

# ZOOLOGISCHE MEDEDELINGEN

UITGEGEVEN DOOR HET

RIJKSMUSEUM VAN NATUURLIJKE HISTORIE TE LEIDEN  
(MINISTERIE VAN WELZIJN, VOLKSGEZONDHEID EN CULTUUR)

Deel 59 no. 2

31 december 1984

ISSN 0024-0672

---

## A NEW SPECIES OF *POTAMOCORIS* HUNGERFORD, 1941 FROM SURINAME (HETEROPTERA: NAUCORIDAE)

by

**PIETER H. VAN DOESBURG**

Doesburg, P. H. van: A new species of *Potamocoris* Hungerford, 1941 from Suriname (Heteroptera: Naucoridae).

Zool. Med. Leiden 59 (2), 31-xii-1984: 19-26, figs. 1-13, 1 table — ISSN 0024-0672.

Key words: Naucoridae; *Potamocoris nieseri* spec. nov.; Potamocorinae; Suriname.

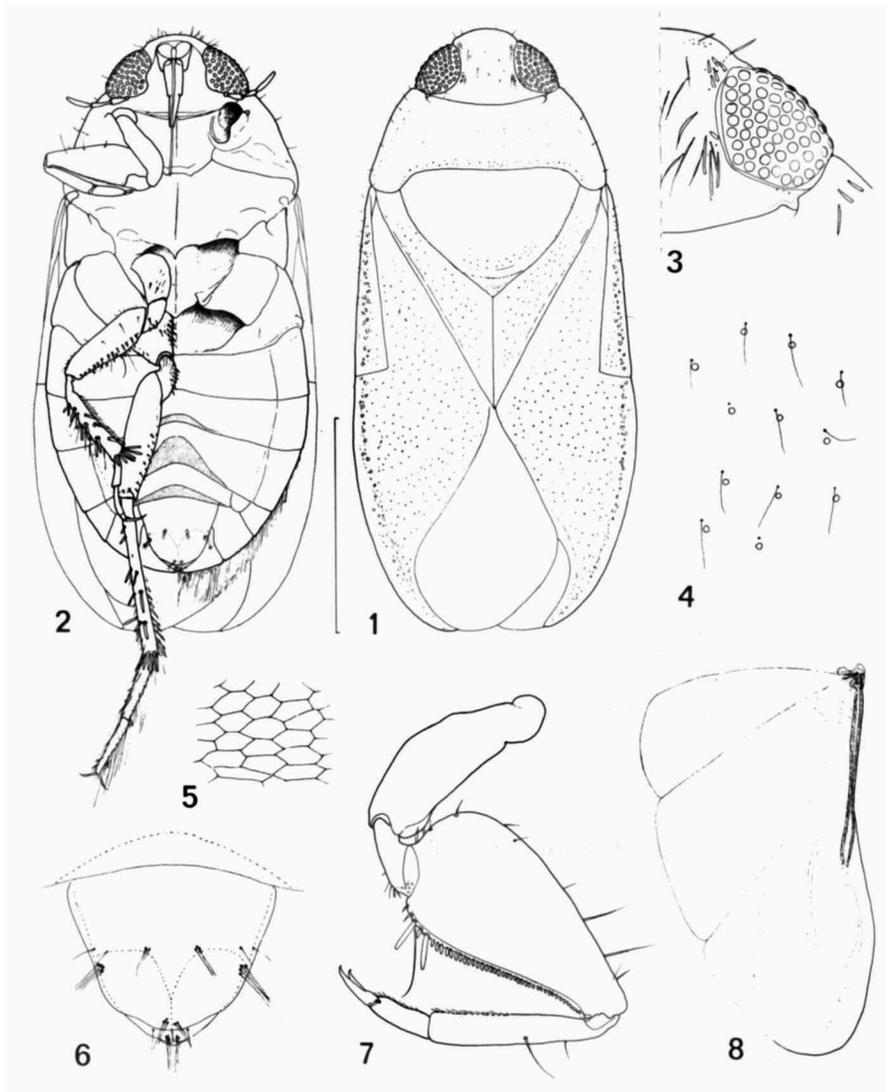
A new species, *Potamocoris nieseri* is described from Suriname as the first known representative of the naucorid subfamily Potamocorinae in the northern part of South America.

