HETeroptera POLONIAE
ACTA FAUNISTICA 19

Heteroptera Poloniae – Acta Faunistica
vol. 19: 63–67. Opole, 27 IX 2025
ISSN 2083-201X
http://doi.org/10.5281/zenodo.17203440

First record of the genus *Stenozygum* Fieber, 1861 (Hemiptera, Pentatomidae) in the Maghreb and Senegal

ROLAND LUPOLI[1], AHMED TAHERI[2]

[1] 79, rue Jules Ferry, 94120 Fontenay-sous-Bois, France; e-mail: lupoli@free.fr; [2] LESCB URL-CNRST N° 18, FS, Université Abdelmalek Essaadi, Tétouan, Maroc; e-mail: taheri.ahmed@ucd.ac.ma

Abstract. *Stenozygum coloratum* (Klug, 1845) is recorded for the first time in the Maghreb in Morocco on *Nitraria retusa* (Nitrariaceae) and in Senegal on *Guiera senegalensis* (Combretaceae). An updated global distribution map of this species is provided. Photographs of *S. coloratum* adults from the Maghreb are shown, along with eggs and IV[th] and V[th] instar nymphs of this species.

Key words: Heteroptera, Pentatominae, Strachiini, *Stenozygum coloratum*, new record, nymphs, eggs, *Nitraria retusa*, *Guiera senegalensis*, Morocco, West Africa.

Introduction

The genus *Stenozygum* Fieber, 1861 includes about forty species that are found mainly in Australia, Asia, the Middle East and tropical East and South Africa. This genus has never been reported from the Maghreb, nor from the Atlantic coast of West Africa (Vidal 1949; Linnavuori 1982; Derjanschi & Péricart 2005; Rider 2006; Carapezza 2011).

Stenozygum coloratum (Klug, 1845) was previously known from Greece, Cyprus, Turkey, Egypt, Israel, Syria, Lebanon, Jordan, Iraq (Basra), Iran, Saudi Arabia, Yemen, Eritrea, Ethiopia, Chad (Tibesti), Kenya, Sudan (Ambikol island), Burkina Faso (Vidal 1949; Derjanschi & Péricart 2005; Rider 2006) (Fig. 1, green dots and green areas). This species is not found in humid tropical Africa, but in low rainfall areas of the Sahel, Sahara or Mediterranean. Linnavuori (1982) mentioned seven other species in tropical West and Central Africa, only on Capparidaceae, but none are explicitly reported from the countries of the West coast of Africa and the Maghreb.

S. coloratum is distinguished from other species by the absence of dominant red coloration patterns on the scutellum, head, pronotum and corium. And also by the presence of contrasting and clearly visible wing veins, darker than the hyaline background color of the membrane, and mainly by the pronotum with a large, pale median figure shaped like a wineglass (Carapezza 2011) (Fig. 2A & B).

We now mention in this paper for the first time the presence of *S. coloratum* on the Atlantic coast of West Africa in Morocco (Fig. 1, red dot #1) and in Senegal (Fig. 1, red dot #2).

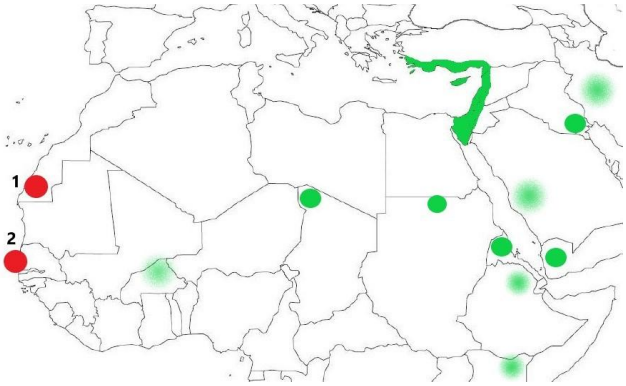

Fig. 1. Distribution map of *Stenozygum coloratum* (Klug, 1845). The green dots and green areas correspond to the known distribution (green sprays mean no precise location is recorded). The red dots correspond to new observations; red dot #1 corresponds to Dakhla in Morocco, and red dot #2 to Dakar in Senegal.

