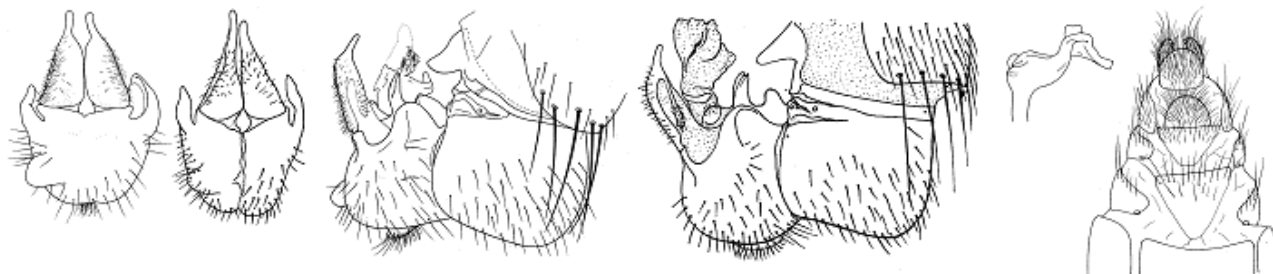


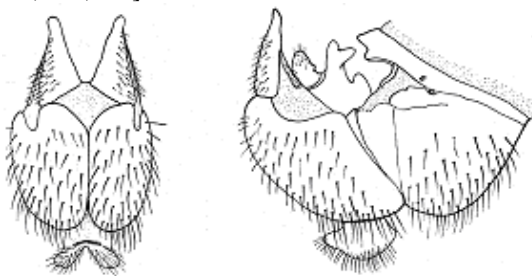
KEY TO THE NEARCTIC SPECIES OF *TETANOCERA*

Modified 11/2010 by William L. Murphy from Fisher & Orth (1983), Foote & Keiper (2004), and Steyskal (1959)

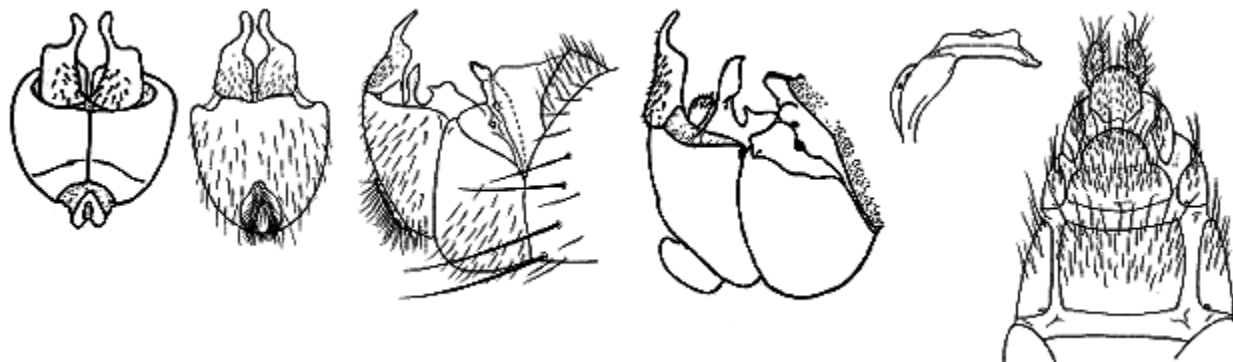
1. Posterior surface of middle femur with 2-3 preapical bristles (weak in *annae*); wing without streaks or spots in cells; stump veins absent; prosternum bare or sparsely setose; scutellum convex on dorsum; dark orbitoantennal spot absent [*robusta*, *annae*].....2
- Posterior surface of middle femur with 1 or 0 preapical bristles; wings sometimes with dark markings in cells and often with stump veins on R₄₊₅. Prosternum bare.3
2. Prosternum sparsely setose; posterior femur without posterodorsal apical bristle; epandrium asymmetrical, with papilla on dextral side [AK s to NM e to ND, WI, MI].....***T. robusta* Loew**



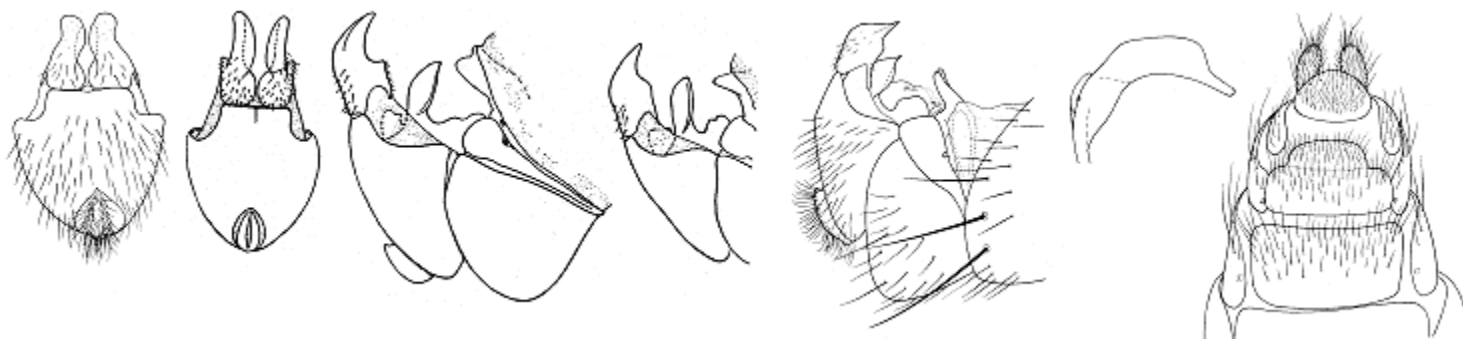
- Prosternum bare; posterior femur with posterodorsal preapical bristle; epandrium symmetrical, without papilla [BC, ON, WI, MI, IN, OH, NY, NH, CT] ***T. annae* Steyskal**



