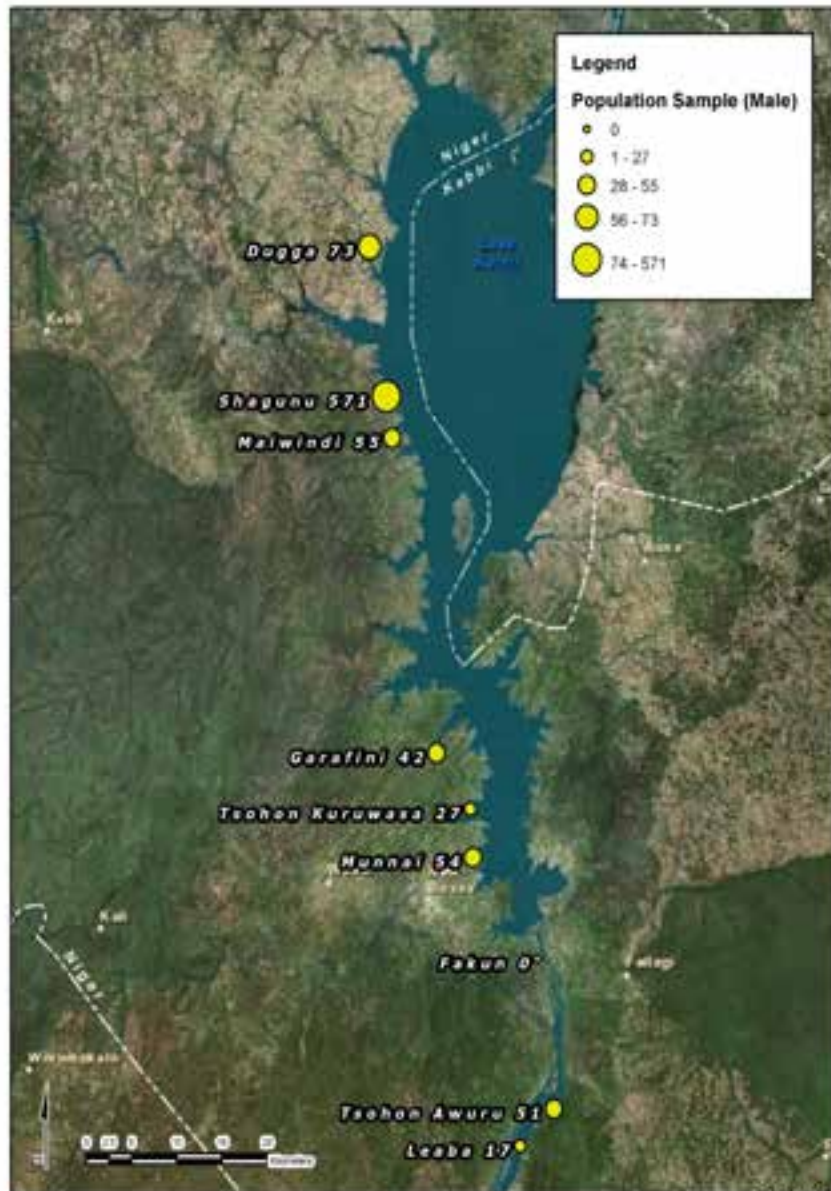


FIGURE B

Borgu Villages Population Sampled by Gender (Male)

