

- 193 -

Two new *Ribautodelphax* WAGNER-species
from Greece (Homoptera Auchenorrhyncha Fulgoro-
morpha Delphacidae)

with
10 figures

by
MANFRED ASCHE, SAKIS DROSOPOULOS, HANNELORE HOCH

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Abstract:

Two new Ribautodelphax WG.-species are described:

1.) Ribautodelphax falakron n.sp. from higher altitudes in Northern Greece (Kalo-Nero-Mountains and Falakron-Mountains) feeding on *Festuca cyllenica* and being closely related to Ribautodelphax pallens (STAL);

2.) Ribautodelphax fanari n.sp. from coastal environments in North-Eastern Greece and Western Turkey (Anatolia) feeding on Elymus spec. and Leymus racemosus. This species belongs to the Ribautodelphax collinus (BOH.)-group showing certain similarities to Ribautodelphax exquisita ANUFRIEV, 1970, in the shape of the parameres of the δ -genitalia, but differing in other characters like ventral margin of the genital segment in which it seems to resemble Ribautodelphax affinis LOGV., 1970.

As is known, the European taxa of the genus Ribautodelphax WAGNER, 1963 have been studied biosystematically by C.F.M. DEN BIEMAN, Wageningen/The Netherlands since a couple of years. According to his results based e.g. on morphology, ecology, bioacustics and genetic experiments a remarkable increase of species in this genus is to be expected (see DEN BIEMAN, 1984).

During field-work in Greece carried out by the authors in spring 1982 (May/June) two Ribautodelphax-species could be found, which - according to the structures of the male genitalia - were not identical with any other species of the genus described so far.

1.) The first Ribautodelphax-species was collected in fairly large numbers in open and grassy subalpine to alpine biotopes in Northern Greece (Kalo Nero Mountains = Bela Voda in the Prespa-Region in Northwestern Greece; Falakron- and Rodopi-mountains in Northeastern Greece) in elevations between 1400 and 2200 m. In the Falakron mountains it occurred syntopic and synchronous with Ribautodelphax albostriatus (FIEBER, 1866). The foodplant could be assessed to be Festuca cyllenica (see DROSOPOULOS, ASCHE & HOCH, 1983: 59). The Greek species is morphologically very similar to the Northwestern Palearctic Ribautodelphax pallens (STAL, 1854), but differs from this especially in the

shape of the parameres. As also differences in the acoustic behavior seem to exist (DEN BIEMAN, personal communication) the Greek species here is treated as a separate species of its own and described below.

Ribautodelphax falakron nov.spec. (figs. 1-5)

Length: ♂♂ brachypterous: 2,3-2,6 mm

♀♀ brachypterous: 2,9-3,2 mm

♀♀ macropterous: 3,6 mm

In proportions and general colouration similar to R.pallens (BOH.), only the ♀♀ in colour more light (almost stramineus) than the ♂♂. Differences to R.pallens (STAL) and other Ribautodelphax-species are found in the ♂-genitalia: genital segment like in pallens, perhaps the dorsolateral notch of the caudal margin slightly stronger (fig. 1b); central diaphragm with two well pronounced short spines (fig. 2a-b); analtube (fig. 3a-b) like in pallens, the spine-like appendages are crossing right over left (inverse crossing of the spiniform appendages has not been found in the new species); aedeagus (fig. 4a-c) more slender and a bit more arched than in pallens, dentation similar: here a certain variability in number and position of the teeth could be found; parameres (fig. 5a-b) in contrast to pallens with a distinct mediad directed edge at the inner margin (less strongly developed, but slightly resembling the corresponding structures with R.pungens (STAL)).

Holotype ♂: brachypterous: Northeastern Greece, Nomos Drama, Falakron mountains, 2000-2200 m, 13.6.1982; Asche leg., in coll. Asche, Marburg.