3. Posterior surface of middle femur with 1 preapical bristle; crossvein dm-cu strongly S-curved, scutellum somewhat flattened dorsally with slight anterior ridge [*arnaudi*, *latifibula*, *loewi*, *mesopora*, *obtusifibula*, *plumosa*, *spreta*, *vicina*]4
- Posterior surface of middle femur with small hairs only; crossvein dm-cu variable [18 species] 11
4. Parafacial area with hairs well above halfway between lower margin of eye and border of antennal socket; blackish orbitoantennal spot present; arisal hairs dense and black; abdomen with middorsal brown stripe; wings with distinct costal browning [*plumosa*, *vicina*].5
- Parafacial area with hairs extending less than halfway from lower margin of eye to border of antennal socket [*arnaudi*, *latifibula*, *loewi*, *mesopora*, *obtusifibula*, *spreta*] 6
5. R₄₊₅ usually with stump veins; surstyli tapered and slightly hooked apically [BC e to NF s to NC w to CA]***T. vicina* Macquart**



- R₄₊₅ usually without stump veins; surstyli rounded and not hooked apically [Nearctic. Transcontinental AK e to NS, s to NC, w to CA]..... ***T. plumosa* Loew**

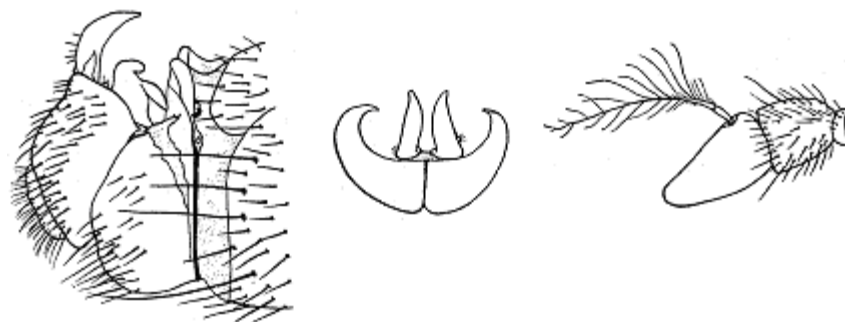


6. Parts of fore tibia and all of fore tarsus black [*spreti*, *arnaudi*]..... 7

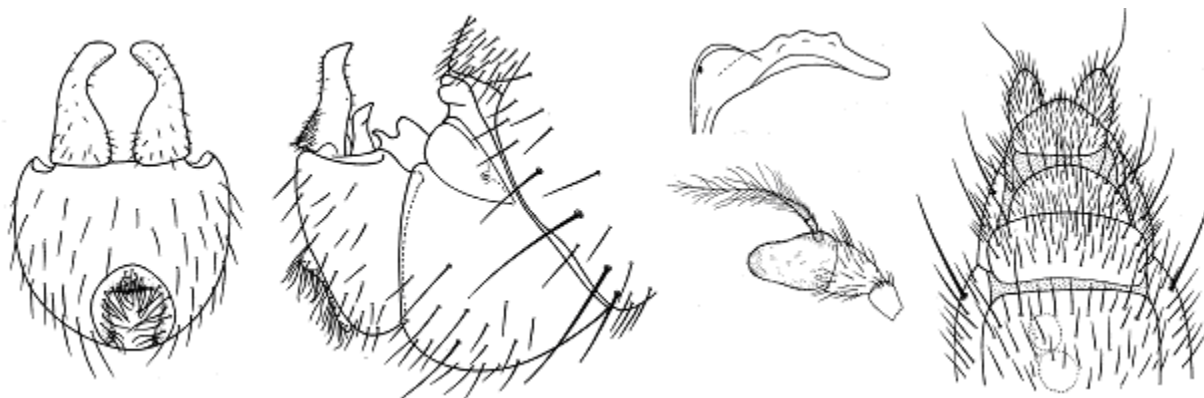
- Fore tibia wholly tawny; abdomen dorsally concolorous [*latifibula*, *loewi*, *mesopora*, *obtusifibula*]..... 8

7. Apical 1/7 of fore tibia black; arisal hairs sparse; abdomen with middorsal brown stripe; male terminalia very small with simple, curved surstyli [Mexico] ***T. spreti* Van der Wulp**

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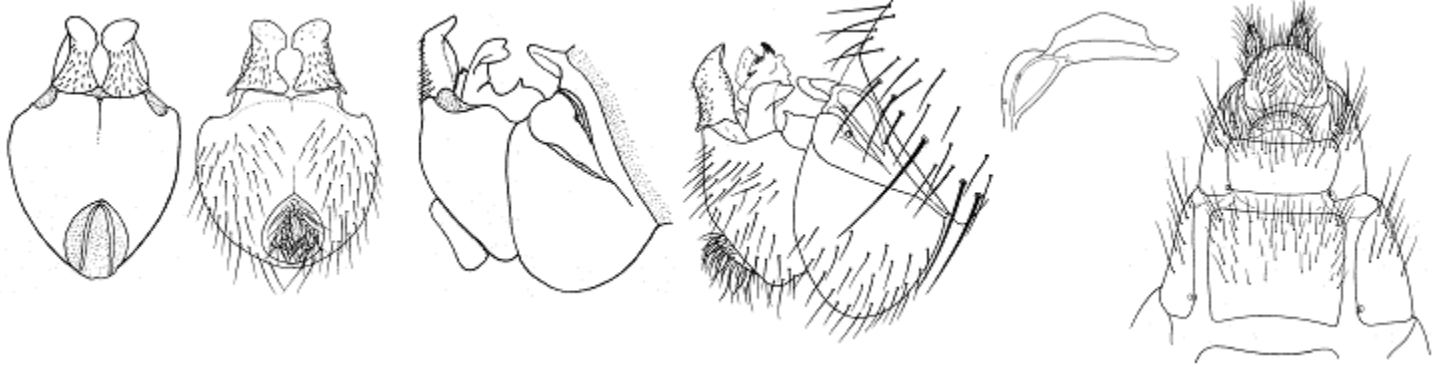
- Apical 1/3 of fore tibia black, abdomen dorsally concolorous [CO]..... ***T. arnaudi* Fisher and Orth**



