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THE DISTRIBUTION AND SEASONAL HISTORY OF *SLATEROCORIS PALLIPES* (KNIGHT) (HEMIPTERA: MIRIDAE)

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Abstract.—The distribution and seasonal history of a little-known mirid, *Slaterocoris pallipes* (Knight), are reviewed. New Jersey and New York are reported as new state records, and additional localities are listed for Maryland and North Carolina. In the Piedmont Region of North Carolina eggs hatch in early April with leaf flush of the host plant, *Baccharis halimifolia* L., a shrubby composite common in coastal salt marshes. Nymphs are vegetative feeders that discolor and distort host foliage; adults first appear in late May and are present until mid- to late June. *Slaterocoris pallipes* is a univoltine, specialist species restricted to the genus *Baccharis*.

Knight (1926) described *Strongylocoris pallipes* from coastal Maryland, North Carolina, and Virginia, noting that this mirid injured foliage of the shrubby composite, *Baccharis halimifolia* L. This undoubtedly is the species Uhler (1878) had reported under the name *Stiphrosoma stygica* Say from the same plant in tidewater Maryland; I have seen several of Uhler's Maryland specimens of *pallipes* that he determined as a variety of *S. stygica*. Wagner (1956), following the lead of Slater (1950), showed that the New World species assigned to *Strongylocoris* are not congeneric with Palearctic species and proposed for them the new genus *Slaterocoris*. Since Knight's original description, no new localities have been added to the range of *S. pallipes*, a mirid poorly represented in collections and seldom mentioned in entomological literature. In this paper I review the known distribution of *S. pallipes*, giving additional records from the eastern U.S., and report its seasonal history on *B. halimifolia* in North Carolina.

Study Site and Methods.—*Baccharis halimifolia*, a common plant of coastal salt marshes, was sampled in an old field at Monroe, Union Co., North Carolina. Other dominant woody plants in the field were red cedar (*Juniperus virginiana* L.), short-leaf pine (*Pinus echinata* P. Mill.), red maple (*Acer rubrum* L.), and shining sumac (*Rhus copallina* L.). Various com-

posites (*Eupatorium, Solidago*), field garlic (*Allium vineale* L.), and grasses were common herbaceous plants.

Beginning in early April 1979 and 1980, *B. halimifolia* was observed for the first hatching of overwintered eggs. Thereafter, nymphs of *S. pallipes* (usually 5–10) were collected by tapping foliage over a 10″ × 12″ tray, preserved in 70% ethanol, and sorted to instar in the laboratory. The host plants were sampled through July to determine whether *S. pallipes* produced a second generation. Additional collections were made during mid-June 1977 and 1980 in New Jersey.

Distribution.—*Slaterocoris pallipes* has been recorded only from North Beach, Maryland; Beaufort, North Carolina; and the type-locality, Battle Point, Virginia (Knight 1926) which could not be located by the U.S. Board on Geographic Names, Reston, Virginia. I have collected this species from two additional localities in North Carolina, both considerably inland from previous records (Mecklenburg Co., near Pineville and Union Co., Monroe) and from New Jersey (Cape May Co., near Goshen and Ocean Co., Mystic Islands). The U.S. National Museum of Natural History, Washington, D.C., contains specimens from additional localities in Maryland (Calvert Co.: Chesapeake Beach, Plum Point; Dorchester Co.: nr. Lloyds; and St. Marys Co.: Piney Point) and from Long Island, New York (Suffolk Co.: Orient, Northwest, and Riverhead).

Although *B. halimifolia,* groundsel tree or sea myrtle, occurs in coastal marshes from Massachusetts south to Florida and west to Texas and Mexico (Fernald, 1950), *S. pallipes* may not range as far south as its host. It was not recorded in the recent list of Georgia mirids (Henry and Smith, 1979) and is not represented in identified material in the Florida State Collection of Arthropods, Gainesville, Florida. I have not taken *S. pallipes* from *Baccharis* spp. while collecting along the coasts of Georgia and Florida.

