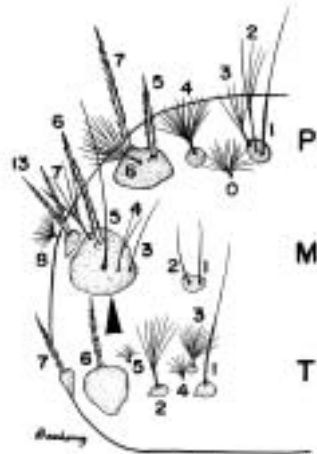
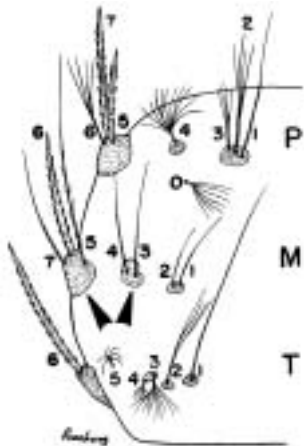


### KEY TO THE SPECIES OF *TOXORHYNCHITES* FOURTH-INSTAR LARVAE AND PUPAE

Characters: Lateral palatal brush with 6-10 thick, simple filaments; comb and pecten absent

Setae 3,4-M and 5-7-M on separate plates

Setae 3-7-M on a common plate



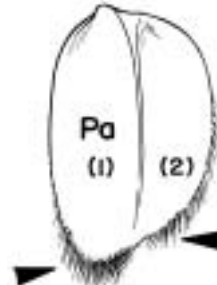
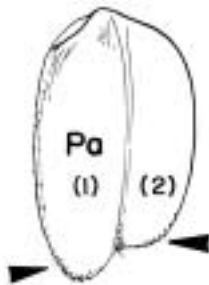
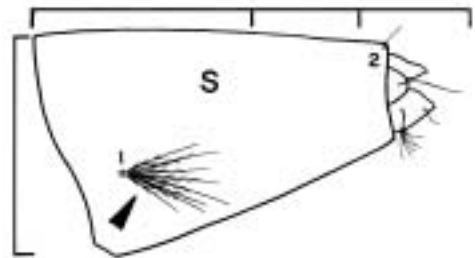
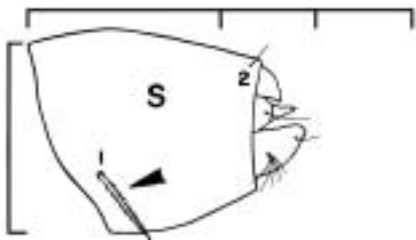
└─▶ To PLATE 2

└─▶ To PLATE 6

From PLATE 1: Setae 3,4-M and 5-7-M on separate plates

1. Head darkly pigmented
2. Siphon short, length same as width at base
3. Seta 1-S stout, single or double (1-3), spinelike
4. Pupa: outer part (1) of paddle distinctly longer than inner part (2), apical margins with short spicules

1. Head moderately dark or lightly pigmented
2. Siphon usually longer than 1.25 width at base
3. Seta 1-S with multiple aciculate branches
4. Pupa: outer part (1) of paddle same length or longer than inner part (2), apical margins with short spicules or fringe of long spicules



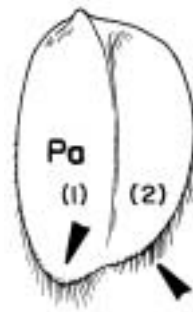
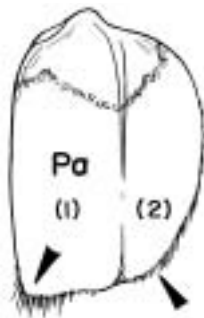
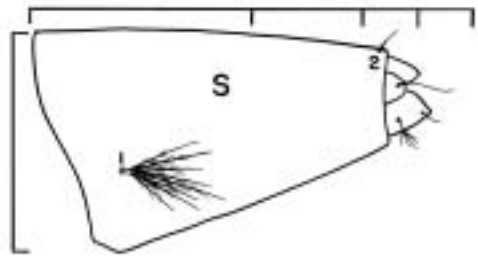
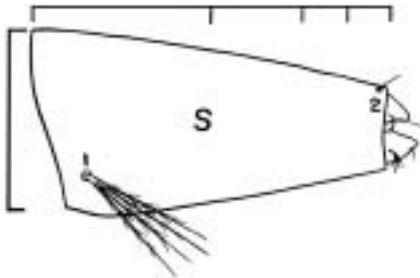
*Tx. albipes* and  
*Tx. species 1* (near *gravelyi*)  
(in part)

➤ To PLATE 3

PLATE 3

From PLATE 2: Head moderately dark or lightly pigmented; siphon usually longer than 1.25 width at base; seta 1-S with multiple aciculate branches; outer part of paddle same length or longer than inner part, apical margins with short spicules or fringe of long spicules

- |  |  |
|--|--|
| <p>1. Siphon darkly pigmented, length equal to or greater than 1.75 width at base, if not so then</p> <p>2. Pupa: outer part (1) of paddle more or less rectangular, caudolateral angle with fringe of spicules; distal margin of inner part (2) with fringe of shorter spicules<sup>a</sup></p> | <p>1. Siphon lightly pigmented, length usually less than 1.75 width at base</p> <p>2. Pupa: paddle otherwise</p> |
|--|--|