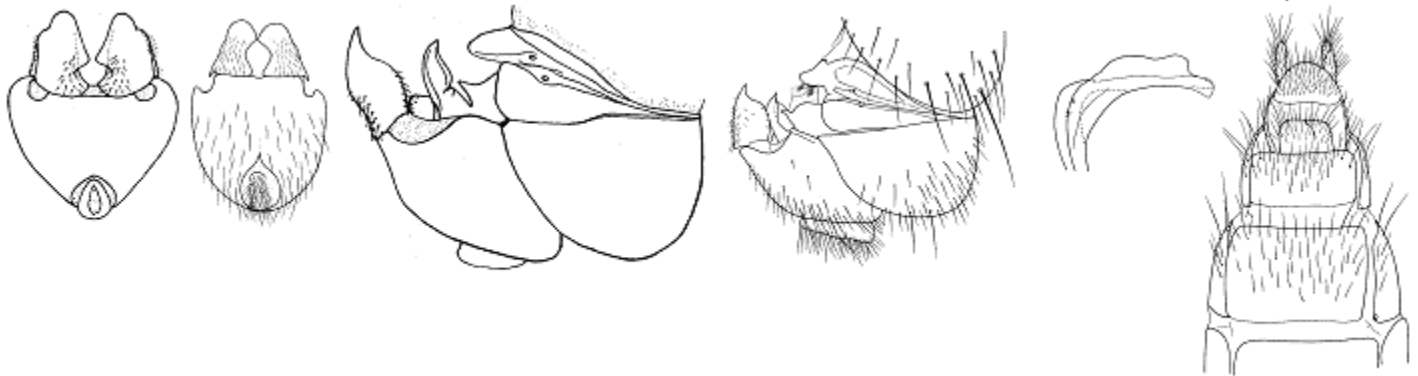
8. Arisal hairs especially dense and black; orbitoantennal spot usually large and black [*obtusifibula*, *loewi*]..... 9

- Arisal plumosity sparse; orbitoantennal spot usually faint or lacking; wings without definite costal browning [*latifibula*, *mesopora*]..... 10

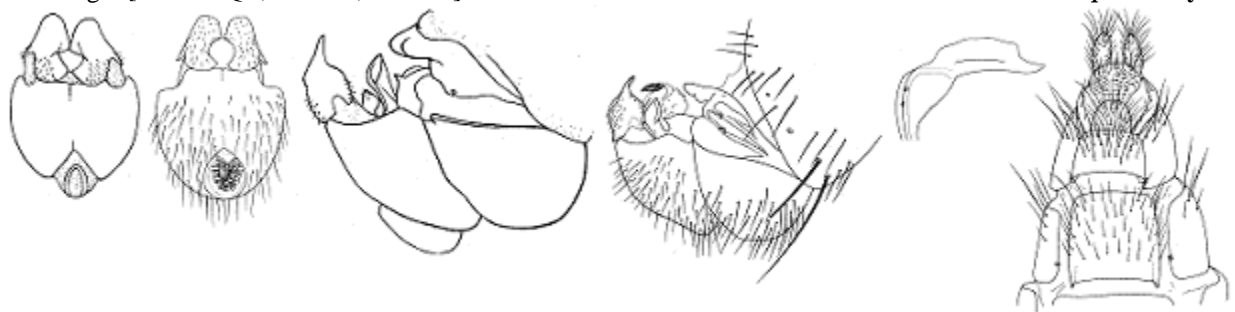
9. 3rd antennal segment usually blackish laterally at insertion of arista; surstyli abruptly angulate apically [BC, WA, OR, CA, ID] *T. obtusifibula* Melander



- Interfrontal stripe teardrop-shaped, narrower near ocelli. Wings with strong costal browning; bristles on posteroventral surface of fore femur slightly more than half as long as greatest diameter of femur, much shorter in basal third of femur; surstyli curved to an abrupt point, basal margin straight. *Female*: 8th sternite tubular [Nearctic. ON, WI, MI, IN, KY, OH, NY, CO, CA] *T. loewi* Steyskal



