

Fig. 7: Quilla mesosternal en visión lateral de *Speocharis avicularis* SALG. (a); *S. amicalis amicalis* SALG. (b) y *S. diegoi* n. sp. (c).

Speocharis amicalis también tiene la quilla corta, aunque moderadamente elevada y el margen anterior menos obtuso que *S. diegoi* n. sp. Sin duda, la mayor conflictividad se encuentra en *Speocharis nietoi* SALG. debido a un marcado grado de variabilidad en la longitud de la quilla mesosternal entre individuos de diferentes grutas. Por ejemplo, es larga en los ejemplares de la cueva de Castiñeres (Pola del Pino, Asturias) y corta en los de la cueva la Cueva (Piñeres, Asturias). Por esta razón, y por la forma apical de los parámeros del eedeago, única en la sección *Speocharis*, no incluimos esta especie en el género *Speocharis*.

Por tanto, la Sección *Speocharis* JEANNEL, 1911 comprenderá en el momento actual los siguientes géneros válidos: *Speocharis* JEANNEL, 1910, *Notidocharis* JEANNEL, 1956, *Breuilia* JEANNEL, 1910, *Spanoliella* GUÉORGUIEV, 1976, *Speocharinus* ESPAÑOL - ESCOLÁ, 1977, *Breuilites* SALGADO, 1980 y *Speocharis* SALGADO, 1985.

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The relatives of *Dolichopus plumipes* (Scopoli, 1763), with the description of a new species from Belgium (Diptera Dolichopodidae)

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Received for publication on 5th October 1988.

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Summary

The closely related species *Dolichopus plumipes* (SCOPOLI, 1763) and *D. wahlbergi* ZETTERSTEDT, 1843 are redescribed and illustrated, with notes on their variability. *D. polleti* sp. n., belonging to the same species group is described from Belgium.

Résumé

Dolichopus plumipes (SCOPOLI, 1763) et *D. wahlbergi* ZETTERSTEDT, 1843, espèces très voisines, sont redécrites et illustrées avec des notes sur leur variabilité. *D. polleti* sp. n., appartenant au même groupe d'espèces, est décrit de la Belgique.

Introduction

Among the Dolichopodidae collected with a Malaise trap by Dr. N. MAGIS near Virelles (prov. Hainaut) during 1986, many specimens were found of a hitherto undescribed *Dolichopus* species closely related to *Dolichopus plumipes* and *D. wahlbergi*. At first we considered those specimens to be only varieties of the latter species but on closer examination they proved to be readily distinguishable from both aforesaid species by clear and constant features. Examining some collections, we did not succeed in finding any other specimen of this new species. In literature we did not find any mention of entirely light-coloured antennae (one of the main characters of the species) in descriptions of species of the *plumipes* species group. So this species seems to be either completely overlooked or very restricted in its distribution.

Systematic account

Within the genus *Dolichopus* LATREILLE, 1796 the three species under consideration (*D. plumipes*, *D. wahlbergi* and *D. polleti* sp.n.) constitute a group of closerelatives. They belong to a species section with all femora yellow and possessing yellow postocular cilia, and share the following characters with some other species: first joint of tarsus II without bristle; first joint of tarsus III with more than one bristle; femur III with only one preapical bristle; bends of m1 + 2 rounded; coxa III largely dark coloured; tibia II of female ventrally with only one anteroventral bristle; cerci of male hypopygium with rectangular teeth on apical margin, armed with hooked bristles. Characteristic for the three mentioned species are: tibia II of male long and attenuated and first joint of tarsus II feathered with black flattened bristles; third antennal joint partly or entirely yellow (male and female; a variety of *D. plumipes* however has the third antennal segment entirely black); first joint of tarsus II in female dark except at extreme base.

Key to males and females of the *D. plumipes* group

1. - Third antennal segment brownish yellow, usually with paler base, in male less than 1.5 times as long as deep, rather blunt. Arista of male inserted at middle or just in front of middle of dorsal margin of third antennal segment, its basal joint projecting beyond tip of third antennal segment by half or a little more than half its own length. Tibia II of male hardly 3 times as long as first joint of tarsus II, without dark brown longitudinal stripe. Tibia II of female with 3 anterodorsals, preceded by a short bristle. Tarsus III entirely dark*D. polleti* sp.n.
- Third antennal segment dark brown to blackish brown on at least apical third, in male at least 1.5 times as long as deep, rather pointed. Tibia II of male distinctly more than 3 times as long as first joint of tarsus II. Tibia II of female with 5 anterodorsals 2
2. - First joint of tarsus III with yellow base (usually basal two thirds yellow). Tibia II of male without dark brown longitudinal stripe. Arista of male inserted about middle or just in front of middle of dorsal margin of third antennal segment, its basal joint projecting beyond tip of third antennal segment by less than half its own length. Arista of female inserted about middle of dorsal margin of third antennal segment *D. wahlbergi* ZETTERSTEDT, 1843
- First joint of tarsus III entirely black. Tibia II of male dorsally with a longitudinal dark brown stripe. Arista of male inserted well beyond middle of dorsal margin of third antennal segment, its basal joint projecting beyond tip of third antennal segment by about two thirds of its own length. Arista of female inserted nearly subapically*D. plumipes* (SCOPOLI, 1763)

Dolichopus plumipes (SCOPOLI, 1763); figs 1-14

Male

Body length: 4.0-4.6 mm; Wing length: 3.6-4.4 mm.

Head: Frons metallic green, moderately shining, sometimes with bluish reflections, with a very feeble greyish dusting, at level of anterior ocellus about two and a quarter times as broad as face. Face only a little narrower than depth of third antennal segment, entirely covered by a shining golden yellow dust, bare. Palpi small, yellow, with short pale hairs and a small and weak apical bristle. Rostrum brown. Postcranium with blackish green ground-colour, dulled by a greyish dust. Two long and strong diverging ocellars, 2 shorter crossing verticals, 2 much shorter postverticals, 4 tiny postocellars. Lateral and lower postoculars golden yellow, upper 6-10 postoculars black.

Antennae (Fig. 1) yellow, but third antennal segment dorsally and apically dark brown to blackish brown to a varying extent (Figs 2-3). First segment dorsally with short black bristles, becoming longer sideways and apically. Second antennal segment short, with a circlet of short black bristles, longest ventrally. Third antennal segment moderately long, rather pointed, 1.5-1.7 times as long as deep. Arista very shortly pubescent, inserted much beyond middle of dorsal margin of third segment; basal arista segment long, projecting beyond tip of third antennal segment with about two thirds of its own length.

Thorax: Mesonotum and scutellum dark metallic green, often with blue or purplish reflections, moderately shining, with a feeble greyish brown dusting. Pleura dark metallic green with feeble whitish grey dusting. 6 dc. Humeri with 1 large and 1-2 small bristles. Propleura with soft white hairs and a strong black bristle. Scutellum with 2 marginals.