Seasonal History.—Populations of *S. pallipes* developed similarly in both years of study in North Carolina (Fig. 1). Eggs, which are inserted in lateral shoots of the current season, are flush with the stem surface and visible only as brown scars (Fig. 2). Overwintered eggs began to hatch shortly after the first flush of leaves, 7 April in 1979 and 5 April in 1980. The reddish-brown early instars feed on tender new growth, and within a few weeks host foliage appears chlorotic (Fig. 3) and spotted with black excrement. By the first week of May 1979, fourth-instars were present with fewer numbers of fifth-instars; in 1980 fourth-instars also predominated with third- and fifth-instars present. The late instars are shiny black like those of other *Slaterocoris* spp. (see Leonard, 1919, for nymphal descriptions of *S. stygicus* (Say)) but can be distinguished from those of other eastern species of the genus by the yellowish-orange legs. In both years adults began to appear during the third week of May (Fig. 1). Mating and oviposition take place from late May to early June, and by 15 June only a few adults (mostly

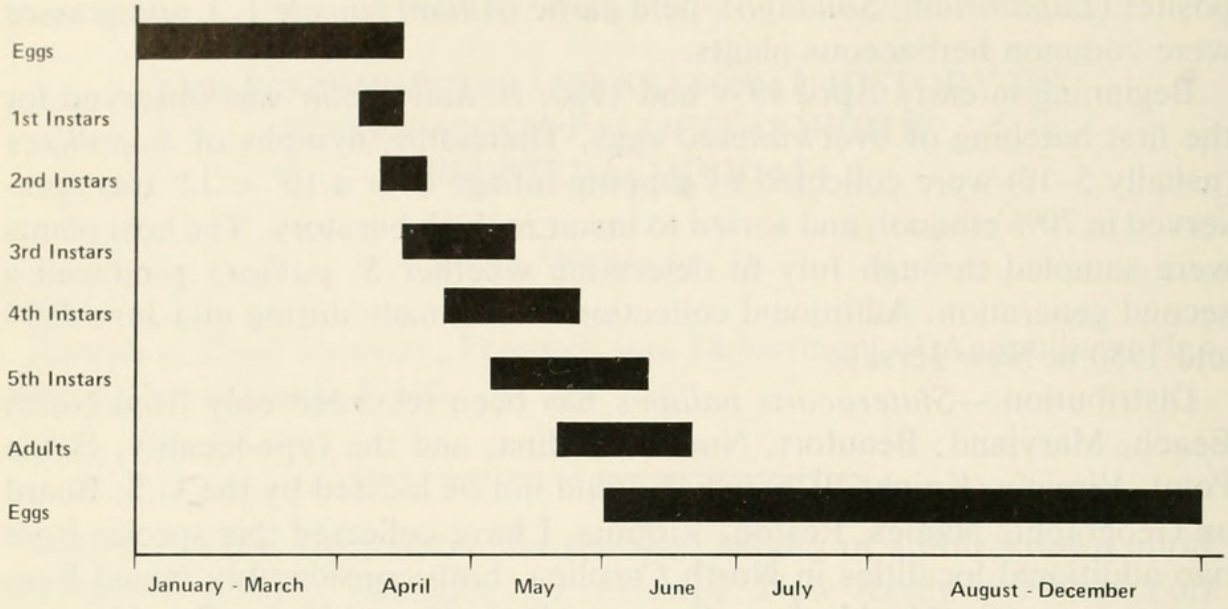
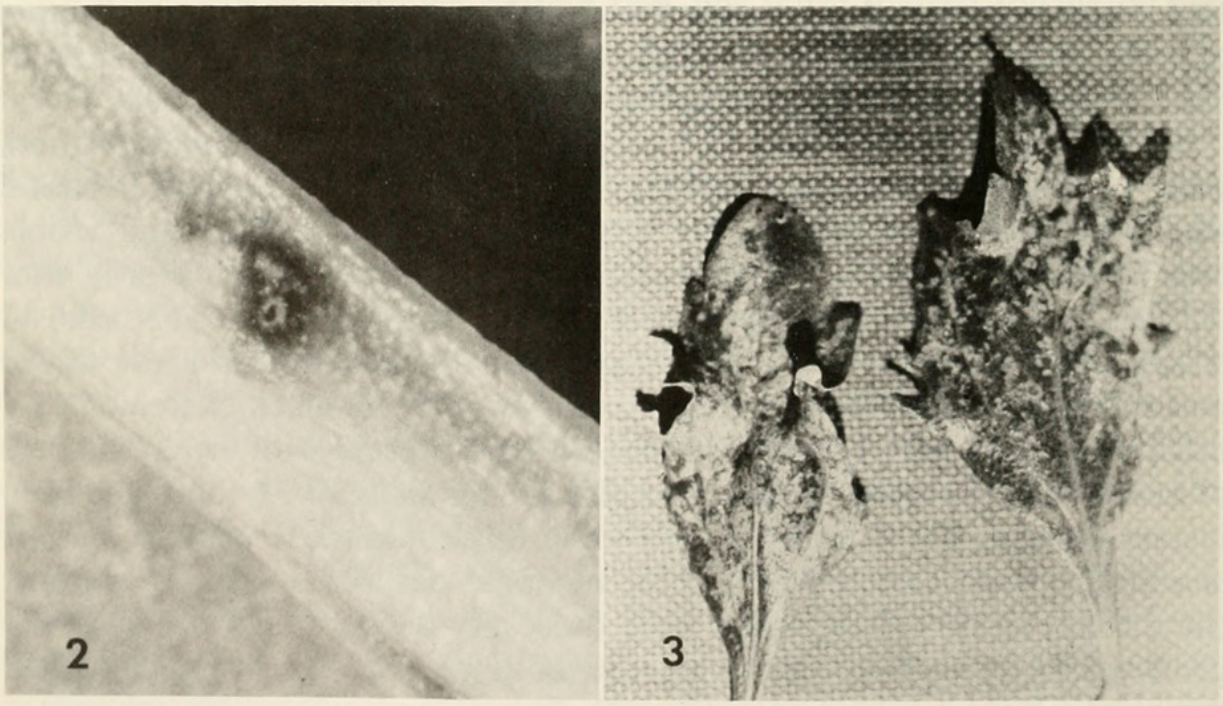