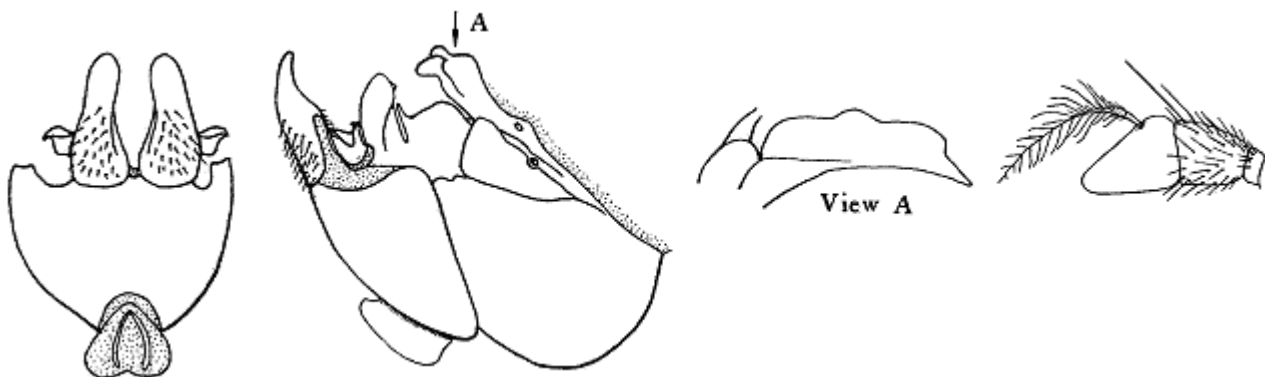
10. Longest bristles on posteroventral surface of fore femur as long as greatest diameter of femur; posterior process of hypandrium gently curved forward; surstyli bent apically forming a point, invaded by membrane at basal margin [SK e to QC, s to NY, e to CO] *T. mesopora* Steyskal



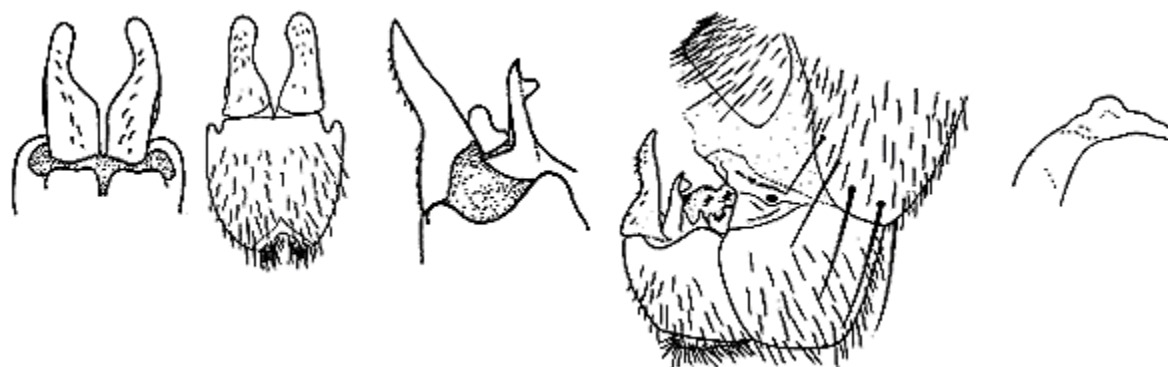
- Bristles on posteroventral surface of fore femur poorly developed, much less than half as long as greatest diameter of femur; posterior process of hypandrium strongly curved forward with rounded tip; surstyli straight on basal margin [AK, AB, UT, ND, SD] *T. latifibula* Frey



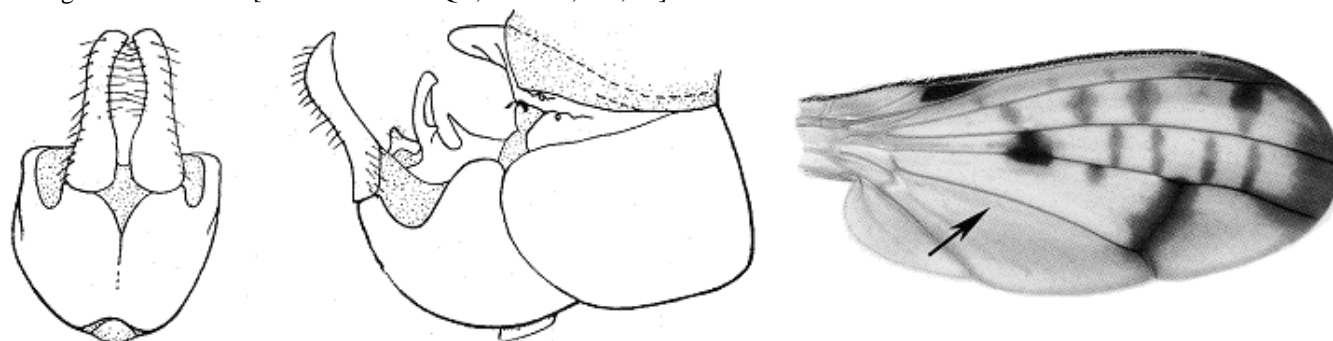
11. Hind femur with posterodorsal bristle opposite or nearly opposite apical anterodorsal bristle; arista plumosity long but sparse. NOTE *plebeja* sometimes will fit this description; see rubric 20 [*montana*, *rotundicornis*]..... 12
- Hind femur without posterodorsal bristle; arista plumosity various (see note at 11) 13
12. Crossvein dm-cu S-curved; R_{4+5} without stump veins; arista with long 2nd segment [Holarctic. AK s to BC and WY, e to ON, WI, MI, OH, NY] ***T. montana* Day**



