



## A new species of *Vespula*, and first record of *Vespa crabro* L. (Hymenoptera: Vespidae) from Guatemala, Central America

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### Abstract

*Vespula akrei* Landolt **sp. nov.** is described from Guatemala. The first record of *Vespa crabro* L. in Guatemala is given, and *Vespula inexpectata* Eck from Mexico is re-described. We place *Vespula akrei* **sp. nov.** in the *Vespula vulgaris* (L.) species group (= *Paravespula* Bluthgen) based on morphology, color pattern, and DNA sequences from two mitochondrial genes. It is presently known only from the Sierra de las Minas mountain range in southeastern Guatemala.

**Key words:** *Vespula*, yellowjacket, Vespidae, Neotropical Region, wasp, new species, Guatemala

### Resumen

Se describe la avispa *Vespula akrei* Landolt **sp. nov.** de Guatemala, se registra por primera vez la presencia en Guatemala de *Vespa crabro* L., y se re-describe *Vespula inexpectata* Eck de México. Basados en la morfología, el patrón de coloración y el análisis de secuencias de ADN mitocondrial se ubica a *Vespula akrei* **sp. nov.** en el grupo de especies de *Vespula vulgaris* (L.) (= *Paravespula* Bluthgen). La distribución actualmente conocida de *V. akrei* es la cadena montañosa de la Sierra de las Minas en el Sureste de Guatemala

### Introduction

Five yellowjacket and hornet specimens (Hymenoptera: Vespidae; Vespinae) were located in May 2005 in an unsorted collection of Hymenoptera at the Universidad del Valle de Guatemala, Guatemala City. Two were determined to be *Vespula squamosa* (Drury), which was reported by Landolt *et al.* (2009). A third specimen was determined to be a worker of *Vespa crabro* L., a new country record. We were unable to determine the two remaining specimens, which upon further study and the collection and location of additional material, are included in this paper as a new species.

The two undetermined specimens, a male and a worker, bore labels for Zacapa Department, the towns of San Lorenzo and Jones, respectively. These two towns are within and at the southern base, respectively of the Sierra de las Minas mountain range. This range runs west to east across much of southeastern Guatemala, and portions of it are within the protected Reserva de Biósfera Sierra de las Minas. Initial efforts by us to collect specimens of that wasp from that mountain range, at elevations of 300 to 1900 m in elevation near San Lorenzo, were unsuccessful. However, specimens were captured at a 2200 m elevation site approximately 12 km north of San Lorenzo, in April and May 2008, and again in May 2010. Additional specimens were then collected at a similar elevation site to the west of San Lorenzo on Cerro Piñalon in El Progreso Department. A specimen which had been collected near San Lorenzo was also located in the Entomology Collection of the Royal Alberta Museum, Alberta, Canada.