

THE PIERCER

A PIPUNCULIDAE NEWSLETTER, NO 3

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Introduction

The last issue of The Piercer was almost exactly 10 years ago. The driving force behind a newsletter for the Pipunculidae was Alan Stubbs, as has been the case for so many worthy projects within the Dipterists Forum. In that issue (No 2) Alan expressed his relief that the newsletter had continued beyond the first issue (May, 1989), and included a large amount of data on species new to Britain, ecological data, and collecting techniques.

He pointed out that at that time it was a chaotic period prior to his retirement from the NCC, and that I was also about to retire, with the hope that I should have more time to devote to entomology. We all know that since that date Alan has been fully occupied in updating his syrphid book, and producing the larger Brachycera volume (not to mention writing test keys for the crane-flies); I have also been fairly busy with the Anthomyiidae, both British and many other faunal areas. I hope that this 'resuscitated' newsletter will result in further issues of The Piercer.

In sorting out and identifying pipunculids for the Oxford University Museum collection (in conjunction with rehousing the Verrall-Collin Collection) I made many drawings of the genitalia of various genera for my own use, without any specific intention of publishing them in any serious revisions. I made use of some of these drawings when I had to describe two new species that I came across. Recently I began to think that it would be useful to publish them, together with some notes, and incorporate information from new work that had been published in the meantime.

I decided that a further issue of the Piercer with some new test keys and comprehensive sets of genitalia drawings of the species of British *Eudorylas* might be of use to those who have already taken an interest in this family, and might even encourage others to collect and identify these flies, even if it is often necessary to dissect the genitalia to arrive at a definite conclusion in some cases. It also seemed that The Piercer would be the most suitable place to publish these test keys, as their name indicates that further improvement is possible when more material is available, and any discrepancies can be corrected.

I would like to dedicate this issue to Alan, for without his encouragement I am sure that there would be no Piercer. I have also received encouragement from Dr Marc De Meyer in Belgium, and Dr Jeff Skevington in Canada, who have done so much to raise the standard of pipunculid taxonomy in the last ten years, so that the world position is now such that real progress can be made with this family. I should not forget to mention Dr Anders Albrecht, whose revision of the world species of *Dorylomorpha* in 1990 set the standard, especially his detailed figures which were a spur to my own efforts in this field.

The brief notes on distribution are mainly those already published, but include records from the VC coll. in the OUM. Many other records which I have either compiled myself, or which have been sent to me, are not included as they have not yet been incorporated into a database.

Test keys to British Eudorylini

(including figures of the male and female genitalia)

by D. M. Ackland

In a recent phylogenetic classification of the Eudorylini, Skevington & Yeates (2001) introduce some new morphological terminology, which I have followed. In the brachyceran antennae the enlarged flagellum (third antennal segment, first flagellomere) is now called the postpedicel. In the male genitalia, the aedeagus (aedeagal guide) is called the phallic guide, and the ejaculatory ducts (aedeagus, penis) are called the phallic ducts.

Many of the small external characters of use in identifying Eudoryline pipunculids are quite difficult to express in words or figures; these include colour and intensity of dusting, small differences in eye facet size, the shape and outline of the membranous area on syntergosternite 8. The latter can also be variable, and can change in appearance due to the way that dried material shrinks and warps. With fully hardened adults it should be possible to recognise the majority of the British males without dissection, except in some groups (*obscurus-longifrons-arcamus* group, and *zonellus-zonata-inferus* group). Most of the figures of the syntergosternite are made from undissected specimens. It should be remembered that after maceration and clearing of the male genital capsule, the shape and size of the membranous area is significantly changed; therefore it is a good idea to make a note or sketch of the dried condition of the syntergosternite 8 before dissection. Use of the keys should be combined with careful comparison of dissected genitalia with the figures at least initially. Some reliably named voucher specimens are also of value in the Pipunculidae. In the female key especially, some of the colour characters may not be reliable, and so alternative couplets should be tried.

The tribe Eudorylini, as far as the British species are concerned, consists of the genera *Eudorylas*, *Claraeola*, and *Dasydorylas*, which were all previously species of *Eudorylas*. For a full diagnosis, see Skevington & Yeates, (2001: 427). In Britain, they are species with the propleural fan absent, mesonotal setae absent, mesonotal pilosity reduced to two dorsocentral rows of short setulae, pterostigma present, syntergosternite 8 and epandrium enlarged, and the 6th sternite reduced. I include a key to British genera of Pipunculidae, which is adapted from Skevington & Yeates, 2001. I thank Dr Skevington and Blackwells Publishing for permission to use this key.

