PLUMERIA RUBRA: A NEW HOST PLANT RECORD OF THE FALL ARMYWORM (LEPIDOPTERA: NOCTUIDAE) IN PUERTO RICO—The fall armyworm, Spodoptera frugiperda (J. E. Smith), is a major agricultural pest in Puerto Rico, the United States, and other countries. On the Island it has been reported on weeds, pastures, and crops (Martorell. 1975. Annotated Food Plant Catalog of the Insects of Puerto Rico. Agric. Exp. Sta., Univ. Puerto Rico).

During July 1981, while examining leaves of the ubiquitous, exotic, ornamental tree Plumeria rubra L. (Apocynaceae), locally called “alcía” or “ramo de novia”, several egg clusters of S. frugiperda were found. Larvae of S. frugiperda were fed in the laboratory with P. rubra leaf pieces until adults emerged. This is the first record of the fall armyworm on Apocynaceae for Puerto Rico although other lepidopterans, as well as other insects, have been previously reported for P. rubra (Martorell, op. cit.).

Dr. R. W. Poole (Research Scientist, Insect Identification and Beneficial Insect Introduction, ARS, USDA, Maryland) kindly identified the specimens. Dr. S. Medina (Univ. P.R., Botanical Garden, Rio Piedras) and Dr. José A. Mari Mutt (Univ. P.R., Mayaguez Campus, Biology Department) provided comments to the manuscript.—J. A. SANTIAGO-BLAY, Univ. Puerto Rico, Agricultural Experiment Station, Crop Protection Department, Venezuela Contract Station, Rio Piedras, Puerto Rico (Present Address: Calle 33 ZG—9 Riverview, Bayamón, Puerto Rico 00619 USA.)

OPPORTUNISTIC BLOOD-FEEDING ON EGG-LAYING SEA TURTLES BY SALT MARSH MOSQUITOES (DIPTERA: CULICIDAE)—Few mosquito species are parochial in their choice of vertebrate hosts for blood meals. In fact, the opposite appears to be true. Most mosquitoes feed on a range of host animals; many even feed readily on vertebrates from different classes. Reasons for the diversity of host feeding patterns observed among mosquitoes in nature are not clear, and are reviewed elsewhere (Edman and Kale 1971. Ann. Ent. Soc. America 64: 513-6; Tempelis 1975. J. Med. Ent. 11: 635-53). The plasticity of blood-feeding behavior by some mosquito species is remarkable and unappreciated. The purpose of this note is to report field observations of blood-feeding by the salt marsh mosquito Aedes taeniorhynchus (Wiedemann) on egg-laying Atlantic loggerhead sea turtles, Caretta caretta caretta (L.).

On 10 July 1982, between 2230 2330 h, 3 turtles were observed laying eggs along the dune line of Floridana Beach, Brevard County, Florida. Weather conditions that evening were: skies—clear, temperature—82°F, RH—90%, wind—calm. We observed many Ae. taeniorhynchus blood-feeding on the front and back flippers, tail and neck region of all egg-laying turtles. We estimated the biting count to be from 25 to 50 per minute on humans. Turtles did not respond to mosquito feeding in any sort of defensive manner. Mosquitoes engorged quickly and departed toward vegetation along the top of the dune. Turtles took approximately 30 min to complete egg-laying.

In a comprehensive review of Aedes spp. blood-feeding in nature, Edman
reported that *Ae. taeniorhynchus* fed predominantly on mammals, with less than 1% feeding on reptiles or amphibians. Engorged *Ae. taeniorhynchus* in Edman’s study were collected from 3 different habitats not including the coastal sand dune area. Had Edman collected engorged mosquitoes along certain sections of east coast Florida beach during turtle season (early May through mid September), his results may have indicated that reptiles serve as an important vertebrate host for salt marsh mosquitoes. This demonstrates the value of sampling a wide variety of habitats over several active seasons before drawing general conclusions from mosquito blood meal analysis. It also points out that even when extensive sampling is done, as in Edman’s study, pockets of unusual blood feeding may be missed. While these areas of engorgement on unusual vertebrate hosts may represent only a minor part of the overall species specific feeding profile, they serve to document the extreme plasticity of blood feeding patterns displayed by some mosquito species.

There is little question that salt marsh mosquitoes flying along ocean dunes can and will respond opportunistically to the presence of sea turtles. During our observation period, each female turtle fed hundreds of mosquitoes. It is unlikely that any other individual vertebrate host in the salt marsh/sand dune habitat accounts for so many blood-fed mosquitoes in such a short period of time.—J. P. DAV, Florida Medical Entomology Laboratory, Vero Beach, FL 32960, USA, and G. A. CURTIS, Indian River Mosquito Control District, Vero Beach, FL 32960, USA.

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**A TECHNIQUE FOR SEPARATING MOLE CRICKETS FROM SOIL**—In order to determine mole cricket population densities and distributions in the field, Williams and Shaw (1982. Florida Ent. 85: 192-4) developed an efficient sampling technique which employs a tractor-powered soil corer. This technique requires that the crickets then be separated from the large quantities of soil. For this reason, a soil sifter was developed which was portable, inexpensive, and yielded live crickets.

The sifter consists of a hopper made of 16 gauge galvanized steel (Fig. 1). The top perimeter has a 2.5 cm lip which supports the hopper on a removable wooden frame made of 4.1 X 8.9 cm planks. A 0.63 X 0.63 cm mesh, hardwarecloth sieve fits into the top and has 2 handles for easy removal. The base perimeter of the hopper also has a 2.5 cm lip which provides a surface for attaching a hatch. The hatch is secured by a piano hinge on one side and by latches on the remaining sides. The latches are bolted to square pieces of galvanized steel that are welded vertically from the edge of the lip to the side of the hopper. The hatch is lined with a water-tight foam rubber gasket. A hole in the front of the hopper is plugged with a rubber cork, which can be removed to release excess water.

This technique relies simply on the principle that soils sink in water, whereas crickets float or swim to the surface. The hopper is first filled with ca. 20 liters of water, which prevents crickets from being buried by soil as they fall through the sieve. The soil sample is spread on the sieve and forced through with pressurized water from a garden hose. The sieve is scanned for crickets and then removed from the hopper. At this stage the water surface is typically covered with organic debris and foamy scum, which