Paratypes from the same locality and date (numerous ♂♂ and ♀♀ brachypterous, 3♀♀ macropterous) as well as from Falakron moun-

tains: 1400-1600 m, 13.6.1982, (23♂♂ 38♀♀ brachypterous); from Northeastern Greece: Nomos Drama, Rodopi mountains, NE Skaloti, 1400 m, 12.6.1982 (1♂ 2♀♀ brachypterous); from Rodopi mountains: 13 km SE Elatia, 11.6.1982 (1♂ 1♀ brachypterous); from Rodopi mountains: around Elatia, 1600-1700 m, 11.6.1982 (14♂♂ 7♀♀ brachypterous); from Northwestern Greece, Nomos Florina, Prespa-region, Kalo Nero mountains: southern slopes supra Agia Triada, N Antartikon, 1400-1700 m, 24.5.1982 (43♂♂ 28♀♀ brachypterous, 1♀ macropterous). Paratypes leg. Drosopoulos, Asche and Hoch, in coll. Drosopoulos, Athens and in coll. Asche & Hoch, Marburg.

Geographic distribution:

So far endemic to Northern Greece, but probably more widespread in mountain biotopes of the Balcan area. Keeping this in mind recent records of the similar species R. pallens (STAL) from Yugoslavia (JANKOVIC 1975: Serbia, 1984: Durmitor mountains) and from Bulgaria (SANDER 1985: Rila mountains, Black-Sea-coast) should be carefully checked again.

2.) The second unknown Ribautodelphax-species belongs to the R. collinus (BOH., 1847)-group. It was discovered first in Western Turkey (Anatolia) (saltmarshes near Felthiye) by the first author in August 1978 (1♀ brachypterous). This finding represented the first record of the whole genus from Turkey. Considering that some characters of the ♂-genitalia did not coincide with the morphological organisation of R. collinus (BOH.) s.str. this taxon was recorded (and figured) under the name Ribautodelphax spec.cf. collinus (BOHEMAN, 1847) by ASCHE (1982). During field-work in Northeastern Greece in 1982 the authors could collect ♂♂ and ♀♀ of the same species. Like the Turkish specimen they occurred in coastal biotopes in more or less salty environments feeding on *Elymus spec.* and on *Leymus racemosus* (see DROSPOULOS, ASCHE & HOCH, 1983: 59). The new species externally is very

similar to R.collinus (BOH.), perhaps somewhat larger and more light in colouration. In structures of the δ -genitalia it seems to be similar to R.exquisita ANUFRIEV, 1970 from USSR: M.-Siberia and Mongolia concerning the shape of the parameres, and perhaps to R.affinis LOGVINENKO, 1970, from Southern Russia: Ukraine, Krim, Georgia, the latter showing similarities in the shape of the incision of the ventral margin of the genital segment¹⁾. However, although we cannot completely exclude closer relations of the mediterranean Ribautodelphax to the Russian species mentioned (Geographically varying forms?), at the moment we have no indication for a continuous reproductive community with a non-interrupted gene-flow. The morphological differences between these and other taxa out of the collinus-group on one hand, and the rather low range of variability in characters with the specimens of the unknown taxon checked so far on the other hand, for the moment seem to make it advisable to describe it as a new species:

1) In the english version of LOGVINENKO's paper 1970 (Ent. Rev. 49 (3) : p. 390) the legend for fig. 46 seems to be wrongly translated: according to the original description the structure figured concerns the ventral margin of the male (not female as written) genital segment.

Ribautodelphax fanari nov.spec. (figs. 6-10)

Length: ♂♂ brachypterous: 2,4-2,6 mm

♀♀ brachypterous: 2,9-3,2 mm

♂♂ macropterous: 3,7-3,9 mm

♀ macropterous: 4,2 mm

In proportions and colouration similar to R.collinus (BOH.). Differences to R.collinus (BOH.) and to all other taxa of the genus are found in the ♂-genitalia:

Genital segment at its ventrocaudal margin with a deep concave

incision like in collinus, but the incision flanked by two processes, which are apically rounded (not pointed like in collinus and other species of this group (fig. 7a-b). In this character the new species seems to be similar to R.affinis LOGV..

