Jber. Biol. Stn Lunz 7 (1984): 141 - 155



# A key to the characteristic adult males of Seebach (Lunz) Chironomidae

Peter-Eric SCHMID

## Key to the subfamilies

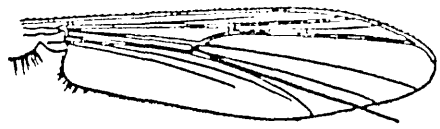

fig.a

1. Cross vein m-cu present ... 2 (fig.a)

-- Cross vein m-cu lacking ... 5

2. Vein R2+3 present and simple (fig.a) , wing membrane bare. Last anntennal segment longer than any of the proceeding segments.... 3

-- Vein R2+3 present and forked or absent.(fig.b) Wing membrane covered with macrotrichia.... 4

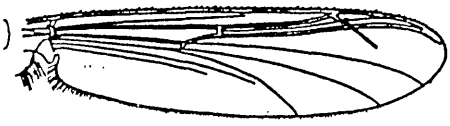

fig.b

3. f-cu proximal to m-cu.(fig.a) --- DIAMESINAE .... p.

4. R2+3 presnt and forked.R1 and R4+5 in close proximity. --- TANYPODINAE

-- R2+3 absent, r1 and R4+5 separated. --- PODONOMINAE ... p.

5. Anterior leg ratio <1.o. Gonostylus bent inwards -- ORTHOCLADIINAE

-- Anterior leg ratio >1.o. Gonostylus directed backwards.--CHIRONOMINAE

## Key to TANYPODINAE

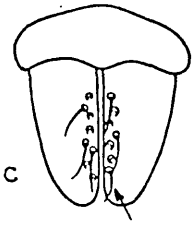

fig.c

1. Postnotum with a double row of long bristles medially (fig.c) ....2

-- Postnotum bare .... 3

fig.d.

2. Scutum with a small median hump.(fig.d) Wing membrane with distinct dark markings. Gonocoxite with a small lobe.(fig.e[1]).....Macropelopia notata

3. Gonocoxite with a basal lobe ... 4,5

-- Gonocoxite without a basal lobe .... 6

4. Third segment of mid-tarsus with a distal group of strongly developed setae.(fig.f) Scutum with a small median hump. Processes of gonocoxite lobe expanded subappically (fig.g[1]) ...Conchapelopia pallidula

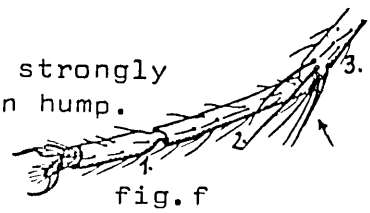


fig.f

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[1] these figures in the annex

5. Femora with a dark brown ring apically. Cross-veins darkened. Anterior margin of third abdominal tergite with a pair of dark spots. (fig.h) Hypopygium fig.i[1]....Thienemannimyia laeta

fig.h

6. Wing membrane unmarked.
Eyes pubescent.....Nilotanypus dubius
Hypopygium fig.j[1].

-- Eyes bare ..... 7

fig.k

7- Hind-tibia without apical combs. Tibial spurs as in fig.k. Hypopygium fig.l[1]. .....Trissopelopia longimana

-- Hind-tibia with a comb. Main tooth of spur of hind tibial comb short, scarcely longer than accessory teeth. (fig.m) Hypopygium fig.n[1]. .....Zavrelimyia signatipennis

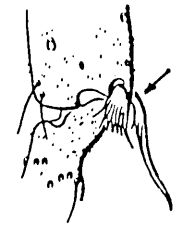

fig.m

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## Key to PODONOMINAE

1. Gonostylus simple. Basal lobe with long styli-like appendages. Hypopygium fig.o[1]. .....Paraboreochlus minutissimus

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## Key to DIAMESINAE

1. Eyes strongly produced dorsally. Hypopygium with an anal point. (fig.p[1]) Wing membrane with macrotrichia distally....Pseudodiamesa branckii

-- Eyes not produced dorsally. Wing membrane with macrotrichia. Hypopygia fig.q[1],r[1],s[1],t[1]..... Diamesa cinerella, D. thien, D. Hamat. D. insigni.

-- Wing membrane without macrotrichia....Potthastia montium
Potthastia longimanus

## Key to ORTHOCLADIINAE

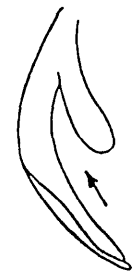


fig.1

1. Wing membrane with macrotrichia .....2
-- Wing membrane without macrotrichia .....8

2. Gonostylus bifurcate.(fig.1) ....3
--Gonostylus simple....4

3. Outer branch of gonostylus about twice as long as inner branch.(fig.1).Hypopygium fig.1a[1]).... Brillia longifurca

--The gonostyli's branches equal in length. Hypopygium fig.2a ..... Brillia modesta

4. Eyes bare .....5

5. Vein cu2 strongly curved(fig.3)....6
-- Vein cu2 almost straight(fig.4)....7

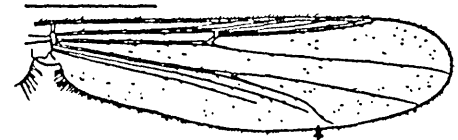


fig.3

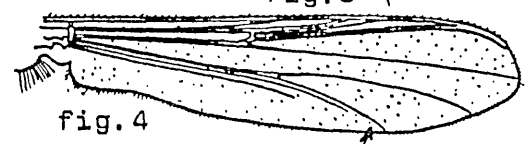


fig.4

6. Vein R4+5 ending above tip of cu1.(fig.5) Hypopygium fig.5a..... Parametriocnemus stylatus
--Vein r4+5 ending proximal to tip of cu1.(fig.3) Hypopygium fig.6a..... Paraphaenocladius sp.

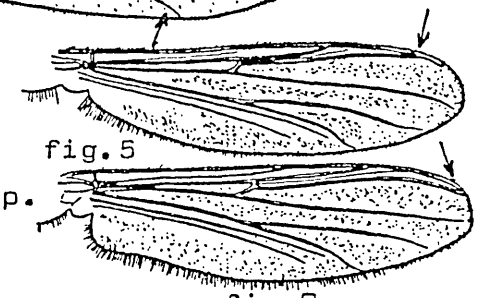


fig.5

7. Costa ending abruptly at tip of vein r4+5.(fig.7) Hypopygium fig.7a ..... Heterotrissocladius marcidus

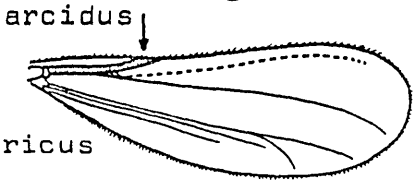


fig.7

-- Costa produced beyong r4+5. Antennal ratio at least 1.5. Haltera darkish. Hypopygium fig.7a1 ..... Metriocnemus hygropetricus

8. Veins R1 and r4+5 fused with the costa ....9 (fig.8)
-- Veins r1 and r4+5 separate ....1o

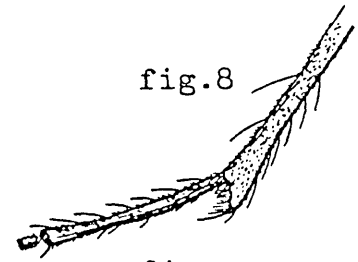


fig.8

9. Posterior tibia strongly expanded distally(fig.9) Hypopygium fig.9a..... Corynoneura lobata

--tibia not as above..... Thienemanniella partita Hypopygium fig.9a1

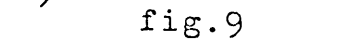


fig.9

[1]) Fig. 1a, 2a etc.: see tables p.

