

may provide some clues to the evolutionary origin of this bizarre behavior. The operational sex ratio in *Malacosoma* frequently is male-biased (Stehr and Cook 1968. United States Nat. Mus. Bull. 876.). This results in males finding females which are already mating. In a laboratory enclosure, a male *M. americanum*, the eastern tent caterpillar, attempted to copulate with an already mating female. It appeared that he succeeded although he did not dislodge her first mate or penetrate her bursula copulatrix. Instead he punctured her abdomen probably with his tusk-shaped penis. An accessory gland and ovary spilled out. In the field in 32 out of 68 matings of *M. americanum* and *M. disstria*, the forest tent caterpillar, males attempted to copulate with already mating females. These interfering males probed with their abdomens just as they would with solitary females. None of the interfering males succeeded in mating the paired females, but 4 mating *M. disstria* (3 males and 1 female) sustained abdominal punctures. Most likely these were not "intentional" woundings like the ones bed bugs inflict. The wounds were probably the result of interfering males finding the bursula copulatrixes occupied and stabbing one of the mating participants while probing. We speculate that bed bug mating behavior evolved under conditions where the operational sex ratio was male-biased and males frequently encountered mating pairs.

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OCCURRENCE OF *PTOMAPHAGUS CAVERNICOLA* IN FORESTS IN FLORIDA AND GEORGIA (COLEOPTERA; LEIODIDAE; CHOLEVINAE)—There are 19 species of *Ptomaphagus* beetles in the southeastern United States which are highly cave-evolved (troglobitic) and with very limited geographic distributions. They are probably descendants from early Pleistocene ancestors that became specialized and restricted to caves (Peck, 1981. Proc. 8th Int. Cong. Speleology, Bowling Green, KY: 503-5.). In contrast, the evolutionary meaning of the distribution of *Ptomaphagus cavernicola* Schwarz has been a puzzle. It belongs to a species group that is mostly Mexican in distribution, and is known as a scavenger. Hundreds of specimens have been collected from 96 caves in a broad arc from Mexico through Texas to Oklahoma, Arkansas, Missouri and Iowa, and down to Alabama, Georgia, and Florida. It shows cave "specializations" in its comparatively reduced pigmentation and longer antennae and legs, but has very well-developed eyes and functional flight wings. In spite of extensive collecting in litter and with baited traps, the only non-cave record was one specimen taken in January in litter in South Carolina (Peck, 1970. Fla. Ent. 53: 203-7; Peck, 1973. Bull. Mus. Comp. Zool. Harvard Univ. 145: 29-162; Peck, 1977. Pages 185-213 In Reddell, J. R., ed. Studies on the caves and cave faunas of the Yucatan Peninsula. Assoc. Mex. Cave Studies Bull. 6.; and unpubl. data.) From these data and through comparison with the distantly related troglobitic species of *Ptomaphagus*, it was concluded that (1) the species is physiologically and behaviorly suited for life in caves but

not for present ecological-climatic conditions existing outside of caves, (2) the populations dispersed to and occupied caves during the cooler and more moist climatic conditions during or shortly after the Wisconsinan glacial maximum, and (3) the present populations are now climatically isolated in caves, which serve as refugia, and there has been inadequate time for noticeable population differentiation (Peck 1973).

During the summer of 1981 I conducted a field study of forest-dwelling leiodid beetles in the southeastern U.S. with a new technique. Twenty-four "large-area" window traps (Peck and Davies, 1980. *Coleopt. Bull.* 34: 237-8.) were operated from May to August in Virginia, North Carolina, South Carolina, Georgia and Florida. In addition to trapping some 3000 specimens of poorly known leiodines and colonies, some *P. cavernicola* were collected as follows:

FLORIDA. Jackson County. Florida Caverns State Park, 9.VI-11.VIII.1981, (11). Leon County. Tall Timbers Research Station, 14.VI-10.VIII.1981, (2). Suwanee County. Suwanee River State Park, 15.VI-8.VIII.1981, (1).

GEORGIA. Macon County. Ocmulgee National Monument, 8.VI-12.VIII.1981, (1).

All traps were in mixed pine and deciduous forests of floodplain loam or sandy soils. At the Tall Timbers, Suwanee, and Ocmulgee sites there are no limestones suitable for air-filled caves for many tens of kilometers. At Florida Caverns, the trap was more than a kilometer away from caves known to contain the beetle (Peck 1970).

From these new collections I conclude that (1) *P. cavernicola* is a contemporary inhabitant of forests of the southeastern United States and actively flies in the summer, (2) it is not cave-limited or a Recent climatic relict, (3) it probably can now colonize suitable cave sites as it discovers them, and (4) that large-area window (or flight intercept) traps should be used more extensively as tools for surveys of many poorly known beetles.

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*EUTACHYPTERA PSIDII* (SALLE) IN HONDURAS (LEPIDOPTERA: LASIOCAMPIDAE)—In Honduras the tents of *Eutachyptera psidii* appear in midwinter and become especially obvious in February and March. The large white silken nests on *Quercus sapotaefolia* Liebm. are common along the main road from Tegucigalpa to Comayagua. *E. psidii* has never been recorded from Honduras. Draudt (1927-8, In Seitz. *Macrolepidoptera of the World*, Alfred Kern. Stuttgart, 6: 565-628) gave the distribution as "Arizona, Mexico to Guatamala" and lists both *Quercus* sp. and *Psidium pyriferum* L. as hosts. Franclemont (1973, In Dominick et al., *The Moths of America North of Mexico*, Curwen Press. London. Fasc. 20.1:66) doubts