Legs: coxae I yellow, coxae II and III black with yellow apices. Legs yellow; tarsus I brown to blackish brown from apex of first joint onwards. Tibia II dorsally with a dark brown longitudinal streak from basal tenth to apical tenth, there it becomes nary white; extreme tip of tibia II deep black; tarsus II deep black, becoming more brownish black distally. Tip of tibia III blackened to a varying extent, seldom nearly entirely yellow, tarsus III black.

Coxa I anteriorly with short black hairs; short white hairs are present only on basal half on outer anterior and exterior side; at apex an oblique row of black bristles of unequal length and strength.

Trochanter I bare. Femur I without bristles; only posteroventrally near tip 1-2 very short bristles. Tibia I about as long as femur; 2-3 ad on basal half, followed by an indistinct serration of short black bristles; 2 pd; 2 pv; at apex 1 posterior and 1 posterodorsal bristle. Length ratio of tibia I and tarsus I: 25:12:6:4.5:3.5:3.

Coxa II anteriorly with black hairs; 1 black exterior bristle; at apex some bent black bristles. Trochanter II with a small anterodorsal bristle.

Femur II with a black preapical. Tibia II at base and at apex of normal strength on 1/10 of its length; in between these points the tibia is attenuated and dorso-ventrally flattened; dorsally a broad bare strip with a longitudinal dark brown streak (Fig. 6); anterodorsally 3 bristles (2 close together near base, 1 near tip); posterodorsally 1 bristle near

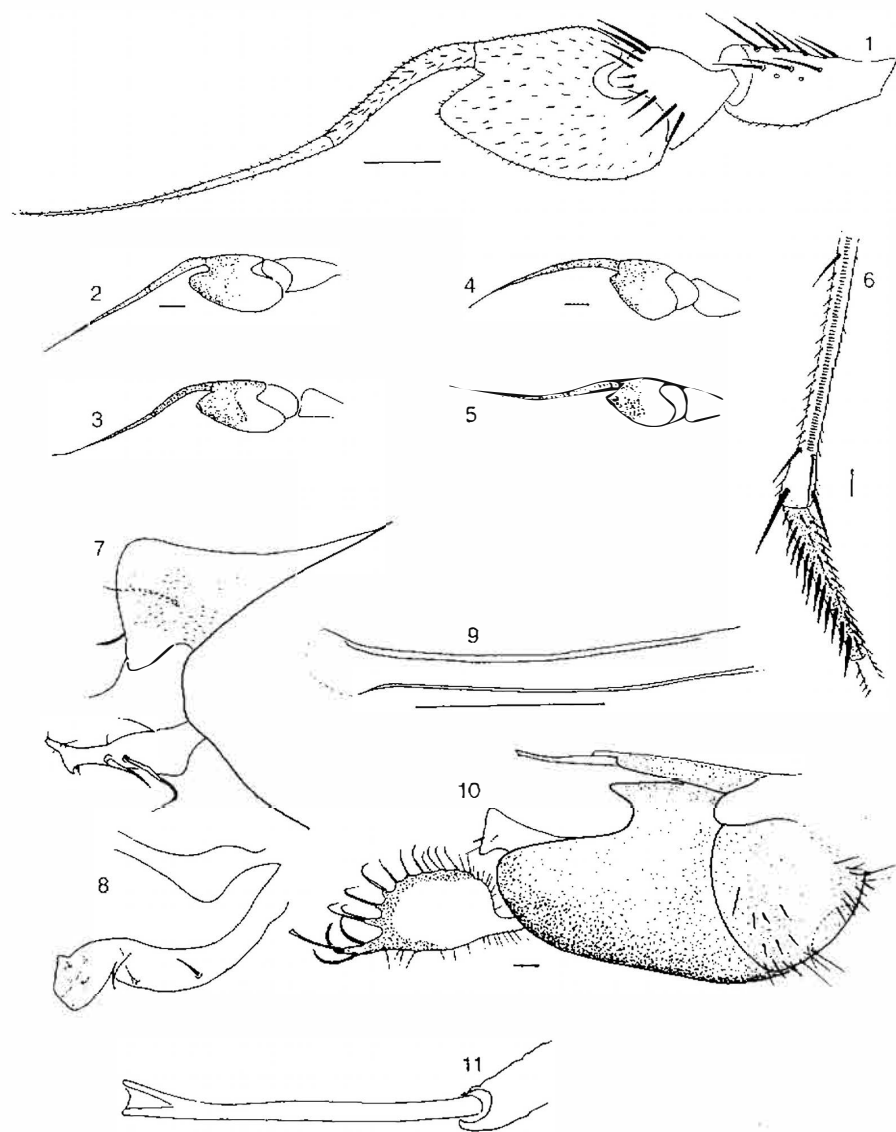


Fig. 1-11: *Dolichopus plumipes* (SCOPOLI): 1-3 male antennae; 4-5 female antennae; 6 male tibia II and basal tarsal segment; 7 basimere; 8 surstylus; 9 aedeagus; 10 hypopygium; 11 terminal seta on cercus. Scale 0.1 mm.

base and 1 bristle near tip; anteriorly 2 small bristles (at 2/5 and about middle); ventrally 1 bristle near tip; at apex some rather strong bristles.

First joint of tarsus II with a long anterodorsal and posteroventral, not doubled, feathering of flattened bristles. Length ratio of tibia II and tarsus II: 38:11:7:5:3.5:3.

Coxa III with a black exterior bristle. Trochanter with some tiny bristles.

Tibia a little longer than femur; 5-6 ad, 5-6 pd, 1 dorsal bristle in front of apex; ventrally an irregular row of short, thin, erect bristles; posteriorly, especially towards apex, the hairs are bristlelike and crowded, giving a shaggy appearance; 2 apical bristles. First joint of tarsus III with 2 dorsal bristles and 1 anterior bristle, ventrally a few short bristles. Length ratio of tibia III and tarsus III: 37:16:14:11:7:4.5.

Wing: feebly tinged brownish; anal lobe very pronounced, preceded by an excision of the hind margin. Bends of m 1 + 2 very obtuse, just before middle of apical part. Tp 3/5 of apical part of m 3 + 4. Halteres yellow. Squamae yellow with black cilia.

Abdomen: dark metallic green, rather shining, with a feeble whitish grey dusting. Hairs and marginal bristles black. Hypopygium (Fig. 7-11) large, black. Cerci yellowish white with a relatively narrow brownish black border, bearing at apex rectangular lobes armed with hooked bristles. Aedeagus (Fig. 9) gently curved, blunt-tipped. Ventral lobe (ventral process of basimere according to ULRICH) (Fig. 7) with a narrower base than in *wahlbergi* or *polleti*. Surstylus (Fig. 8) of about the same shape as in *wahlbergi*, but with differently arranged bristles.

Female

Body length: 4.0-5.5 mm; *Wing length* 4.3-4.8 mm.

Head: Frons broader than in ♂, about 0.7 times as broad as frons at level of front ocellus, nearly 1 1/2 times as broad as depth of third antennal segment, covered by a thick yellowish grey dusting. Clypeus hardly protruding, without hairs. Palpi larger than in ♂, with yellowish or brown hairs and a short black apical bristle.

Antennae (Fig. 4-5) coloured as in male; third antennal segment shorter, a little longer than deep; arista inserted near tip of third antennal segment, often nearly subapical.