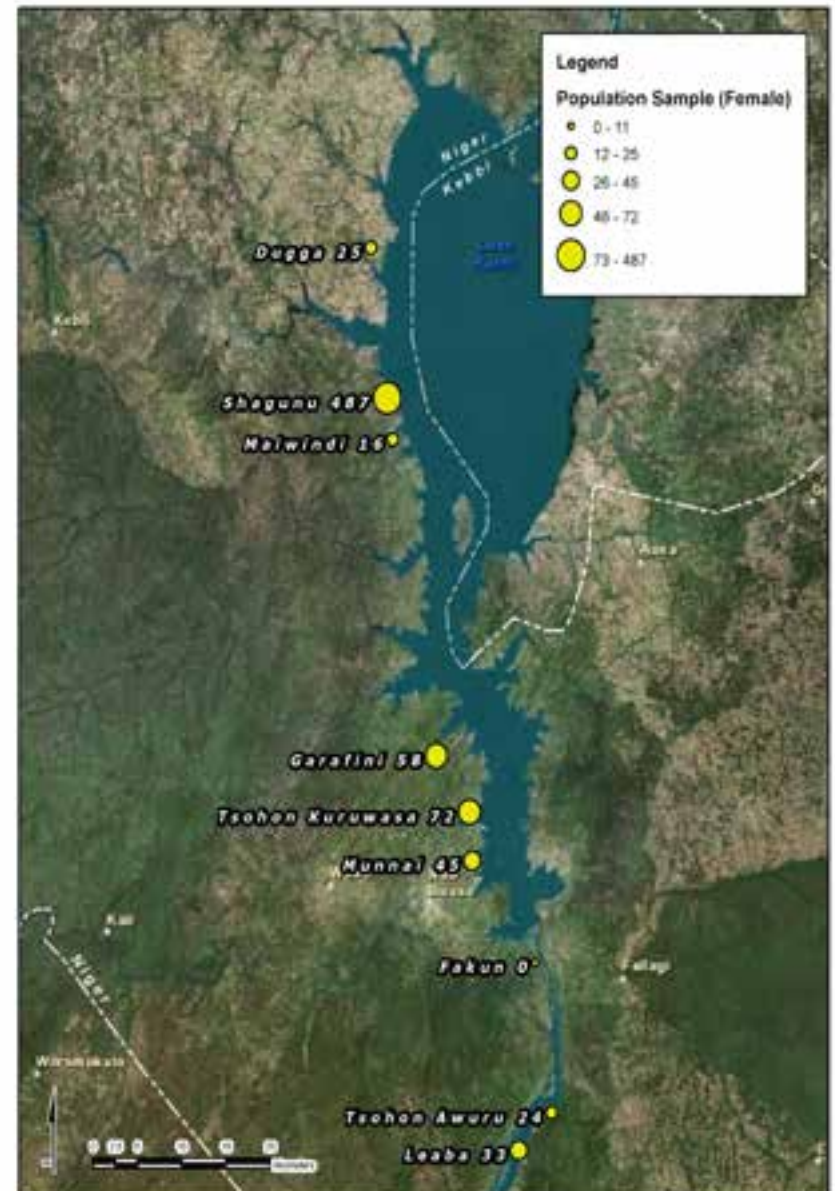


FIGURE B

Borgu Villages Population Sampled by Gender (Female)