- Central diaphragm like in all taxa of the collinus-group with two well developed, ventrad directed tooth-like processes (fig. 7a-b). Processes of analtube a bit similar to those of R.angulosus (RIB.), but the left process, which in all specimens examined lies beneath the right one is, less bended (fig. 8a-b).

Parameres similar to those of R.exquisita ANUFRIEV, but the

finger-shaped distal part more arched, and the mediad directed edge less pronounced (fig. 9a-b). Aedeagus (fig. 10a-c) arched like in R.angulosus (RIB.) with a row of teeth on each side: about 6 on the left, about 12-14 on the right side; in about half the length of the ventrad bended distal part of the aedeagus one single caudally situated, stronger developed tooth. Phallotrema subapical on the right side.

Holotype: ♂ brachypterous: Northeastern Greece, Nomos Xanthi, W Porto Lagos, around "saltworks", 8.-9.6.1982, Asche leg. in coll. Asche, Marburg.

Paratypes: from the same locality and date (4 ♂♂ 4♀♀ brachypterous, 5 ♂♂ macropterous) as well as from Northeastern Greece: Nomos Xanthi, E Porto Lagos, saltmarshes, 8.6.1982 (6♂♂ 6♀♀

- 199 -

brachypterous, 2 ♂♂ macropterous); Nomos Kavala: around Kerdilia, eastern part of Strymon delta (19 macropterous): Drosopoulos, Asche & Hoch leg., in coll. Drosopoulos, Athens, and in coll. Asche & Hoch, Marburg; from Western Turkey (Anatolia) Prov. Mugla: saltmarshes around Fethiye, 20.8.78 (1♂ brachypterous), Asche leg., in coll. Asche, Marburg. -

Geographic distribution:

Known so far from Northeastern Greece and Southwestern Turkey (Anatolia). C.F.M. DEN BIEMAN, Wageningen, kindly informed us that he could collect this species also in Northwestern Yugoslavia (Istria), and even in Southeastern France (Carmargue). His findings extend the area of R.fanari n.sp. considerably to the west indicating the type of distribution at least as northern mediterranean. The species maybe found in other parts of the Mediterranean Region, too, wherever the corresponding ecology exists (coastal biotopes like saltmarshes with the foodplants needed).

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Figures

For all figs. the abdomina of the specimens have been macerated (10% KOH).
The genitalia have been transferred into Glycerin, resp. glycerin-gelatine.

Ribautodelphax falakron n.sp. (Paratype ♂, Falakron Mts.)