*Tx. magnificus*

↳ To PLATE 4

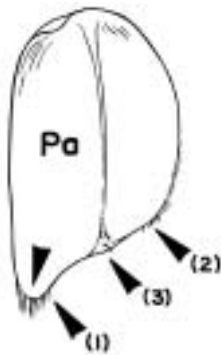
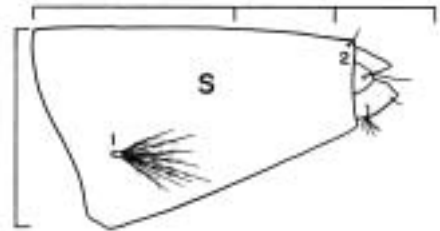
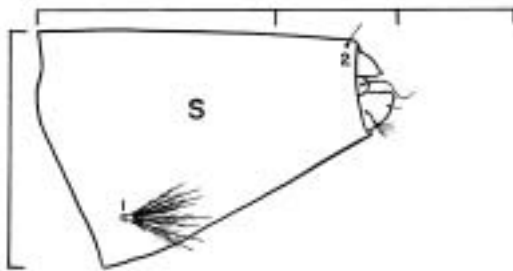
<sup>a</sup> See Edwards (1926: 114).

PLATE 4

From PLATE 3 Siphon lightly pigmented, length usually less than 1.75 width at base; paddle otherwise

1. Siphon length less than 1.5 width at base
2. Pupa: paddle with apex of outer part (1) narrowed and strongly produced and spiculate; distal margin of inner part (2) with short spicules ending before apex of midrib (3)<sup>a</sup>

1. Siphon usually equal to or longer than 1.5 width at base
2. Pupa: paddle with apex of outer part (1) not so strongly produced, evenly rounded, distal margins of inner (2) and outer (1) parts with fringe of short and long spicules



*Tx. species 3* (near *Tx. magnificus*)

↳ To PLATE 5

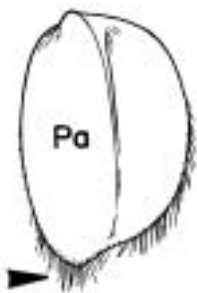
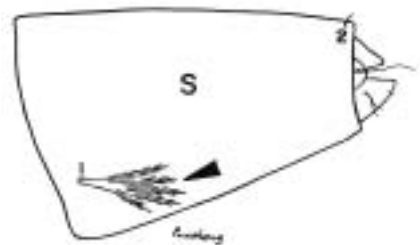
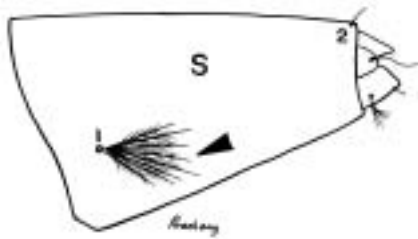
<sup>a</sup>*Toxorhynchites* species near *kempi* of Barraud (1934).

PLATE 5

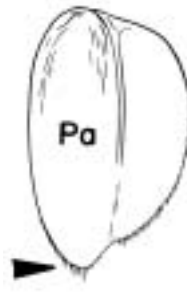
From PLATE 4: Siphon usually equal to or longer than 1.5 width at base; paddle with apex of outer part not so strongly produced, evenly rounded; distal margins of inner and outer parts with fringe of short or long spicules

1. Seta 1-S with multiple aciculate branches
2. Pupa: distal margins of paddle with fringe of long spicules

1. Seta 1-S with 2 or more stout, spiny, blunt tipped branches
2. Pupa: distal margins of paddles with short spicules



*Tx. gravelyi*

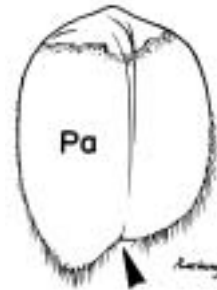
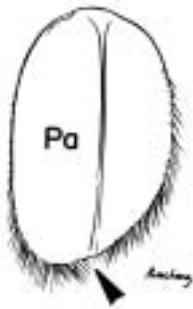
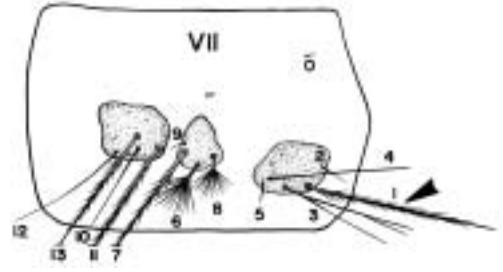
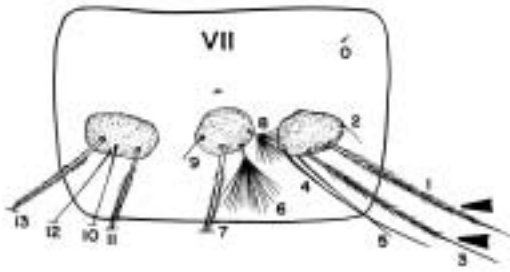