Borgu Villages, Males Sampled with Blood in Urine

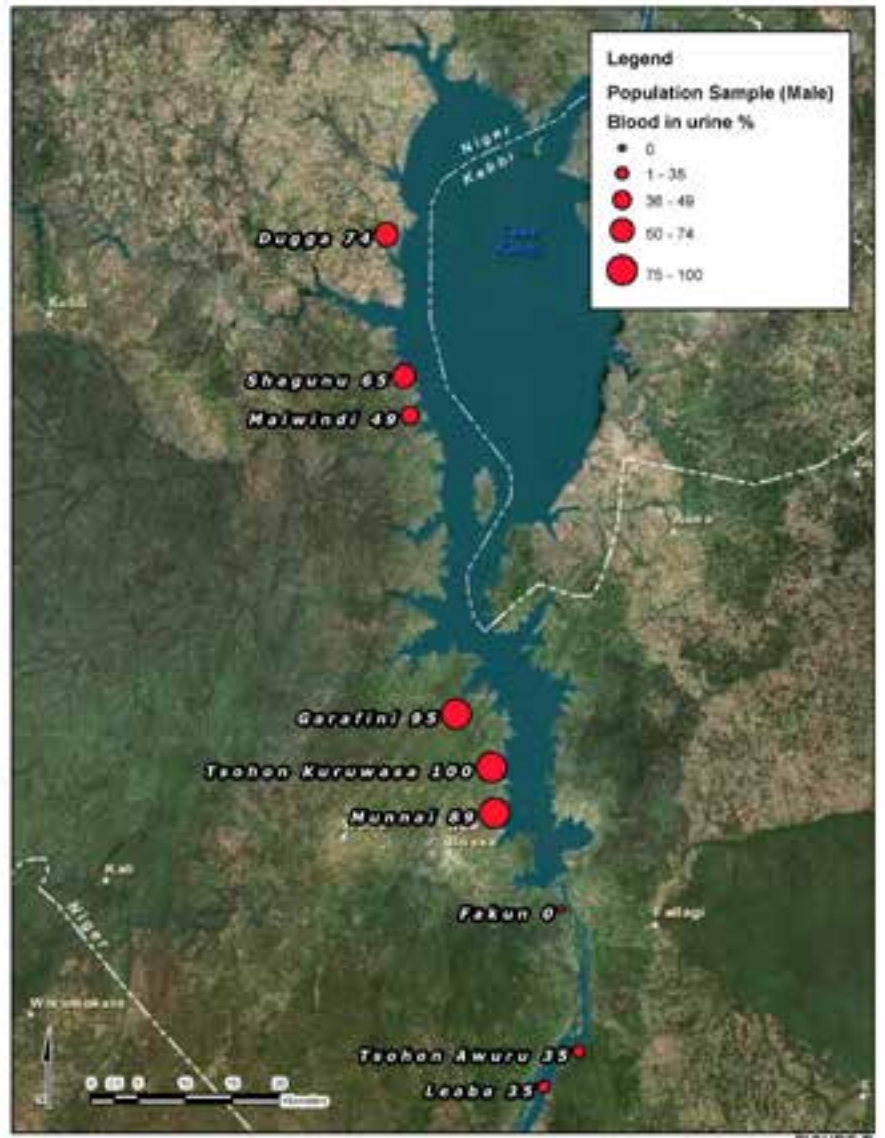
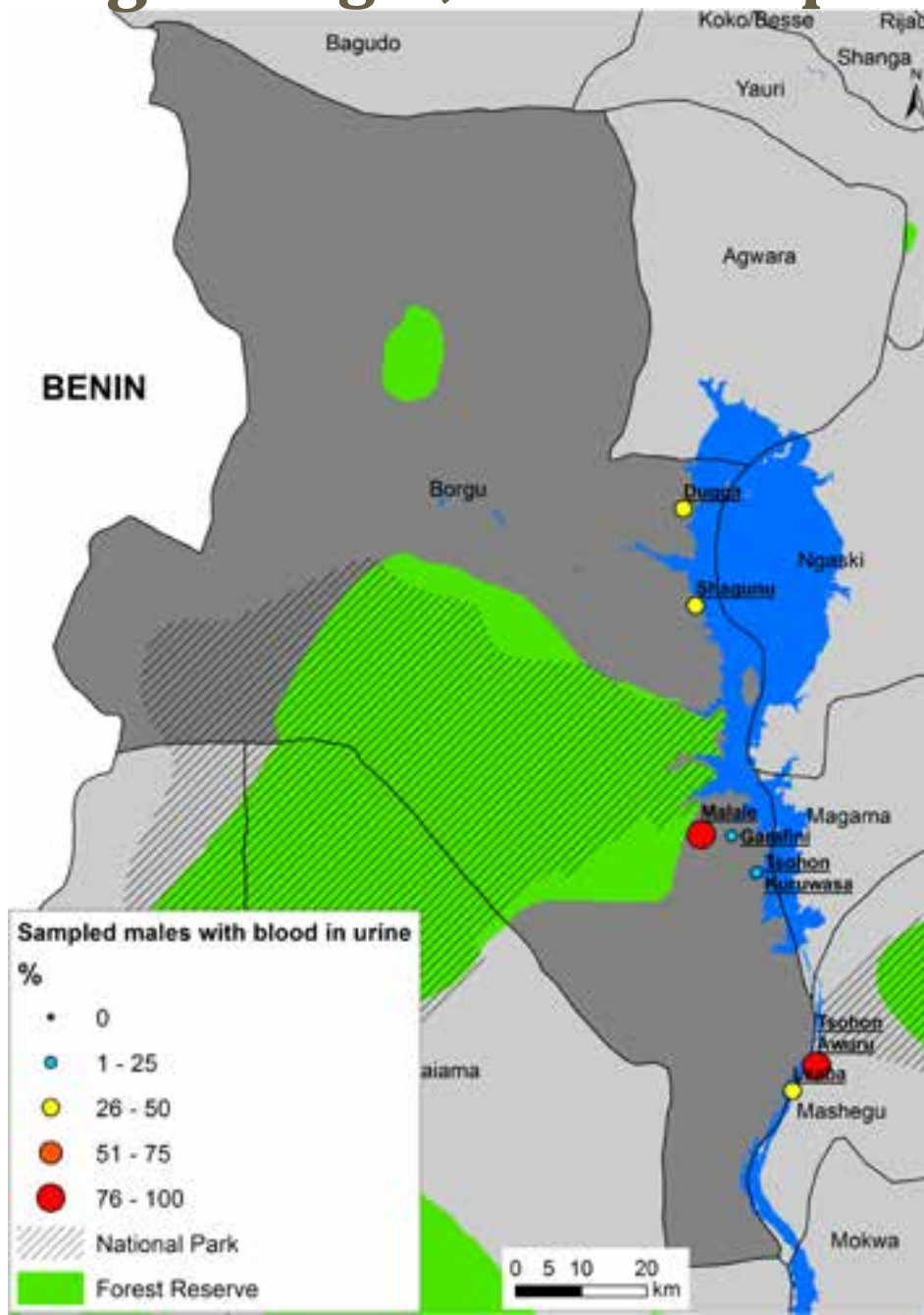


