topography is low hills and canyons without permanent streams. Average annual rainfall is 733 mm, and the dry season is from November to mid-June. The dominant vegetation is deciduous tropical forest generally less than 8 m in height.

GEOGRAPHICAL DISTRIBUTION: Known only from type locality.

SPECIMENS EXAMINED: Numerous workers from three nocturnal raiding columns (colonies: W-299, W-315, W-321) and one queen with several workers from a nocturnal migrating column (colony W-329) collected by J. F. Watkins II and C. J. Coody from the Chamela Biological Station (UNAM), Jalisco, Mexico on 5, 15, 17, 21 June 1984.

DIFFERENTIAL DIAGNOSIS: *Workers:* postpetiole well developed; eyes ocellus-like; antennal fossae not concealed by frontal carinae; tarsal claws without teeth; dorsum of mesonotum without a strong "hump"; propodeum without a transverse carina on its dorsoposterior corner, and without a strongly indented declining surface; eyes with convex corneas; head not granulated; postpetiole about as long as petiole; propodeum not distinctly longer than petiole; head and gaster without a blackish overcast; petiole broad (length 1.1–1.5 times width); frontal carinae do not continue completely across the fronts of antennal fossae; petiole without a distinct anteroventral tooth. *Queen:* gaster about twice as long as alitrunk; ocellus-like eyes present on sides of head; tarsal claws without teeth on inner borders; node of petiole subquadrate, not wider than long, with a shallow median sulcus, and without a transverse carina (dorsal view); venter of petiole convex and without a distinct protuberance (lateral view); inner border of mandible convex and without a distinct masticatory surface; pronotum with an anterior flange which extends above the occipital concavity, and the occipital corners do not project posteriorly when viewed from above.

Discussion

Neivamyrmex chamelensis appears to be most closely related to *N. californicus* (Mayr); however, variations of the mandibles and petioles cause attempts to run the workers through existing taxonomic keys to be very confusing. Workers with mandibles whose basal margins curve into the masticatory margins without forming distinct corners may be keyed to *N. californicus* in Borgmeier (1955) and Watkins (1976); however, workers with mandibles whose basal margins form distinct corners at their junctures with the masticatory margins, and whose petioles are distinctly longer than broad may be keyed to *N. opacithorax* (Emery) in Borgmeier (1955). In Watkins (1982), workers with subquadrate petioles may be keyed to *N. harrisi* (Haldeman) and specimens with more elongate petioles may be keyed to couplet 8; however, they do not agree with all the characteristics in 8a (*N. manni*) or 8b (*N. opacithorax*). The petioles of *N. chamelensis* workers are relatively wider and the postpetioles are relatively longer than those of *N. californicus* and *N. opacithorax.* The postpetioles of *N. chamelensis* workers are about as long as their petioles, while the postpetioles of *N. californicus* and *N. opacithorax* are distinctly shorter than their petioles. The propodea of *N. chamelensis* workers are relatively shorter (shorter than the petioles), steeper posteriorly, and more depressed below their mesonota (majors) than those of *N. californicus* and *N. opacithorax.* Broad, upturned lamellae across the fronts of the antennal fossae are present in *N. harrisi* workers, but absent in *N. chamelensis.* Also, the propodea of *N. harrisi* workers are relatively longer.