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## ***Platypalpus aliterolamellatus* Kovalev (Diptera, Hybotidae) new to Britain and Norway**

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### **Summary**

The hybotid *Platypalpus aliterolamellatus* Kovalev, 1971 is recorded as a species new to the British Isles and Norway based on material obtained from exposed riverine sediments. The key to British *Platypalpus* is modified to accommodate this species.

### **Introduction**

Whilst collecting flies from river shingle on the River Tummel in 2015, I swept two female specimens of *Platypalpus aliterolamellatus* Kovalev, 1971, which were identified using the key published by Grootaert and Chvála (1992). This is the first record of this species in Britain. Both specimens were swept from the vegetated sand and shingle toe of Ballinluig Shingle Island (NN9753, Mid-Perthshire V.C. 88) on 9.vii.2015. Ballinluig Island is an extensive deposit of cobble, shingle and sand with various stages of vegetational development from bare substrate to closed canopy woodland. The site is well-known for its diverse assemblage of specialist insects of exposed riverine sediments. Other species of *Platypalpus* collected from the immediate area were *P. candicans* (Fallén) and *P. interstinctus* (Collin), whilst a single *P. optivus* (Collin) was swept off thinly vegetated loose sand higher up the bar; *P. minutus* (Meigen), *P. notatus* (Meigen), *P. pallidiventris* (Meigen), *P. albifacies* (Collin) and *P. interstinctus* were collected off nearby cobbles with scattered vegetation.

### **Distribution and ecology**

*Platypalpus aliterolamellatus* was described from the St Petersburg area of north European Russia (Kovalev 1971). Merz and Chvála (1998) illustrated the male genitalia (Fig. 1) and gave further records from the region of Styria in Austria, and from Switzerland where specimens were swept from undergrowth in moist forest on sandy soils subject to periodic riverine flooding. Chvála (1989) additionally reported the species from central parts of European Russia and it is also recorded from Sweden (Hellqvist, S. 2013). In addition to the Ballinluig specimens, I also collected *P. aliterolamellatus* from two sites in Norway in 2015: a single female was swept from vegetation on a river sand/shingle bar near Rognes (63.0158, 10.3872) on 23.vii.2015, and a single male from rough grassland near Heligskogen (69.2712, 19.9324) on 29.vii.2015. These latter records appear to be the first for Norway.

Although habitat information is sparse, there is some indication that *P. aliterolamellatus* may have some affiliation with vegetated, exposed riverine sediments.

### **Identification**

*Platypalpus aliterolamellatus* belongs in the *P. pallidiventris* – *P. cursitans* group of Chvála (1989 *op. cit.*), which have a black thorax, one pair of vertical bristles, mesonotum dusted, a single humeral bristle present and mid femora with posteroventral bristles. Using Plant (2012) one is taken to Key E – species with black thorax, one pair of vertical setae, scutum distinctly dusted and basal antennal segments dark. Specimens of *P. aliterolamellatus* then run to the couplet separating *P. cothurnatus* from *P. cryptospina*. *Platypalpus aliterolamellatus* differs from *P. cothurnatus* in not having a distinctly yellowish wing membrane and the tibial spur is pointed not blunt. *Platypalpus cryptospina* differs from *P. aliterolamellatus* in having tarsi with distinct annulations (yellow with apical two segments somewhat darkened in *P. aliterolamellatus*), the two rows of acrostichal bristles closer together and vertical bristles dark (yellowish in *aliterolamellatus*). Plant’s key to British *Platypalpus* in group E is reproduced here with alterations made to accommodate *P. aliterolamellatus*.

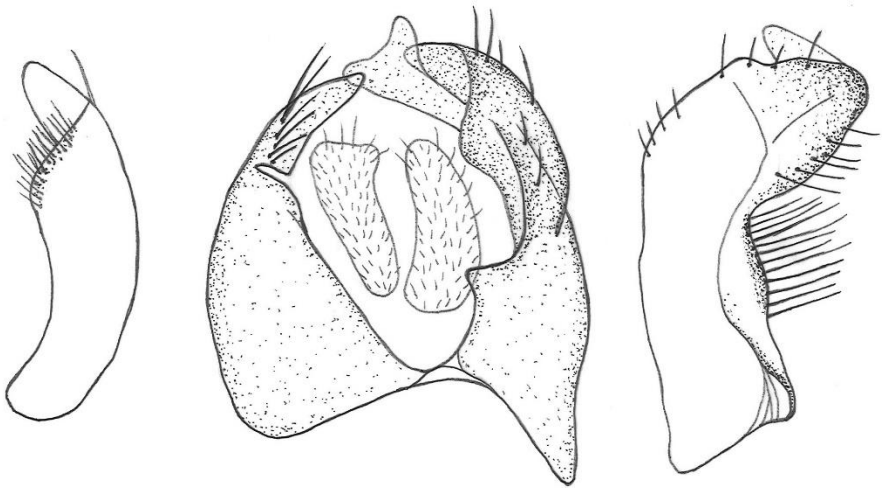
**Key to British species of *Platypalpus* with black thorax, one pair of vertical setae, scutum distinctly dusted and basal antennal segments dark (Plant 2012) modified to include *P. aliterolamellatus*.**