FIGURE D

Male Villages Population Sampled with Blood in Urine Percentage

Borgu Villages, Females Sampled with Blood in Urine

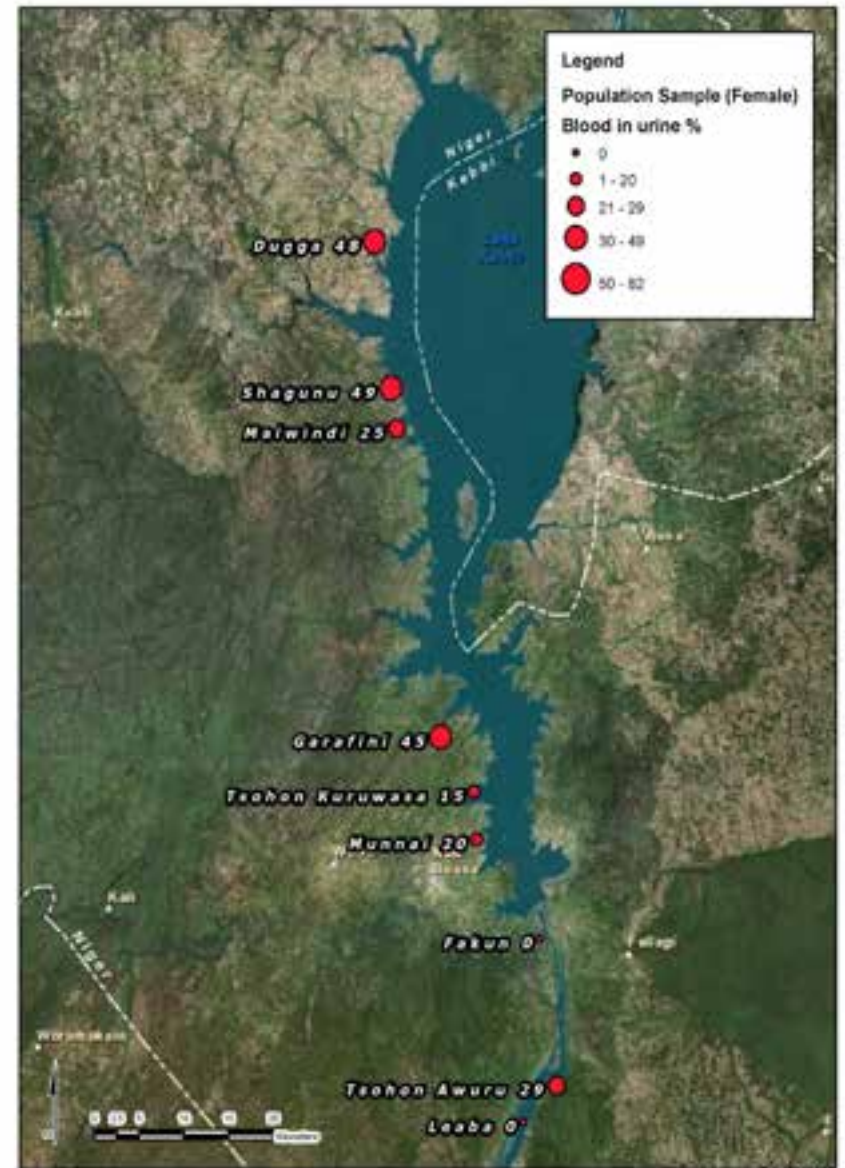
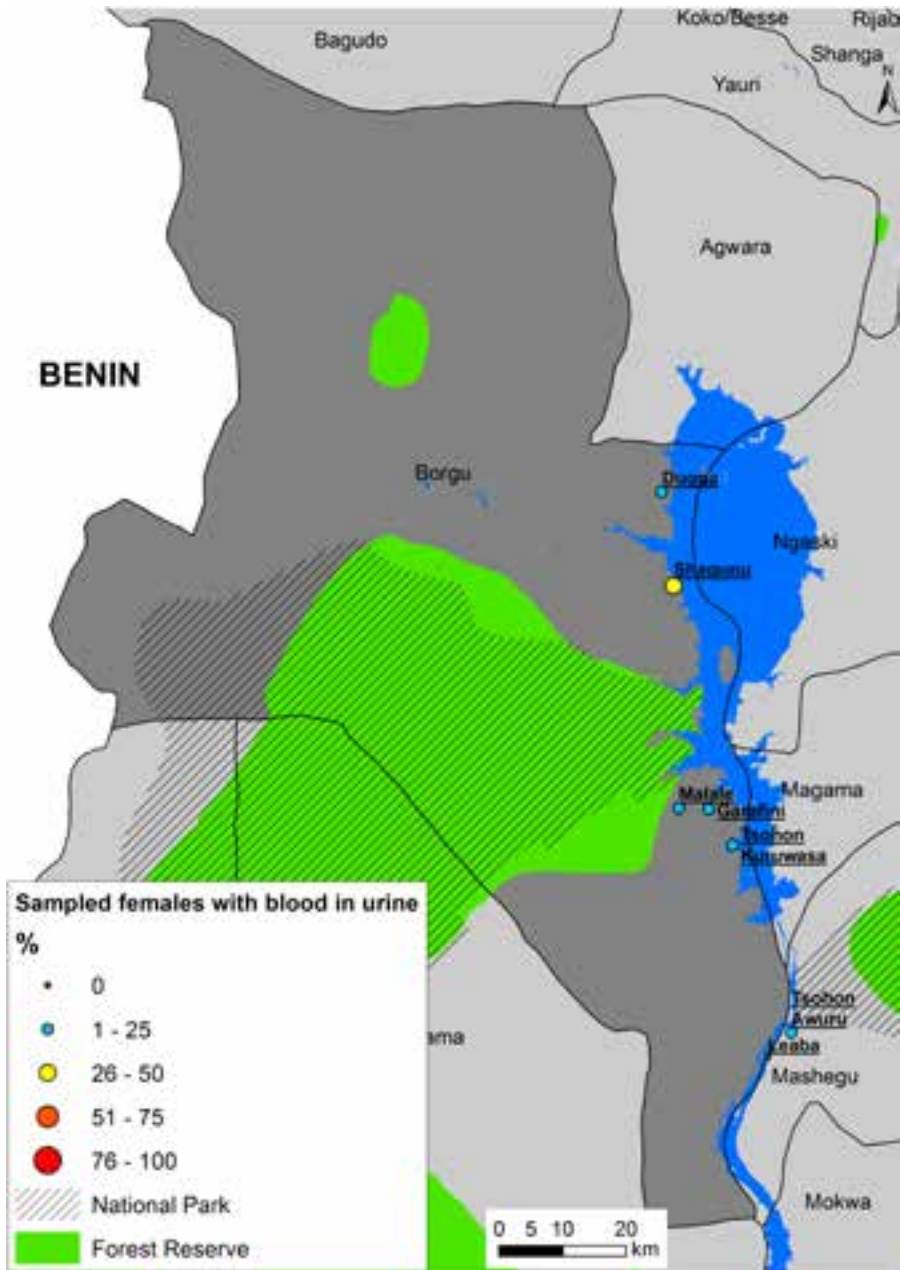