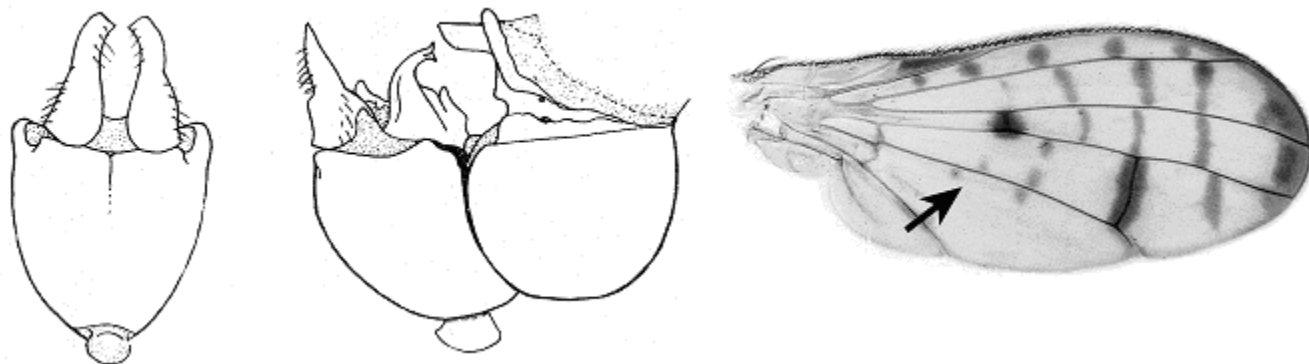
- Crossvein dm-cu nearly straight; R_{4+5} often with stump veins [Nearctic. Transcontinental s to UT, TN, NC] ***T. rotundicornis* Loew**



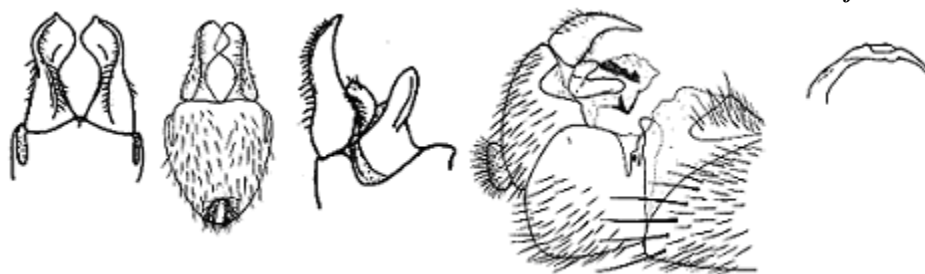
13. Wings with heavy pattern; interfrontal stripe broad, polished, convex [*clara*, *valida*] 14
- Wings without pattern except sometimes streak in 1st posterior cell and cloud in 2nd posterior cell (see illustration of wing, rubric 38) [14 species]..... 15
14. No spots along M_{1+2} ; surstyli narrow, sickle-shaped in lateral view. *Female*: postabdomen like plumosa, with slight median notch [Nearctic. ON to QC, s to GA, TN, IL]..... ***T. clara* Loew**



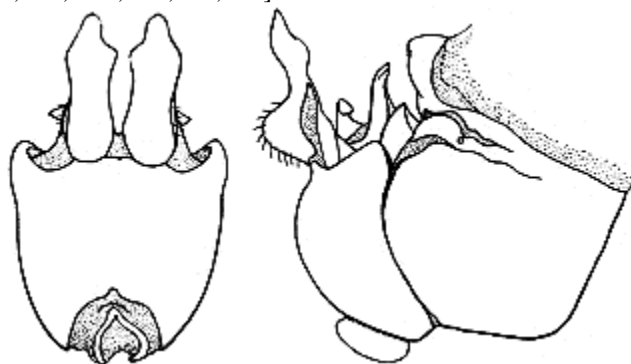
- Spots along both sides of M_{1+2} ; surstyli triangular in lateral view [Nearctic. NF to BC, s to CT, IN, IL, CO] *T. valida* Loew



15. Interfrontal stripe not sharply demarcated, forming broad triangular dully shining area anterior to ocelli; costal margin not browned; normally without stump veins [Holarctic. AK to NF, s to CT, OH, IN, AZ] *T. fuscinervis* Zetterstedt



- Interfrontal stripe more or less parallel-sided; if indistinct not consisting of triangular dully shining area 16
16. Anterior margin of front shining, slightly inflated, connecting shining interfrontal and parafrontal stripes to form an E-shaped pattern [AK, BC, MB, AB, LB; SD] *T. silvatica* Meigen



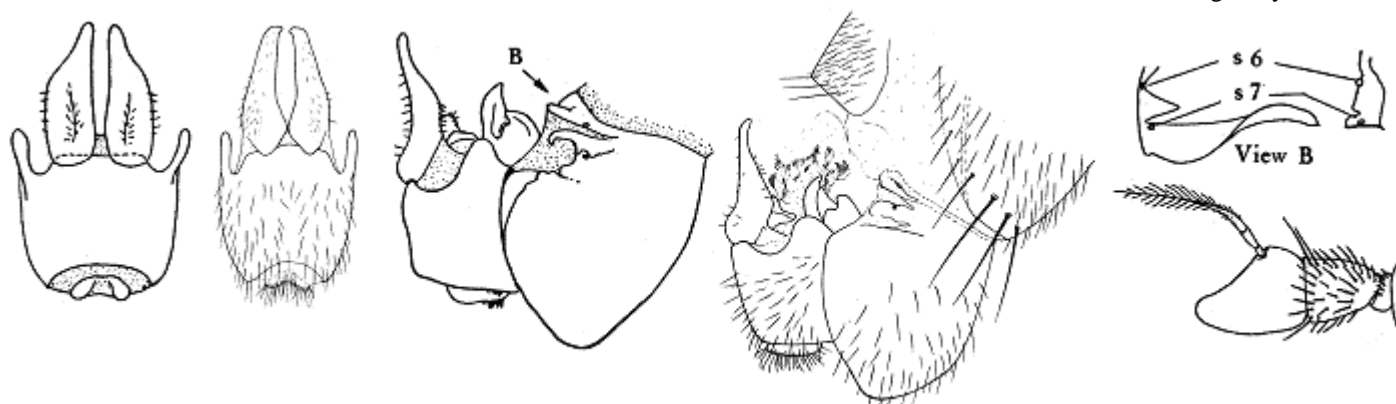
- Anterior margin of frons matt 17
17. Interfrontal stripe narrow, ending well before anterior margin of frons, or indistinct; wings concolorous, without stump veins, crossvein dm-cu straight or slightly arcuate; dorsal protandrial profile rather squarish [*andromastos*, *bergi*, *ferruginea*] 18
- Interfrontal stripe robust, extending to or nearly to anterior margin of frons; other characters variable 20

