

SCIENTIFIC NOTE

Two New Morphs of the Southern Green Stink Bug, *Nezara viridula* (L.) (Heteroptera: Pentatomidae), in BrazilLÚCIA M. VIVAN¹ AND ANTÔNIO R. PANIZZI²¹Depto. Zoologia, Universidade Federal do Paraná, C. postal 19020, 81531-990, Curitiba, PR²Embrapa, Centro Nacional de Pesquisa de Soja, C. postal 231, 86001-970, Londrina, PR. Corresponding author: panizzi@cnpso.embrapa.brDois Tipos Morfológicos Novos do Percevejo Verde, *Nezara viridula* (L.) (Heteroptera: Pentatomidae), no Brasil

RESUMO – Durante os meses de março a junho de 2001, conduziram-se levantamentos da população do percevejo verde, *Nezara viridula* (L.), em soja [*Glycine max* (L.) Merrill] em diferentes locais da Região Sul e mantiveram-se colônias em laboratório, na Embrapa Soja, em Londrina, PR. Dois tipos morfológicos novos de *N. viridula* foram observados. Um, de coloração verde-amarelada, foi observado no campo, na região de Londrina. O outro, de coloração verde-amarelada, com as margens anterior do pronoto e da cabeça amarelas, foi obtido em laboratório.

PALAVRAS-CHAVE: Insecta, *Glycine max*, polimorfismo, coloração.

ABSTRACT – During March-June 2001, surveys of the southern green stink bug, *Nezara viridula* (L.), were conducted on soybean [*Glycine max* (L.) Merrill] fields in the Southern Region of Brazil. Colonies of the bug were maintained in the laboratory at Embrapa Soja in Londrina, PR. Two new morphs of *N. viridula* were obtained. The first, green-yellowish, was captured in the field in the Londrina area. The second, with the anterior margins of the pronotum and head yellow, with the rest of the body green-yellowish, was obtained in the laboratory.

KEY WORDS: Insecta, *Glycine max*, polymorphism, color morphs.

The southern green stink bug, *Nezara viridula* (L.) is known to be polymorphic, including 10 different color morphs which are derived from four basic types (Kiritani & Yukawa 1963, Yukawa & Kiritani 1965, Kiritani 1970).

In the Neotropical Region (Central America and West Indies), 100% of the specimens were referred as belonging to the basic type G (f. *smaragdula* F., entirely green – Fig. 1) (Yukawa & Kiritani 1965). More recently, Hokkanen (1986) reported one more additional morph to this geographical area (f. *aurantica* Costa, entirely yellow – basic type Y – Fig. 2), and suggested that a third morph (f. *torquata* F., green with anterior margin of the pronotum and head yellow – basic type O – Fig. 3) would probably occur in the neotropics. Today it is known that these three basic types occur in Brazil (L.M. Vivian and A.R. Panizzi, unpublished), and much probably all over the geographical area of distribution of *N. viridula* in the neotropics.

During March to June 2001, field surveys of *N. viridula* on soybean were conducted [*Glycine max* (L.) Merrill] from Londrina (latitude 23° 18' S), in Paraná state to Pelotas (latitude 31° 46' S), in Rio Grande do Sul state. The bugs were collected using a sweep net and by hand picking. During this period, a colony of the bug was also maintained

in the laboratory at Embrapa Soja, Londrina, PR.

Three basic morphs of *N. viridula* (types G, Y, and O) were collected. The type G was the most abundant throughout the collecting area (92.4 %) and the Y type rare (0.7 %). The abundance of the O type was variable (0.3% to 11.4 %) and increased with the latitude, reaching the maximum value at the greatest latitude (31° 46' S). A new morph, originated from the basic type G, was captured in the field in the Londrina area. Adults were green-yellowish (Fig. 4). In the laboratory, another new morph was obtained, derived from basic type O, with the anterior margins of the pronotum and head yellow, with the rest of the body green-yellowish (Fig. 5). Although observed in the laboratory, because of the abundance and widespread distribution of *N. viridula* in Brazil, it may also occur in the field. Different intermediate morphs of *N. viridula* originated from the basic types may be obtained in the laboratory by crossing them (Ohno & Alam 1992).

Data from this study determined that five morphs of *N. viridula* are found in Brazil, and that at least four occur in the field. Additional studies are needed to better map their distribution and relative abundance in the different geographical areas of the country.



Figures 1-5. Different morphological types of *Nezara viridula* occurring in Brazil. 1 = f. *smaragdula*; 2 = f. *aurantica*; 3 = f. *torquata*; 4 = f. *smaragdula* with body green-yellowish (new record); and 5 = f. *torquata* with body green-yellowish (new record).

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