Legends to Figures

Male

A	Syntergosternite 8, caudal view	K	Ejaculatory apodeme
B	Syntergosternite 8, dorsal view	L	Sternite 5
C	Syntergosternite 8, lateral view		
E	End of abdomen, dorsoventral view	Female	
F	Epandrium and surstyli, dorsal view		
G	Surstyli, lateral view	M	Ovipositor, dorsal view
H	Phallic guide, ventral view	N	Ovipositor, lateral view
I	Phallic guide, lateral view	O	Base of abdomen, dorsal
J	Phallic ducts	P	End of abdomen, dorsal view

Key to genera of British Pipunculidae

(adapted from Skevington, 2001)

1	Hind margin of eye deeply incised medially.....	Nephrocerus
—	Hind margin of eye straight or nearly so	2
2	Ocellar setae distinct; occiput very narrow, scarcely projecting behind eyes; head hemispherical; margin of mesonotum and scutellum with strong setae. (Chalarinae).....	3
—	Ocellar setae reduced or absent; occiput swollen and plainly visible in lateral view; head spherical; margin of mesonotum and scutellum without strong setae. (Pipunculinae)	5
3	Wing venation incomplete, cell M open, cross-vein dm-cu absent, vein m reduced	Chalarus
—	Wing venation complete, m and dm-cu present, cell M closed.....	4
4	Vein M2 present; femora without ventral protuberances.....	Verrallia
—	Vein M2 absent; femora usually with ventral protuberances.....	Jassidophaga
5	Propleuron with a fan of setae.....	7
—	Propleuron bare.....	9
6	Frons swollen; face narrowed; discal median cell not expanded medially. (Microcephalopsini)	Microcephalops
—	Frons not swollen; face not narrowed; discal median cell expanded medially	7
7	At least anterior portion of scutum evenly setulose. (Pipunculini)	Pipunculus
—	Setae on thorax restricted to 2 dorsocentral rows and scattered setae along margins. (Cephalopsini)	8
8	Vein M2 present.....	Cephalosphaera
—	Vein M2 absent. (Cephalops).....	13
9	Abdominal tergites (except tergite 1) shining, entirely undusted; abdomen elongate and clavate, widening distally. (Tomosvaryellini in part).....	Dorylomorpha
—	Abdominal tergites usually with at least some grey or brown dusting laterally; abdomen shorter and not distally clavate, usually widest at middle.....	10
10	Wing without coloured pterostigma; cross-vein r-m usually situated at about middle of cell M. (Tomosvaryellini in part)	Tomosvaryella
—	Wing usually with coloured pterostigma, if coloured pterostigma absent than cross-vein r-m in basal third of cell M. (Eudorylini)	11
11	Hind tibia with erect anteromedial setae over half length of tibia; lateral fan of tergite 1 expanded into a patch of setae; phallus of male with subapical protuberance covered with specialised scale-like setae	Claraeola
—	Hind tibia with 0-4 erect anteromedial setae only; lateral fan of tergite 1 restricted to one row of setae; phallus of male without subapical protuberance and without specialised scale-like setae	12

- 12 Hind tibia with erect anteromedial setae..... **Dasydorylas**
 – Hind tibia with no outstanding anteromedial setae **Eudorylas**
 13 Anal vein missing; ejaculatory apodeme bottle-shaped..... **Cephalops** (Beckerias)
 – Anal vein present; ejaculatory apodeme not as above 14
 14 Tibiae with strong median and apical spines; abdomen long and narrow
 **Cephalops** (Cephalops)
 – Tibiae lacking strong medial and apical spines; abdomen broad and shortened..... 15
 15 Male with membranous area not enlarged; apical part of phallic guide strongly broadened
 **Cephalops** (Parabeckerias)
 – Male with membranous area of sternite 8 reaching epandrium; phallic guide not as above
 **Cephalops** (Semicephalops)

