

ENTOMOLOGICAL SURVEY OF *Culicoides* spp. IN AN AREA WITH OROPOUCHE FEVER
TRANSMISSION IN PIAU, MINAS GERAIS, BRAZIL

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Entomological monitoring of vectors in areas with arbovirus transmission is crucial for understanding transmission dynamics and implementing control measures. This study presents the results of an entomological survey of *Culicoides* spp. conducted in Piau, Minas Gerais, in January 2025, in an area with reported cases of Oropouche fever. The municipality is characterized by a tropical climate, diverse vegetation including Atlantic Forest fragments, and has banana cultivation as its main economic activity. The presence of banana trees throughout both rural and urban areas creates favorable environmental conditions for *Culicoides* proliferation across the entire municipality. The study employed multiple collection methodologies at eight strategic points, three in rural areas and five in urban areas, with outdoor traps consistently placed near banana trees in both settings. CDC light traps baited with CO₂ from yeast-molasses fermentation were installed in duplicate (indoor and outdoor) and operated during early morning and late afternoon periods. Additionally, active searches were performed using electric aspirators in indoor and outdoor environments and protected human landing catches in outdoor areas during late afternoon. Collected specimens were preserved in liquid nitrogen for viral diagnosis, with a subsample maintained in 70% alcohol for morphological identification. A total of 1,035 specimens were captured, with 96.56% collected through CDC traps. Spatial distribution indicated higher abundance in rural areas (63%) compared to urban areas (37%), despite the presence of banana trees in both areas. Samples are currently undergoing molecular analysis for viral detection and species identification. Preliminary results provide important indicators about the distribution and density of these vectors in the study area, contributing to the understanding of the local epidemiological scenario and its relationship with widespread banana cultivation.

Supported by: Not applicable.

Keywords: Oropouche Fever; Entomological Surveillance; Arbovirus.