Legs: Legs I and III coloured as in male. Leg II yellow, tarsus entirely black. Coxa I with short black hairs; white hairs confined to a small area exteriorly near base. Tibia I without distinct serration. Length ratio of tibia I and tarsus I: 25:13:5.5:4:3:3. Tibia II normal; 5 ad, 2 pd, 1 av, a circlet of apical bristles. Tarsus II without feathering. Length ratio of tibia II and tarsus II: 35:16:9:7:5:3. Leg III as in ♂. Length ratio of tibia III and tarsus III: 39:15.5:15:10:7:4.

Wing: anal lobe not so pronounced, without excision in hind margin; halteres and squamae as in ♂.

Abdomen: Oviscapt: cerci with rounded tip, black. Hemitergites each with 5-6 short black dornen.



Fig. 12-13: *D. plumipes* (SCOPOLI): male antennae, Lautaret, France (var. *montanus* BECKER, in coll.)

Variability:

In the collections of the K.B.I.N., there is a series from Le Lautaret (France) identified by Th. BECKER and named by him var. *montanus* in which the antennae are very dark (Fig. 13-14). The third segment is entirely dark, the second one is entirely or partly black while the basal segment has often a brown dorsal streak. Specimens with completely or nearly completely dark third antennal segment are erratically found all over Europe, more often in northern populations.

VAILLANT and BRUNHES (1980: 356-357, Planche I, fig. 1-7) give a description of a male *Dolichopus plumipes* (SCOPOLI), captured 13.VII.1979 at Besse-en-Chandesse (Puy-de-Dôme, France). The authors admit that this specimen deviates rather strongly from those described by PARENT (1938) and STACKELBERG (1933): it has e.g. a silvery white face and a different arrangement of bristles on its legs, and the clypeus slightly extends below level of lower eye-margin. In the description no mention is made of a longitudinal dark brown stripe on dorsal face of tibia II, nor does fig. 2 show such a stripe. Probably the description is dealing with another new species; unfortunately we did not see this specimen.

Material examined:

Austria: Styria, 5 ♂♂, 1 ♀ (Strobl) (K.B.I.N.); Tirol, Ötztal, Vent: Zumme (1820-1900 m), 1 ♂, 7-8.VIII.1967 (Ent. Exc. Zoöl. Mus.) (H. M.)

Belgium: *Antwerpen*: Balen, Geel (Zegge), Hoogstraten, Kalmthout, Merksplas (Nonnenmoer), Mol (SCK), Postel, Retie, Rijmenam, Schoten, Sint-Job-in-'t-Goor, Turnhout, Weelde (Ossevenelooop); *Brabant*: Anderlecht, Beersel, Bruxelles, Ganshoren, Genval, Groenendaal, Ixelles, Jette, Nethen, N.O. Hembeek, Ottignies, Rouge-Cloître, Tervuren, Vilvoorde, Wemmel; *Hainaut*: Angreau, Brugellette, Chimay (vallée de l'Oise), Ellezelles, Pierre, Thuin, Virelles; *Liège*: Alt Hattlich, Beaufays, Bullange, Ferrières, Francorchamps, Hauset, Herstal, Hertogewald (Pierreuse Heid), Hockai, Jalhay, Jupille (Fayenbois), Lixhe (Mont-Saint-Pierre), Loën, Losheimergraben, Louveigné, Magnée, Mont-Saint-Pierre, Nonceveux, Plombières, Remouchamps, Robertville (Mont Rigi), Sart-lez-Spa (Bois Kossonfay), Saurbrodt, Sougné-Remouchamps (Chefna), Streupas-Colonster, Sy, Terwagne, Werboomont, Xhendelesse; *Limburg*: Hasselt, Kuringen, Overpelt, Rekem (Zijpbeek), Remersdaal, Stokkem, Zonhoven; *Luxembourg*: Barvaux, Chiny, Durbuy, Ethe-Buzenol, Florenville, Grandhan, Hotton, Jamoigne, Mirwart, Nassogne, Petit-Han, Pont-d'Oye, Saint-Mard, Vesqueville, Villers-sur-lesse, Virton; *Namur*: Baillonville, Falaën, Gembloux, Gimnée, Han-sur-Lesse, Heure en Famenne, Houyet, Naninne, Noiseux, Roly; *Oost-Vlaanderen*: Aalter, Assenede, Bachte-Maria-Lerne, De Pinte, Destelbergen (Damvallei), Deurle, Everbeek, Gent (Bourgoyen), Heusden, Kallo, Lokeren (Molsbroek), Melle, Moorsel, Overmere, Poeke, Scheiderode, Sint-Jan-in-Eremo, Sint-Martens-Latem, Vinderhoute, Zaffelare; *West-Vlaanderen*: Blankenberge, Damme, De Panne (Westhoekreservaat), Diksmuide, Hertsberge, Ingelmunster (Mandelhoek), Knokke (Zwin), Koksijde, Lo, Oedelem, Oostduinkerke (Hannecartbos), Oostkamp (Leiemeersen), Poperinge, Raversijde (Domein Prins Karel), Ruiselede, Stalhille-Vlissegem, Stuivekeskerke, Torhout-Ichtegem (Wijnendalebos), Veldegem, Wingene (Gulke Putten), Woumen (de Blankaart), Zeebrugge (Fontejts).

Czechoslovakia: *Slovensko*: Maluzina, 1 ♂, 9-11.VII.1984 (C. J. ZWAKHALS) (H. M.); Slovenské Rudohorie, Hronec, 1 ♂, 1.VIII.1968 (Ent. Exc. Zoöl. Mus.) (H. M.)

France: *Allier*: Broût-Vernet, 1 ♂, 3.VI.1912 (H. DU BLYSSON) (K.B.I.N.); Vichy, 4 ♂♂, 4 ♀♀ (K.B.I.N.); *Charente-Maritime*: Marais, 2 ♂♂, VII.1929 (coll. PARENT); *Drôme*: Saint-Vallier, 1 ♀, 15.VII.1974 (B. VAN AARTSEN) (H. M.); *Hautes-Alpes*: Le Lautaret, 9 ♂♂, 1 ♀, 30.VII (det. *plumipes* var. *montanus* Th. BECKER in coll.; K.B.I.N.); *Hautes-Pyrénées*: Gavarnie, 1 ♂, 1927 (coll. PARENT); *Haute-Vienne*: Limoges, 3 ♀♀ (Villeneuve) (K.B.I.N.); *Ile-et-Vilaine*: Rennes, 3 ♀♀ (L. BLEUSE) (K.B.I.N.); *Isère*: Chonas-Lamballan, 1 ♀, 20.VII.1971 (H. MEUFFELS) (H. M.); *Manche*: Fermanville, 5 ♂♂, 10 ♀♀, VIII.1929 (coll. PARENT); *Pas-de-Calais*: Aire, 6 ♂♂, VII.1924; 15 ♂♂, 15 ♀♀, 1932 (coll. PARENT and K.B.I.N.); *Vaucluse*: Galas, 1 ♂, 27.VII.1975 (H. MEUFFELS) (H. M.); *Vosges*: Maxey-sur-Meuse, 1 ♀, 16.VII.1971 (H. MEUFFELS) (H. M.); *Yvelines*: Rambouillet, 2 ♂♂ (Villeneuve) (K.B.I.N.)