Key to British species of Eudorylini ♂♂

- 1 Abdominal tergites covered with strong black setulose hairs. Abdominal tergites 2-5 with broad black anterior bands contrasting with light grey dusting. Syntergosternite 8 (fig. 22A) with a large membranous area which slopes from ventral left to dorsal right. Phallic ducts (fig. 22J) short. Phallic guide (figs. 22H, I) long and slender, sinuous in lateral view. Hind tibia with a long dark anteromedial seta. Postpronotal lobe pale. Hind femur dark basally. Surstyli (fig. 22F) characteristic. Wing length 3.5–4.5 mm. **Dasydorylas horridus** Becker
 – Abdominal tergites with finer pale or brown hairs..... 2
 2 Syntergosternite 8 (fig. 24A) wide, with a long narrow oblique membranous area, sloping from dorsal left to ventral right. Lateral fan of tergite 1 expanded into a patch of setae. Hind tibia with several erect anteromedial setae. Surstyli (fig. 24F) simple, long and slender. Phallic (fig. 24J) ducts short. Phallic guide (fig. 24H) long and slender. Postpronotal lobe dark. Fore and mid tibia without an apical posteroventral seta..... 3
 – Syntergosternite 8 otherwise, either large and without a membranous area or with membranous area sloping from ventral right to dorsal left, or with a very large membranous area (*montium* slightly sloping from dorsal left to ventral right, but membranous area wider). Lateral fan of tergite 1 restricted to one row of setae. Surstyli generally expanded basally. Fore and mid tibia with an apical posteroventral seta. 4
 3 Pterostigma not longer than following costal section, and does not reach back to apex of subcostal vein. Mid femur with a posterior fringe of curling pale yellowish hairs. All tibiae narrowly clear yellow basally. Surstyli (fig. 23F) shorter and wider. Smaller species, wing length 3.5–4 mm. **Claraeola halterata** Meigen
 – Pterostigma 1.25–2 times as long as the following costal section. Tibia basally obscurely yellowish. Surstyli (fig. 24F) longer and narrower. Larger species, wing length 5–5.5 mm. **Claraeola melanostola** Becker
 4 Syntergosternite 8 without a membranous area (if a very small one present, then syntergosternite 8 very large) 5
 – Syntergosternite 8 with a membranous area, generally large..... 6
 5 Syntergosternite 8 (fig. 7A) viewed dorsally large and swollen, evenly rounded on posterior margin in dorsal view, as wide as tergite 5, the latter at least 3 times as wide as long. Larger species, wing length 3.25–4 mm. Surstyli (fig. 7E) basally expanded **Eudorylas ruralis** Meigen
 – Syntergosternite 8 (fig. 21A) smaller, tergite 5 only twice as wide as long. Pterostigma longer than the following costal section, abbreviated basally. Pulvilli and claws very short and small. Surstyli simple. Smaller species, wing length about 2.6 mm. **Eudorylas fuscus** Zetterstedt

6	Pterostigma rather long, more than twice length of following section. Eyes touching for a longer distance than length of lower frons. Hind tibia strongly dilated medially and rather bent. Last section of discal vein rather straight. Wings long. Abdomen robust.. Syntergosternite 8 (figs. 5A, B, C) with a roundish, shallow membranous area, not visible from above.....	Eudorylas kowarzi Becker	
-	Pterostigma shorter, at most twice length of following section of costa. Not all the above characters present.....		7
7	Syntergosternite 8 (fig. 4A) much wider than high, when viewed caudally, with a wide membranous area which is directed downwards and not visible from above. Dark species, knees narrowly pale. Surstyli (fig. 4F) short, right one developed apically into a wide blunt peg.....	Eudorylas unicolor Zetterstedt	
-	Syntergosternite 8 not as above.....		8
8	Syntergosternite 8 (fig. 8A) with a small indistinct membranous area, situated on the right side; viewed dorsally (fig. 8B) syntergosternite 8 more produced on right side. Epandrium (fig. 8F) on left side just above surstylus swollen (visible without dissection). Surstyli (figs. 8F, G) remarkably expanded apically, especially left one, quite unlike any other British species. Phallic ducts (figs. 8F, J) partially coiled. Sternite 5 (fig. 8L) narrow	Eudorylas restrictus Coe	
-	Not as above.....		9
9	Syntergosternite 8 with a very small, indistinct, central round membranous area (sometimes absent).....		10
-	Syntergosternite 8 with a larger, distinct membranous area.....		11
10	Syntergosternite 8 (fig. 11B) in dorsal view nearly as wide as tergite 5, viewed caudally (fig. 11A) considerably wider than high. Phallic ducts (fig. 11J) longer and coiled in an almost complete circle. Phallic guide in lateral view (fig. 11I) with the subapical ventral lobe small and pointed.....	Eudorylas terminalis Thomson	
-	Syntergosternite 8 (fig. 10B) in dorsal view narrower and rounded on posterior margin, considerably narrower than tergite 5, viewed caudally (fig. 10A) not much wider than high. Genitalia similar to <i>terminalis</i> , but phallic guide in lateral view (fig. 10I) with a larger and rounded ventral lobe.....	Eudorylas subterminalis Collin	
11	Epandrium with the left distal corner produced into a narrow thumb-like lobe, directed caudally (fig. cf. 1F).....		12
-	Epandrium without this lobe, or if with a suggestion of one, it is laterally directed.....		14
12	Syntergosternite 8 (fig. 3A) viewed caudally, with lower right margin slightly rounded, not straight; in dorsal view (fig. 3B) the posterior margin is straight or even concave. Phallic guide (figs. 3H, I) characteristic, with the submedian ventral lobe large and square ended. Phallic ducts (fig. 3H) long but not coiled, recurrent.....	Eudorylas caledonicus Ackland	
-	Syntergosternite 8 with lower right margin obliquely cut off (c.f. figs. 1A, 2A) . Phallic guide short. Phallic ducts (c.f. figs. 1J, 2J) very short and straight.....		13
13	Postpedicel of antenna long acuminate. Left surstylus (fig. 2G) in lateral view with a long narrow drawn-out apex. Larger species, with wings longer in proportion to body size. Wing length 4.5–5.5 mm.	Eudorylas jenkinsoni Coe	
-	Postpedicel short acuminate. Left surstylus (fig. 1G) in lateral view with apical part gradually tapering. Wings shorter in proportion to body size, Wing length 4–4.5 mm.	Eudorylas obliquus Coe	
14	Syntergosternite 8 (fig. 14A) with a large, irregularly margined membranous area, which is situated on the right side of syntergosternite 8 when viewed caudally; in dorsal view (fig. 14B) the upper margin almost reaches back to tergite 5. Side margins of abdominal tergites completely grey dusted. Hind femur pale basally. Phallic guide in lateral view (fig. 14H) large and characteristic. Phallic ducts (figs. 14I, J) large and coiled.....	Eudorylas subfascipes Collin	
-	Syntergosternite 8 otherwise.....		15