Fig. 1: ♂-genitalia

a: caudal view

b: left lateral view

Fig. 2: genital segment

a: caudal view

b: ventral view

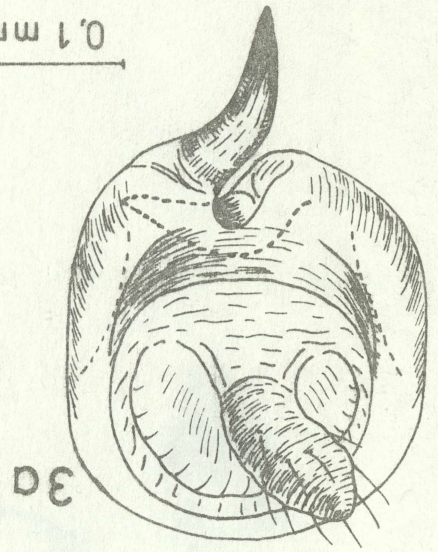
Fig. 3: Analtube

a: caudal view

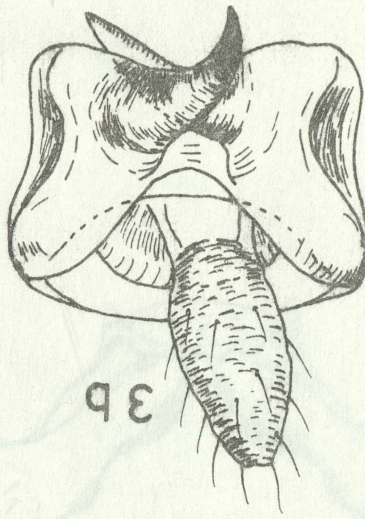
b: caudoventral view

c: ventral view

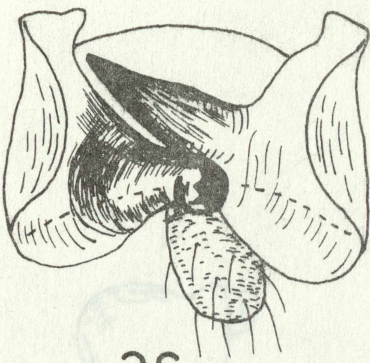
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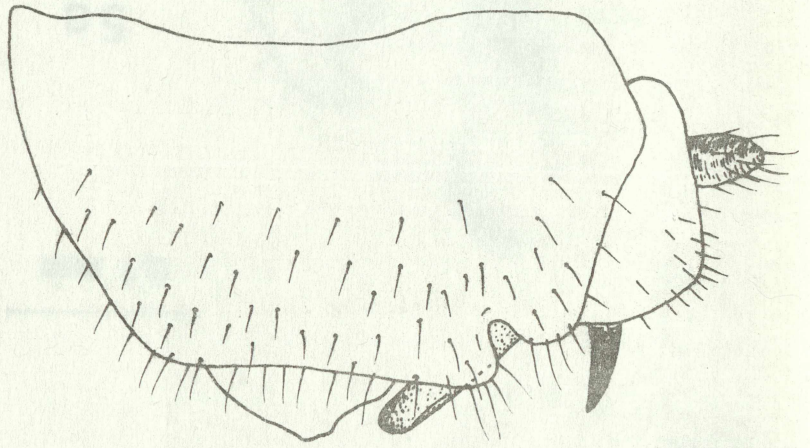
3d