P. H. van Doesburg, Rijksmuseum van Natuurlijke Historie, P.O. Box 9517, 2300 RA Leiden, The Netherlands.

### ***Potamocoris nieseri* spec. nov.**

Female (figs. 1, 2). — Rather flattened, elongately ovate, macropterous, length including wings 2.75 mm, light brown with a darker band on fore wings and blackish compound eyes.

Head (figs. 3, 9). — Head wider than long (33:20), frontal margin evenly rounded and only moderately produced beyond eyes. These relatively large, posteriorly touching anterior angles of pronotum, dorsal as well as ventral part of about the same size. Ventral surface of head smooth, antennal base touching posterior margin of eye. Antenna (fig. 12) as long as the last two rostral segments together, basal two segments thickened and short, the other two slender and longer; relative lengths of the antennal segments are about 7:10:13:19. Anteclypeus very short and broad, labrum of same width, much shorter than wide, apically broadly rounded, its width about one fourth of total width of head. Rostrum (labium) broad at base, tapering to the tip of its third segment, only slightly passing anterior prosternal margin, last segment slightly shorter than second; maxillar stylets extend to posterior prosternal



Figs. 1-8. *Potamocoris nieseri* spec. nov., holotype female; 1. dorsal view; 2. ventral view of same specimen: left legs removed; 3. right half of head, dorsal view, more enlarged; 4. upper surface of hemelytra greatly enlarged, showing punctures and corresponding hairs; 5. hexagonal texture of coriaceous area on fifth abdominal sternite; 6. tip of abdomen, ventral view showing form of subgenital plate and typical setation of the sclerites; 7. left fore leg; 8. right hind wing. Figs. 1, 2 and 8 are drawn to the same scale shown with fig. 1, presenting 1 mm; 3, 6 and 7 are 2.5 × enlarged to this scale; 4 and 5, 10 ×.

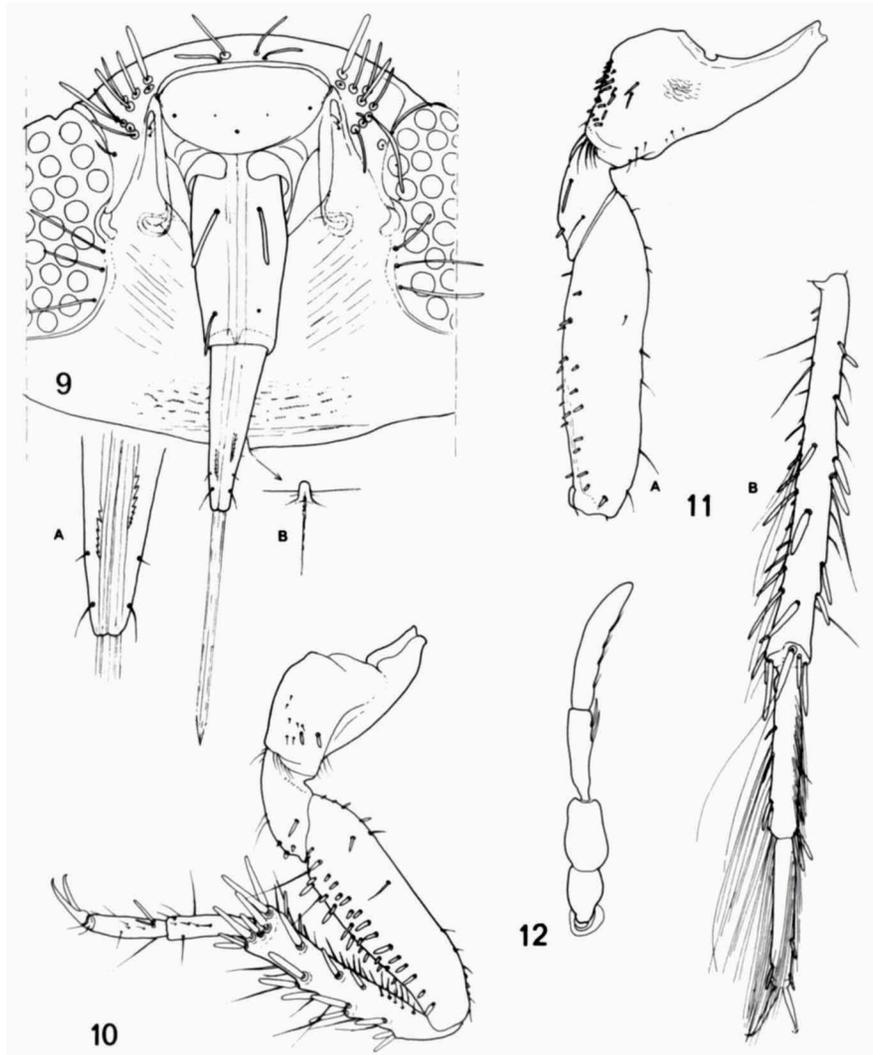
margin, mandibular stylets visible in apical part of the third segment (in glycerin). Upper and under surfaces of head with numerous slender, scale-like hairs, crowded in places.

