

A Teratological Record of the Southern Green Stink Bug *Nezara viridula* (Hemiptera, Heteroptera, Pentatomidae) from the Occupied Palestinian Territories (West Bank)

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Received: November 2, 2020; Revised: December 14, 2020; Accepted: December 26, 2020

Abstract: The first teratological case of Southern Green Stink Bug (*Nezara viridula*) from the Palestine Museum of Natural History botanical garden in Bethlehem, Palestine is reported. This anomaly appears on the pronotum, scutellum and the corium part of the species, and it seems to occur less in these morphological structures of true bugs (Heteroptera).

Keywords: Malformation, anomaly, true bug, West Bank, Palestine.

The Southern Green Stink Bug (*Nezara viridula*) is a widely-distributed species of true bugs in the tropical and subtropical regions in the Americas, Africa, Asia, Europe, and Australia. The distribution of this species is increasing with the increase of global warming (Tougou et al., 2009). *N. viridula* is a pest species on agricultural crops including fruits, nuts, grains, and vegetable crops (Jones, 1988).

Morphological anomalies appear occasionally in insects especially the suborder Heteroptera affecting the antenna and other structures (Asiain and Márquez 2009; Carvajal et al., 2019; Tazsakowski and Kaszyca-Tazsakowska, 2020). Teratology can be exhibited as a simple change in structure (morphology) (Faúndez and Rider, 2017; Faúndez and Rocca, 2016) In other cases, it can be more complex such as when having an extra part in the insect body including antennas (Burke et al., 2018) or compound eyes (Clark and Neto, 2010).

A specimen of the Southern Green Stink Bug *Nezara viridula* is found at the Palestine Museum of Natural History (PMNH) botanical garden (Bethlehem, Palestine) on October 22, 2020 with a teratological disorder (Figure 1). This teratology appears in the pronotum as wrinkled aberrance from the middle and goes down. The scutellum shows shrinkage, and the left corium comes up the right corium due to a defect in the connected point with the pronotum. The left wing of *N. viridula* is destroyed (see Figure 1A and B). Socha (1995) discuss the malformation in the wings of *Pyrrhocoris apterus* and show results of several generations of breeding. In the case of this study, it was only one specimen and the appeared morphological anomalies have been described.

Apparently, this is the first record of a teratological case in *N. viridula*. In general, anomalies of the pronotum, scutellum, and corium seem to occur less often than antennal anomalies in true bugs (Heteroptera) (Carvajal et al., 2019; Steinhaus and Zeikus, 1968; Tazsakowski and Kaszyca-Tazsakowska, 2020).

Acknowledgments

We thank the Ministry of Education and Higher Education and the EUPI “Unity and Diversity in Nature and Society” grant support of the work of the Biodiversity center where this work was performed. The author, not the funders, is solely responsible for the content of this communication.

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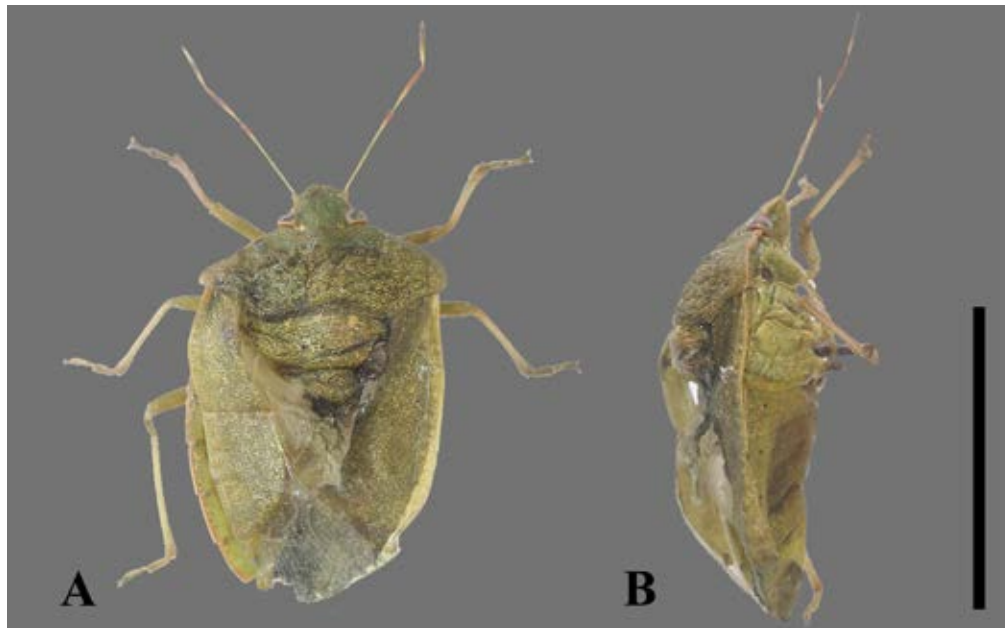


Figure 1. *Nezara viridula*, A: Dorsal view, B: Lateral view, Scale Bar = 10 mm.

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