18. Hairs of anterior front longer than diameter of an ocellus; arista with long, loose, sparse hairs; surstyli with thin erect mediobasal laminae; 4th sternite lacking papillae [Holarctic. AK to NF, s to CA, IN, OH, NJ].....
..... *T. ferruginea* Fallén

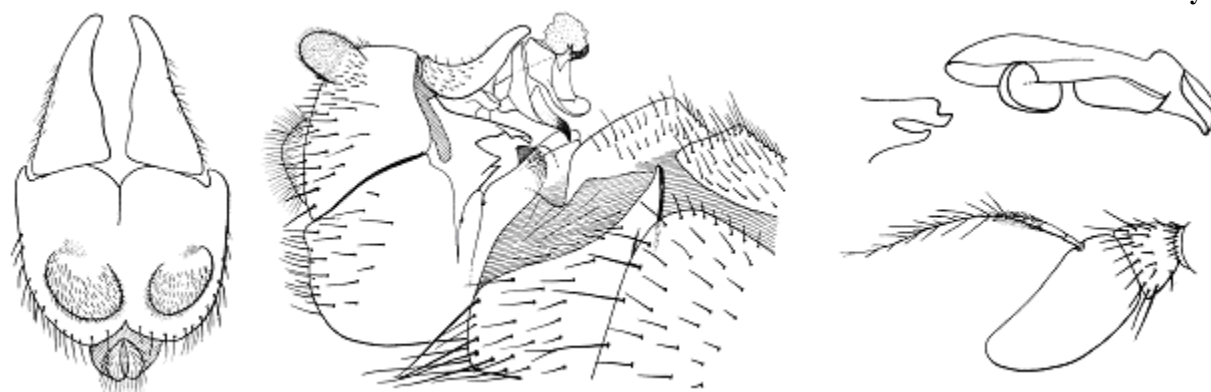


- Hairs of anterior front indistinct, shorter than diameter of an ocellus; arista hairs short, 2nd arista segment long; surstyli without laminae. 19

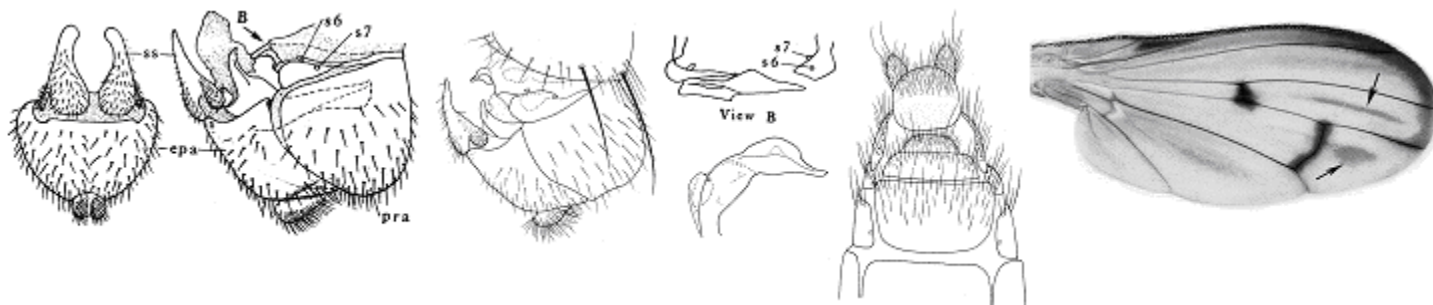
19. Protandrium with large anteroventral lobe; 4th sternite with pair of setose papillae [AK, BC, AB, MB]
..... *T. bergi* Steyskal



- Epandrium bearing conspicuous pair of mammiform protuberances halfway between cerci and base of surstyli; sternite 6 with flat lamina narrowly separated from a deeply cupped lobe [Churchill MB].....
..... *T. andromastos* Steyskal



