

---

## Remote Sensing and GIS for Schistosomiasis Control in Mountainous Areas in Sichuan, China

---

Spear, R.\* , P. Gong<sup>§</sup>, E. Seto\*, Y. Zhou\*, B. Xu<sup>§</sup>, D. Maszle\*, S. Liang\*, G. Davis<sup>†</sup>, X. Gu<sup>£</sup>

\*School of Public Health, 140 Warren Hall, University of California, Berkeley, CA 94720-7360, USA

<sup>§</sup>Department of Environmental Science, Policy, and Management  
Center for Assessment and Monitoring of Forest and Environmental Resources  
151 Hilgard Hall, University of California, Berkeley, CA 94720-3110, USA

<sup>†</sup>Academy of Natural Sciences, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103

<sup>£</sup>Department of Scistosomiasis, Sichuan Institute of Parasitic Diseases, 10 University Road, Chengdu, P. R. China

---

### Abstract

In this paper, we report some of our initial results obtained from a joint research project between a team at the University of California at Berkeley and the Sichuan Institute for Parasitic Diseases. The project began with an intent to apply mathematical modeling to schistosomiasis control and later evolved into the use of GIS and remote sensing to map and model the spatial heterogeneity for the study of schistosomiasis transmission dynamics and the identification of snail habitats. Following a description of our study site in China, we present our results on the use of Landsat Thematic Mapper imagery in mapping snail habitats and the use of a GIS database developed at the village level for schistosomiasis transmission control based on spatial network analysis.

---