3b

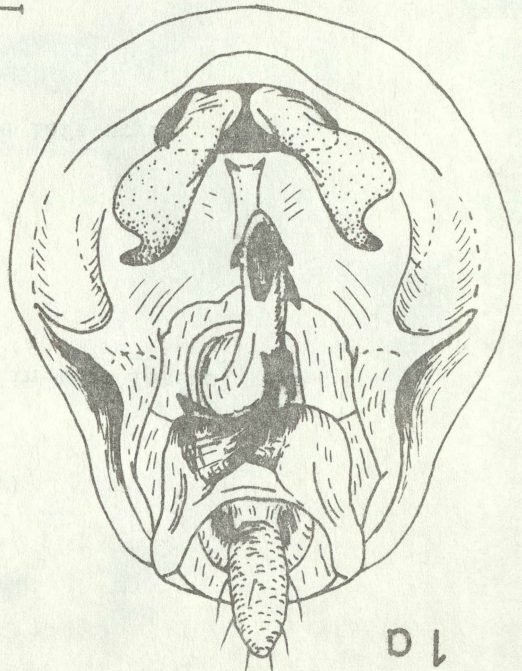


3c

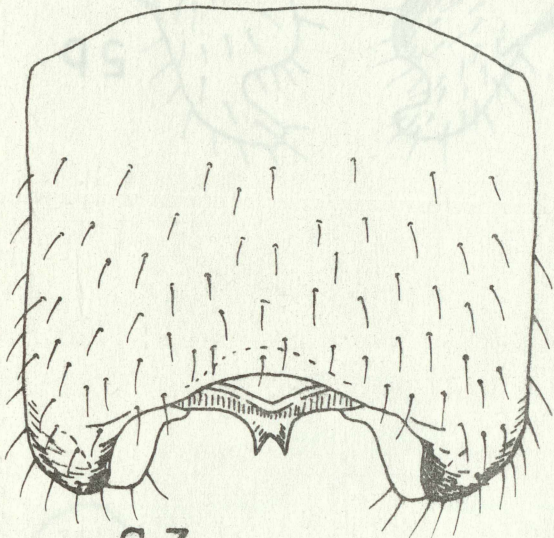


1b

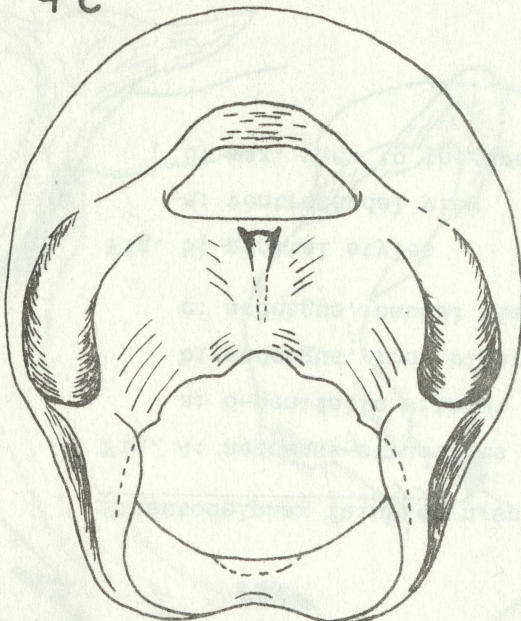
0,1 mm



1a



2b



2a

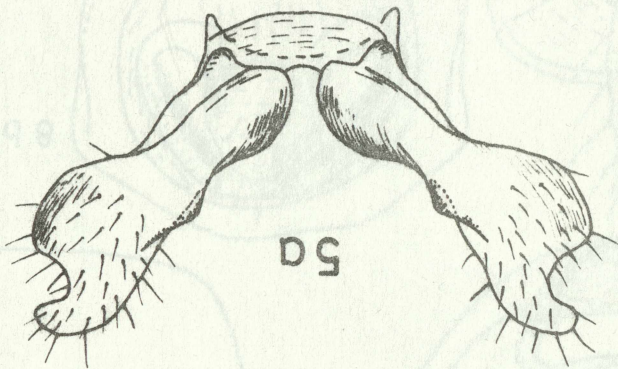
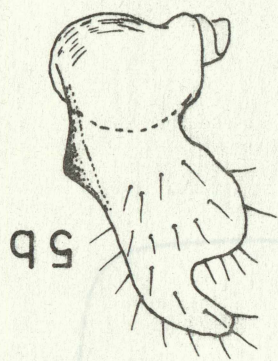
Ribautodelphax falakron n.sp. (cont.)