- 15 Syntergosternite 8 (fig. 6A) in caudal view with membranous area large and oval, wider than long, and occupying most of syntergosternite. Abdomen and scutellum with some shining areas. Surstyli (fig. 6F) simple, not expanded basally, only slightly asymmetrical **Eudorylas zermattensis** Becker
- Syntergosternite 8 otherwise. Surstyli expanded basally (c.f. fig. 9F) 16
- 16 Syntergosternite 8 (fig. 9A) with the membranous area roundish, but produced slightly on left dorsal margin, thus appearing to be slightly sloping to the left of syntergosternite, and directed posteriorly slightly to the right when viewed dorsally (fig. 9J) . Phallic ducts (fig. 9B) short, not coiled **Eudorylas montium** Becker
- Membranous area of syntergosternite 8 otherwise. Phallic ducts longer, more or less coiled 17
- 17 Postpronotal lobe pale 18
- Postpronotal lobe dark 20
- 18 Tibiae and tarsi dark, though knees and basal tarsal segments may be yellowish. Syntergosternite 8 (fig. 17B) in dorsal view directed to the right. Phallic guide (fig. 17H) long, narrower at base than medially **Eudorylas obscurus** Coe
- Tibiae and tarsi extensively yellowish, at least dorsally 19
- 19 Postpedicel narrower, long acuminate, orange-yellow with pale hairs. Hind femur without small spines ventrally towards apex. Hind tibia without a median anterior seta. Syntergosternite 8 (fig. 15B) in dorsal view shorter on right side. Right surstylus (fig. 15F) with apical lobe produced and finger-like, basal expansion pointed. Phallic guide (figs. 15H, J) long and narrow **Eudorylas arcanus** Coe
- Postpedicel short acuminate, darkened brownish with brown hairs. Hind femur with small dark spines ventrally towards apex. Hind tibia with a median anterior seta. Syntergosternite 8 in caudal view (16A) with right side longer. Phallic guide (fig. 16H) robust in ventral view, basally wider **Eudorylas longifrons** Coe
- 20 Syntergosternite 8 short in dorsal view (fig. 12B) , with very large membranous area (fig. 12A) which almost fills syntergosternite in caudal view, and produced on right side. Smaller species, wing length 3.25–4 mm **Eudorylas fuscipes** Zetterstedt
- Syntergosternite 8 longer, membranous area not so large. Larger species, wing length 4–6 mm 21
- 21 Hind femur with 2–4 apical short anteroventral setulae which are slightly thorn-like. Abdomen with whole of lateral margins of tergites grey dusted. Scutum lighter brown. Syntergosternite 8 in dorsal view longer (fig. 18B) , and with membranous area just visible, especially of left side, hence upper part of membranous area in profile is more posteriorly directed (fig. 18C) **Eudorylas zonellus** Collin
- Hind femur with apical short anteroventral setulae more like fine hairs, not thorn-like. Scutum darker brown. Abdomen with lateral margins of tergites darkened basally 22
- 22 Syntergosternite 8 shorter in dorsal view (fig. 19B) , hind margin more rounded **Eudorylas inferus** Collin
- Syntergosternite 8 longer in dorsal view (fig. 20B) , membranous area directed more ventrally (fig. 20C) **Eudorylas zonatus** Zetterstedt