Thorax. — Pronotum trapezoid, much wider than long in the mid-line (55:17), with slightly rounded lateral margins; anterior margin shallowly emarginate, posterior margin deeply emarginate, medial part of the emargination straight, posterior angles produced posteriorly and rounded, covering the fore wing articulations. Prosternum broad, widely separating procoxal cavities, medially with a fine carina on anterior 2/3 and anteriorly produced beyond straight anterior margin as a small tooth, posteriorly broadly produced and truncate. Mesoscutum large, almost wholly uncovered by pronotum, scutellar suture obsolete, scutellum only very small, together ("scutellum" of authors) forming one large, almost triangular plate, wider than long (26:17). Mesosternal plate very broad with a delicate median carina, and sharply produced posteriorly; coxal cavities separated. Metanotum strongly reduced and constricted medially, posterior margin weakly produced medially; metasternum small, posteriorly bluntly-triangularly produced; sterno-pleural suture with a structure that resembles a rudiment of a scent gland slit.

Fore legs (fig. 7) with stout coxae, moderately incrassate femora and slender tibiae and tarsi; posterior margin of femora (position as in fig. 2) with a row of denticles and some longer blunt spines and large setae proximally; tibiae-tarsi, including the claws, as long as the femora. Length-ratio of femur: tibia: tarsus (excluding claws) = 77:55:18. Middle legs stoutly built, amply set with teeth and spiny setae (fig. 10); femur: tibia: tarsus ratio, 77:65:48; posterior edge of femora without a patch of hairs. Hind legs (fig. 11, a and b) long with long tarsi; setation resembles that of middle legs, but distal parts of tibiae and tarsi clothed with a thick fringe of long swimming hairs; ratio, 9:11:9.

Hemelytra with well-developed clavus, embolium and membrane, passing abdominal tip by 14.4%; embolium narrow, gradually widening posteriorly, six times as long as greatest width, corium extending distally almost to tip of wing, embracing part of membrane. Corium set with numerous punctures each accompanied by a fine decumbent hair (fig. 4). Hind wings transparent, colourless, with a weakly sclerotised straight costal vein, and some other veins which are hardly visible (fig. 8).

Abdomen. — Abdomen flat, oval and posteriorly broadly rounded, segmental margin as in fig. 2. A remarkable feature is the presence of two small lobes in the posterior margin of the third abdominal tergite that suggests the presence of scent glands, at least in the last nymphal stage. The lateral margins of the tergites from the fourth to the tip of the abdomen are provided



Figs. 9-12. *Potamocoris nieseri* spec. nov., holotype female; 9. ventral view of head showing setation, mouthparts and protruding maxillar stylets; A, apical part of rostrum showing serrate apices of mandibular stylets visible through labial tissue translucent in glycerin; B, median process on anterior margin of prosternum; 10. left middle leg; 11. left hind leg drawn in two parts: A, coxa, trochanter and femur, and B, tibia and tarsus; 12. right antenna, ventral view. Figs. 9, 9B, 10 and 11 are 2.5× enlarged to the scale of 1 mm shown with fig. 1; 9A and 12, 5× this scale.

with a fringe of fine hairs that increases in length towards the tip and that is borne in a sublateral dorsal groove that gradually becomes lateral towards the end of the seventh tergite. The sternites 4-6 have finely chagreened areas at their postero-medial parts (figs. 2,5). The subgenital plate (fig. 6) is basally a little wider than long (22:19) and smoothly rounded posteriorly.

