

NEOPHILAENUS ANGUSTIPENNIS (HORVÁTH, 1909) NEW TO MADEIRA (HOMOPTERA, AUCHENORRHYNCHA, CERCOPIDAE) (1)

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With 8 figures

ABSTRACT. *Neophilaenus angustipennis* (Horváth, 1909), a cercopid known so far from the Canaries, is here recorded for the first time from the Madeira archipelago. It is suggested that this is the result of recent colonization and that the species is already well-established in Madeira and more recently also in Porto Santo. For comparative purposes a redescription of the species is also provided. Detailed illustrations of the male genitalia are given for the first time.

RESUMO. *Neophilaenus angustipennis* (Horváth, 1909), um cercopídeo até agora apenas conhecido para as ilhas Canárias, é aqui dado pela primeira vez para o arquipélago da Madeira. Sugere-se neste trabalho que a ocorrência desta espécie na Madeira é o resultado duma colonização recente, porém já bem estabelecida nesta ilha e, há menos tempo ainda, também no Porto Santo. A espécie é redescrita e são apresentadas pela primeira vez as ilustrações pormenorizadas da genitália masculina.

Neophilaenus angustipennis was first described from material collected in the Canaries by Horváth (1909) and has been considered so far an endemic species of this archipelago (Lindberg, 1954; Nast, 1972).

As a result of the field-work carried out during a zoological expedition to Madeira in 1980 (Quartau, 1981) and two recent visits to Madeira in 1987, the senior author was able to collect abundant material of this species. Through the courtesy of Mr. A. van Harten, Mr. G. E. Maul, and Col. A. Bivar de Sousa, additional material of this species, collected in the Madeira archipelago respectively in 1981, 1984 and 1988, was sent for examination and is incorporated in this study.

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Taking into consideration that Lindberg (1961) in his *Hemiptera Insularum Madeirensium* did not record this cercopid from Madeira nor could the senior author find the species during his previous field-work in this archipelago in 1971, it is suggested that *Neophilaenus angustipennis* is a recent immigrant in Madeira where it probably arrived some time between 1971 and 1980. Direct and sustained flight from the Canaries (or northern Africa?) to Madeira is very unlikely, more probably specimens have been either passively carried by strong air currents or have been accidentally introduced by man for instance together with consignments of vegetables.

The Madeiran material conforms well with specimens from the Canaries and a short description including for the first time the illustrations of the male genitalia is provided below.

***Neophilaenus angustipennis* (Horváth, 1909)**

Philaenus angustipennis Horváth, 1909

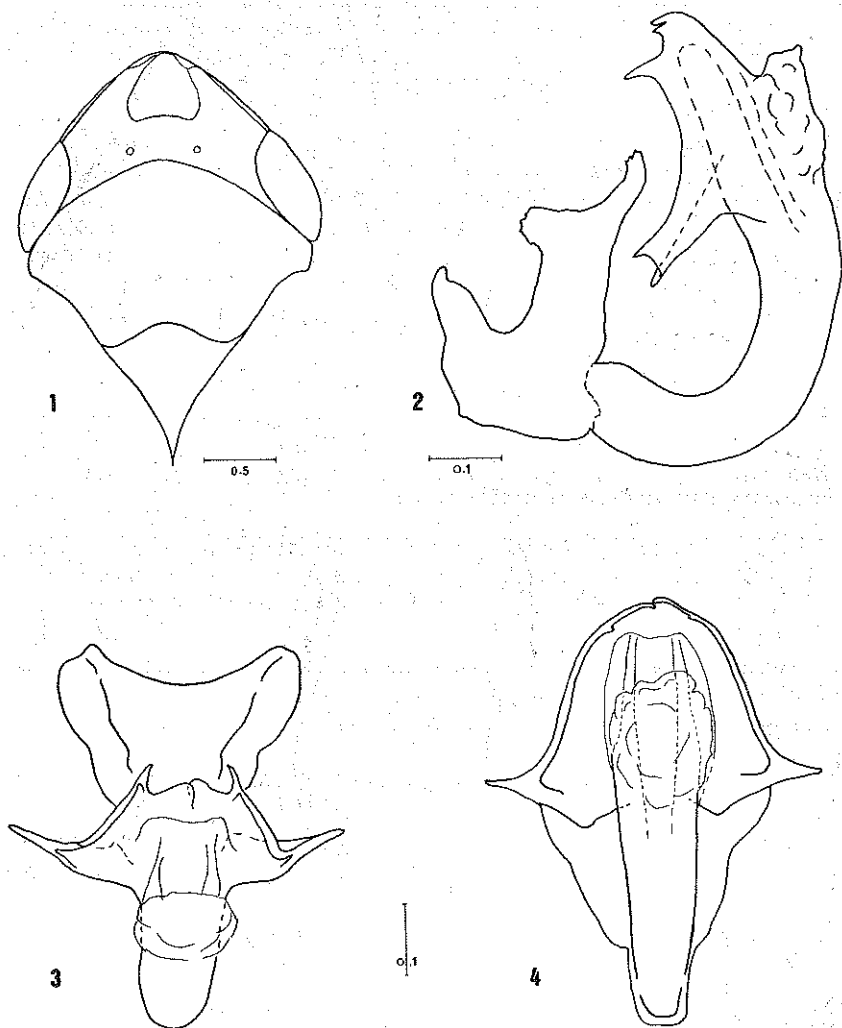
This species was first described by Horváth (1909) within the genus *Philaenus* Stål and was later transferred by Lindberg (1936) to *Neophilaenus* Haupt, a genus with nine European species (Le Quesne, 1965) and 16 for the Palaearctic area (Nast, 1972). As a member of the family Cercopidae, insects often called froghoppers, the larvae produce the typical cuckoo-spit secretion with which they surround themselves.