*Tx. species 1 (near Tx. gravelyi)*  
(in part)

From PLATE 1: Setae 3-7-M on a common plate

1. Setae 1- and 3-VII, strong, spinelike
2. Pupa: distal margin of paddle smoothly rounded, with fringe of long spicules

1. Only seta 1-VII strong, spinelike, 3-VII otherwise
2. Pupa: paddle usually emarginate at apex of midrib, distal margins with fringe of short to long spicules



*Tx. splendens*  
and *Tx. amboinensis*

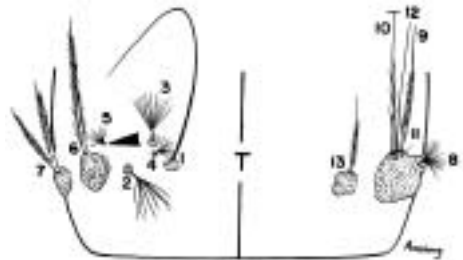
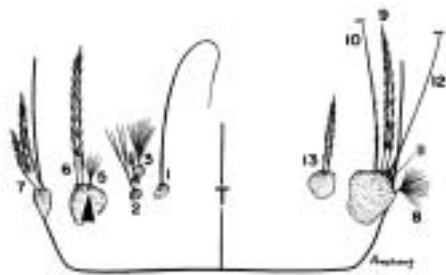
↳ To PLATE 7

PLATE 7

From PLATE 6: Only seta 1-VII strong, spinelike, 3-VII otherwise; paddle usually emarginate at apex of midrib, distal margins with fringe of short to long spicules

Seta 5-T inserted on tubercle with seta 6-T

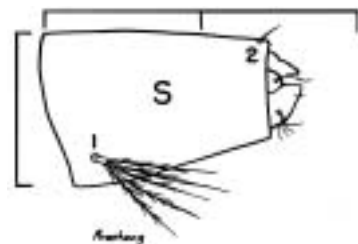
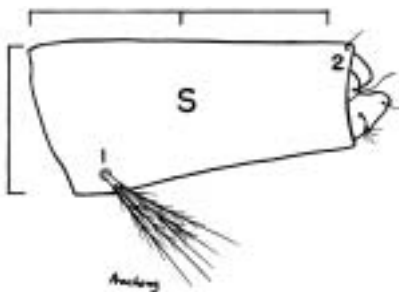
Seta 5-T removed from tubercle bearing seta 6-T



➔ To PLATE 8

Siphon narrow, sides more or less parallel, length equal to or greater than 2.0 width at base

Siphon broad at base, tapered distally, length less than 2.0 width at base



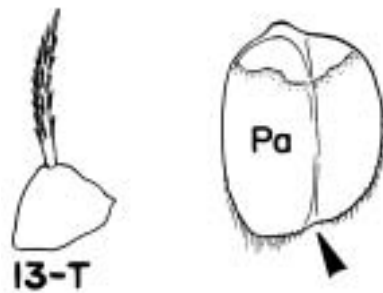
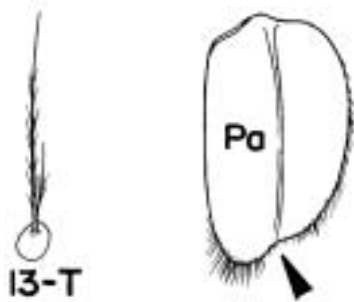
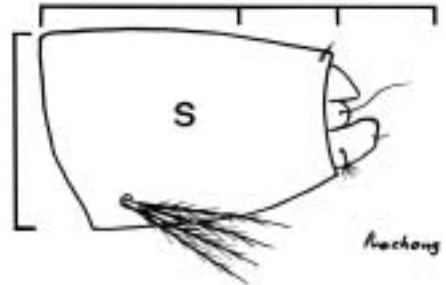
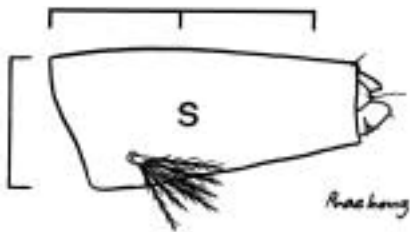
*Tx. manopi*  
and *Tx. species 2* (near *Tx. manopi*)

*Tx. bicklyi* and *Tx. sunthorni*

From PLATE 7: Seta 5-T removed from tubercle bearing seta 6-T

1. Seta 13-T slender, aciculate
2. Siphon length more than 1.5 width at base
3. Pupa: paddle distinctly emarginate at apex of midrib<sup>a</sup>

1. Seta 13-T stout, strongly spinulate
2. Siphon length less than 1.5 width at base
3. Pupa: paddle not distinctly emarginate at apex of midrib



*Tx. leicesteria*

*Tx. species 4<sup>b</sup>*  
(near *leicesteria*)

<sup>a</sup> See Edwards (1926: 114) and *Tx. kempfi* Barraud (1934).

<sup>b</sup> Adult damaged.