Material examined

Morocco: Dakhla-Oued Ed-Dahab, 38 km northeast of Dakhla, 23.8144, -15.5750, 09.V.2025 Ahmed Taheri leg., det. Roland Lupoli. A pair of mated male and female (Fig. 2A & B) was discovered on a branch of *Nitraria retusa* (Nitrariaceae) (Fig. 2C). The observation was made in a desert area in a cooler, temporarily floodable depression, a camel grazing island, located at the mouth of a wadi. This is a temporarily humid ecosystem within an arid environment (Fig. 3), in which we observed the following other plant species: *Aizoon canariense* (Aizoaceae), *Atriplex halimus* (Chenopodiaceae), *Balanites aegyptiaca* (Zygophyllaceae), *Launaea arborescens* (Asteraceae), *Suaeda vermiculata* (Amaranthaceae), *Tetraena* sp. (Zygophyllaceae), *Vachellia tortilis* ssp. *raddiana* (Fabaceae).

Senegal: Dakar, 14.7230, -17.5013, 01.III.2025, tt2019 leg., det. Roland Lupoli. One specimen photographed on *Guiera senegalensis* (Combretaceae) in iNaturalist consulted on 22.V.2025 (https://www.inaturalist.org/photos/474300938).

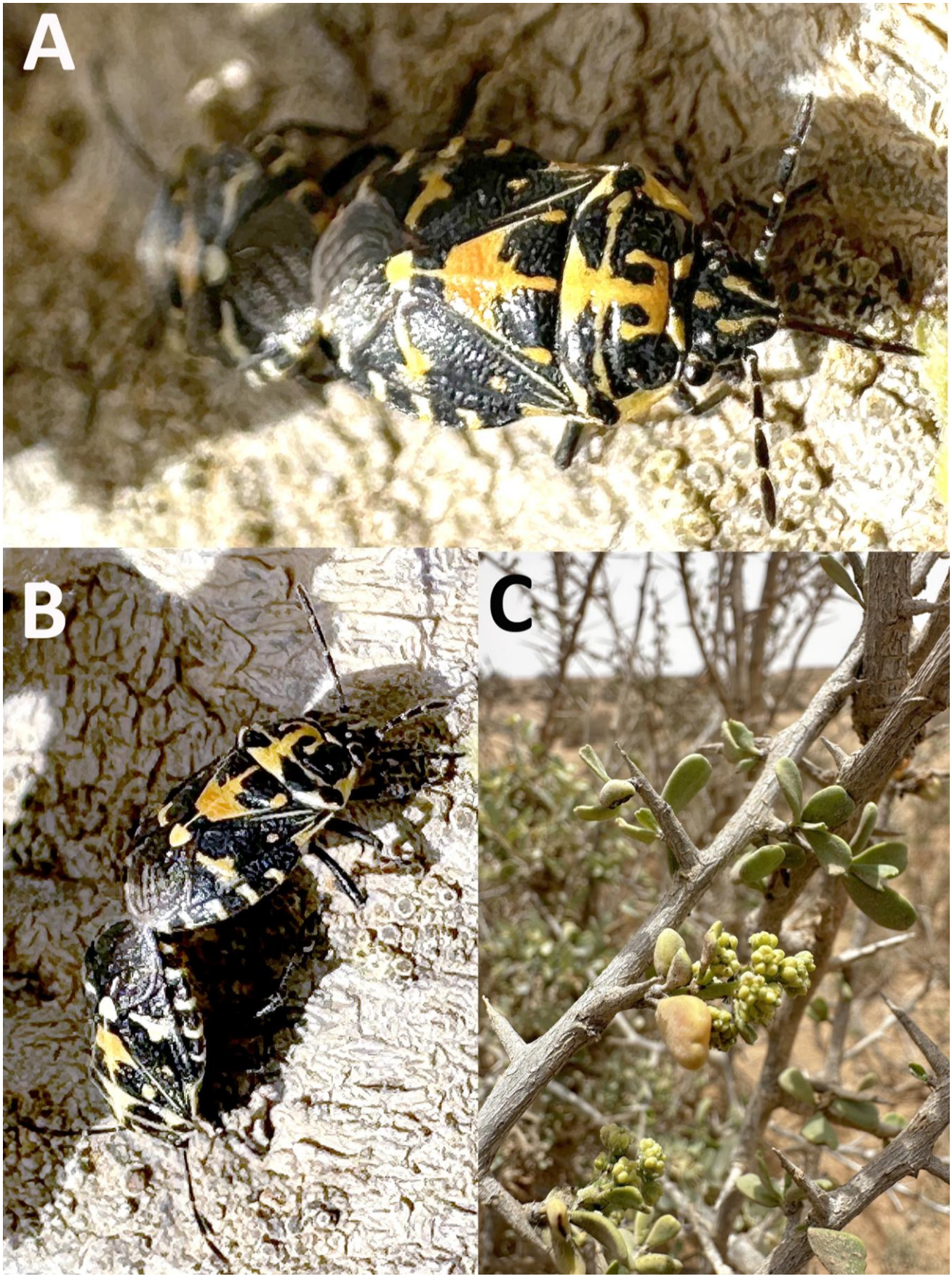

Fig. 2. *Stenozygum coloratum* (Klug, 1845) pair observed in Morocco on *Nitraria retusa*, 09.V.2025 (photo Ahmed Taheri): A. dorsal view; B. lateral view; C. branches and leaves of *Nitraria retusa* (Dakhla, Morocco), 09.V.2025 (photo Ahmed Taheri).

Fig. 3. Biotope where *Stenozygum coloratum* (Klug, 1845) was discovered, 38 km northeast of Dakhla (Morocco), 09.V.2025 (photo Ahmed Taheri).

Fig. 4. *Stenozygum coloratum* (Klug, 1845): A. Egg mass of 12 eggs, B. IVth instar nymph, Cyprus Larnaca 8.VI.2024 (photos Louis Aureglia); C. Vth instar nymph, Greece, Rhodos, 15.XII.2020 (photo Eleftherios Katsillis).