Measurements (in mm). — Total length including wings, 2.75; width of base of pronotum, 1.1; maximum width across end of claval commissure, 1.3; width of head, 0.66; total length of body without wings, 2.46; length of fore wing, 2.0; greatest width of abdomen, 1.23.

Colour. — General colour of body light castaneous brown with darker mesoscutum-scutellum and blackish eyes, and somewhat paler side margins of pronotum, abdomen and legs. Fore wings with a darker patch in the middle part and an almost colourless area proximal to it along the inner (= posterior) emboliar margin. Antennae and greater proximal part of hind wings colourless.

Material studied. — A single female specimen, holotype, found in a light trap catch (in alcohol) from the banks of the Sipaliwini river near the Sipaliwini airstrip in the southern part of Suriname, 1°33'N 56 11°4'W, June 1963, collected by the author.

It is a pleasure to dedicate the species to Dr. N. Nieser, who contributed so much to the knowledge of the aquatic Heteroptera of Suriname.

Comparitive notes. — Closest known species is *Potamocoris parvus* Hungerford 1941. The new species has the front of the head less produced beyond the eyes, the pronotum relatively longer, the corium apically much more produced along the costa and embracing part of the membrane, the third antennal segment shorter and the fourth longer.

## DISCUSSION

As appears from the distribution map of the known *Potamocoris* and *Coleopteroecoris* species (fig. 13), the discovery of the Surinam species fills a large gap in the previously known distribution of the Potamocorinae. It is probable that the distribution of these bugs is much more general than has been found so far. Because of their smallness they are easily overlooked, although it seems also to be clear that they are not very common. Selective catching techniques will be necessary in order to collect these tiny water bugs.

A point for discussion concerns a dense patch of yellow hairs on the inner trailing edge of the midlegs of *P. robustus* La Rivers, 1969 mentioned by La Rivers in his description and used by him as a specific character to separate

