would engulf larvae and pupae of these species after contacting them with their tentacles and nematocysts; the paralyzed mosquitoes were transferred through the pharynx into the gastrovascular cavity within seconds. This entire process was easily observed due to the transparency of the cuticle around the gastrovascular cavity.

In 1 series of observations 5 medium to large sea anemones were transferred directly from 1 rearing aquaria to 400 ml glass beakers containing 100 (control), 75, 50, 25, and 0% sea water (distilled water) (3 replications/salinity level). Results indicated that sea anemones transferred to 100 and 75% sea water actively preyed upon all Ae. taeniorhynchus larvae introduced into the beakers over a 48 h period. Anemones contracted in 50% sea water and did not feed over the 48 h period; no apparent mortality was noted. All sea anemones died within 48 h when tested in 25% or less sea water.

Sea anemones moved via their pedal discs toward the surface where high concentrations of dead (frozen) mosquito larvae were floating. Numerous anemones were attached to the submerged portion of a plastic hygrometer free-floating in 1 aquarium. This could suggest possible mechanisms for transferring these organisms to a new environment. Anemones were easily removed with a spatula from aquaria or buckets lined with polyethylene bags but they could not be removed undamaged if they adhered to the glass of an aquarium.

Populations in each aquaria greatly increased over a 1 month period when anemones were fed high concentrations of immature mosquitoes. Little or no mortality resulted when the sea anemones in 1 aquaria were not fed for 3 weeks; however, these individuals decreased in size.

The apparent ease in culturing Aiptasia pallida plus its tolerance and possible adaptation to fluctuations in habitat salinity indicate a potential for biological control of mosquitoes in some salt marsh habitats of southwest Florida.—R. LEVY AND T. W. MILLER, JR., Lee County Mosquito Control District, P.O. Box 2237, Ft. Myers, FL 33902.

THE EVERISIBLE RECTAL ORGAN OF CERTAIN MIRIDAE (HEMIPTERA) AND ITS FUNCTION1—(Note). Rectal structures dissociated from the normal functions of excretion are known in Hemiptera; an example is provided by the paired rectal diverticula of some Belostomatidae. This structure stores a noxious inky black fluid that is squirited when the bug is attacked. The organ described below has hitherto passed unnoticed, as far as I am aware.

The mirid Daghestus olivaceus (Reuter) (Mirinae) is found on several species of trees in south Florida, most importantly on avocado (Leston 1979, Fla. Ent. 62 (4): 376-9). Last instar larvae were collected at Homestead on 5 January 1979. (I have followed the practice universal outside USA of using the term “larva” for the immature stages of hemimetabolous insects). When the vial of live larvae was tapped, the bugs clung to the vial wall by their perianal organs; the bugs hung free, heads down. After transfer to 80% alcohol some individuals still had the perianal structures extruded.

1Florida Agricultural Experiment Station Journal Series No. 1733.
The organ (Fig. 1) was comprised of the exerted rectal cuticle, inflated by green hemolymph. When expanded it was a single trilobed structure with glassy and colorless walls; the surface was sticky. The dorsal lobe was more than twice as long as wide; the paired latero-ventral lobes were interconnected by a ventral bridge. After some minutes in alcohol the hemolymph coagulated and shrank. When fully extruded and expanded the entire organ was about 0.6 mm long and 0.7 mm wide. It was present too in the 3rd and 4th instars.

Fig. 1. Eleventh abdominal segment and the extruded eversible rectal organ of 5th instar *Dagburtus olivaceus* (Reuter) (Hem., Miridae), viewed ventrally.

A similar organ occurs in 5th instars of *Pantilius tunicatus* (Fabricius) (Mirinae), collected by the writer from hazel at Bricket Wood, Herts, England, 17 September 1960, and from birch and alder at Flitwick Moor, Beds, England, 18 September 1962.

*Dagburtus olivaceus* and *P. tunicatus* (for its biology see T. R. E. Southwood and D. Leston 1959. Land and Water Bugs of the British Isles, London, Warne and Co.) are both arboreal. I suggest the eversible rectal organ forms a sticky suction cup, enabling the insect to remain attached to its food plant during storms or windy periods. I have seen a similar structure in the larvae of several other unidentified mirids in Britain, West Africa, and the USA. Occurrence of what is certainly a homologous organ in the Palearctic
Pantillus and the Neotropical Daphnertus suggests it is a survival from at least the earliest Cenozoic times. The present distribution of another mirid subfamily, Bryocorinae (Leston 1970. Ann. Rev. Ent. 15: 273-94) can also be interpreted to indicate the primary radiation of Miridae took place in the Upper Cretaceous or lower Cenozoic. It is likely, too, that the main trend in phytophagous mirids has been from arboreal to herbaceous food plants, thus paralleling the history of angiospermae.—DENNIS LESTON, Agricultural Research and Education Center, IFAS, University of Florida, Homestead, FL 33031.

CENTRAL AMERICAN RECORDS FOR CYBOTOS ESTRIATUS (LECONTE) (COLEOPTERA: TENEBRIONIDAE)—(Note). The genus Cybotos was erected by Casey (1890. Ann. N. Y. Acad. Sci. 5: 307-504) to include the single species estriatus LeConte (1878. Pages 373-434 in E. A. Schwarz, ed. The Coleoptera of Florida. Proc. Amer. Phil. Soc. 17: 373-434), originally described in the genus Blaptinus. LeConte suggested that the lack of sexual dimorphism in the (front) tarsi, the convex form of the body and the absence of elytral striae might require the placement of estriatus in a separate genus. As Casey (1890: 482) noted, Cybotos is "rather isolated (from other genera of Pedinini), having no decided bond of affinity with any other."

In his original description, LeConte (1878) recorded this species from Haulover and Capron, FL. In describing the genus Cybotos, Casey (1890) mentioned only Florida, and all subsequent lists and catalogs record Cybotos estriatus only from Florida. We have seen specimens from Miami Beach, Biscayne, Pompano Beach, and Virginia Key, but in our experience it is not a common beetle. Dr. Robert E. Woodruff (in litt.) reported the following Florida localities based on 7 specimens in the Florida State Collection of Arthropods: Key Biscayne and Sunny Isles (Dade Co.), Golden Beach and Hollywood Beach (Broward Co.), and Merritt Island (Brevard Co.).

Among miscellaneous Tenebrionidae sent to the senior author for identification by the Florida Department of Agriculture, Division of Plant Industry, were the following records:


These are considerable extensions of the known range of this species, which probably occurs in other places within the Circum-Caribbean area.

Both LeConte (1878) and Casey (1890) overlooked an unusual and conspicuous sexual character. Males have a dense patch of golden setae located at each side of the midline of the metasternum. These patches are elliptical and posteriorly divergent and are readily visible at very low magnification. The metasternum of the female lacks these patches.

Both male and female genitalia appear to be identical in specimens from Florida and Cozumel Island. Florida specimens and the 2 from Honduras tend to be much duller in luster than those from Cozumel Island, but we are