Germany: Berlin, Grünewald, 2 ♂♂, 1 ♀, 4.VII./1897 (K.B.I.N.); Nordeifel: Forst Wenau (Hubertushöhe), 2 ♂♂, 3 ♀♀, 1.VII.1968 (H. MEUFFELS); Grosshau, 1 ♂, 26.V.1969 (H. MEUFFELS) (H. M.)

Hungary: Pécs, 1 ♀, 4.VI, 1 ♂, 8.VI (THALHAMMER) (H. M.)

Italy: Bolzano, Sarntal (1250 m), 1 ♂, 1 ♀, 2.VII.1976 (C. J. ZWAKHALS) (H. M.)

Ireland: Co. Laois, Emo, N 5208, 1 ♂, 28.VI.1979 (M. DE COURCY WILLIAMS) (H. M.)

Manchuria: Ourga à Tsitsikhar, 1 ♂, J. Chaffanjon 174-96 (det. O. PARENT; coll. Paris)

Mongolia: Vallée du Tamir-Gol, affl. de G. de l'Orkhon (1.650 m), 2 ♂♂, 1 ♀, Mission LACOSTE, dr DU CHAZAUD 1090 (det. O. PARENT, coll. Paris)

Netherlands: *Drente*: Ansen, Diever, Dwingelo, Pesse, Ruinen, Uffelte, Westervelde; *Flevoland*: Flevopolder; *Friesland*: Ameland (Nes), Beetsterzwaag, Dokkumer Nieuwe Zijlen, Griend, Harlingen, Kootstertille, Langweer, Lekkum, Mirns, Nijetrijne, Olterterp, Terschelling (De Boschplaat, Eerste Duintjes, Gric, Groene Strand), Wartena, Wolvega; *Gelderland*: Assel, Culemborg, De Dellen, De Steeg, Elburg, Etten, Garderen, Gerrits Fles, Ginkel, Gortel, 't Harde, Heesum, Heerden, Heteren, Kranenburg, Lochem, Montferland, Nunspeet, Oldebroek, Oosterbeek, Ooijpolder, Opijnen, Otterlo, Panterden, Putten, Ratum, Rhenen, Steenderen, Tongeren, Tricht, Voorstonden, Voorhuizen, Vorden, Westervoort a/d IJssel, Winterswijk, Woold; *Groningen*: Sellingeren, Ter Apel; *Limburg*: Arcen, Cottessen, de Doort, Echt, Elsloo, Etzenrade, Gronsveld, Gulpen, Heelder Peel, Horst, Sint-Pietersberg, Sittard, Valkenburg, Venlo, Vijlen, Wessem; *Noord-Brabant*: Andel, Bergen-op-Zoom, Best, Biesbosch, Drimmelen, 's-Hertogenbosch, Hulst, Oosterwijk, Ulvenhout, Waalwijk; *Noord-Holland*: Amsterdam, Amsterdamse Waterleidingduinen, Ankeveen, Bergen (Verloren Pan), Bloemendaal, Bussum, Den IJp, Diemen, Durgerdam, 's Graveland, Groet, Hilversum, IJpendam, IJperveld, Koedijk (Kleimeer), Kortenhoef, Landsmeer, Naarden, Naardermeer, Nederhorst den Berg, Ouderkerk, Overveen, Purmerend, Spaarndam, Texel (De Geul, Den Hoorn), Twiskpolder, Valkeveen, Vogelenzang, Weesp, Zeeburg; *Overijssel*: Agelo, Boekelo, Breklenkamp, Buurse, Colmschate, Delden, Denekamp, De Lutte, Enschede, Heetveld, Kampen, Lemelerberg, Losser, Lutterzand, Markelo, Nijveen, Ommen, Ootmarsum, Rijssen, Rouveen, Saasveld, Staphorst, Vasse, Vollenhove, Wanneperveen, Weerselo; *Utrecht*: Abcoude, Amersfoort, Baarn, Botshol, Breukelen, Bunschoten, De Bilt, Eempolder, Groenekan, Huppeldijk, Linschoten, Nederlangbroek, Nieuwersluis, Oud Maarsseveen, Schalkwijk, Tuil, Vreeland, 't Waal, Woerdense Verlaat; *Zeeland*: Cadzand, 's Gravenpolder, Kreekrak, Oostkapelle, Retranchement, Saeftinge, Veerse Meer (Haringvleter), Valkenisse, Vlissingen, Zuid-Sloe; *Zuid-Holland*: Bodegraven, Gorinchem, 's Gravenhage, Hazerswoude, Hillegom, Kinderdijk, Oud Verlaat, Rotterdam, Wassenaar, Zwammerdam.

Norway: Bodø, 1 ♀, 30.VI.1980, Narvik, 1 ♂, 2 ♀♀, 3.VII.1980 (J. A. W. LUCAS) (H. M.), Trondheim, 1 ♂, 7.VII.1976 (H. M.)

Sweden: Abisko am Tornetrask, 1 ♀, 18.VI, 1 ♀, 23.VI, 1 ♀, 29.VI, 1 ♀, 9.VII, 1 ♀, 10.VII, 1 ♀, 14.VII, 1 ♂, 17.VII, 1 ♂, 5.VIII (leg. W. BRANDT, coll. K.B.I.N.)

Yugoslavia: Grosuplje (Slovenia), 1 ♀, 14.VIII.1968 (H. M.), Kokouyew, 1 ♂ (K.B.I.N.), Petrinja, 1 ♀, 17.VIII.1895 (K.B.I.N.), Zagreb, 1 ♂, 13.V.1896 (K.B.I.N.), Azuga-Valachie (Carpathes), 1 ♀ (A. L. MONTANDON) (K.B.I.N.), Fuzine, 2 ♂♂, 21.V.1888 (K.B.I.N.)