1. F<sub>2</sub> without *pv* bristles behind the double row of small black ventral spines; *acr* and *dc* minute; tarsi yellow or with only apical tarsomere dark.....**2**
  - F<sub>2</sub> with distinct *pv* bristles behind the double row of small black ventral spines; *acr* and *dc* moderately long; tarsi distinctly annulated or with apical 1-2 tarsomeres darkened .....**3**
2. T<sub>2</sub> with long sharply pointed apical spur about as long as limb is deep; postpedicel 3X as long as wide, stylus thickened; tarsi completely yellow.....**aristatus (Collin)**
  - T<sub>2</sub> with blunt apical spur about as long as limb is deep; postpedicel 2-2.5X as long as deep, stylus slender; apical tarsomere black.....**tonsus (Collin)**
3. T<sub>2</sub> with apical spur shorter than tibia is deep or if about as long, then blunt tipped.....**4**
  - T<sub>2</sub> with apical spur large, sharply pointed, longer than limb is deep.....**6**  
[species with a blunt-tipped spur about as long as limb is deep are keyed both ways]
4. Wing membrane distinctly yellowish; T<sub>2</sub> with apical spur about as long as limb is wide, blunt, male with tiny spine at tip; apical tarsomeres dark.....**cothurnatus Macquart**
  - Wing membrane clear or faintly brownish; T<sub>2</sub> with apical spur very small and pointed; tarsi annulated or entirely yellow or with apical tarsomeres darkened .....**5**
5. Tarsi with distinct dark annulations; the two rows of *acr* close together; *vt* bristles dark .....**cryptospina (Frey)**
  - Tarsi yellow or with apical 1-2 tarsomeres darkened, no annulations; *acr* wider apart; *vt* bristles yellowish.....**aliterolamellatus Kovalev**
6. T<sub>2</sub> with apical spur only about as long as limb is wide, blunt, male with tiny spine at tip. Wing membrane distinctly yellowish; apical 1-2 tarsomeres of all legs dark .....**cothurnatus Macquart**
  - T<sub>2</sub> with apical spur long, sharply pointed (other characters various) .....**7**
7. Larger thoracic bristles black .....**8**
  - Larger thoracic bristles yellowish to brownish.....**9**

