

Evaluation of a Dietary Intervention for Chronic Methylmercury Exposure Among Communities in Madre de Dios, Peru



Madre de Dios, Peru



Project Summary: During the summer of 2017, the research team worked with two communities from Madre de Dios, Perú in a pilot study to assess the effectiveness of a dietary intervention at reducing mercury levels in the body. Participants were provided with supplemental food baskets on a weekly basis and their blood mercury levels pre- and post-intervention were evaluated. One community received an educational component to see how it might improve intervention results.

PRIMARY OBJECTIVES

- Evaluate effect of dietary intervention (supplemental nutrition rich in selenium, dietary fiber, lycopene, and antioxidants) on blood methylmercury concentration
- Evaluate the effect of educational workshops of the efficacy of the dietary intervention

Household Enrollment

Biomarkers

Blood Hg

Anemia (Rapid Hb test)

Household Survey

Hg knowledge and practices

Dietary habits

PRELIMINARY RESULTS

- Individuals who participated in educational workshops demonstrated increased Hg knowledge
- Relationship between education and intervention efficacy still pending, awaiting blood Hg assays
- Food baskets do not have significant effect on anemia
- Blood Hg results are forthcoming

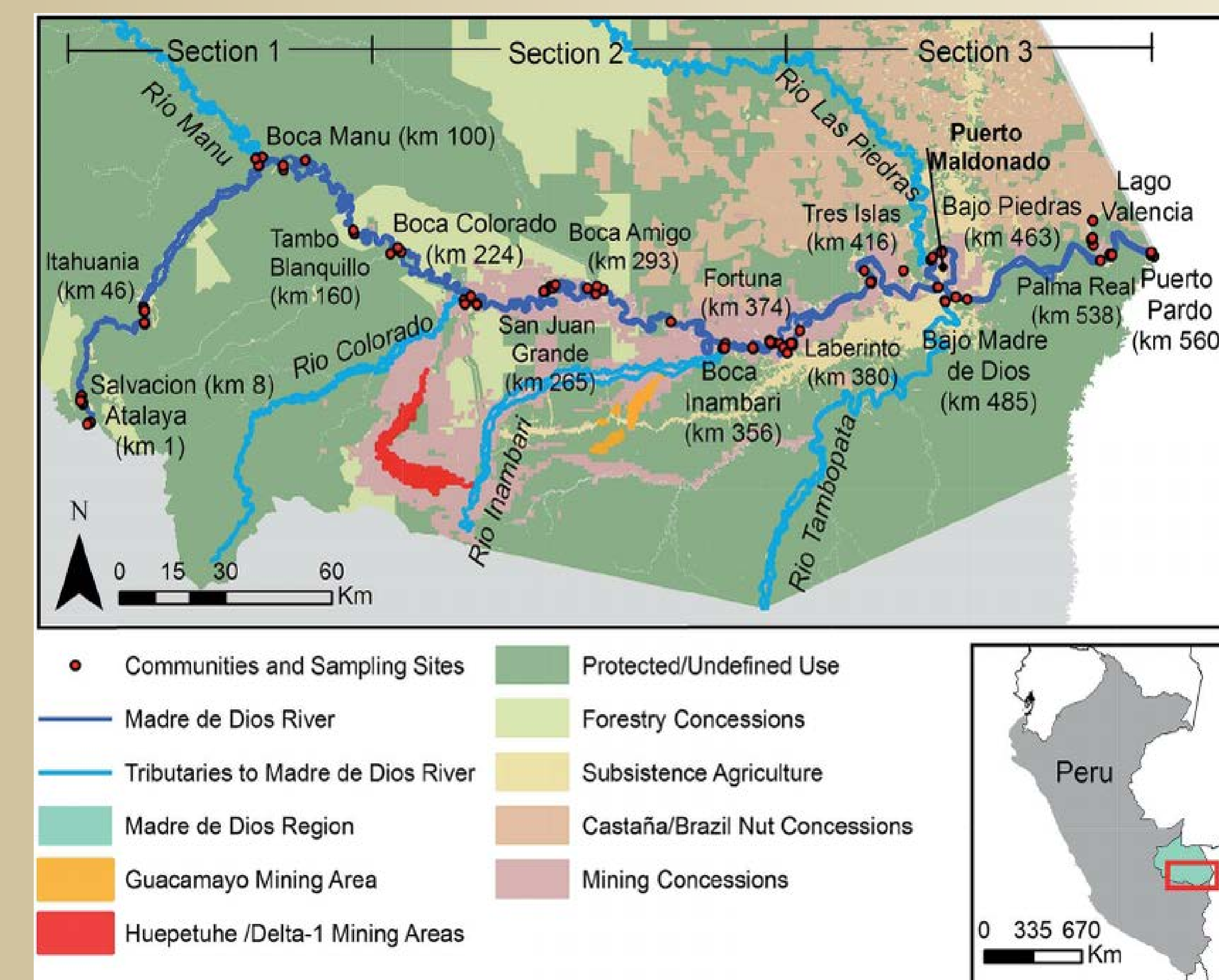
METHODOLOGY

- Twenty-one households from two communities were interviewed on their diet, Hg knowledge, and health pre- and post-intervention
 - Of these households, blood samples were collected from 30 individuals and a rapid anemia test offered to all participants regardless of if they gave venous blood
- Both communities received same food baskets
- Education group participated in 3 workshops about Hg



MEASURING HEIGHT AND WEIGHT

RESEARCH SITES



Students: Delaney Dryfoos, Joshua Grubbs, Anson MacKinney, Karina Martinez Romo | Trinity School of Arts and Sciences

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