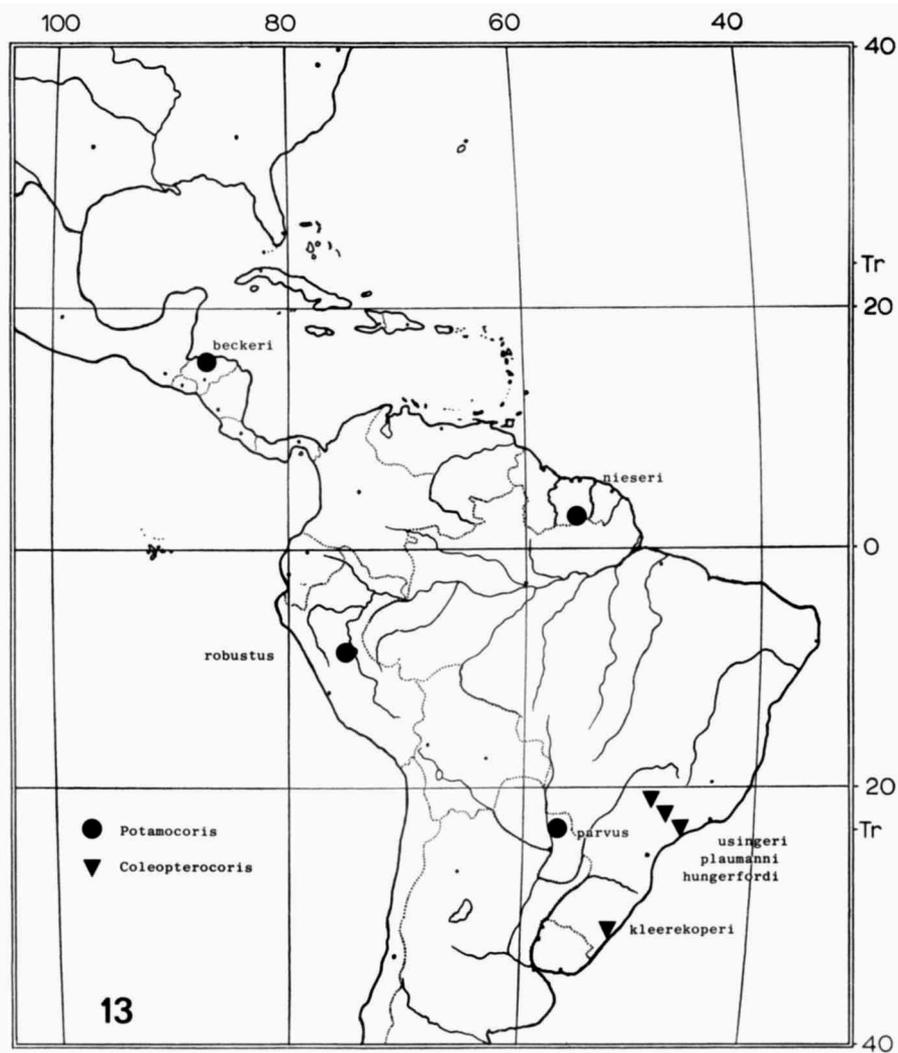


Fig. 13. Map showing the known distribution of the species of the subfamily Potamocorinae in Middle and South America.

this species from *P. parvus* Hungerford, 1941 assuming that the latter species lacks the patch (La Rivers 1969: 11, 12). But although Hungerford did not mention the patch in his description of *parvus*, he clearly showed it in his figure 4 of plate I on page 3 of his 1941 paper. A similar patch is visible in the drawing of the midleg of *Coleopterocoris kleerekoperi* Hungerford 1942: 137, figure 4 of plate I. In neither case is the sex of the illustrated specimen men-

tioned, but in both species he dissected a male genital capsule, and it is likely that he also made preparations of the legs of those specimens. Neither did La Rivers (1969: 10-12) mention the sex of the specimen(s) he described as *P. robustus*. But from the fact that he states that the hemelytra extends to about 25% of its total length caudad of the abdominal tip (so the abdomen must be small), it is very likely that he had a male specimen before him. The female specimen La Rivers (1950: 301-304) described as *P. beckeri* does not have a conspicuous patch of hairs on the midleg femur as is clear from his detailed description of its setation, nor does the female described in this paper; there is no trace of it. It is from these facts and considerations that the present author suspects that the hairy patch on the midleg femur is a secondary sexual character of the male and not a specific character.

	type loc.	♂♂	♀♀	holotype	museum
<u>Potamocoris</u>					
<u>parvus</u> Hungerford 1941	Paraguay	9	12	?	SEM
<u>beckeri</u> La Rivers 1950	Honduras	-	1	♀	CAS
<u>robustus</u> La Rivers 1969	Peru	"several"		?	CAS
<u>nieseri</u> Van Doesburg 1984	Suriname	-	1	♀	RMNH
<u>Coleopterocoris</u>					
<u>kleerekoperi</u> Hungerford 1942	S. Brasil	3	1	?	SEM
<u>plaumanni</u> De Carlo 1968	S. Paulo	2	4	♂	MACN
<u>hungerfordi</u> De Carlo 1968	S. Paulo	2	1	♂	MACN
<u>usingeri</u> De Carlo 1968	S. Paulo	1	2	♂	MACN

Survey of the known species, and type specimens and their locations, of the Potamocorinae.

CAS = California Academy of Sciences, San Francisco.

MACN = Museo Argentino de Ciencias Naturales, Buenos Aires.

RMNH = Rijksmuseum van Natuurlijke Historie, Leiden.

SEM = Snow Entomological Museum, University of Kansas, Lawrence.

## ACKNOWLEDGEMENTS

The author likes to express his thanks to Dr. N. Nieser, Utrecht, for providing him a copy of La Rivers' 1969 paper, and to Dr. P. J. L. Roche, Andorra, for his help in correcting the English text of this paper.

## LITERATURE

- De Carlo, J. A., 1968. Tres especies nuevas del genero *Coleopterocoris* y una especie nueva del genero *Heleocoris* (Hemiptera, Naucoridae). — *Physis* 28(76): 193-197, 5 figs.
- Hungerford, H. B., 1941. A remarkable new naucorid water bug (Hemiptera). — *Ann. Ent. Soc. Amer.* 34(1): 1-4, 8 figs.
- Hungerford, H. B., 1942. *Coleopterocoris*, an interesting new genus of the subfamily Potamocorinae. — *Ann. Ent. Soc. Amer.* 35(2): 135-139, 8 figs.
- La Rivers, I., 1950. A new species of the genus *Potamocoris* from Honduras. — *Proc. Ent. Soc. Wash.* 52(6): 301-304, 1 fig.
- La Rivers, I., 1969. New naucorid taxa. — *Occ. Pap. Biol. Soc. Nevada* 20: 1-12.