Abstract
The parasitoid wasp family Ichneumonidae currently includes approximately 37 subfamilies worldwide. Banchinae subfamily is a cosmopolitan group with three tribes: Atrophini, Banchini and Glyptini, this last characterized with oblique grooves on tergites II-IV, a dorsal subapical notch on the ovipositor, and a median apical impression in the subgenital plate. From the latter tribe, the genus Sphelodon, with eight species reported, can be recognized for the presence of a prominent basolateral tooth in the first abdominal tergite. Significant previous comprehensive studies for that group have been done in Costa Rica by local and international experts, but it is highly probable that many species remain undescribed in the region; before this survey, only one species (S. annulicornis) was registered from Brazil. The material reviewed in this study was obtained from main entomological collections of Southeast and South Brazil, from localities corresponding to 17 of the 27 States of the country, although most of the specimens (70.3%) were collected in São Paulo State. Approximately 3 000 specimens of the subfamily have been examined, 29 belonging to Sphelodon. The description format in this work broadly follows previous works; the species were illustrated through SEM in low vacuum mode (without uncoated the specimens). Here five new species of the genus Sphelodon are described and illustrated, one of these (S. brunicornis), differs from the rest of the species by lacking a median band in the flagellum. An identification key to the Neotropical species is provided.

Keywords
Glyptini, identification key, South America, taxonomy, wasps.