FIGURE F

Female Villages Population Sampled with Blood in Urine Percentage

Borgu Villages, Males Sampled with Blood in Stool

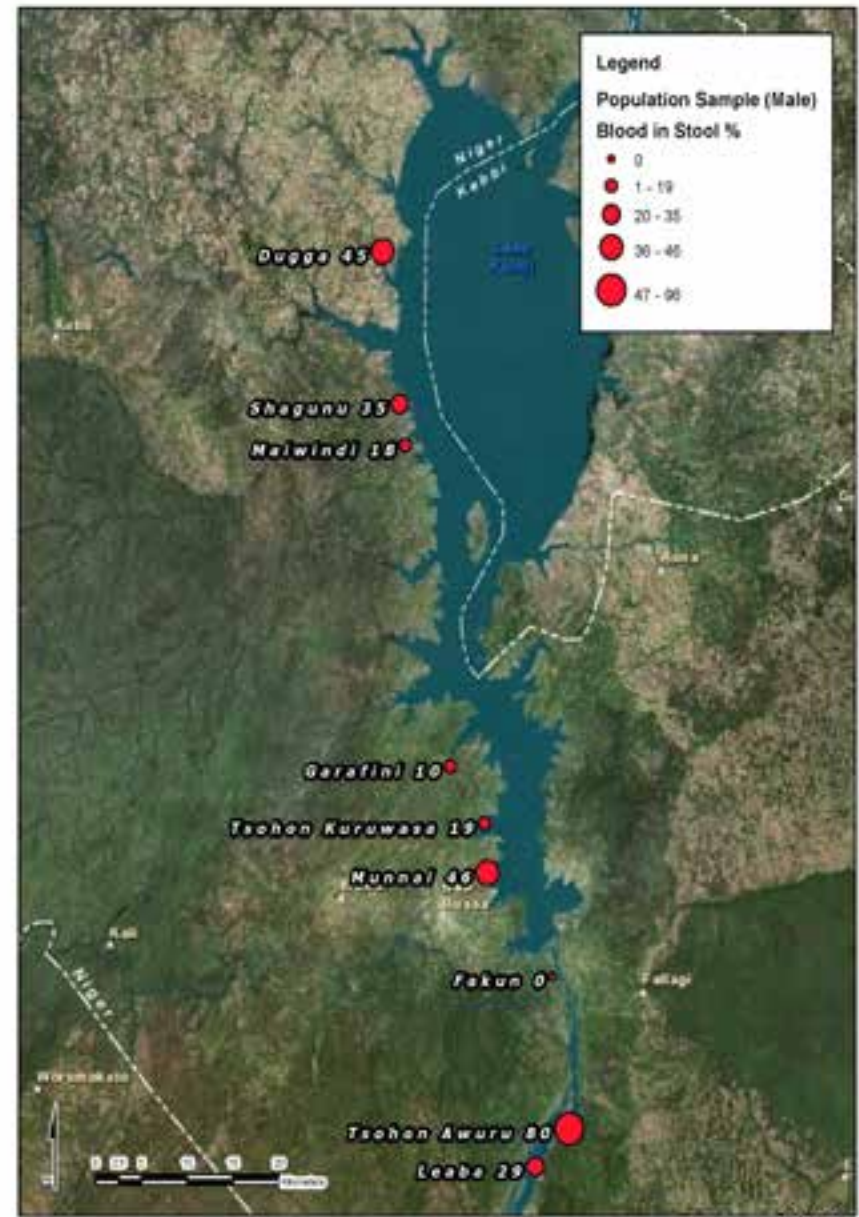