Male. Length from apex of crown to tips of tegmina 5.36 - 6.24 mm (mean 5.85 mm). Fore body and tegmina finely pilose. Head across eyes wider than greater width of pronotum; vertex similar to that of *Neophilaenus lineatus* but relatively shorter and less pointed apically (Fig. 1). General body colour yellowish brown. Tegmina with costal border broadly whitish as in *N. lineatus* and behind this also with a fuscous longitudinal stripe. Male pygofer as in Fig. 5 and similar to that of *lineatus*. Aedeagus as in Figs. 2-4, genital style as in Figs. 6-8.

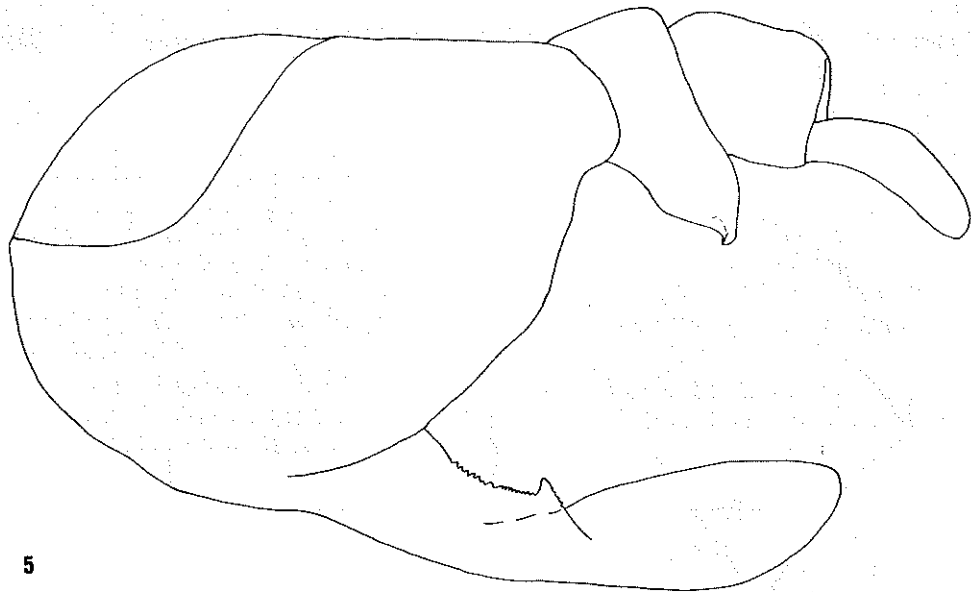
Female. Length from apex of crown to tips of tegmina 6.08 - 7.20 mm (mean 6.60 mm), therefore slightly larger than male.

Distribution. Canaries (La Palma, La Gomera, Tenerife, Gran Canaria), Madeira, Deserta Grande and Porto Santo.