Fig. 1. Generalized seasonal history of *Slaterocoris pallipes* in North Carolina, 1979–80.

females) of this univoltine species were seen. The severe mottling and distortion of the foliage become less obvious through the growing season but sometimes are still visible at the time of leaf drop in late fall.

In more northern areas of its range *S. pallipes* develops about three weeks later. On the New Jersey coast several populations consisted mainly of fourth- and fifth-instars and only a few adults during mid-June 1977 and



Figs. 2–3. *Slaterocoris pallipes* on *Baccharis halimifolia*. 2, Oviposition scar on stem. 3, Injury to foliage.

1980. On eastern Long Island adults have been collected as early as 12 June and as late as 4 August (USNM collection).

Slaterocoris pallipes thus is a relatively early-season, univoltine species that is present in North Carolina as nymphs from early April to late May and as adults until mid-June. Like other species of *Slaterocoris* whose habits are known (Messina, 1978), *pallipes* feeds strictly on vegetative tissue. *Baccharis halimifolia* is the only known host, and this mirid may well be a specialist limited to the genus *Baccharis*. Kraft and Denno (1978) characterized the chrysomelid *Trirhabda baccharidis* (Weber) as a specialist adapted to *B. halimifolia* and suggested that this plant is free of most insect herbivory during summer and fall, possibly owing to increasing leaf toughness or presence of secondary chemicals.

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