

## SUMMARY

Studies of the male genitalia of the Passalidae (Coleoptera), giving special attention to structural homologies in the terminal abdominal somite, have revealed that the aedaeagus has probably undergone a permanent rotation of 180° around its longitudinal axis. The investigation, based on detailed examinations of 26 species (14 from Amazonian Brazil) representing 7 genera (*Odontotaenius*, *Popilius*, *Veturius*, *Verres*, *Paxillus*, *Spasalus* and *Passalus*) provided data for an evaluation of the taxonomic significance of the aedaeagus and demonstrated that the structure adequately characterizes individual species and the majority of the genera studied. Intraspecific variation, although considerable in some cases, did not reduce the taxonomic usefulness of the aedaeagus, but rather revealed possible interpopulational patterns which may take on additional significance in distributional studies. To facilitate future comparative analyses, suggestions have been presented for a standardized methodology in the preparation and representation of the aedaeagus in taxonomic investigations.