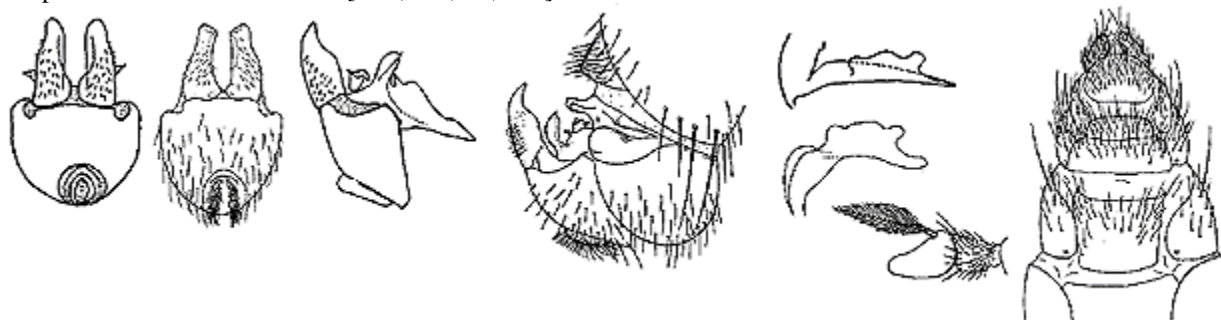
20. Interfrontal stripe broad, polished, reaching anterior margin of frons; parafrontal stripes also broad and polished; orbitoantennal spot usually absent; arisal hairs long; 2nd antennal segment approximately 0.7x length of 3rd segment; wings usually without stump veins; wingtip and crossveins dark; 2nd posterior cell usually with dark central cloud; *male*: surstyli narrow, slightly curved, with anterobasal patch of setulae. *Female*: medifacies shining, without pruinosity [Nearctic. Transcontinental AK s to CT, IN, AZ, CA] *T. plebeja* Loew



- Interfrontal and parafrontal stripes neither especially shining nor broad, although well developed. *Female*: medifacies pruinose 21

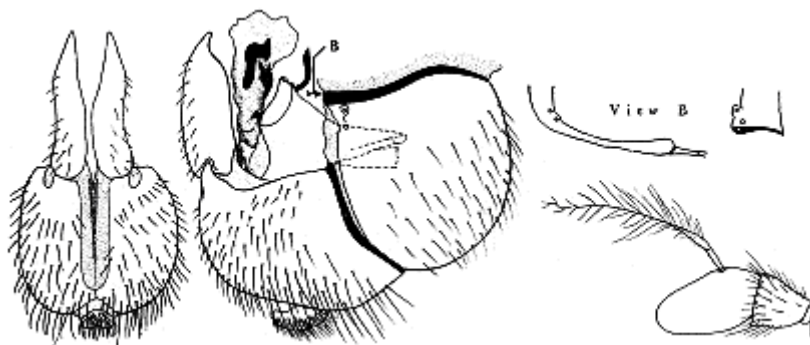
NOTE: From this point on, determination is confirmed only by examination of the male postabdomen.

21. Arisal hairs rather dense and black, longish; 2nd antennal segment approximately 0.6x length of 3rd antennal segment, which is definitely concave on dorsal profile; parafrontals with hairs extending at least halfway from lower margin of eyes to antennal sockets; orbitoantennal spot present; wings without stump veins on M_{1+2} ; protandrial sternite trilobate [WA, OR, ID, MT] *T. soror* Melander



- Arisal hairs sparser, shorter, or paler; if rather dense and black, 2nd antennal segment less than half the length of 3rd segment, which seldom is concave in dorsal profile. 22

22. Second segment of arista more than 3x as long as wide; arisal hairs rather long but quite sparse; orbitoantennal spot lacking; wings without stump veins; epandrium with strip of membrane mesally between surstyli and anus [AB] *T. stricklandi* Steyskal

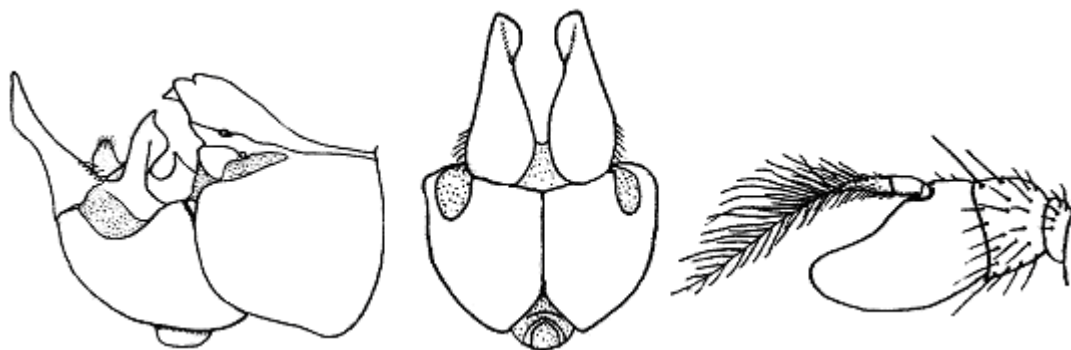


- Second segment of arista less than 3x as long as wide; epandrium completely closed between surstyli and anus 23

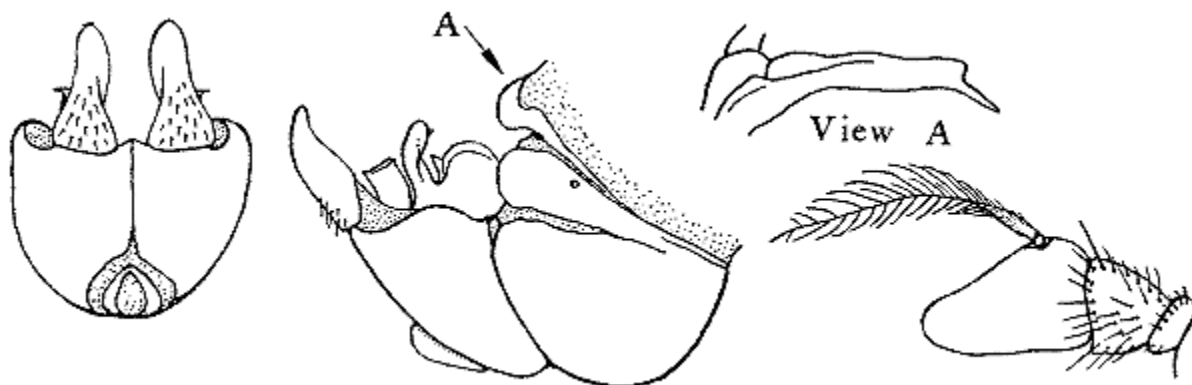
23. Orbits with or without spot usually present [sometimes absent in *spirifera*]; arista with rather short hairs; wings with costal browning, without stump veins; thoracic dorsum without strong brown stripes [*ornatifrons*, *spirifera*].....24

