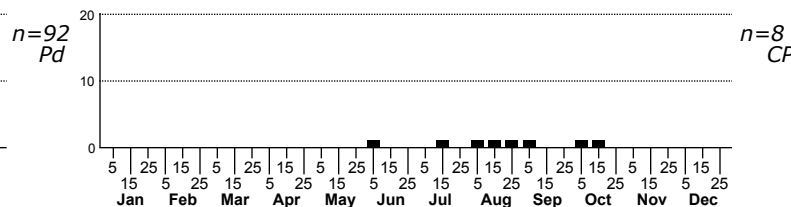
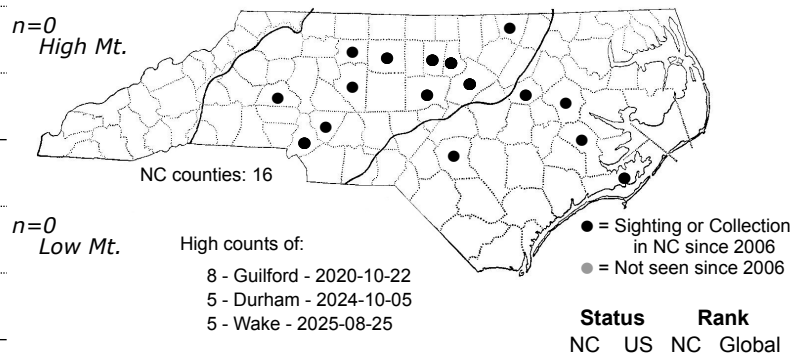
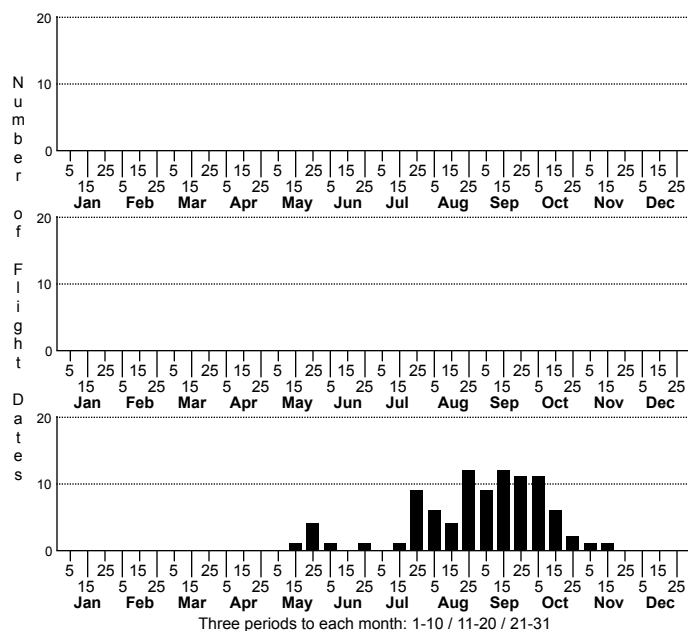


Diaphania costata Orange-shouldered Sherbet Moth



FAMILY: Crambidae SUBFAMILY: Spilomelinae TRIBE:

TAXONOMIC COMMENTS: Information based primarily on molecular data and/or genitalia indicate that the genus that this species currently is assigned to is misapplied, but the correct genus to which it should be assigned has not been determined by experts. The genus name is sometimes placed in quotation marks (<i>"Diaphania" costata</i>) to indicate the misapplied name.

FIELD GUIDE DESCRIPTIONS:

ONLINE PHOTOS:

TECHNICAL DESCRIPTION, ADULTS: Hayden et al. (2017)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Hayden et al., (2017)

ID COMMENTS: <i>Diaphania costata</i> and <i>Palpita quadrastigmatis</i> are two very similar species with semitranslucent, satiny white wings that have a brown to brownish-orange costa. The latter is best distinguished by the presence of four black dots on the forewing, including three along the costa before the middle of the wing, and a fourth at the lower, outer corner of the discal cell near the middle of the wing. <i>Diaphania costata</i> either lacks all of the dots, or has a single obscure dot on the discal cell. <i>Palpita quadrastigmatis</i> also has a discal dot on the hindwing that is not present on <i>D. costata</i>.

DISTRIBUTION: This species has tropical and subtropical affinities and has recently expanded its range into the southeastern U. S. It is uncertain if this reflects an introduction or a natural dispersal event from Central America or the Caribbean. The oldest records are from Louisiana and Texas around 1979-1980, and it has since colonized most of the southeastern U.S., perhaps in response to the widespread planting and escape of <i>Vinca</i> species as ornamentals (Hayden et al., 2017). <i>Diaphania costata</i> is currently found from Maryland and Virginia westward to Oklahoma, and southward to southern Texas, the Gulf Coast states, northern Florida and Georgia. As of 2023, all of our records are from the Coastal Plain and Piedmont, with the oldest record dating to 2005.

FLIGHT COMMENT: <i>Diaphania costata</i> appears to have multiple broods in the Southeast, beginning in May and continuing through November (Hayden et al., 2017). As of 2023, our records extend from late-May through mid-November.

HABITAT: Most of our records come from residential neighborhoods where <i>Vinca</i> is widely planted.

FOOD: The only reported hosts are members of the Apocynaceae. The larvae used several genera in the tropics and West Indies, including <i>Rauvolfia</i> spp. and <i>Stemmadenia</i> spp. (Hayden et al., 2017). The only reported host in North America are Greater Periwinkle (<i>Vinca major</i>) and Eastern Bluestar (<i>Amsonia tabernaemontana</i>). We have at least two North Carolina rearing records for Eastern Bluestar and one for Greater Periwinkle.

OBSERVATION_METHODS: The adults are attracted to UV-lights.

NATURAL HERITAGE PROGRAM RANKS: [GNR] SNA

STATE PROTECTION:

COMMENTS: This tropical and subtropical species recently expanded its range into the southeastern U.S., but it is uncertain if this reflects an introduction or a natural dispersal event from Central America or the Caribbean. We are currently treating it as an exotic that has no priority for conservation in its own right. However, as a pest of <i>Vinca</i>, it could help control the spread of that species into natural areas. On the other hand, that beneficial effect would be offset if it also attacks our native species of <i>Amsonia</i>.