1o. Antepronotum pubescent (fig.1o)..
Hypopygium fig.1oa .....Heleniella ornaticollis

-- Antepronotum bare dorsally.....11

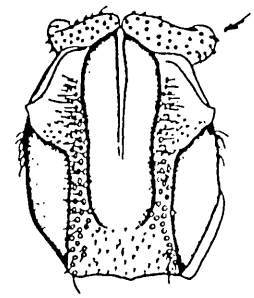


fig.1o

11. Squama bare(fig.11).....12

-- Squama fringed, at least with 2 setae ....17

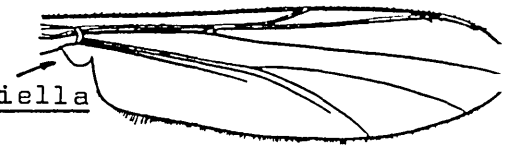


fig.11

12. Eyes pubescent.Last antennal segment without a differentiated apical seta.
Hypopygia fig.12a,13a,14a. ..... Eukiefferiella

-- Eyes bare; if pubescent last antennal segment bears an apical seta.(fig.15).....13

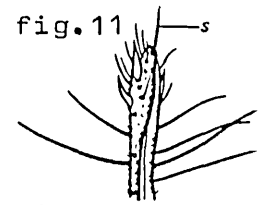


fig.15

13. Antenna with an apical seta.Eyes usually pubescent. Gonocoxite with a single median lobe.
Hypopygium fig.16a..... Smittia paranudipennis

-- Antenna rarela with an apical seta.Eyes bare...14

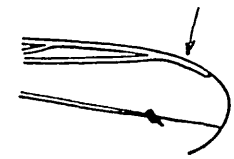


fig.17

14. Costa strongly produced beyond vein r4+5.(fig.17)
Anal vein ending well proximal to f-cu.
Hypopygium fig.17a ..... Krenosmittia boreoalpina

-- Costa not or weakly produced (fig.18) ....16

-- Anal vein ending below or beyond f-cu..... 15

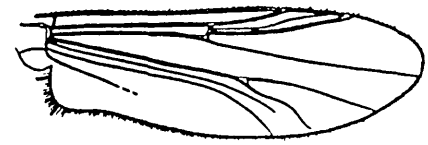


fig.18

15. A.R.(antennal ratio) 1.2 or more.
Hypopygium fig.19a ..... Bryophaenocladius ictericus

-- A.R. smaller than 1.o. Vein r2+3 ending close to r4+5 or fused with it.Tip of r4+5 well proximal to tip of cu1.
Hypopygium fig.2oa..... Parakiefferiella spinicornis

16. Vein r4+5 ending distinctly proximal to cu1.
Hypopygium fig.21a.....Pseudosmittia recta
Pseudosmittia gracilis

17. Eyes bare ..... 18

-- Eyes pubescent..... 23

18. Vein cu2 strongly curved (fig.3)....19

--- Vein cu2 straight or weakly curved (fig.4)..... 2o

19. Scutum often bearing scale-like setae.(fig.22)
Wing membrane dotted with microtrichia.(fig.23)
Hypopygium fig.22/23a.....Limnophyes prolongatus

fig.22

--

2o. Wing membrane coarsely granular in appearence(fig.23).
Anal point bearing strong setae laterally.
Hypopygium fig.24 .....Paratrissocladius excerptus

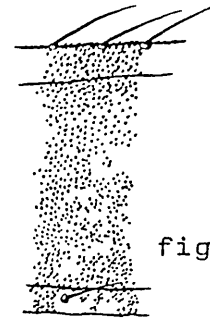
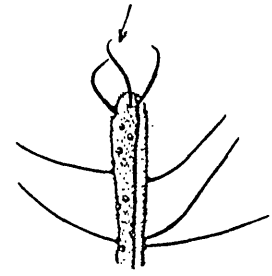


fig.23

-- without these above characteristics.Wing membrane bare..... 21

-- Anal point without lateral setae.
Costa not produced beyond r4+5.Anal point developed.
Hypopygium fig.25a.....Chaetocladius laminatus

21. Anal point bearing several lateral setae.
Scutum uniseral ..... Orthocladius sp.
Scutum biseral .....(Eu)Orthocladius sp
Hypopygia fig.26a,27a,28a.



--Anal point,if present lacking lateral setae.---22

22. Anal point short.Tip of antenna bearing characteristic-curved long setae.(fig.29)
Hypopygium fig.29a. ..... Synorthocladius semivirend

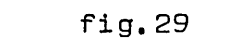


fig.29

-- Anal point absent, or if present its transparent.
Hypopygia fig.12-14a .....Eukiefferiella sp.

23. Hypopygium with a distinct anal point.....24

-- Hypopygium without anal point or a short one.. 25

24. Anal point robust with lateral setae.Large humeral pits.(fig.3o)
Hypopygia fig.3oa,31a..... Rheocricotupus effusus
Rheocricotopus fuscus

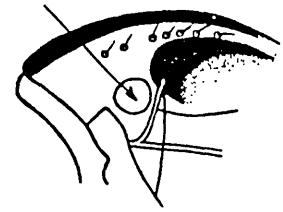


fig.3o

-- Anal point slender and bare.Humaral pits minute.
Hypopygium fig.32..... Nanocladius rectinervis

25. Antepronotum well developed. A.R. less than 2.o
Hypopygia fig.32a,33a..... Paratrichocladius skirwithendis
Paratrichocladius rufiventris

-- Dorso-central setae weak, nearly not visible.
Legs with pale rings.Often without anal point.
Hypopygium fig 34a..... Cricotopus curtus
Cricotopus sp.