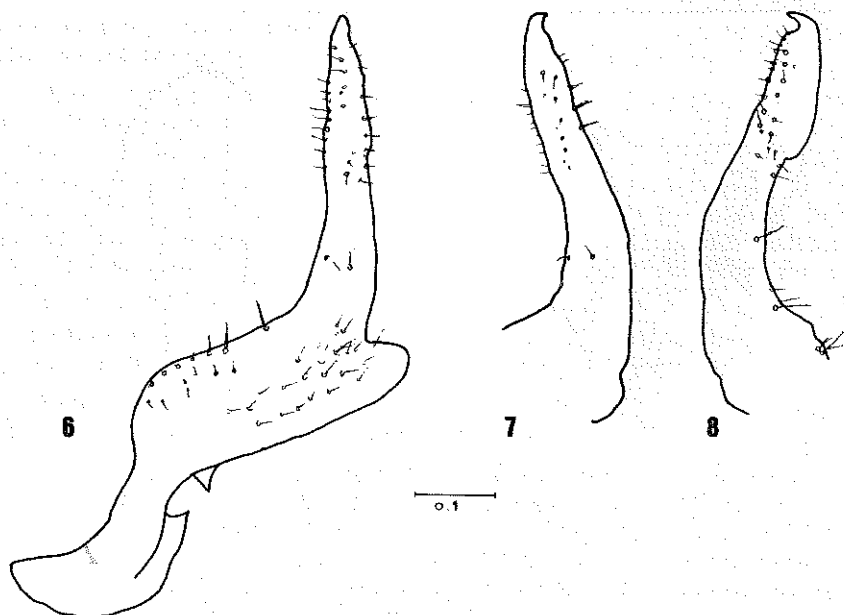
Material studied. *Madeira*: Urzal, 2.5.80 (col. J. A. Quartau), 1 ♀; Baía da Abra, grassland, 3.5.80 (col. J. A. Quartau), 1 ♂; Caniçal, grassland, 3.5.80 (col. J. A. Quartau), 102 ♂, 110 ♀; Ponta de S. Lourenço, 3.5.80 (col. A. A. Serrano), 1 ♂, 1 ♀; Cabo Girão, 11.5.80 (col. A. A. Serrano), 1 ♂; Paul do Mar (Cima), 12.5.80 (col. J. A. Quartau), 1 ♀; Ribeira da Janela, grassland, 13.5.80 (col. J. A. Quartau), 1 ♂; Madeira (?), Sept. - Oct. 81 (col. A. van Harten), 3 ♀; Cabo Girão, 11.3 - 13.5.84 (col. G. E. Maul), 12 ♂, 10 ♀; Vinháticos, 21.2.87 (col. J. A. Quartau), 13 ♂, 6 ♀; Funchal, 26.7.87



Figs. 1-4. — *Neophilaenus angustipennis* (Horváth, 1909): 1, head, pronotum and scutellum, dorsal view; 2, aedeagus, left lateral view; 3, idem, dorsal view; 4, idem, posterior view. (scale in mm)



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 Fig. 5.—*Neophilaenus angustipennis* (Horváth, 1909): male pygofer and terminal abdominal segments, left lateral view. (scale in mm)



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 7
 8
 Figs. 6-8.—*Neophilaenus angustipennis* (Horváth, 1909): 6, left genital style, external view; 7, idem, view of apex; 8, apex of right genital style, broadest aspect. (scale in mm)

(col. J. A. Quartau), 4 ♂, 1 ♀. *Deserta Grande*, plateau, on grasses, 14.5.80 (col. A. M. Serrano), 1 ♂. *Porto Santo*: Portela, 12.5.88 (col. A. Bivar de Sousa), 19 ♂, 5 ♀; idem, 13.5.88, 1 ♂, 2 ♀. *Canary Islands*: Tenerife, Chio, S. W. Gina de Isora, 9 - 16.3.84 (col. M. R. Wilson), 2 ♂, 2 ♀.

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LITERATURE CITED

Horváth, G.:

1909. Hémiptères recueillis par M. Th. Becker aux îles Canaries. *Annales Historico-Naturales Musei Nationalis Hungarici*, 7 : 289-301.

Le Quesne, W.:

1965. Hemiptera (Cicadomorpha) (excluding Deltocephalinae and Typhlocybinae). *Handbooks for the identification of British insects*, II, Part 2 (a), Royal Entomological Society of London, 64 pp..

Lindberg, H.:

1936. Die Cicadinen der Kanarischen Inseln. *Commentationes Biologicae*, 6 (9):1-9.
 1954. Hemiptera Insularum Canariensium. Systematik, Oekologie und Verbreitung der Kanarischen Heteropteren und Cicadinen. *Commentationes Biologicae*, 14 (1): 1-304.
 1961. Hemiptera Insularum Madeirensium. *Commentationes Biologicae*, 24 (1):1-82.

Nast, J.:

1972. *Palaeartic Auchenorrhyncha (Homoptera). An annotated check list*. Warszawa, Polish Scientific Publishers.

Quartau, J. A.:

1981. Missão Zoológica aos Arquipélagos da Madeira e das Selvagens. *Arquivos do Museu Bocage (Série C)*, 1 (1):1-32.

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