Fig. 4: aedeagus-structures

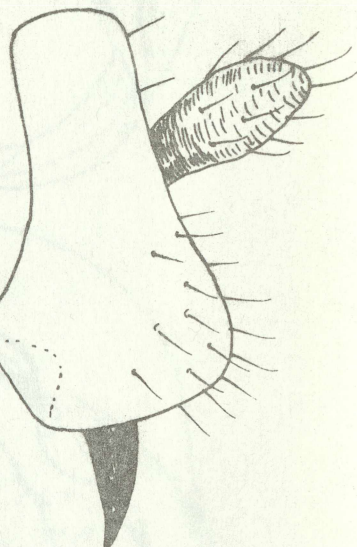
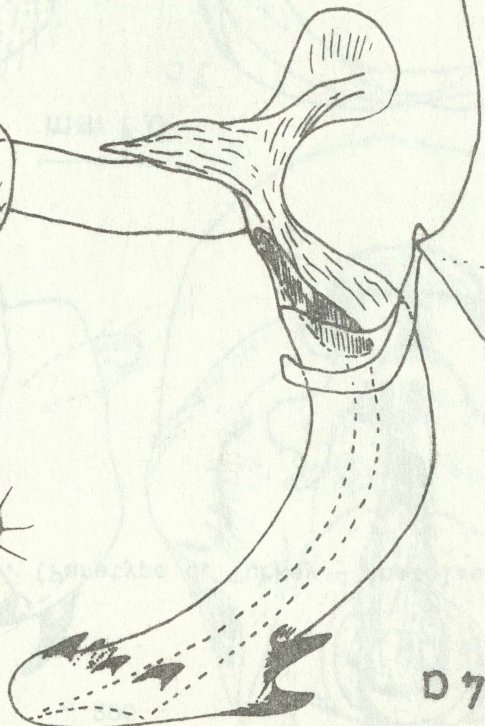
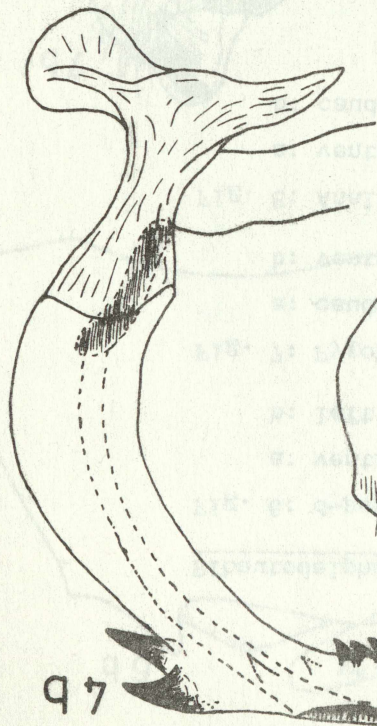
- a: ♂-genitalia without pygofer in left lateral view
- b: aedeagus, from right side
- c: aedeagus, caudal view

Fig. 5: genital styles

- a: ventrocaudal view
- b: max. view to the area of the left style



0.1 mm



Ribautodelphax fanari n.sp. (Paratype ♂, Turkey - Anatolia, Fethiye)

Fig. 6: ♂-genitalia

a: ventrocaudal view

b: left lateral view

Fig. 7: Pygofer

a: caudal view

b: ventral view

Fig. 8: Analtube

a: ventral view

b: caudal view

0,1 mm

8b

8a

7a

7b

0,1 mm

6a

6b

Ribautodelphax fanari n.sp. (cont.)

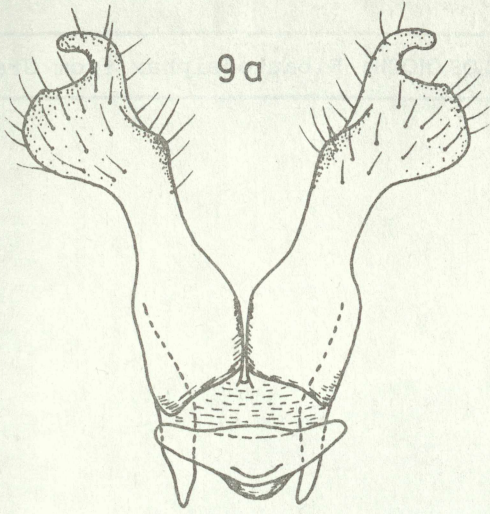
Fig. 9: genital styles

- a: ventrocaudal view
- b: max. view to the area of the left style

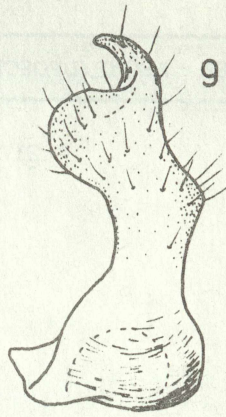
Fig. 10: aedeagus-structures

- a: ♂-genitalia without pygofer in left lateral view
- b: aedeagus from right side
- c: aedeagus, caudal view