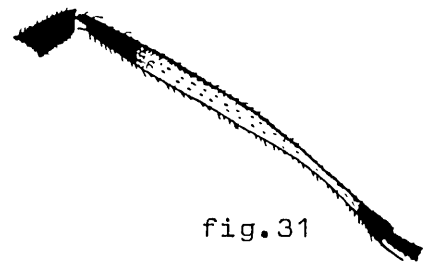


fig.31

## Key to CHIRONOMINAE

1. Wing membrane usually lacking macrotrichia, if macrotrichia are present then squama is fringed.....Tribe Chironomini ..2

-- Wing membrane with macrotrichia, squama bare..Tribe Tanytarsini ..... 6

2. Wing mebrane with macrotrichia toward the tip ... 3

--Wing membrane bare..... 4

3. A.R. 2.0 or less. Gonostylus tapered distally. (fig.35) Posterior tibia with 2 short apical spurs. (fig.36) Gonostylus without long setae on inner side, except at tip. Hypopygium fig.35a .....Phaenopsectra flavipes

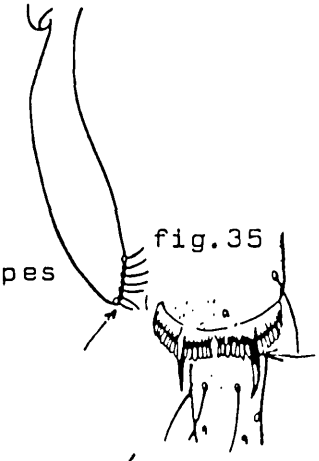


fig.35

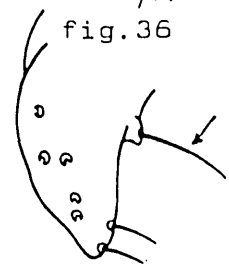


fig.36

4. Squama with setae. One comb bearing a long spur, the other without spurs -----..... 5

5. Vein r2+3 ending well distal to r1 (fig.37). Wing membrane with and without markings. Hypopygia fig.37a,38a..... Polypedilum albicorne
Polypedilum apfelbecki



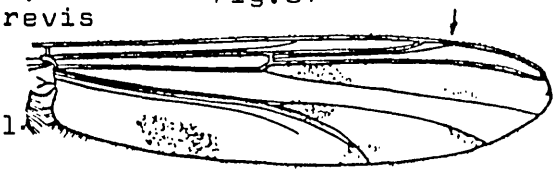
fig.39

6. Combs of posterior tibia contiguous, without spurs. Appendage I with a basale tubercle bearing a long medially directed seta (fig. 39). Appendage 2a bears spoon-shaped setae.
Hypopygium fig 39a, ..... Micropsectra notescens
40a, Micropsectra atrofasciata
41a, .....Micropsectra attenuata

--Tibial combs well seperated, at least bearing one longish spur.....7

7. Wing membrane bare only distally covered with macrotrichia. Gonostylus rather short (fig.42) Hypopygium fig.42a..... Stempellinella brevis

fig.37



--Wing membrane entirely covered with macrotrichia; Gonostylus abruptly narrowed distally (fig.43). Hypopygium fig. 43a.....Rheotanytarsus nigricauda

fig.42

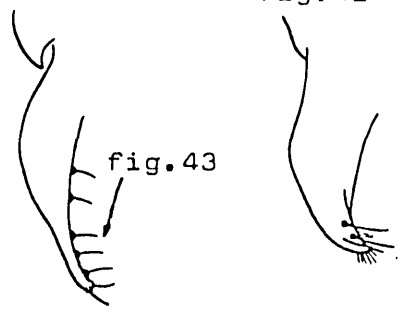


fig.43

# Hypopygia of male chironomids
## Hypopygien von Chironomiden-Männchen (siehe Text)

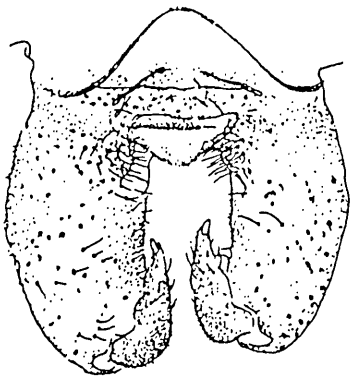


fig.e1 Macro.

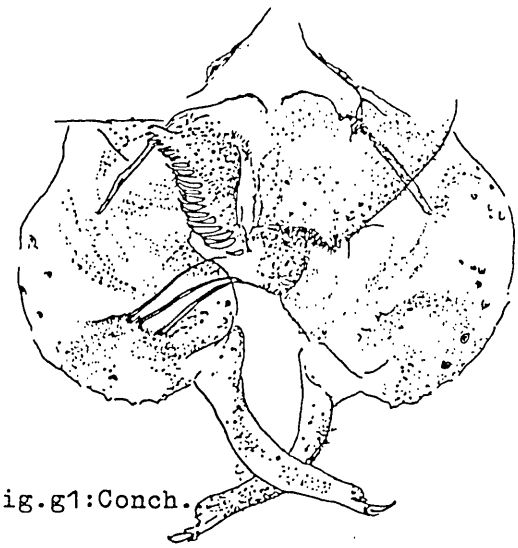


fig.g1:Conch.

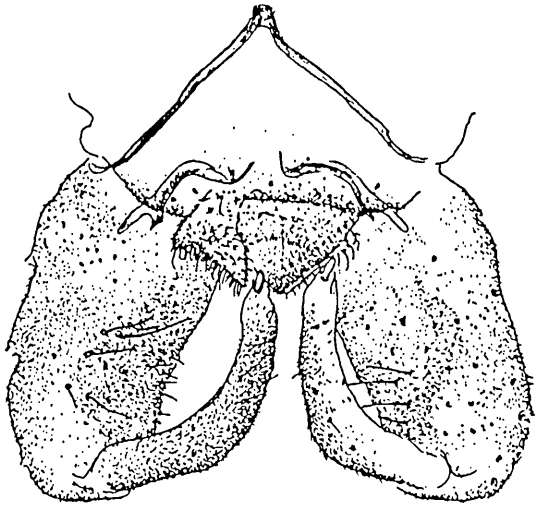


fig.i1 Thiene.

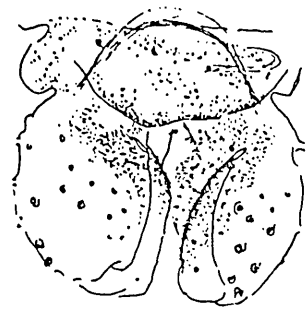


fig.j1 Nilo.

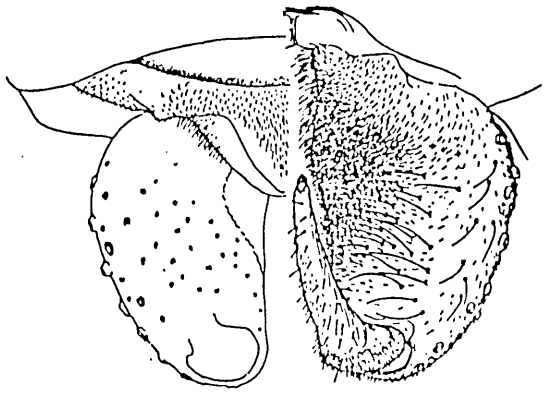


fig.l1 Trisso.