— Orbits with or without spot lacking. NOTE: *rotundicornis* will sometimes fit this description, cf. rubric 12 [*brevisetosa*, *melanostigma*, *oxia*, *phyllophora*].....25

24. Wings with costal browning strong, including stigmal area; crossvein dm-cu straight. Penultimate tergite with conspicuous dorsal bump [NT, BC, AB, SK, MB; MT, SD] ***T. spirifera* Melander**



— Wings with costal browning weak, not including stigma; crossvein dm-cu straight [AK, NT, AB, MB, QC, LB; NH] ***T. ornatifrons* Frey**

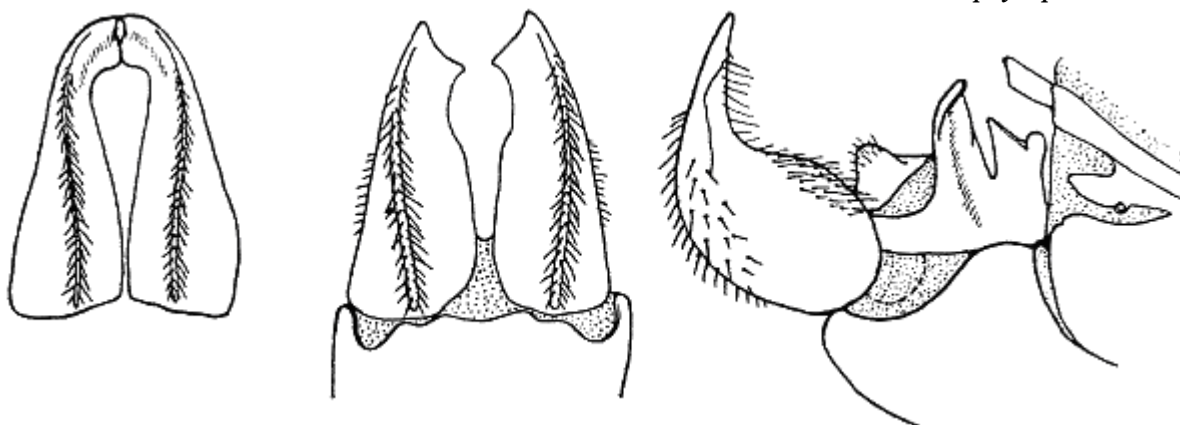


25. Arista with plumosity very short; wings without costal browning or stump veins [AK] ***T. brevisetosa* Frey**

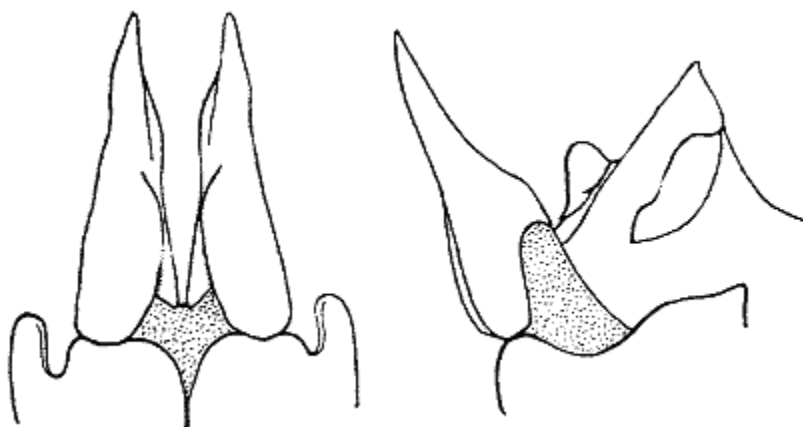


— Arista with plumosity moderately long; wings with costal browning and usually with at least 1 stump vein on R₄₊₅26

26. Second antennal segment 1.5x as high as long; costal browning only distad of crossvein dm-cu; usually 1 stump vein on posterior side of apical section of M_{1+2} , sometimes also 1 stump vein on penultimate section; surstyli large, strongly curved, with setulose posterior ridge [AK, BC, AB, ON, MI, VT, NH, NS, CO, NM].....
 *T. phyllophora* Melander



- Second antennal segment as long as high, at least half as long as 3rd segment; usually at least 1 stump vein on penultimate section of M_{1+2} , sometimes also on apical section; costal browning extending proximad to tip of auxiliary vein [*melanostigma*, *oxia*] 27
27. Stigma light brown; dorsum of thorax with faint stripes (may be lacking); surstyli broad basally tapering to acute point, mediobasal carina present; ventral margin of epandrium with arcuate emargination. *Female*: postabdomen like *plumosa/vicina* [Nearctic. BC e to NF; CO, CT, MI, MN, MT, NY, OH, WY]
 *T. oxia* Steyskal



- Stigma dark brown; dorsum of thorax with distinct brown stripes or none; surstyli in ventral view rounded at tip, in lateral view forming acute, slightly curved triangle; mediobasal carina absent; ventral margin of epandrium with angular emargination [Nearctic. SK to NF, s to CT, IN, IL, CO]..... *T. melanostigma* Steyskal