Notes on the biology of *S. coloratum*

S. coloratum is a Pentatomidae species belonging to the subfamily Pentatominae and the tribe Strachiini. The genera belonging to this tribe are unique in that they display contrasting colors, generally red, orange, or white spots on a black background, to make themselves easily visible to potential predators. These colors and patterns are alarm or aposematic signals, used to warn predators that they contain toxic defense molecules sequestered from their host plants. After a bad experience, predators memorize those aposematic patterns and avoid these species, giving them a selective advantage.

The genera *Eurydema* Laporte de Castelnau, 1833, *Murgantia* Stål, 1860, and *Bagrada* Stål, 1862, belong to the Strachiini tribe and most often live on Brassicaceae or Capparidaceae, sequestering plant molecules for their own defense. Also, they can inflict damage on crops such as cabbage, rapeseed, or caper (McPherson, 2018).

Adults of *S. coloratum* display aposematic colors and have so far been found mainly on *Capparis spinosa* (Capparaceae) in Egypt, Israel, and Cyprus, but also on *Maerua crassifolia* (Capparaceae) in Saudi Arabia and occasionally on *Capsicum* (Solanaceae) in Cyprus (Derjanschi & Péricart, 2005). In Morocco (Dakhla region), we found *S. coloratum* on *Nitraria retusa* (Nitrariaceae) (Fig. 4) and in Senegal on *Guiera senegalensis* (Combretaceae). These may not represent its primary host plants, but we found no plants from the Capparidaceae or Solanaceae families nearby.