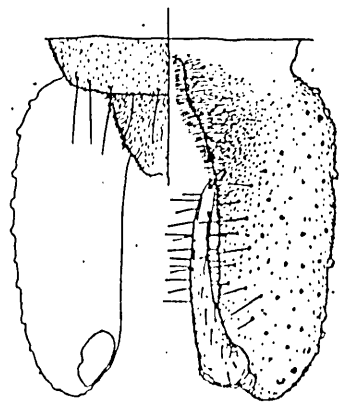


fig.n1 Zavrel.

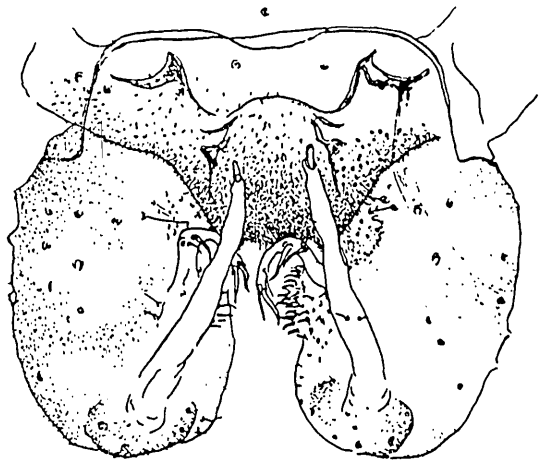


fig.o1 Parabor.

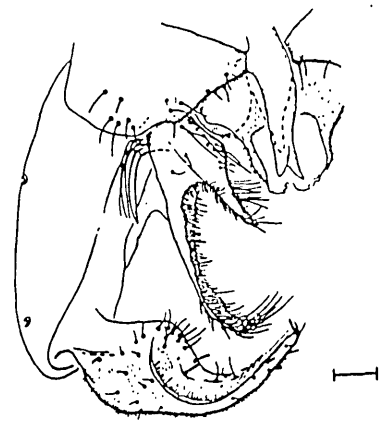


*fig.r1 D. thienemanni

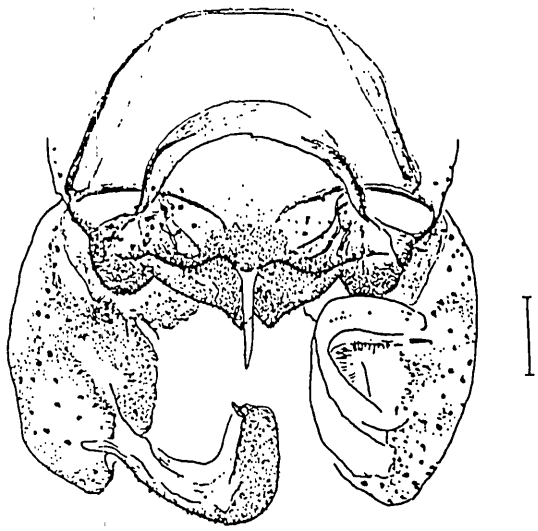


fig.p1 Pseudodiam.

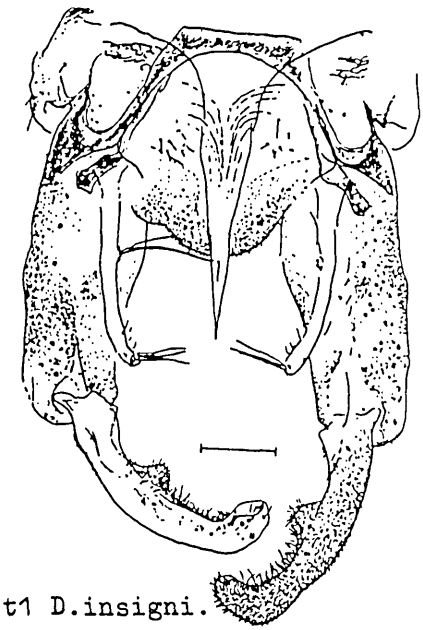


fig.t1 D.insigni.

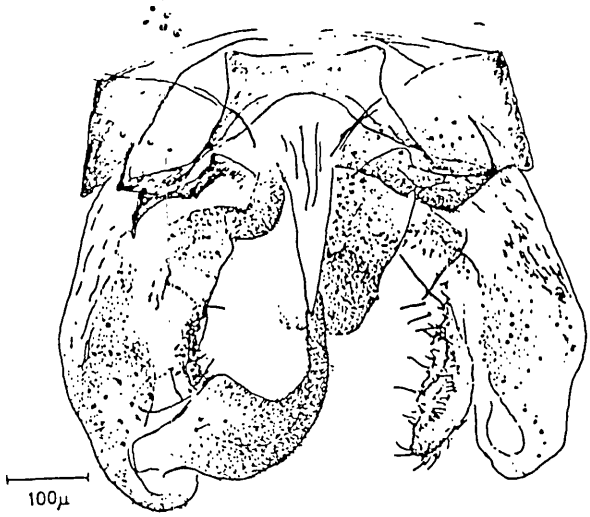



fig.q1 D. cinerella

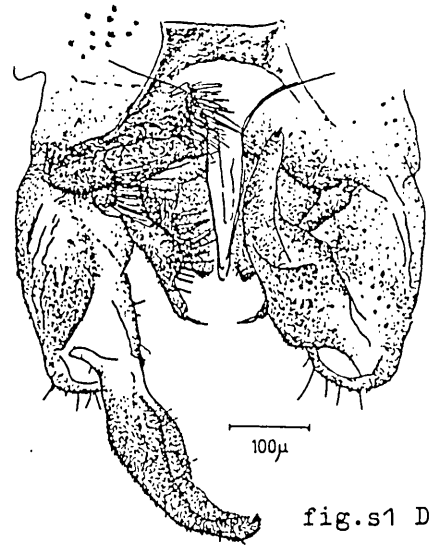



fig.s1 D.hamati.