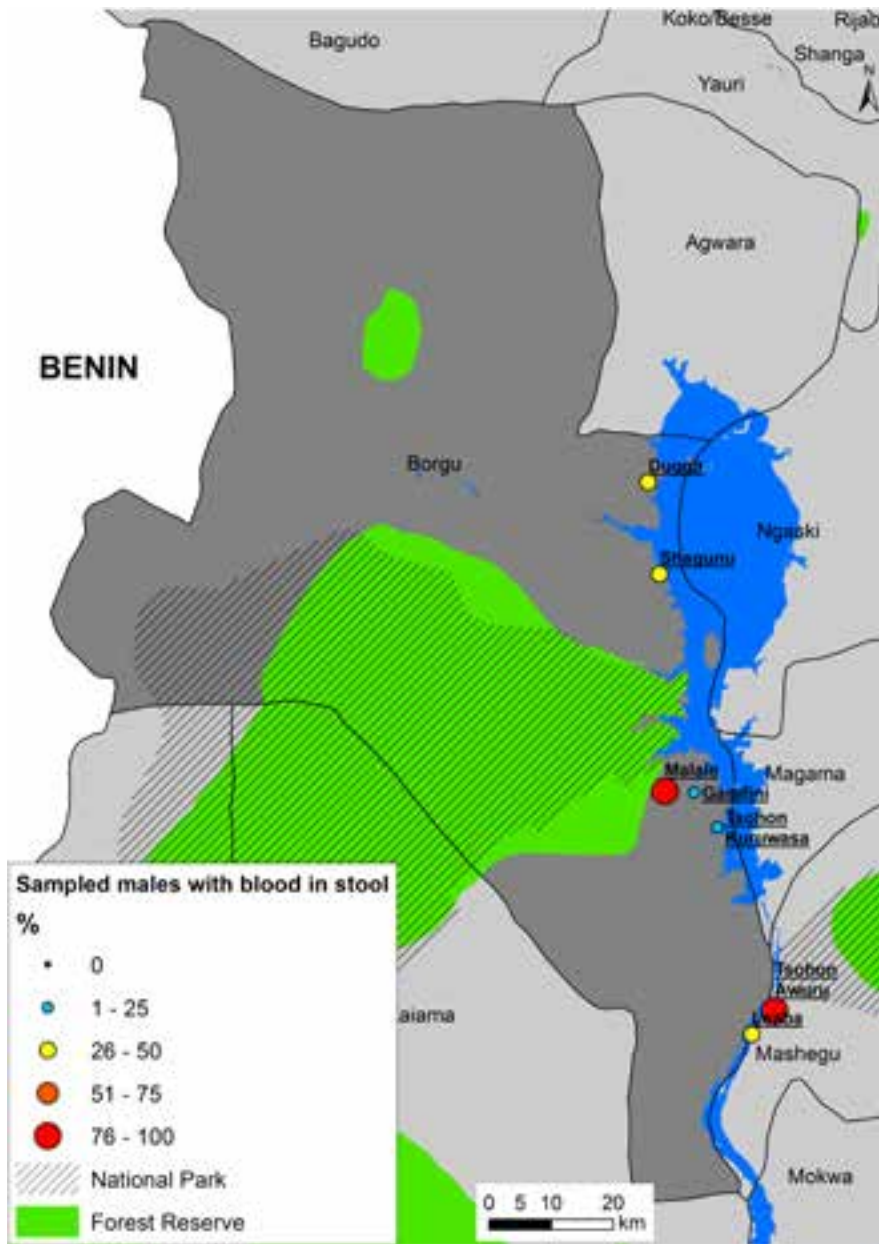


FIGURE 6

Male Villages Population Sampled with Blood in Stool Percentage

Borgu Villages, Males Sampled with Blood in Stool.