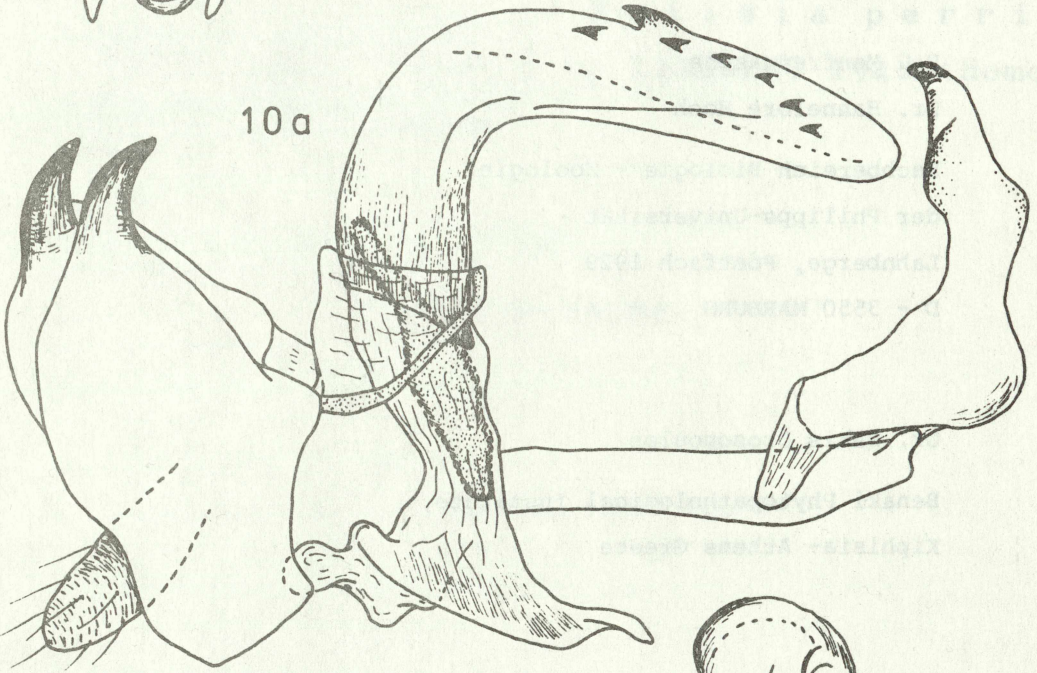
9a



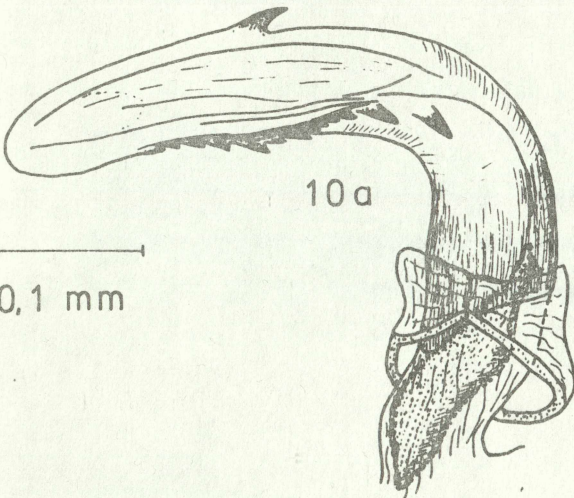
9b



10a



10a



10b



0,1 mm

Adress of the authors:

Dr. Manfred Asche

Dr. Hannelore Hoch

Fachbereich Biologie - Zoologie

der Philipps-Universität

Lahnberge, Postfach 1929

D - 3550 MARBURG

Dr. Sakis Drosopoulos

Benaki Phytopathological Institute,

Kiphisia- Athens Greece

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Autor(en)/Author(s): Asche Manfred, Drosopoulos Athanasios (Sakis), Hoch Hannelore

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