Key to British species of Eudorylini ♀♀

(female of *dissimilis* Coe unknown, and female of *fuscus* not included)

- 1 No posteroventral seta present on four anterior tibiae. All tibiae with at most base rather narrowly yellow. Pterostigma not extending back to tip of Sc 2
- Four anterior tibiae with a distinct posteroventral seta at tip 3
- 2 Pterostigma shorter than following costal sector. Base of all tibiae narrowly clear yellow, legs otherwise black. Ovipositor (figs. 23M, N) with base in caudal view tapering into piercer and higher than long; piercer straight in profile. Smaller species, wing length 3.5–4 mm **Claraeola halterata** Meigen

- Pterostigma subequal to following costal sector. All tibiae with base obscurely yellowish, legs otherwise black. Ovipositor (figs. 24M, N) in caudal view with sinuous margins, in profile piercer basally wide, downcurved. Large species, wing length 5–5.5 mm.
..... **Claraeola melanostola** Becker
- 3 Tergites evenly and abundantly clothed with strong, black bristly hairs. Abdomen viewed from behind with at least tergites 2 and 3 darkened anteriorly. Ovipositor (figs. 22M, N) with base small, triangular in caudal view, piercer longer than base, straight and slender. Wing length 3.5–4.5 mm. **Dasydorylas horridus** Becker
- Tergites sparsely clothed with weak, usually pale hairs 4
- 4 All femora obviously yellow at base, hind pair usually more extensively so. Tibiae mainly or entirely yellow, at least above. Tarsi yellow, apart from the distal two segments which are darkened. Postpronotal lobe distinctly yellow, contrasting with black or grey of occiput (except *fascipes* and *subfascipes*, with postpronotal lobe variable in colour) 5
- All femora black or grey to actual base. Tibiae often extensively darkened. Tarsi usually more or less so. Postpronotal lobe light or dark 12
- 5 Base of ovipositor viewed caudally (figs. 2M, N) , with a remarkably broad and deep excavation occupying quite median third of dorsal surface; anal opening small, inconspicuous, oval; piercer short, very slightly downcurved at tip
..... **Eudorylas jenkinsoni** Coe
- Base of ovipositor without, or with at most a smaller longitudinal furrow, not nearly occupying median third of dorsal surface in caudal view 6
- 6 Base of ovipositor without a dorsal longitudinal furrow. Frons entirely grey. Postpedicel yellowish orange; body greyish brown. All femora yellow tipped, at least hind pair distinctly so at base. Tibiae clear yellow, sometimes vaguely infuscated brownish about middle 7
- Base of ovipositor with a longitudinal furrow dorsally 8
- 7 Ovipositor (figs. 13M, N) with base swollen, distinctly wider than long, piercer very short, shorter than longer than base, fine and downcurved. Tarsi clear yellow, except last segment darkened. Small species **Eudorylas fascipes** Zetterstedt
- Ovipositor (fig. in Coe, 1966) with base rather large, distinctly longer than wide, piercer obviously longer than base, thick, strongly downturned throughout; anal opening large, roundish. Tarsi inclined to be obscured brownish above, last segment blackish. Large species, wing length 5.25–6 mm. **Eudorylas kowarzi** Becker
- 8 Ovipositor with anal opening large (figs 14M, N) , conspicuous, broad, very shortly oval; viewed caudally the base of ovipositor is wider than high, piercer in lateral view is slightly downcurved **Eudorylas subfascipes** Collin
- Anal opening smaller, roundish or oval; viewed from above the base of ovipositor is more or less distinctly indented behind, the median groove fairly deep and rather wide. Piercer not longer than base and fairly straight in lateral view. 9
- 9 The lobes of base of ovipositor are equal or subequal in size 10
- The lobes of ovipositor (fig. 1M) are unequal, the left lobe being smaller than the right in caudal view; the base with a distinct furrow; piercer almost straight, short.
..... **Eudorylas obliquus** Coe
- 10 Piercer in caudal view (fig. 3M) just below anal opening, rather wide; in lateral view (fig. 3M) straight except for the extreme tip. Base of ovipositor in lateral view with ventral margin straight, rather swollen dorsally.
..... **Eudorylas caledonicus** Ackland
- Piercer otherwise 11
- 11 Viewed from above, the base of ovipositor (fig. 11P) is longer and narrower than in *subterminalis*; viewed caudally (fig. 11M) angle between base and piercer more obtuse
..... **Eudorylas terminalis** Thomson
- Viewed from above the base of ovipositor is shorter, viewed caudally angle between base and piercer is less obtuse. Tibiae and tarsi more distinctly yellowish than in *terminalis* ♀
..... **Eudorylas subterminalis** Collin