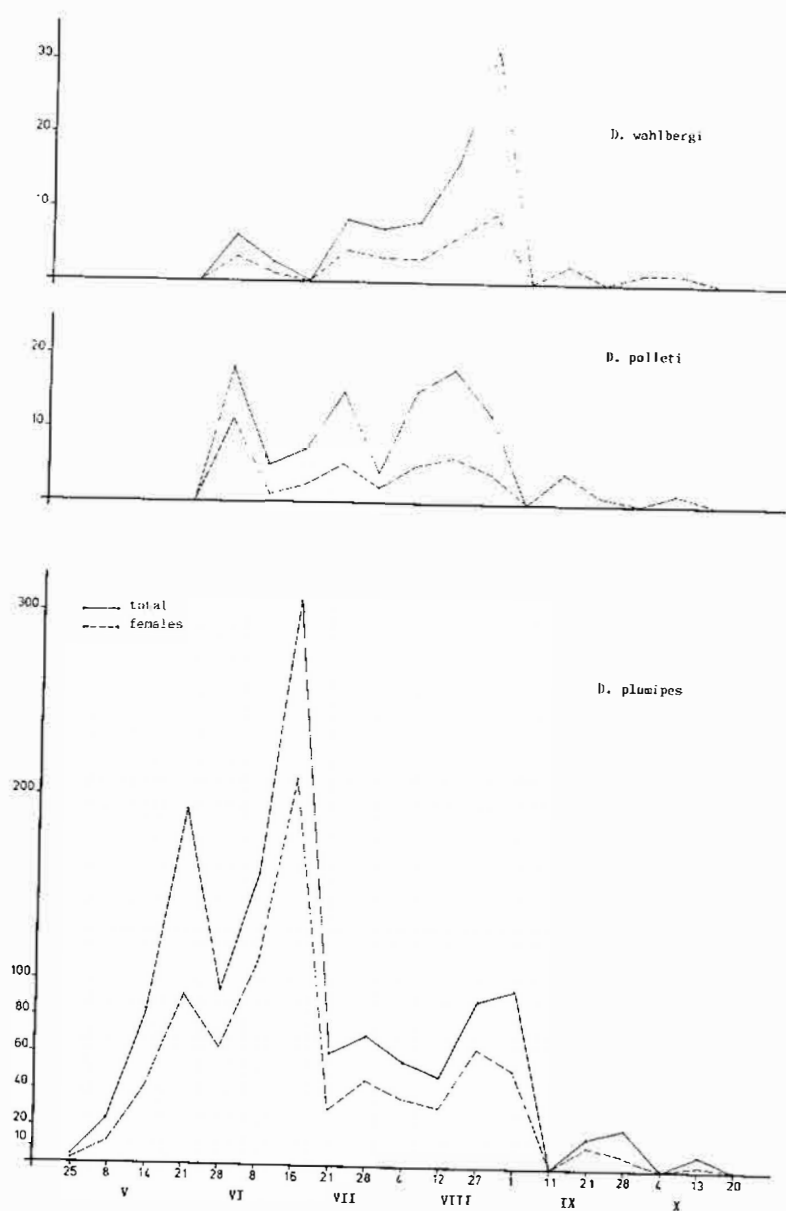


Fig. 14-16: Phenology of *D. plumipes*, *D. wahlbergi* and *D. polleti* at Virelles (Belgium)

Distribution:

Dolichopus plumipes is distributed over a very large area in the holarctic region. We found it registered from most countries of Europe (loc. typ. Yugoslavia; further: Iceland, Faeroes, Norway, Sweden, Finland, Denmark, Poland, Germany, Netherlands, Belgium, France, Great Britain, Ireland, Switzerland, Spain, Italy, Austria, Czechoslovakia, Rumania, Hungary, Bulgaria, northern parts of European Russia), Caucasus, Turkestan, Siberia, Mongolia, Manchuria, China, Kamchatka, and North America (Alaska to Northwest Territories, southward to California, Arkansas and Michigan; Mexico; St. Pierre and Miquelon; Greenland).

Dolichopus wahlbergi ZETTERSTEDT, 1843; figs 15, 17-24

Male

Body length: 4.8-5.4 mm; Wing length 4.6-5.2 mm.

Head: Frons metallic green, rather shining, with a feeble whitish grey dusting, at level of anterior ocellus about three times as wide as face. Face about $2/3$ as wide as depth of third antennal segment, entirely covered by a shining golden yellow or ochry yellow dusting, bare. Palpi small, yellow, with short yellow hairs and a small black apical bristle. Rostrum brown. Postcranium with dark metallic green ground colour, brownish grey dusted. Two long and strong diverging ocellars, 2 slightly shorter crossing verticals, 2 much shorter postverticals, 4 tiny postocellars. Upper 6-8 postocular cilia black, lateral and lower cilia straw-yellow.

Antennae (Fig. 17) yellow, but third antennal segment dorsally and apically largely brown or blackish brown to a varying extent (Fig. 18-19). Basal antennal segment dorsally with short black bristly hairs and at dorsal tip with black bristles, some of which are longer than half length of first segment. Second segment short, with short apical bristles, longest ventrally. Third antennal segment rather long, pointed, about 1.5-1.7 times as long as deep. Arista very shortly pubescent, inserted at middle of dorsal margin of third antennal segment, slightly more than twice as long as third antennal segment; basal arista segment long, projecting beyond tip of third antennal segment with less than half its own length.

Thorax: Mesonotum and scutellum dark metallic green, moderately shining as a result of a thin yellowish grey dusting; pleura with dark metallic green ground colour, feebly greyish-white dusted. 6 dc. Humeri with 1 large and 1 very small bristle. Propleura with soft white hairs and a strong black bristle. Scutellum with 2 marginals.

Legs: coxae I yellow, coxae II and III black with yellow apices. Legs yellow; tarsus I browned from apex of first joint onwards; extreme tip of tibia II and extreme base of tarsus II nacreous yellowish white, rest of tarsus II black, becoming more brownish black distally; tibia III entirely yellow, tarsus III black, but first joint basally yellow to a greater or lesser extent (usually basal two thirds yellow).

Coxa I on inner anterior side with short black hairs, on outer anterior side and exteriorly with short white hairs; near and at apex an oblique row of black bristles of unequal length.

Trochanter I practically bare. Femur I without bristles; only posteroventrally near tip 1-3 very short bristlets. Tibia I as long as femur; 2-3 ad, 2 pd, 2-3 pv; at apex 1 posterior and 1 posterodorsal bristle; anterodorsally a row of spinelike hairs, giving the impression of a serration. Length ratio of tibia I and tarsus I: 30:17:8:6.5:4:3.5.

Coxa II anteriorly with black hairs; 1 black exterior bristle; at tip a few bent black bristles. Trochanter II with a small dorsal bristle. Femur II with a black anterior preapical. Tibia II about 1.4 times as long as femur, very slender, slightly thickened at apex, dorsally with a bare stripe over whole length; 3 ad, 1 pd, no ventrals; a circlet of apical bristles. Tarsus II much shorter than tibia II. First joint of tarsus deep black except extreme base, anterodorsally and posteroventrally with a double feathering of long black flattened bristles. Length ratio of tibia II and tarsus II: 53:16:8:6:4:3.

Coxa III with a black external bristle and a small bristlet beneath it.

Femur III with a black anterior preapical; dorsally on basal half a row of lengthened bristly hairs. Trochanter with a tiny dorsal bristlet.

Tibia III a little longer than femur, with 5-6 ad, 5-6 pd, 1 dorsal bristle in front of apex; ventrally a row of short, thin, erect bristlets and 1 av near apex; posteriorly on apical two thirds somewhat lengthened crowded hairs, giving a shaggy appearance; at posterior apex a short black fringe; 2 apical bristles. First joint of tarsus III with 2 dorsal, 1 anterior bristle, ventrally a few short bristles. Length ratio of tibia III and tarsus III: 42:17.5:17.5:12:7:4.

Wing: feebly tinged brownish; anal lobe very pronounced, preceded by an excision of the hind margin. Bends of m1 + 2 very obtuse, just before middle of apical part. Tp about three fifths of apical part of m3 + 4. Halteres yellow. Squamae yellow with black cilia.

