

butterflies is regulated largely by the locations of communal roosts and adult and larval food resources. That study also revealed a fractionation of the population into several subpopulations but with considerable interchanges of marked butterflies between areas of habitat occupied by different subpopulations. The obvious inference from such results is the shifting dependency of individual butterflies among several communal roost sites within a relatively small area of habitat. Waller and Gilbert (op. cit.) did not mention the occurrence of other roosts within the vicinity of those adult pollen-source plants visited principally by unmarked individuals of *H. charitonia*. Given the results of Cook et al. (op. cit.), other roosts most likely existed in the general vicinity of the home range area occupied by these unmarked butterflies.

The results of Young and Thomason (op. cit.) indicated that there can sometimes occur considerable **individual** variation in the tenacity of *H. charitonia* to a particular roost site. Genotypic differences among individual butterflies may ultimately explain such patterns (Young and Thomason, op. cit.). In the absence of such data, however, it is safe to conclude tentatively that in some tropical regions occupied by *H. charitonia*, the degree of fidelity to a particular roost site is highly dependent upon (1) the availability of multiple roosts within the area, (2) the positioning of different home ranges occupied by different subpopulations relative to one another, and (3) the abundance and spatial distribution of adult and larval food resources within home range areas. Given the findings of Young and Thomason (op. cit.) and Cook et al. (op. cit.), I believe that it is erroneous on the part of Waller and Gilbert (op. cit.) to suggest that the patterns of roost instability reported in Young and Carolan (op. cit.) and Young (op. cit.) as being due to disturbance incurred while marking butterflies. Waller and Gilbert did not discuss the results of Young and Thomason (op. cit.) relative to their interesting data. Had they done so, they might have been able to suggest that the observed high fidelity of butterflies to the single roost they studied was possibly due to the absence of a second roost within the same home range or at the periphery of a contiguous home range associated with the unmarked butterflies they saw at patches of adult pollen-sources far removed from the vicinity of the roost in question (a projected spatial arrangement of home ranges and roosts that would probably preclude frequent exchanges of marked butterflies among different roosts). In doing so, they would have justifiably assigned an equal weight or error factor to disturbance of butterflies during marking in both their study and the Costa Rican studies discussed here.

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#### RAINSTORM BEHAVIOR OF PIPEVINE SWALLOWTAILS, *BATTUS PHILENOR* (L.)

While collecting near Laredo, Texas in mid-afternoon, 12 June 1981, we took shelter in our car in advance of a rainstorm approaching from the southeast. The car was parked among mesquite trees, *Prosopis glandulosa* Torr., and we watched as six pipevine swallowtails, *Battus philenor* (L.), buffeted by a brisk wind, came together in a little group on one of the trees from the otherwise sparse population of this butterfly in the area. With the sun in the opposite direction from the storm, no darkening of skies had occurred at the time the assembly was initiated. Individuals were all about 12 feet from the ground,

separated from each other by inches to a foot or two. All located themselves on the lee side of twigs, head upward and wings folded together over their backs. After the heavy rain shower they gradually disassembled, fanning their wings before flying away one-by-one. One individual moved for a time to another tree and repositioned itself on a twig but on the side of the continuing southeast breeze, with wings spread apart and not fanning.

In their paper on roost recruitment and resource utilization by *Heliconius charitonia* L. near Vera Cruz, Mexico, D. A. Waller and L. E. Gilbert (1982, J. Lepid. Soc. 36:178-184) review hypotheses on communal roosting and comment that *Heliconius* roosting behavior is one of the major remaining mysteries of lepidopteran biology. In relation to our observations, Gilbert (pers. comm.) mentions that the roosts at Vera Cruz, where daily rains were the rule, formed earlier when storms occurred in the early afternoon. He has also seen such roosting in *B. philenor* and *Danaus gilippus* (Cramer) around Catarina, Dimmit Co., Texas.

Our observations were made during a one-day trip and without opportunity for more extended observation. While difficult in south Texas because of sporadic rainfall, further observation of roosting behavior on days with and without afternoon thunderstorms will be necessary to extend and explain our observations for *Battus* and other species. It would be interesting to know whether the butterflies we observed returned to the same place for roosting at night.

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#### WESTERN RANGE EXTENSIONS FOR *ANISOTA CONSULARIS* (SATURNIIDAE) REPRESENTING NEW STATE RECORDS IN MISSISSIPPI AND LOUISIANA

Until recently, the known distribution of *Anisota consularis* Dyar was limited to a few scattered records from Florida. The inability of reviewers to correctly separate *A. consularis* from its Floridian congeners only further limited our knowledge of the species' range. Kimball (1965, Lepidoptera of Florida, p. 69) readily admitted the limitations of his knowledge of *A. consularis* and Ferguson (1971, Moths of North America, Fascicle 20(2A), Bombycoidea: Saturniidae (Part), pp. 63-84) had difficulty distinguishing between *A. consularis* and *Anisota stigma* Fabricius.

The revision of the genus by Riotte and Peigler (1980(81), J. Res. Lepid. 19(3):101-180) offers the first taxonomic understanding of *A. consularis* and corrects many of the previously published mis-identifications. In addition, they offer records of *A. consularis* from Long and Bulloch counties of coastal Georgia. These captures are the only previously published reports of *A. consularis* occurring outside of Florida.

Several years ago, through the generosity of curator Patricia Ramey, the author examined the *Anisota* in the Mississippi Entomological Museum at Mississippi State University. A previously undetermined female collected by C. C. Greer at Gulfport, Harrison County, Mississippi, on 1 September 1916, was identified by the author as *A. consularis*. This specimen represents a new state record and westward range extension for *A. consularis*.

Recently, the author also examined the *Anisota* in the private collection of Vernon A.