Abstract
Evaluating components of landscape diversity is essential for the implementation of efficient conservation strategies. We evaluated the diversity of Odonata larval assemblages from the Coalcomán mountains (CM), Michoacán, Mexico, and related it to local (site-level) habitat variables. Larvae were collected from shores, riffles and pools in five streams, counted and identified to species, twice per season during 2005. The Shannon Diversity Index (H), Margalefs Richness Index (R), Simpsons Index as a dominance measure (D) and Pielous Equitability (J) were used to describe the assemblages, and Renyi's Diversity Profiles were used to order diversity. A Bray-Curtis Similarity Index (BC) was used to evaluate beta diversity. Theoretical richness was estimated using non-parametric and parametric methods. A Canonical Correspondence Analysis (CCA) was applied to explore the relationships of species with site-level environmental variables. A total of 12,245 larvae from 75 species, 28 genera and 8 families were recorded. Over all sites, the dominant species were Erpetogomphus elaps, Macrothemis pseudimitans and Argia pulla. The number of species per locality ranged from 18 to 36, and a high number of species (76%) occurred with relative abundances lower than 1%. A differential distribution of species and abundance in streams, time and strata was observed. Renyi's diversity profiles showed diversity was higher in spring and on shores. Most BC similarity values were smaller than 25%, indicating a high turnover rate in the CM. The high turnover rate reflects a differential distribution of the species along the altitudinal gradient, supporting the hypothesis of Mexico as a betadiverse country. According to the slope of Clench's curve, a reliable list of species was gathered. The CM larval assemblage is currently the largest reported for Mexico, and our results support previous proposals of the CM as a species-rich area for conservation.

Keywords
Dragonfly larvae, diversity, CCA, Coalcomán Range, Michoacán, Mexico.