to leave, became entangled in part of the nylon lining. The owl was cut free and released with minor bruises; the nest has been deposited in the ornithological collection at Mississippi State Univ.

Many species of birds as well as other wildlife have been reported trapped by carelessly discarded monofilament line. Other species of orioles (e.g., *Icterus galbula*) have been reported to incorporate such line in their nests (Jackson, Mississippi Kite, 6:9, 1975). Lichtenstein's Oriole has only been reported to use natural materials in its nest construction (Bent, 1958). While Screech Owls characteristically roost in cavities during the day, I have found no previous report of one using an oriole nest as a roost site. It is also possible that the owl was hunting when it entered the nest, since Screech Owls are known to take nestling birds (C. D. Marti, pers. comm.).

I thank Matt Matthews, Randy Schultz, Jeff Stewart, and Judy Toups for their efforts in helping me retrieve the nest and owl.—Jerome A. Jackson, *Mississippi State Univ., Mississippi State, MS 39762.*

PIPISTRELLUS HESPERUS (CHIROPTERA) EATING SPIDERS.—Western pipistrelles (*Pipistrellus hesperus*) are reported to eat flying ants, beetles, flies (Easterla, Northw. Missouri State Univ. Stud. 34:54-165, 1973), moths, leafhoppers, and other flying insects (Hayward and Cross, Office Res., Western New Mexico Univ., 3:1-36, 1979; Ross, Proc. Western Found. Vertebr. Zool., 1:204-263, 1967; Studier et al., Bull. New Mexico Acad. Sci. 10(2):11-32, 1969). Wingless arthropods have not been reported previously from the diet of these bats.

While working with fecal samples taken from 67 western pipistrelles from Dog Canyon (17 km S, 3 km E Alamogordo, 1420 m) Otero Co., New Mexico, I found that two bats caught in September 1979 had eaten spiders (Araneida). Fecal samples (UTEP Nos. F74 and F92) of both bats contained at least one distal portion of a spider tarsus with its characteristic comb-like claws. One fecal sample (UTEP No. F92) also had an almost complete chelicera.

Although bats such as *Antrozous pallidus* often fly near the ground and eat arachnids (Ross, 1967), there is little reason to suspect that *Pipistrellus hesperus* forages in this way since this bat is an aerial forager not especially adapted to hovering near the ground. It is likely that the bats reported here fed on young (<3 mm) spiders dispersing through the air attached to silks.—Joe N. Fries, *Laboratory for Environmental Biology, Univ. Texas at El Paso, El Paso, TX 79968.*

MATING BEHAVIOR OF *POLYPHYLLA DIFFRACTA* (COLEOPTERA: SCARABAEIDAE).—The melolonthine genus *Polyphylla* includes species of some economic importance (Travis, J. Econ. Entomol., 32:690-693, 1939; Downes and Andison, Proc. Entomol. Soc. British Columbia, 37:5-8, 1941; Johnson, J. Econ. Entomol., 47:717-718, 1954). Larvae feed on roots causing localized damage, while imagos are largely foliage feeders. The relatively short-lived imagos employ sex pheromones for mate finding (Travis, 1939; Lilly and Shorthouse, Canadian Entomol., 103:1757-1761, 1971). In the case of *Polyphylla decemlineata*, females fly into foliage and attract males in the early evening. Males respond to females between heights of 2.4 m and 5.5 m, and to ethanol extracts of female abdomens at heights between 1.8 m and 3.7 m above ground level (Lilly and Shorthouse, 1971). *Polyphylla lanceolata* males search out females emerging from the ground between 0630 and 1130 h. (Travis, 1939). This note describes the sexual behavior of *Polyphylla diffracta*, which ranges throughout southern California, Utah, Arizona, and New Mexico (Young, Trans. Amer. Entomol. Soc., 93:279-318, 1967), and suggests the potential reproductive isolation mechanisms working within the genus.

On 26 Jul. 1969, imagos were observed emerging from an open park near Las Cruces, New Mexico, between 1800 and 2000 h (MST). Males were flying in a zig-zag pattern, 10 to 50 cm above ground level, with their lamellate antennae extended. In three of the 22 copulations observed, males helped the female to dig her way out of the soil. Females emerged briefly, mated, than returned to their emergence burrows and disappeared. Only males were captured at lights, suggesting that females emerge only to mate. On 16 occasions, more than one male was attracted to the emergence hole, resulting in jostling for copulatory positions. After one male successfully engaged the female genitalia, the other males dispersed. Three newly emerging females were captured before copulation and placed in small screen cages. When placed on the ground, each of these cages attracted a minimum of five males within a 5-min time period. Males also landed and investigated emergence holes into which newly mated females had returned. All of these observations support the presence of sex pheromones in *Polyphylla diffracta*, and suggest that the females mate only once.