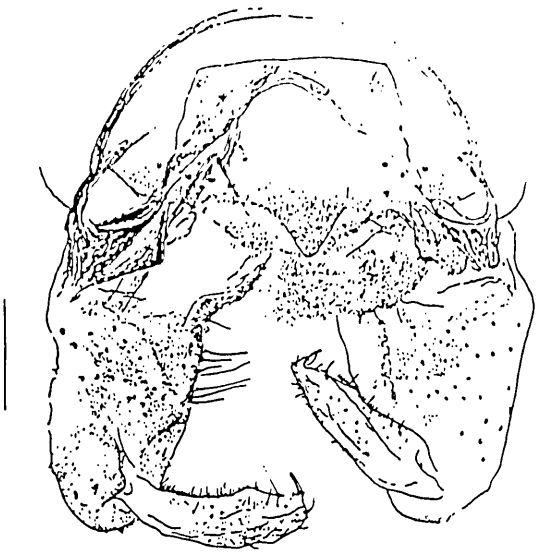


fig u1: Potthastia montium

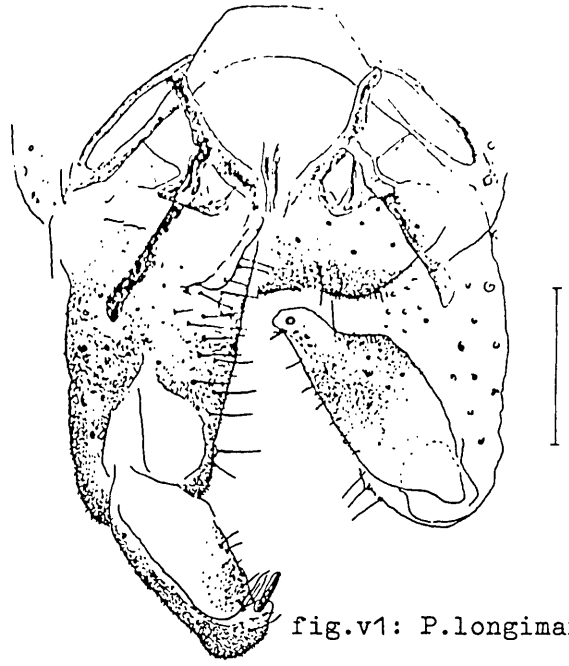


fig.v1: P.longimanus

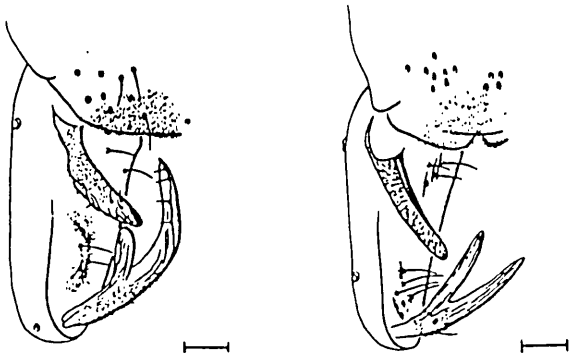


*fig1a: Brillia longifurca

*fig2a: B. modesta

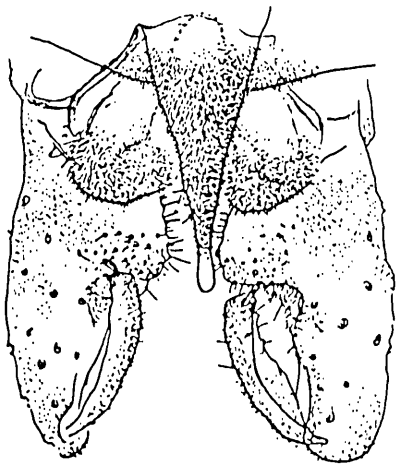


fig 5a: Paramet.

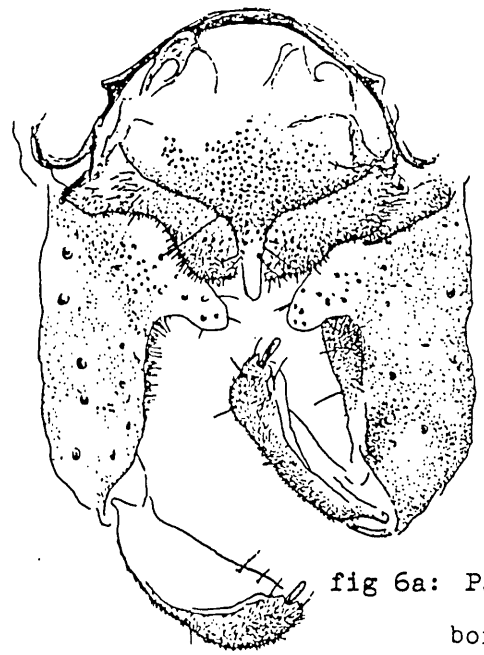


fig 6a: Parametr. boreo.

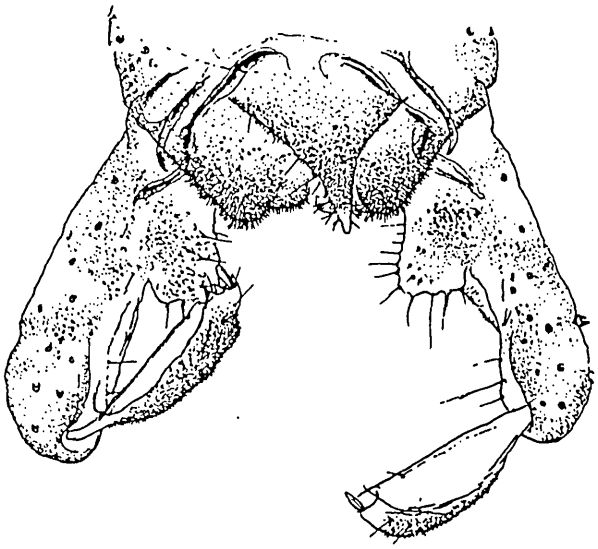


fig 7a: Heterotrisso.

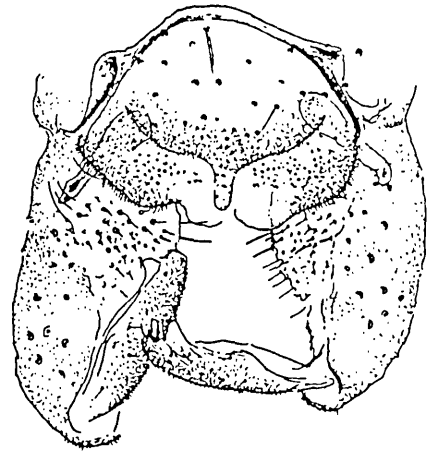


fig 7a1: Metriocnem.

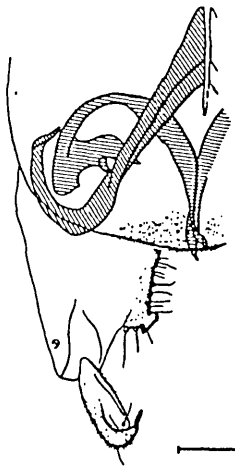


*fig 9a: Coryn.

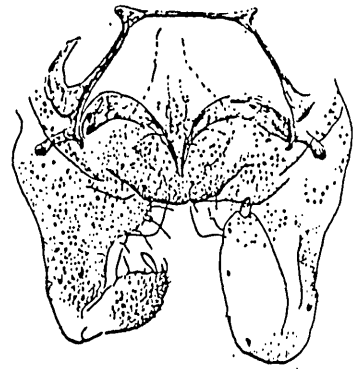
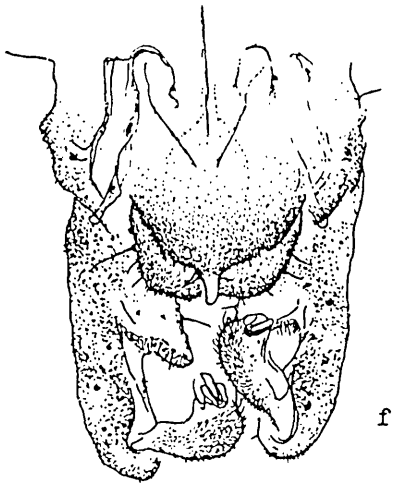


fig9a1: Thiene-
manniella



100µ

fig 10a: Helen.