Abdomen: dark metallic green, moderately shining, with a feeble whitish grey dusting on sides. Hairs and marginal bristles black. Hypopygium (Fig. 22-24) black. Cerci yellowish white with a narrow brownish black border, bearing at apex rectangular lobes armed with hooked bristles. Aedeagus (Fig. 23) straight, obliquely cut off at tip, pointed; surstyli (Fig. 22) moderately broadened near base.

Female

Body length: 5.0-5.6 mm; *Wing length* 4.7-5.4 mm

Head: Face broader than in male, only a little narrower than frons, broader than depth of third antennal segment, covered by a thick yellowish grey dusting; clypeus somewhat more silvery coloured, slightly protruding, bearing pale hairs. Palpi slightly larger than in male, often with more brownish tinged hairs, bearing a short black apical bristle.

Antennae (Fig. 20-21) coloured as in male, but third antennal segment more largely yellow. Third antennal segment shorter than with the male, less pointed; arista inserted about at middle of dorsal margin of third antennal segment: basal aristal segment long, projecting beyond tip of third antennal segment with less than half its own length.

Legs: coxae and legs I and III coloured as in male. Leg II yellow, tarsus brownish black from apical third of basal joint onwards; sometimes first joint more largely darkened.

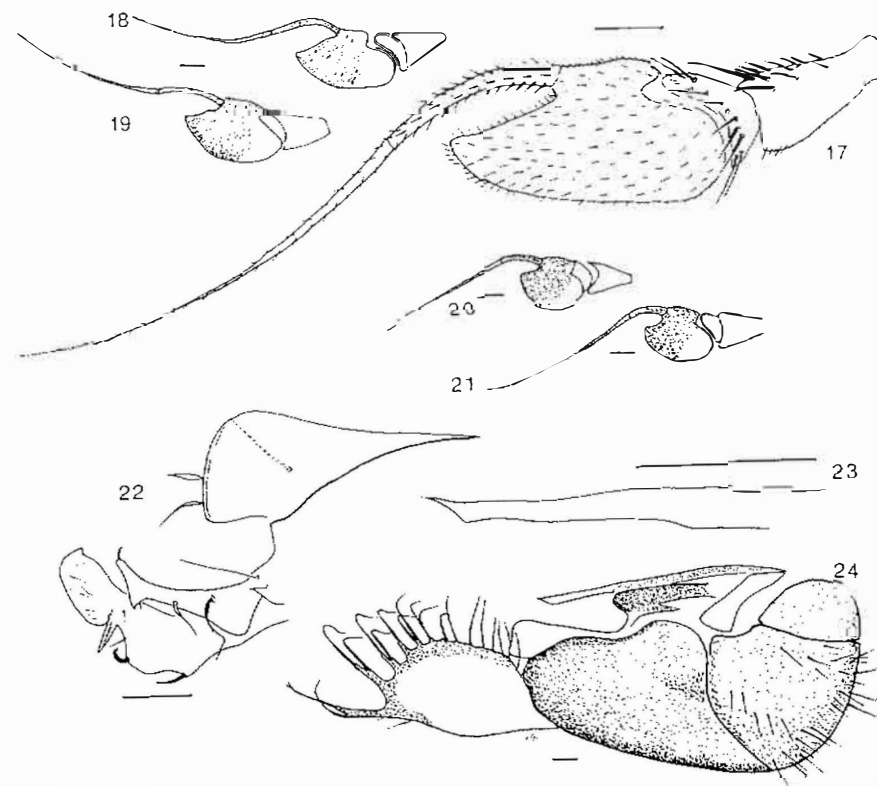


Fig. 17-24; *Dolichopus wahlbergi* ZETTERSTEDT: 17-19 male antennae; 20-21 female antennae; 22 basimere and surstyli; 23 aedeagus; 24 hypopygium. Scale 0.1 mm.

Coxa I anteriorly with short black hairs, but in some specimens all hairs of coxa I pale. Tibia I with the same bristles as in male, but the serration is less conspicuous. Length ratio of tibia I and tarsus I: 30:16:7:5:3.5:3. Tibia II normal: 5 ad, 2 pd, 1 av, a circlet of apical bristles. Tarsus II without feathering. Length ratio of tibia II and tarsus II: 46:19:9:7:4:3.5. Leg III as in male. Length ratio of tibia III and tarsus III: 48:17:17:12.5:8:4.

Wing: anal lobe not so pronounced, without excision in hind margin. Halteres and squamae as in male.

Abdomen: oviscapt: cerci black, blunt with very narrow yellowish tip; hemitergites each with 4-5 short black dornen.

Variability:

In contrast to the rather variable *D. plumipes*, this species varies only very little concerning the colour of the third antennal segment.

Material examined:

Belgium: *Antwerpen*: Blauwberg; *Brabant*: Holsbeek, Ixelles, Rouge-Cloître, Zoniënwood; *Hainaut*: Virelles; *Liège*: Lovignée (Ravin de Solières), Malmédy; *Namur*: Bossière, Gimnée, Heure en Famenne, Roly; *Oost-Vlaanderen*: Destelbergen, Merelbeke, Moorsel; *West-Vlaanderen*: Houthulst, Snellegem, Torhout-Ichtegem (Wijnendalebos), Veldegem, Woumen (de Blankaart), Zedegem (Vloetenveld).

France: *Ile-et-Vilaine*: Forêt Paimpont, 1 ♂, 19.VI.1921 (coll. PARENT); *Manche*: Fermanville, 4 ♀♀, VIII.1929 (coll. PARENT); *Pas-de-Calais*: Aire, 11 ♂♂, 15 ♀♀, VI.1924, 2 ♂♂, 3 ♀♀, VII.1924, 4 ♂♂, 1932 (O. PARENT, coll. PARENT, Paris and K.B.I.N.), Paris Plage, 2 ♂♂, 1914 (K.B.I.N.); *Yvelines*: Gazeran, 2 ♂♂, 1 ♀, 10.VII.1910 (coll. K.B.I.N.), Hautil, 1 ♂, 20.VI (Vileneuve) (K.B.I.N.).

Great-Britain: Marlborough, 1 ♂, 22.VI.1914 (T. KIRKPATRICK) (coll. PARENT).

Hungary: Pécs, 1 ♂, 8.VI (THALHAMMER) (H. M.).

Rumania: Transsylvania, 1 ♂ (Cs. SZEREDA) (H. M.).

Netherlands: *Gelderland*: Lochem, Terlet; *Limburg*: Limbricht, Venlo; *Noord-Holland*: Ankeveen; *Overijssel*: Vollenhove, Weerselo; *Utrecht*: Linschoten; *Zuid-Holland*: 's Gravenhage.

Spain: Mallorca, Alcudia (Bahia), 1 ♀, 28.V-9.VI.1953 (M. BEQUAERT) (K.B.I.N.).

U.R.S.S.: Kartashevka (Prov. Pétrapol), 2 ♂♂, 19.VII.1926 (STACKELBERG) (coll. PARENT).