Lilly and Shorthouse (1971) suggested employing female sex pheromones in working out taxonomic groups. This may indeed be possible, but no data are available on specificity, if pheromone specificity exists at all. Sex pheromones are undoubtedly important, but the available literature suggests that they may be of a temporal nature. Here we observed females for only a short period during the year. Works referred to earlier also suggest that females are ephemerally active above the ground. Also, partitioning of the diel cycle may be important. Here we found that sexual behavior ocurred only 2 h during the day, at dusk. The references cited earlier also suggest a narrow diel window for sexual activity. Finally, reproductive isolation could be reinforced spatially, as observations of *Polyphylla lanceolata* and *Polyphylla diffracta* contrasted with *Polyphylla decemlineata* would tend to suggest. All of these mechanisms may be important in zones of sympatry to ensure reproductive isolation.

These observations were supported, in part, by a Natl. Sci. Found. Grant, DEB-77-16633, to Whitford.—Harold G. Fowler, and Walter G. Whitford, *Dept. of Biology, New Mexico State Univ., Las Cruces, NM 88003.*

BLUE CACTUS BORER INFESTATION LEVELS IN THREE WEST TEXAS HABITATS.—The blue cactus borer, *Melitara dentata* Grote (Lepidoptera: Pyralidae), is among the most destructive native insects of prickly pear cactus (*Opuntia* spp.) in western North America (Mann, U.S. Natl. Mus. Bull., 256:1-158, 1969). Its biology has been summarized (Bugbee and Reigel, Amer. Midl. Nat., 33:117-127, 1945) but little is known about the factors that influence its infestation level. In conjunction with a long term study of the population dynamics of *M. dentata*, a census was taken to determine if there were significant differences in initial levels of infestation in three habitat types.

The study was conducted on the Montgomery Ranch, Floyd Co., Texas, from September 1979 to May 1980. In September, a 90 m transect was run in each of three habitat types: mesquite-grassland, broomweed-mesquite, and yucca-grassland. The habitats were in adjacent areas over ca. 30 ha. The nearest prickly pear cactus clump at each 3-m interval along the transect was visually examined for blue cactus borers. Infestations were recognized by the presence of eggs and/or sappy exudate resulting from early larval feeding. Eggs appeared in late September and hatched within 2 to 3 weeks. Infestations were monitored through the larval period, which extended into the following summer. The infestations observed in September represented the total number for the entire study period, as there was no ovipositional activity beyond October. Counts were made of the number of pads (stems) infested and the total number of pads in the cactus clump. A total of 30 cactus clumps was examined on each transect. The population in each habitat was then monitored monthly until May to insure that infested plants had not been overlooked. There were no observed increases in infestation levels.

Comparisons by Chi-square analysis of the number of cactus clumps infested among the three habitats showed a significant difference in infestation levels ($X^2 = 8.817$, $P < 0.025$; 2 d.f.). In the mesquite-grassland and broomweed-mesquite habitat the percentages of clumps infested were 16 and 27, respectively, compared to a zero infestation level in the yucca-grassland habitat. There was no significant difference in infestation levels between the mesquite-grassland and broomweed-mesquite habitats ($X^2 = 1.366$, 1 d.f.). Comparison of the number of cactus pads infested among the three habitats showed no significant difference in infestation levels ($X^2 = 3.526$; 2 d.f.). Only 1% of the pads was infested in the mesquite-grassland and broomweed-mesquite habitats compared to the observed zero level in the yucca-grassland area.

Superficially it appears that the initial levels of infestation of *M. dentata* differs significantly among three habitat types, at least when the number of infested clumps are compared. However,

Table 1.—Melitara dentata *Grote infestation levels in prickly pear clumps versus prickly pear pads in three habitats.**

	Mesquite grassland	Broomweed-mesquite	Yucca grassland
No. clumps infested	5 (a)	8 (a)	0 (b)
No. clumps not infested	25	22	30
No. pads infested	6 (a)	8 (a)	0 (a)
No. pads not infested	441	615	266

*Numbers followed by the same letter are not significantly different ($P < 0.025$) according to Chi-square analysis.