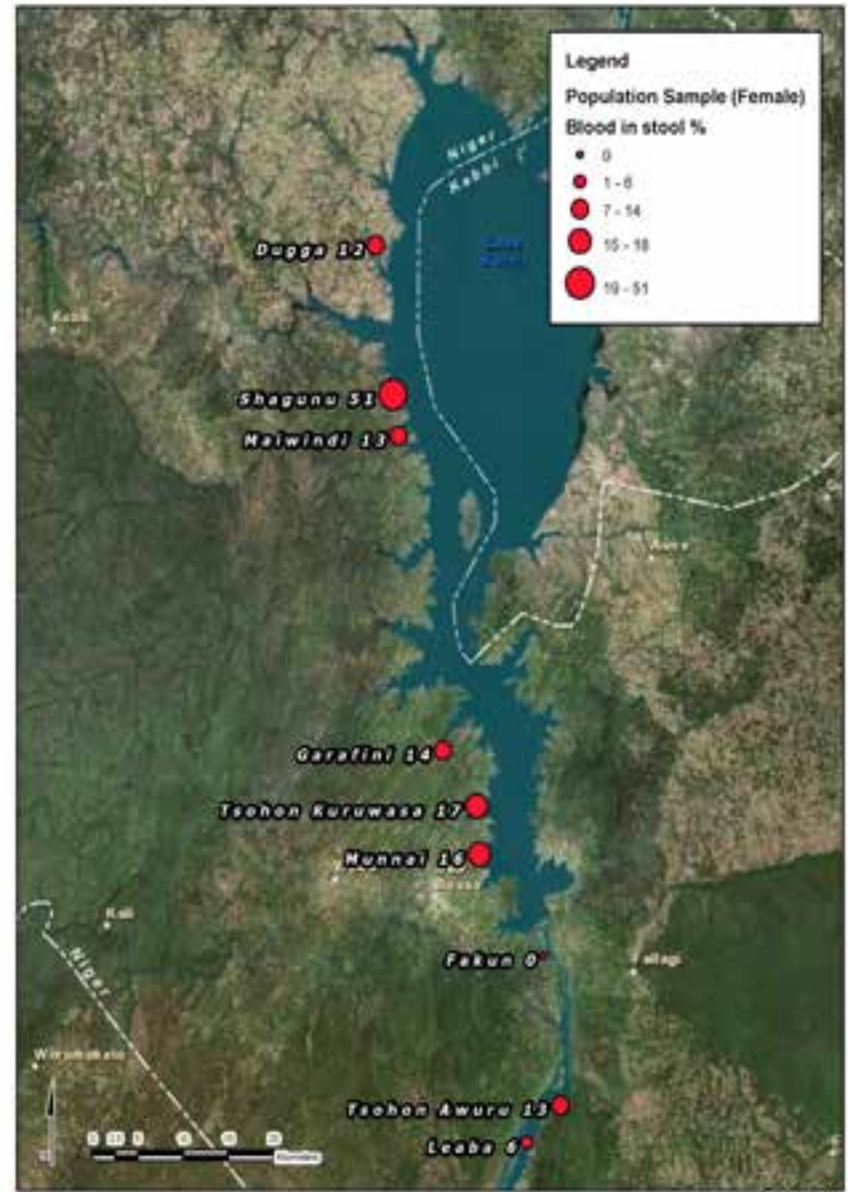
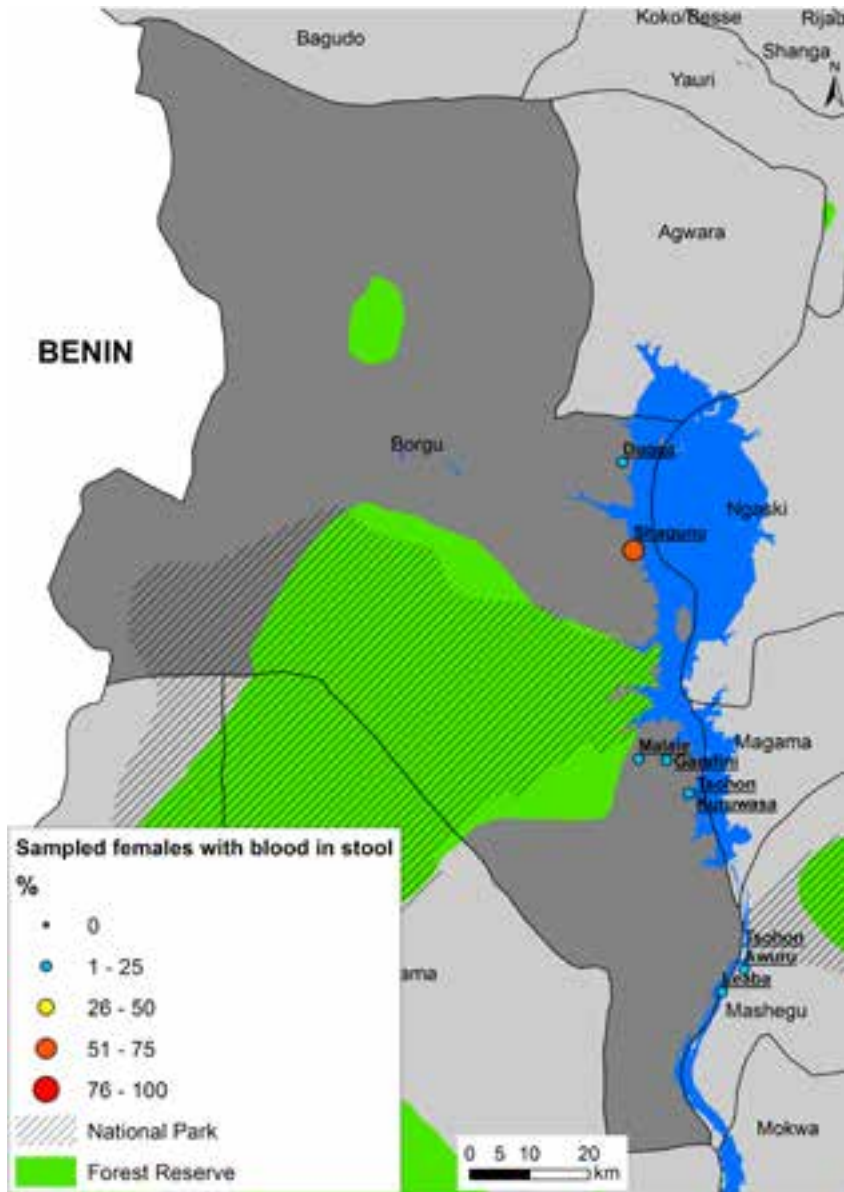


FIGURE 6

Female Villages Population Sampled with Blood in Stool Percentage

Sampled Villages with Blood in Stool & Urine, Gender.