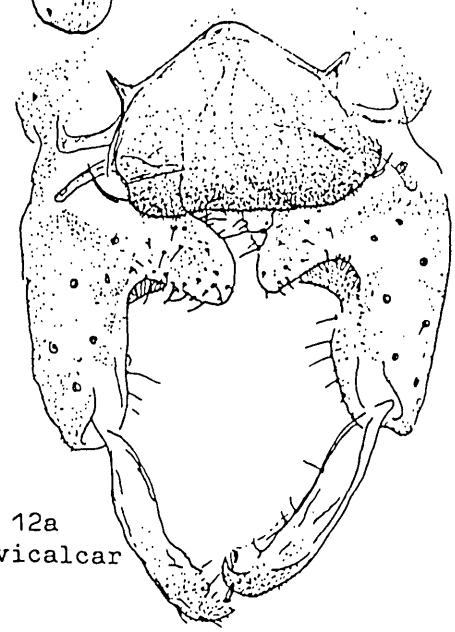


fig 12a
Eukiefferiella brevicalcar

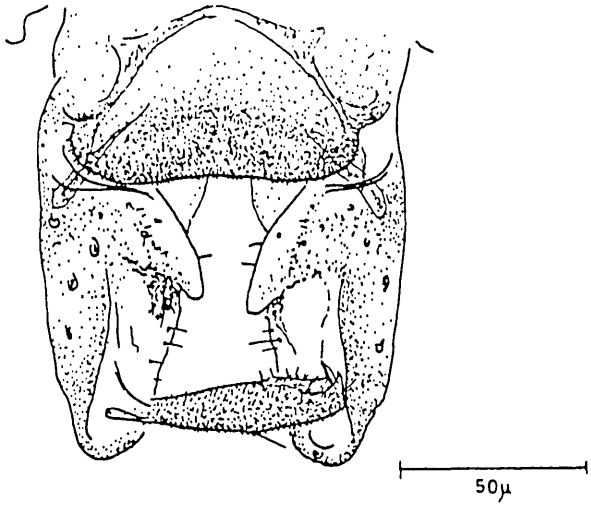



fig 13a: E. coerulescens

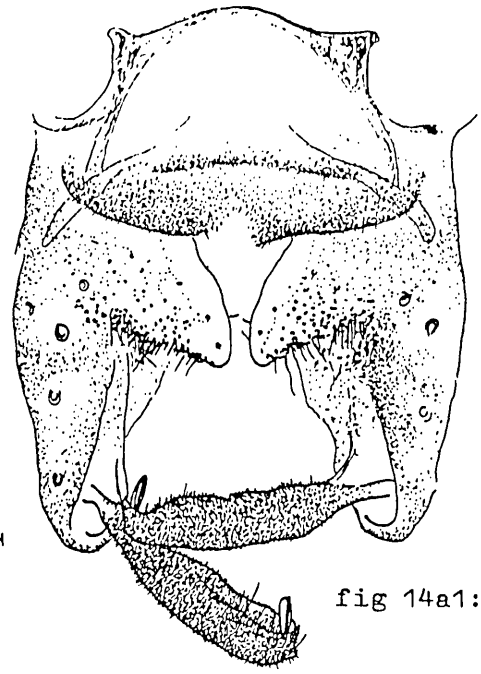


fig 14a1: E.lobif.

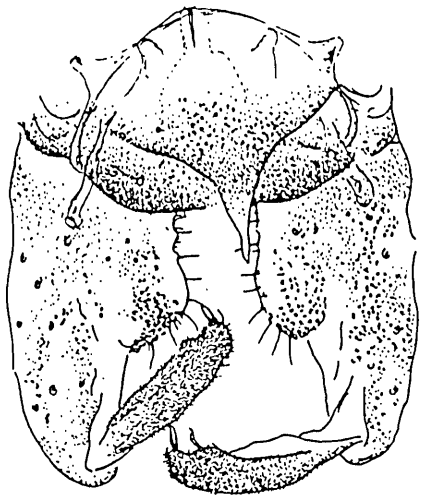


fig 14a2: E. calvescens(Tve.)

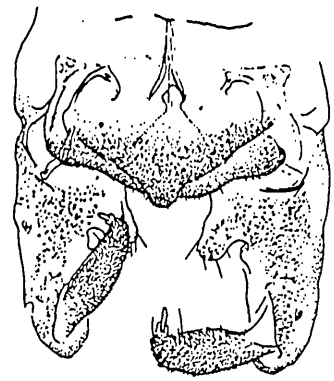


fig 17a: Krenosmit.