Distribution:

As far as known *Dolichopus wahlbergi* has a western palaeartic distribution; it is mentioned from Norway, Sweden, Finland, Denmark, Germany, Netherlands, Belgium, France, Spain, Great Britain, Ireland, Czechoslovakia, Hungary, Rumania, Central and Northern European Russia and Caucasus.

Dolichopus polleti* n. sp.; fig. 16, 25-34*Male**

Body length: 4.6-4.9 mm; **Wing length** 4.0-4.5 mm.

Head: Frons metallic green, rather shining, at level of anterior ocellus slightly less than three times as wide as face. Face about two thirds as wide as depth of third antennal segment, entirely covered with dusting (colour?), bare. Palpi small, yellow, with short yellowish hairs and a small black apical bristle. Rostrum yellowish brown. Postcranium with dark metallic green ground colour. Two long and strong diverging ocellars, 2 slightly shorter crossing verticals, 2 much shorter postverticals, 4 tiny postocellars. Upper 6-10 postocular cilia black, lateral and lower cilia straw-yellow.

Antennae (Fig. 25) yellow, but third antennal segment dorsally and apically largely brownish yellow (Fig. 26-27). First segment dorsally with short black bristly hairs and at dor-

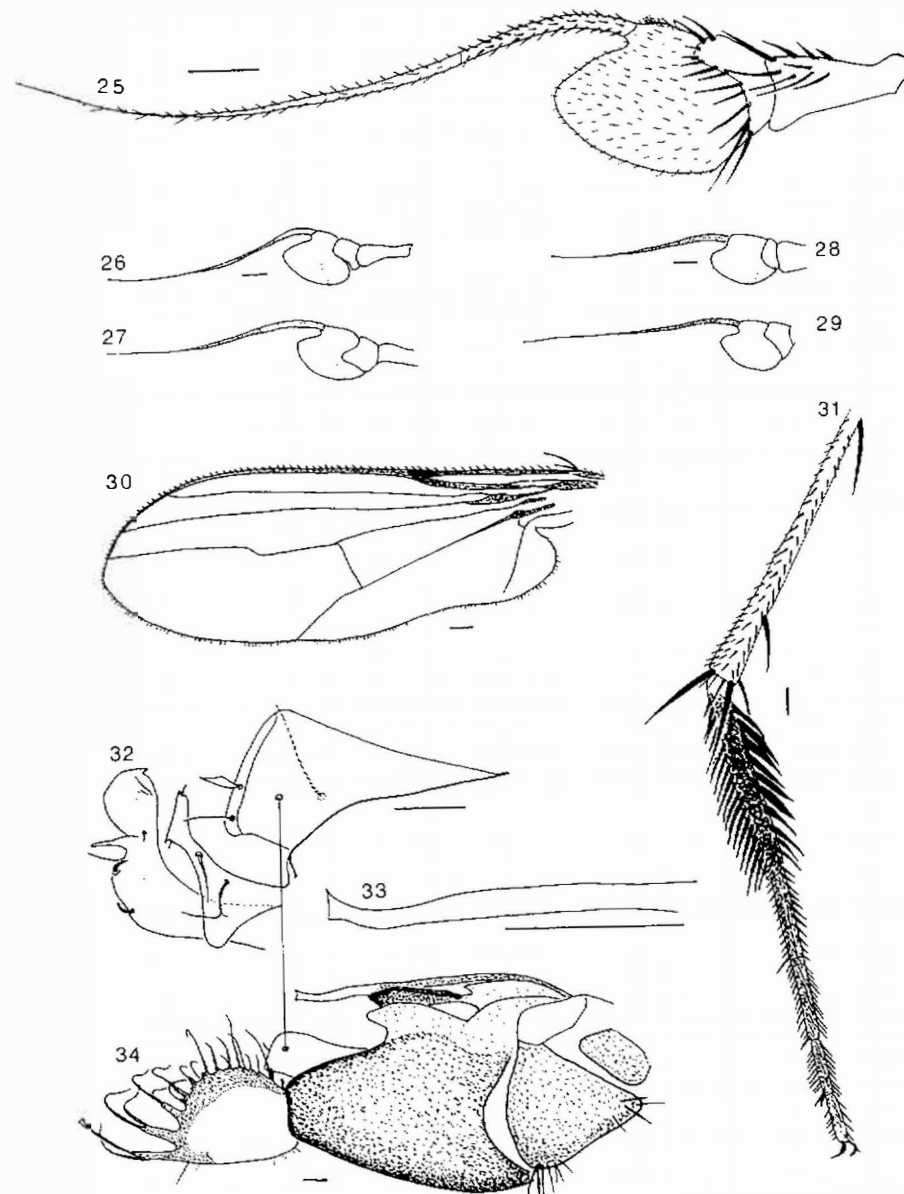


Fig. 25-34: *Dolichopus polleti* sp. n.: 25-27 male antennae; 28-29 female antennae; 30 wing; 31 tibia II and tarsus II; 32 basimere and surstylus; 33 aedeagus; 34 hypopygium. Scale 0.1 mm.

sal tip with a few longer bristlets. Second segment short, with a circlet of short black apical bristles, longest ventrally. Third antennal segment rather short, with a rather blunt tip, less than 1.5 times as long as deep. Arista shortly pubescent, inserted about at middle of dorsal margin of third antennal segment, more than three times as long as third antennal segment; basal arista segment long, projecting beyond tip of third antennal segment with half or a little more than half its own length.

Thorax: Mesonotum and scutellum with dark metallic green ground-colour, moderately shining. Pleura with dark metallic green ground-colour. 6 dc. Humeri with 1 large and 1 small bristle. Propleura with soft white hairs and 1 strong black bristle. Scutellum with 2 marginals.

Legs: coxae I yellow, coxae II and III black with yellow apices. Legs yellow; tarsus I browned from apex of first joint onwards; apex of tibia II and extreme base of first joint of tarsus II yellowish or nary white, rest of tarsus II black, becoming more brownish black distally; apex of tibia III dorsally usually darkened (yellowish brown, brown or blackish brown), ventrally yellow; tarsus III entirely black.

Coxa I anteriorly with short black hairs; short white hairs are present only on basal half on outer anterior and on exterior side; at apex an oblique row of black bristles of unequal length and strength.

Trochanter practically bare. Femur I without bristles; only posteroventrally near tip a small bristlet. Tibia I as long as femur; 2 ad on basal half, followed by a serration of short bristlets; 2 pd, 2 pv; at apex 1 posterior and 1 posterodorsal bristle. Length ratio of tibia I and tarsus I: 29:15:6:5:4:3.

Coxa II anteriorly with black hairs; 1 black exterior bristle; at tip some bent black bristles. Trochanter with a small ad. Femur II with a black anterior preapical. Tibia II about 1.3 times as long as femur, very slender, slightly thickened at apex (Fig. 31), dorsally with an inconspicuous, not darkened narrow bare stripe over its whole length; 3-4 ad, 1 pd; a circlet of apical bristles. Tarsus II (Fig. 31) shorter than tibia; first joint deep black, except extreme base, anterodorsally and posteroventrally with a double feathering of long black flattened bristles. Length ratio of tibia II and tarsus II: 44:15:7:6:4.5:3.