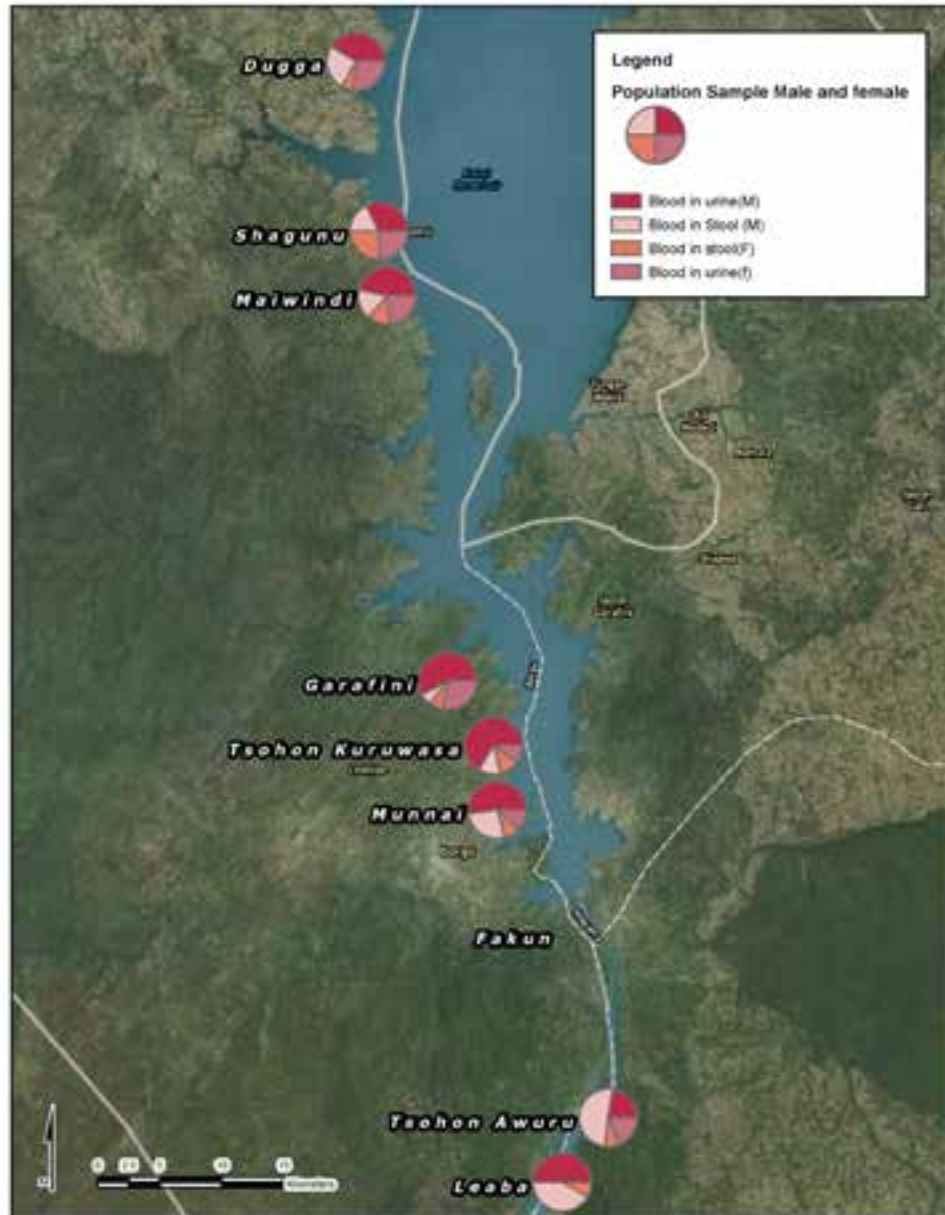


FIGURE H

Male & Female Sampled Villages Population with Blood in Stool & Urine Percent distribution

Summary

- Over 1700 people screened and cured of Schistosomiasis in Borgu province, Nigeria
- The fact that 66% of the male and 42% of the female population sampled saw blood in their urine may confirm the prevalence of Schistosomiasis in the region.
- Health survey conducted in 10 communities was used to develop a disease map that will educate future medical interventions in the area.
- While 416 communities still need to be mapped for Schistosomiasis, this study should serve as preliminary survey.

Acknowledgement

- God Almighty
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