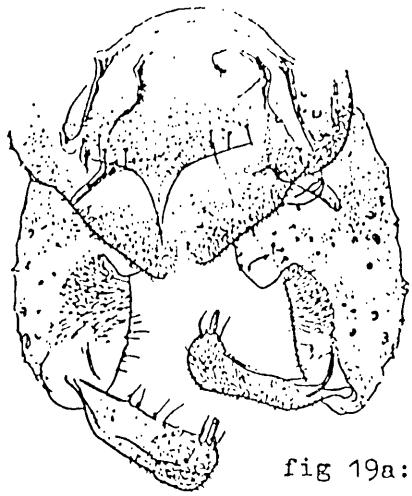


fig 19a: Bryophaenocladius

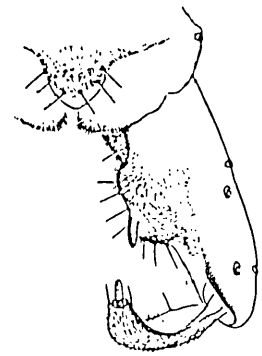


**fig 20a: Parakief.

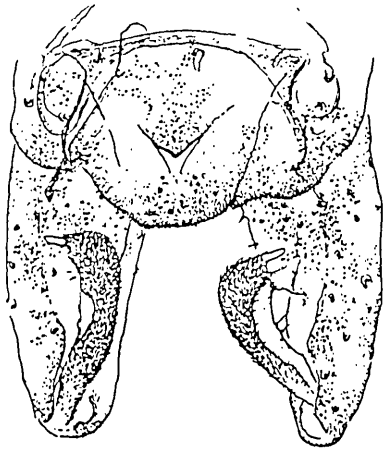


fig 21a : Pseudosmittia recta

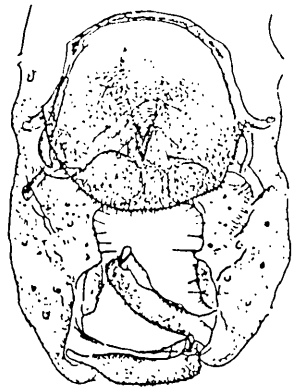


fig 21a1: P. gracilis

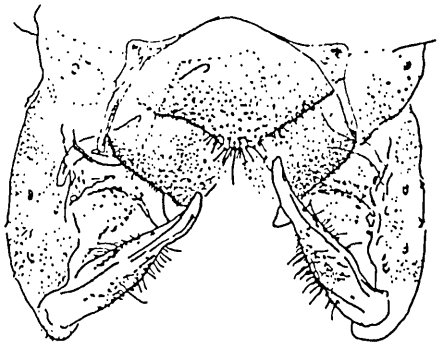


fig 22/23a: Limnophyes prolongatus

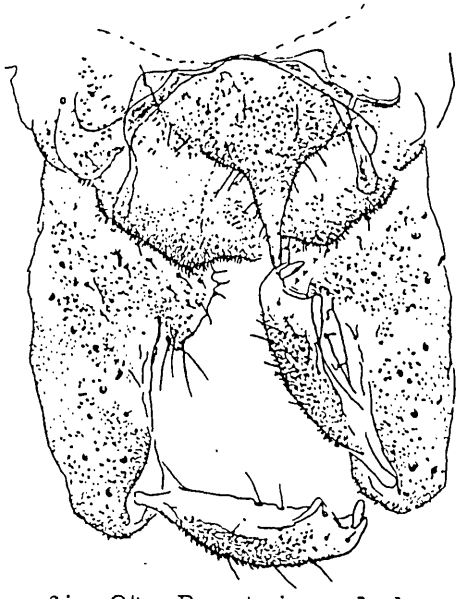


fig 24: Paratrissoclad.

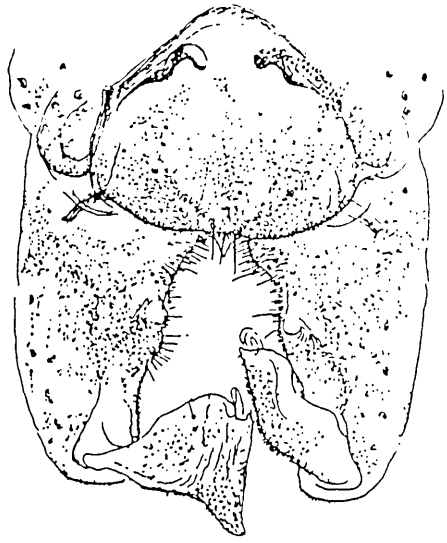


fig 25a: Chaeto. laminat.

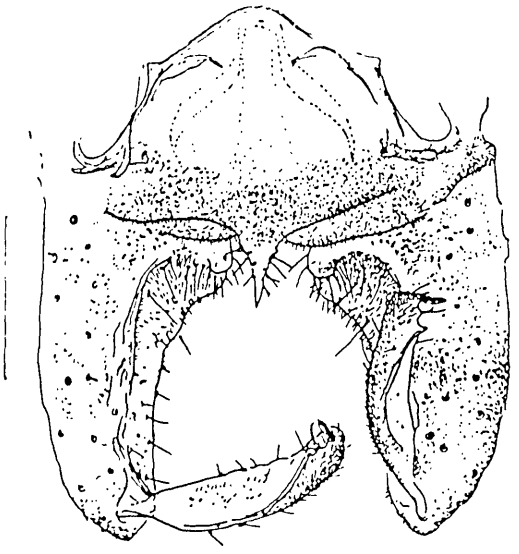


fig 26a: Orthocladius excavatus

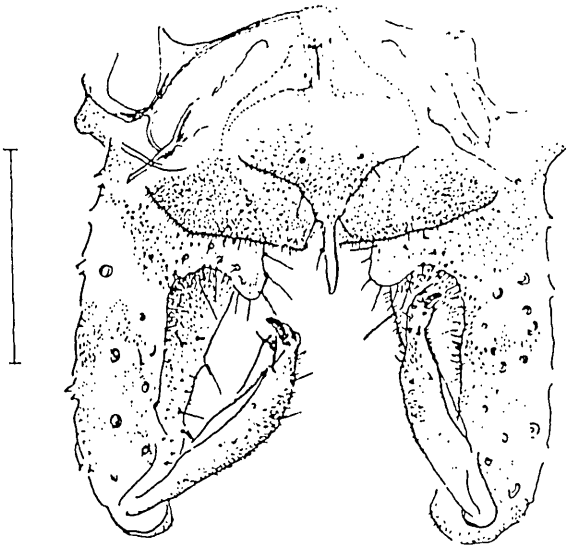


fig 27a:O. saxicola

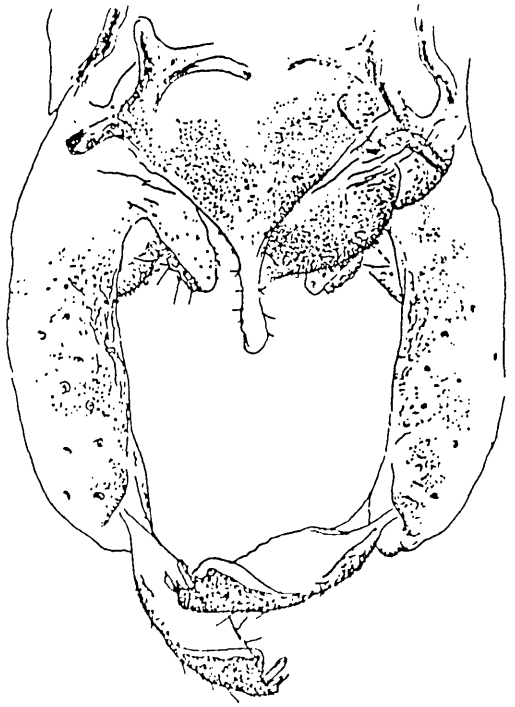


fig 28a: (Eu) Orthocladius frigidus

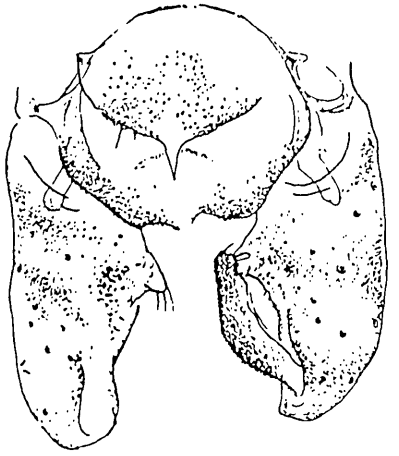


fig:29a: Synorthoclad.