Coxa III with a black external bristle and a small bristlet beneath it. Trochanter with a tiny dorsal bristlet. Femur III with a black anterior preapical; dorsally on basal half a row of lengthened bristly hairs. Tibia III a little longer than femur; 4 ad, sometimes preceded by a small bristlet, 4-5 pd, 1 dorsal bristle in front of apex; ventrally a row of shorter, thin, erect bristlets and 1 av near apex; posteriorly on apical two thirds somewhat lengthened crowded hairs, giving a shaggy appearance; at posterior apex a short black fringe; 2 apical bristlets. First joint of tarsus III with two dorsals and an anterior bristle, ventrally usually with some short bristlets. Length ratio of tibia III and tarsus III: 39:15.5:15:10:7:4.

Wing (Fig. 30): very feebly tinged brownish; anal lobe very pronounced, preceded by an excision of the hind margin. Bends of m1 + 2 very obtuse, clearly before middle of apical part. Tp 3/4-3/5 of apical part of m3 + 4. Halteres yellow. Squamae yellow with black cilia.

Abdomen: dark metallic green, moderately shining. Hairs and marginal bristles black. Hypopygium (Fig. 32-34) large, black. Cerci yellowish white with a moderately broad brownish black border, bearing at apex rectangular lobes with hooked bristles. Aedeagus (Fig. 33) bent upwards apically with tip not so obliquely cut off as in *D. wahlbergi* ZETTERSTEDT; surstyli (Fig. 32) with a very deep broadening near base.

Female

Body length: 4.7-5.2 mm; **Wing length** 4.2-4.8 mm.

Head: Face broader than in ♂, more than half as broad as frons at level of anterior ocellus, nearly 1.5 times as broad as depth of third antennal segment, covered by a thick dusting (colour?). Clypeus slightly protruding, bearing short pale hairs. Palpi larger than in ♂, yellow, with short brown hairs and a thin black apical bristle.

Antennae (Fig. 28-29) coloured as in ♂; Third antennal segment only slightly shorter than with the ♂ and of similar shape.

Legs: coxae and legs I and II coloured as in ♂. Leg II yellow; tarsus II brownish black; first joint of tarsus II yellow at extreme base. Coxa I with short black hairs as in ♂. Tibia I without distinct serration. Length ratio of tibia I and tarsus I: 27:13:6:4.5:3:3.

Tibia II normal: 3 ad, preceded by a short bristlet; 2 pd; 1 av; a circlet of apical bristles. Tarsus II without feathering. Length ratio of tibia II and tarsus II: 38:16:8:6:4:3.5. Leg III as in ♂. Length ratio of tibia III and tarsus III: 40:14:13.5:10:6:4.5.

Wing: anal lobe not so pronounced, no excision in hind margin. Halteres and squamae as in ♂.

Abdomen: oviscapt: cerci black with narrowly yellowish tip, blunt. Hemitergites each with 5 short black dornen.

Material examined - type material:

Belgium: Lac de Virelles (prov. Namur), holotype male, 28.VI.1986, leg. N. MAGIS; paratypes: Lac de Virelles, 28.VI.1986, 7 ♂♂, 11 ♀♀; 8.VII, 4 ♂♂, 1 ♀; 16.VII, 5 ♂♂, 2 ♀♀; 21.VII, 10 ♂♂, 5 ♀♀; 28.VII, 2 ♂♂, 2 ♀♀; 4.VIII, 10 ♂♂, 5 ♀♀; 12.VIII, 12 ♂♂, 6 ♀♀; 27.VIII, 4 ♂♂, 8 ♀♀; 11.IX, 4 ♀♀; 21.IX, 1 ♀; 4.X, 1 ♀.

D. polleti was collected with a malaise trap in a humid prairie in the natural reserve along the lake of Virelles. For the abiotic and biotic conditions we refer to MOUREAU *et al.* (1988) and for the composition of the fly fauna to GROOTAERT *et al.* (1988). All material is preserved in alcohol and most is deposited in the collections of the K.B.I.N..

Derivatio nominis: The present species is dedicated to our colleague Dr. Marc POLLET who during the last years has contributed much to the knowledge of the dolichopodids in Belgium.

Acknowledgements

The authors wish to thank Dr. N. MAGIS, Mr. B. DUBOIS and G. HAGHEBAERT for taking and sorting out the samples. Dr. L. MATILE (Paris) generously gave access to the collections of O. PARENT.

Abbreviations used

ad: anterodorsal (bristle(s)); pd: posterodorsal (bristle(s)); av: anteroventral (bristle(s)); pv: posteroventral (bristle(s)); tp: hind crossvein; H. M.: collection H. MEUFFELS; K.B.I.N.: Koninklijk Belgisch Instituut voor Natuurwetenschappen.

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Une nouvelle espèce de **Tabanus** (Diptera, Tabanidae) du Bas-Zaïre

par P. ELSÉN

Manuscrit accepté le 26.VIII.1988.
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Résumé

Un nouveau Tabanidae, *Tabanus fuscotibialis* n. sp., est décrit du Bas-Zaïre. Il s'agit d'une petite espèce appartenant au sous-groupe *besti-ianthinus* (groupe « plain » de OLDROYD) dont les différences d'avec *T. ianthinus*, *T. besti* et *T. besti arbucklei* sont soulignées.

Summary

A new Tabanidae, *Tabanus fuscotibialis* n. sp., is described from Bas-Zaïre. It is a small species belonging to the *besti-ianthinus* sub-group (OLDROYD's plain group), which differences regarding *T. ianthinus*, *T. besti*, *T. besti arbucklei* are pointed out.

Dans une collection de Tabanidae que nous avons réalisée au Bas-Zaïre, nous avons trouvé un spécimen de *Tabanus* qui à première vue fait penser à *T. ianthinus* SURCOUF, 1907, mais qui par d'autres caractères se rapproche de *T. besti* SURCOUF, 1907. Nous écartons la possibilité de la sous-espèce *T. besti arbucklei* AUSTEN, 1912 par l'absence totale de tache claire sur les tibia I, par la tegula des ailes d'un noir profond qui tranche nettement avec le brun du reste des ailes, par le front plus divergent et par la coloration dorsale du corps nettement du type *ianthinus*. La combinaison de certains caractères de *T. besti* et *T. ianthinus* associée à des caractères différents de ces deux espèces nous amène à créer une nouvelle espèce pour le spécimen qui nous concerne et qui est d'autre part plus petit (12,5 mm) que les espèces citées. Signalons enfin que ce spécimen possède un petit appendice sur la nervure R4, caractère qui, d'après OLDROYD (1954), est absent chez les espèces de ce sous-groupe. Cette affirmation est erronée car nous avons observé cet appendice chez quelques spécimens de *T. besti* et *T. ianthinus* ainsi que chez de nombreux spécimens de *T. obscurehirtus* RICARDO, 1908. Il semble donc que ce caractère soit variable au sein du groupe et qu'il n'ait pas ici de valeur taxonomique. Nous le signalons néanmoins dans la description.