S. coloratum nymphs also display aposematic colors. In Fig. 4B, we present a IVth instar nymph (Cyprus, Larnaca, 08.VI.2024, photo Louis Aureglia), and in Fig. 4C, a Vth instar nymph (Greece, Rhodos, 15.XII.2020, photo Eleftherios Katsillis). The egg masses are also characteristic of Strachiini, with 12 barrel-shaped eggs laid in two rows of six, stuck onto a leaf, each with a black band at the base and another near the opening directed upwards, and a small black dot between the two (Fig. 4A, Cyprus, Larnaca, 08.VI.2024, photo Louis Aureglia).

Conclusions

We report *S. coloratum* and thus the genus *Stenozygum* for the first time in the Maghreb, a region that covers the western Arab world and includes Morocco, Mauritania, Algeria, Tunisia and Libya. *S. coloratum* is also recorded for the first time along the Atlantic coast of Africa in Senegal.

However, previous observations of this species are over 5000 km away from these new records, as they are mainly concentrated in countries bordering the Levantine Sea: Greek Dodecanese Islands, Turkish Turquoise Coast, Cyprus, Syria, Lebanon, Israel, Jordan (282 observations on the site www.inaturalist.org consulted on 22.V.2025). The observations in the other countries mentioned above in the introduction are older and/or come from bibliographic data. These observations, therefore, seem rarer and more occasional.

It is therefore as if the species were divided into two subsets: the first, present on the edge of the Levantine Sea, with an annual rainfall of between 300 and 600 mm, with numerous and frequent populations of *S. coloratum* living mainly on *Capparis*; and a second, highly dispersed and rare subset without abundant populations, spread mainly across the African Sahelian zone from east to west, with an annual mean rainfall of between 20 and 300 mm (35 mm in Dakhla, 280 mm in Dakar). The second group does not inhabit Capparaceae but is adapted to other xerophytic medicinal plants, such as *N. retusa* or *G. senegalensis*, perhaps opportunistically.

It will be interesting to compare the DNA of these two subsets of species *S. coloratum* to determine whether they have been genetically differentiated for a long time or if this is a more recent introduction linked, for example, to international trade.

Acknowledgements

We thank Louis Aureglia and Eleftherios Katsillis for their permission to publish their images of the different stages of *S. coloratum*. We also thank Thomas (tt2019) for providing information about his *S. coloratum* observation in Dakar. Our special gratitude goes to the Moroccan National Agency for Water and Forests for granting us the collection permit (decision no. 05/25).

References

Carapezza A. 2011. *Stenozygum* (s.str.) *jordiribesi* sp. nov., a new species of Strachiini from the island of Socotra (Hemiptera: Heteroptera: Pentatomidae: Pentatominae). *Heteropterus Revista de Entomología* **11** (2): 201–207.

Derjanschi V. & Péricart J. 2005. *Hémiptères Pentatomoidea euro-méditerranéens. Vol. 1. Généralités, systématique: première partie. Faune de France. France et régions limitrophes,* ***90***. Fédération française des Sociétés de Sciences naturelles, Paris, 494 pp.

Linnavuori R.E. 1982. Pentatomidae and Acanthosomidae of Nigeria and the Ivory Coast, with remarks on species of the adjacent countries in West and Central Africa. *Acta Zoologica Fennica* **163**: 1–176.

McPherson J.E. 2018. *Invasive Stink Bugs and Related Species (Pentatomoidea). Biology, Higher Systematics, Semiochemistry, and Management*. Boca Raton/ London/New York: Taylor & Francis, CRC Press, 819 pp.

Rider D.A. 2006. Family Pentatomidae Leach, 1815. pp. 233-402. [in:] Aukema B. & Rieger C. (eds.) *Catalogue of the Heteroptera of the Palaearctic region. Volume 5: Pentatomomorpha II*. The Netherlands Entomological Society, Amsterdam, 550 pp.

Vidal J. 1950. *Hémiptères* de l'*Afrique du Nord et des pays circum-méditerranéens*. Mémoires de la Société des Sciences Naturelles du Maroc (1949) **48**: 1–238.

Received: 21 July 2025
Accepted: 22 September 2025