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* paintings from PINDER (1978)
** painting from BRUNDIN(1956)
all others made by P.E. SCHMID (1983)

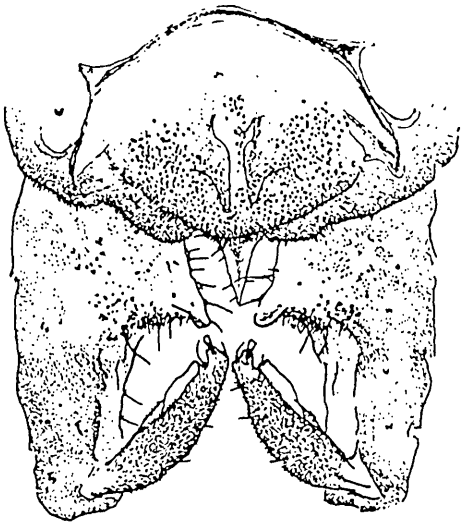

fig 30a: Rheocric. effusus

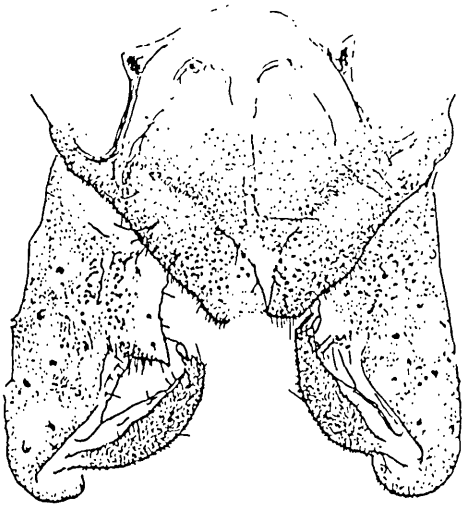

fig 31a: R. fuscus

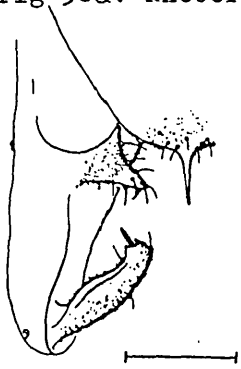

fig 32a: Nanoclad.

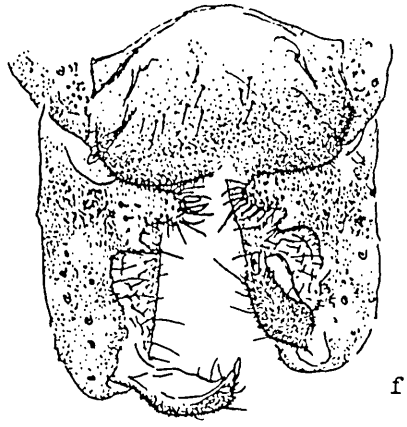

fig 34a: Cricot. curv.

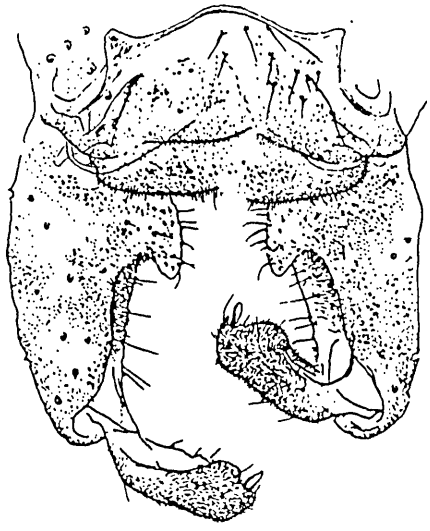

fig 32a1: Paratrichocl. skir.

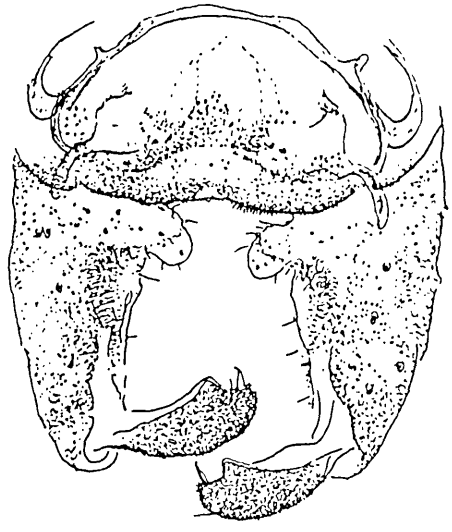

fig 33a: P. rufiventris

*fig 35a: Phaeno.

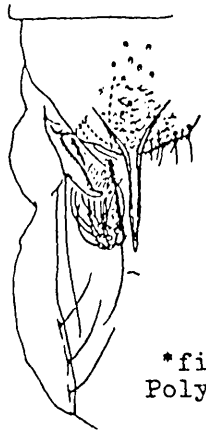

*fig. 37 a: Polyp. alb.

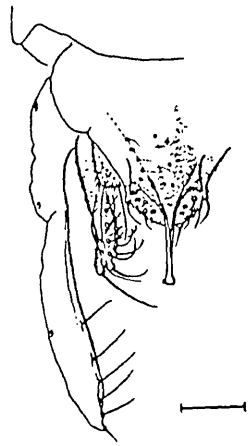

*fig 38a:P. apfelb.

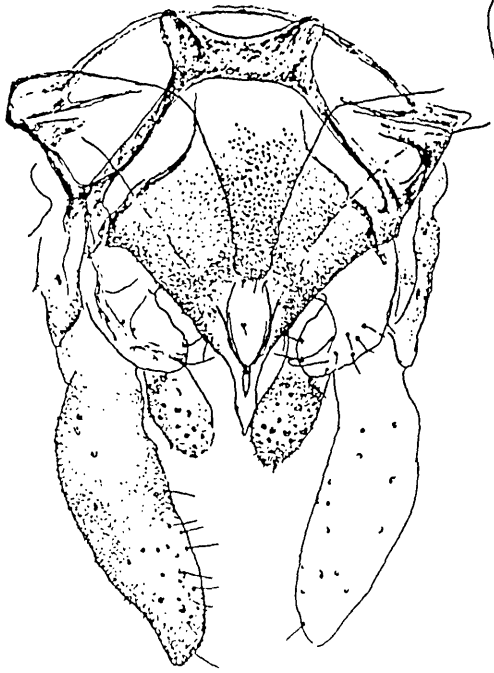

fig 39a: M. notescens

fig 40a: M. atrofasc.

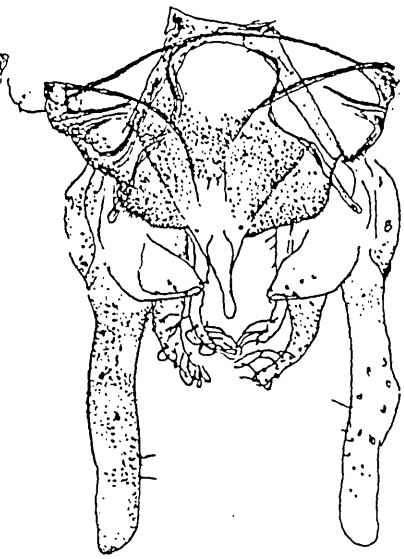

fig 41a: M. atten.

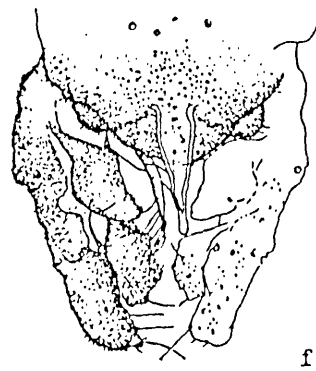

fig 42a Stempel.