8. Legs extensively darkened, coxae black; T<sub>2</sub> with apical spur sharply pointed (*acr* clearly 4-serial at front).....***melancholicus* (Collin)**  
 - Legs extensively yellowish, coxae yellow; T<sub>2</sub> blunter tipped with minute spine and even smaller hair apically (*acr* usually 4-serial but sometimes 2 or 3 serial in part)  
 .....***optivus* (Collin)**
9. Scutum with *acr* 4-serial, at least in front; legs usually extensively darkened; F<sub>1</sub> usually not much narrower than F<sub>2</sub>.....**10**  
 - Scutum with *acr* 2-serial [care! *P. notatus* can have a few extra *acr* and appear 4-serial in part]; legs yellowish or extensively darkened; F<sub>1</sub> sometimes obviously narrower than F<sub>2</sub>  
 .....**11**
10. Large thoracic bristles yellowish; *acr* rather long; usually 4-serial throughout; legs usually paler with C<sub>2</sub>, C<sub>3</sub>, C<sub>1</sub> at base, rather broad rings on all femora and tip of T<sub>1</sub> and T<sub>3</sub> darkened; hind trochanter usually yellowish; tarsi very strongly dark annulated; wing membrane vaguely darkened; veins brown; smaller species (2.3-3.3 mm)  
 .....***annulatus* (Fallén)**  
 - Large thoracic bristles brownish to black; *acr* shorter, usually 2-serial about middle and posteriorly; legs more extensively darkened with all coxae and all femora (except at tip) strongly darkened; hind trochanter darkened; tarsi less strongly annulated (tarsomeres with dark apical part less abruptly divided from paler basal part); wing membrane distinctly brownish; larger species (2.9-3.8 mm) .....***melancholicus* (Collin)**
11. Antenna with postpedicel at least 2.5X long as deep, stylus about as long or slightly longer than postpedicel.....**12**  
 - Antenna with postpedicel shorter, no more than 2X long as deep, stylus obviously longer than postpedicel.....**17**
12. Abdomen polished black, sometimes with small patches of grey dusting laterally on tergites 1 and 2 .....**13**  
 - Abdomen with distinct patches of grey dusting on all tergites basally .....**15**
13. *Vt* setae closer together (hardly 1.5X width of frons by anterior ocellus); F<sub>2</sub> not much stouter than F<sub>1</sub>; tergites 1 and 2 with small lateral patches of dusting; tarsi faintly annulated but apical tarsomere black; legs otherwise yellow with conspicuous black 'knees'  
 .....***infectus* (Collin)**  
 - *Vt* setae wider apart (about 2X width of frons by anterior ocellus); F<sub>2</sub> not much stouter than F<sub>1</sub>; abdomen entirely shining black; legs yellowish or extensively darkened but always with distinct annulated tarsi.....**14**
14. Legs extensively darkened; at least C<sub>2</sub>, C<sub>3</sub>, C<sub>1</sub> at base, F<sub>2</sub> and F<sub>3</sub> apically dark [paler individuals occur, their coxae are dark at least about the base, F<sub>2</sub> and F<sub>3</sub> have at least a dark dorsal patch or median ring]; face narrower than frons anteriorly; *vt* setae pale  
 .....***notatus* (Meigen)**  
 - Legs extensively yellowish [pale yellow to orange]; C<sub>2</sub>, C<sub>3</sub> at most dark basally, F<sub>2</sub> and F<sub>3</sub> sometimes with faintly dark ring or apex; frons broader, similar width as face; *vt* setae brownish..... ***strigifrons* (Zetterstedt)**

[very pale examples of *P. notatus* can be confused with dark specimens of *P. strigifrons* and determination should be confirmed by genitalia examination; *P. notatus* is common and widespread whereas *P. strigifrons* is confined to sand dunes]

15. Legs yellow (including coxae); basal antennal segments sometimes dark reddish brown [some individuals recall dark examples of *P. pallidiventris* but in that species the anterior notopleural is developed] .....***praecinctus* (Collin)**  
 - Legs obviously darkened on coxae and femora.....**16**
16. Antenna entirely dark; *acr* irregularly 2-3 serial; stylus of equal length to postpedicel (male) or slightly longer (female).....***carteri* (Collin)**  
 - Antenna with basal segments reddish yellow; *acr* regularly 2 serial; stylus 1.5X length of postpedicel .....***latemi* Grootaert**  
 [specimens conforming with *P. latemi* have been found in Britain. It has not been admitted formally to the British list and since first describing the species, Grootaert has expressed doubts that it is a valid species. It may be a dark form of *P. praecinctus*]
17. Smaller (1.5-2.6 mm); palpi smaller, greyish yellow [can be quite dark]; clypeus polished black; antenna with postpedicel only slightly longer than wide; legs yellow (including coxae and femora), tarsi annulated; *vt* setae wider apart; dusting on scutum tinged golden yellow.....***clarandus* (Collin)**  
 - Larger (2.4-3.6 mm); palpi quite large, brownish; clypeus dusted silvery grey; antenna with postpedicel 1.5X as long as wide; legs usually with dark markings on femora; *vt* setae closer together; dusting on scutum tinged brownish grey.....**18**



**Fig. 1. Male genitalia of *Platypalpus aliterolamellatus* Kovalev 1971 (adapted from Merz and Chvála 1998) – left to right: right perianthial lamella, perianthium with cerci, left perianthial lamella.**

18. Palpi clearly longer than broad; *acr* less numerous, the 2-serial rows conspicuously wide apart; male T<sub>1</sub> not spindle-shaped, with short ventral hair ..... ***interstinctus* (Collin)**  
 - Palpi broadly ovate, hardly longer than broad; *acr* more numerous, the 2-serial rows closer together; male T<sub>1</sub> spindle-shaped, with longer *pv* bristles and a few bristly hairs dorsally ..... ***pseudofulvipes* (Frey)**

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