

Biosystematic Studies  
of Ceylonese Wasps, VIII:  
A Monograph of the Philanthidae  
(Hymenoptera: Sphecoidea)

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adherent *Nodina* fragments. All nests were in soil with a slightly sloping surface.

### *Cerceris conifera*, new species

This wasp belongs to the new monotypic *conifera* group, which preys upon adult Eucharitidae (Chalcidoidea), parasites of ant pupae. Females of *Cerceris conifera* are 7.5–9.5 mm long.

I captured the first female with prey (61776 A) on the foliage of a shrub in the Induruwa Jungle, Gilimale, at 1015 on 17 Jun 1976. The paralyzed male prey, *Chalcura deprivata* (Walker), 3.5 mm long, was able to vibrate its mouthparts and legs feebly. S. Karunaratne captured two females of *Cerceris conifera* on flowers on 19 Jun; the wasps may have been searching for prey or visiting the flowers for nectar. A small aggregation of the wasp was nesting in a jungle path rather open to the sun in well-compacted soil occasionally overlaid by 1–2 cm of alluvial sand. On 19 Jun we excavated a nest from this aggregation. The burrow was vertical for 7.5 cm and 3–4 mm in diameter. At that depth we cut the wasp in half with the trowel and found two paralyzed *Chalcura deprivata* females. On 22 Jun I noted another nest in this aggregation, which had the burrow entrance closed at 0930 and open by 1030, indicating that the wasp had left. There was a tumulus of sand grains 30 mm in diameter and 5 mm high in the center around the entrance. The burrow was 3 mm in diameter and vertical to a depth of 13.6 cm, where it angled off for 4 cm. At a depth of 20 cm and in direct line with the main burrow axis, we found a *Cerceris* cocoon 9 mm long with many adherent chalcidoid fragments and containing a wasp pupa. About 2.5 cm from the first cell and 1 cm deeper, there was a second horizontal cell, 10 mm long and 4 mm wide; the *Cerceris* larva was cut in half by the trowel and we recovered more whole paralyzed *Chalcura deprivata* 2.7–3.4 mm long. A third cell was in line with the oblique section of the burrow. It contained a few chalcidoid fragments, which suggests that perhaps *Cerceris conifera* reuses an old burrow as does *Philanthus b. basalis*, or that some offspring may

emerge as adults while their mother is still storing new cells. A fourth cell was 3 cm from the end of the main burrow axis and contained six whole fresh paralyzed *Chalcura deprivata*, five females and one male, but no wasp egg or larva.

We found the last nest in a level jungle path open to the sun at the base of Sigiriya Rock on 29 Jun 1978. At 1415 P. B. Karunaratne caught a female of *Cerceris conifera* as she emerged from the burrow. As we began the excavation, a second female 9.5 mm long left the burrow. The burrow was 4 mm in diameter and went down vertically for 8.0 cm. At a depth of 9.5 cm and 1 cm from the burrow axis, and not connected with the main burrow, we found an old cell with cocoon and chalcidoid fragments. At 8.0 cm the burrow turned horizontally for 2.0 cm. We found four cells at this distance from the main burrow axis at depths of 8.5, 9.0, and 11.5 cm. All were open to the horizontal section of the burrow. Three contained fragments of cocoons and chalcidoid prey, and the fourth contained a complete fusiform cocoon 11 mm long with a dead prepupa and adherent prey fragments. The prey fragments from these four cells were identified as *Chalcura deprivata* and *Schizaspidia* sp., possibly *convergens* (Walker). Our capture of two females from this nest and failure to find fresh prey suggests that both were newly emerged females from two of the four cells open to the horizontal section of the burrow.

(Account based on notes 61776 A, 61976 F, 62276 A, and 62978 A.)

### *Cerceris curculionida*, new species

This is the only known member of the *curculionida* group, and it preys upon weevils. It has the unusual habit for a *Cerceris* of nesting in nearly vertical banks instead of the more usual flat or gently sloping ground. I collected two females 9.0 and 9.5 mm long in Udawattakele Sanctuary, Kandy. The former (21275 B) was hovering in front of a nearly vertical bank of soft sandstone (kudu gala) at 1255 on 12 Feb 1975. She was carrying her paralyzed weevil prey, *Mylocerus* sp.,