- 12 Ovipositor (fig. in Coe, 1966) with the base fitting exactly into a cavity, so that viewed from the side it is flush with the outline of tergite 6; base small, roundish, smooth **Eudorylas ruralis** Meigen
- Ovipositor with base not fitting exactly into a cavity, so that viewed from the side it protrudes obviously from the outline of tergite 6; base sometimes with a median longitudinal groove, or bilobed 13
- 13 Postpronotal lobe distinctly yellowish, contrasting with black or grey of occiput 14
- Postpronotal lobe grey, brown or blackish, as dark as or darker than the occiput 17
- 14 All tibiae entirely clear yellow dorsally, or at most vaguely darkened for slightly more than apical half; at least fore and mid metatarsi and usually the following 3 segments clear yellow 15
- All tibiae black, at least dorsally, for apical half and usually more extensively so. Tarsi more or less extensively darkened 16
- 15 Postpedicel clear yellow, with a long pointed whitish tip. Ovipositor (figs. 15M, N). Pterostigma short. Small species, wing length 4–5 mm **Eudorylas arcanus** Coe
- Postpedicel pale brownish with whitish tip. Ovipositor (figs. 16M, N) resembling that of *arcanus*. Larger species, wing length 4.25–5.5 mm **Eudorylas longifrons** Coe
- 16 Viewed from above thorax, scutellum and tergites are shining black. Occiput shining black, scarcely dusted on upper part. Ovipositor (figs. 6M, N) with base shining black, short and bulbous, without an obvious median longitudinal groove, piercer downcurved and rather slender after middle **Eudorylas zermattensis** Becker
- From all points of view thorax, scutellum and tergites are dull brownish grey. Occiput completely dulled by dust, on upper part brownish grey. Ovipositor with base dull and grey dusted on at least basal part, with a median longitudinal furrow, slightly shorter than piercer, which is straight and rather slender **Eudorylas obscurus** Coe
- 17 Base of ovipositor not obviously projecting on upper part at tip, although this part is swollen and often yellowish. Piercer almost straight 18
- Base of ovipositor projecting (and more or less swollen) on upper part at tip, this projection usually yellowish 19
- 18 Base of ovipositor rather large (figs. 12M, N) appearing nearly globular viewed caudally; piercer shorter than base, slender in profile, straight with tip downcurved. Small species **Eudorylas fuscipes** Zetterstedt
- Base of ovipositor (figs. 9M, N) in lateral view of equal height and length; piercer in lateral view longer than base. Normally larger species than *fuscipes* **Eudorylas montium** Becker
- 19 The ventral basal corner of base of ovipositor in lateral view (figs 18M, N) prominent and rounded; the piercer at most only slightly downcurved, and equal in length to base. Scutellum densely light grey dusted on disc, so that even from behind it is not or scarcely shining. Rather large species **Eudorylas zonellus** Collin
- The ventral basal corner of base of ovipositor less prominent 20
- 20 Piercer strongly downcurved, nearly twice as long as the base (figs. 20M, N) which is small and rather narrow. Scutellum thinly grey dusted, and viewed from behind moderately shining with the blackish ground colour exposed. Normally rather large species **Eudorylas zonatus** Zetterstedt
- Piercer only slightly downcurved, equal in length to the base (figs. 19M, N), which is larger than *zonatus*. Scutellum rather heavily grey dusted on disc, and viewed from behind not or only slightly shining. Normally rather large species **Eudorylas inferus** Collin