Trachyphloeini. Small or medium weevils (2-5 mm) with erect **paddle scales** on the wing-cases. Compared to other broad-noses, these species are rather chunky, with **thick** antennae, especially the scape. Compare Some *Otiorhynchus* have paddle scales, but they are usually larger and they have longer and more slender antennae, and a relatively longer and narrower pronotum. *Brachysomus* and *Omiamima mollina* have more slender antennae, narrow oval or hair-like flat scales, and usually narrower pronotums and more rounded wing-cases. *Neliocarus* with paddle scales have beady eyes and a wedge-shape head.

These species live on or just under the ground. Many are active at night, but they can be found in the day by searching at the base of plants, by scraping around at the top of the soil or in moss, by sifting leaf litter, or by vacuum sampling.

Look at the rostrum from slightly in front, especially if a specimen is set with its head bowed. Otherwise the antenna sockets and the true shape of the top may be hidden by the curvature of the rostrum. All species are often encrusted with soil, which can hide the structure and colour of the surface. This is especially true of *Trachyphloeus spinimanus*, *digitalis*, and *alternans*, which may appear as though they are coated in a smooth layer of plaster.

Romualdius, after Romuald Formánek, a Czech weevil expert; Trachyphlœus = rough bark; Cathormiócerus = beaded horn; Cænópsis = strange looking.

Guide to the groups 1. Look at the head from the side.



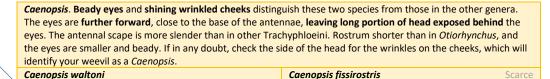
Caenopsis has shining, wrinkled cheeks, and eyes set further forward.



All the other genera have smooth or pitted cheeks, not so shining, and covered in part by scales. Their eyes are closer to the back of the head.

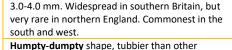


See Guide to groups 2 on next page





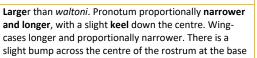






4.0-6.0 mm. Widespread but uncommon in England and Wales.

of the antennae, like a blunt rhino horn.



fissiróstris = split rostrum

All whole weevil images in main species accounts scale ×10.

Trachyphloeini. Smaller and fatter than fissirostris, with a

proportionally wider and shorter pronotum. It does not

size and shape alone will easily separate the two species.

have the rhino horn or the keel on the pronotum, but

waltoni, after John Walton, an British entomologist



Guide to the groups 2

The remaining species have been placed in various genera in the past, depending on which characters were used to define each genus. The current arrangement works well, but *Trachyphloeus rectus* is in many ways as different from the other *Trachyphloeus* species are from other genera, so I have placed it in a separate group.

	Romualdius	Trachyphloeus rectus	Other Trachyphloeus	Cathormiocerus
Head				
Scape	Almost straight, gradually widened.	Almost straight, swollen into a slight club.	Angled or bent, swollen into a slight or distinct club.	Angled or bent or slightly curved, gradually widened or with a distinct club. Some with unusual shape .
Antennal sockets		Partly visible from above.		
	Partly visible from above. Scaled and fading out before eyes.		Hidden from above. Scaled before eyes, disappearing just before the eyes.	Partly or mostly visible from above. Bare and shining before eyes, extending to include the front of the eyes.
Rostrum	Top narrowing from eyes to tip. Sides exposed, arching out like a hippo nose.	Top narrowing from eyes to tip. Sides exposed.	Top wide, covering most of the sides.	Top narrowing or constricted from eyes to tip. Sides exposed.
Front tibia	Rounded with a spur, fringe of blackish spines.	Slightly angled or slightly lobed, with large yellowbrown spines.	Fingered (female) or angled (male), with large yellow spines.	Rounded to a spur, with a fringe of yellow-brown spines.
General features	Larger than most other species. Rather fat, with a short but wide pronotum, especially wide at the base.	More slender than other <i>Trachyphloeus</i> . Pronotum and wing-cases more rounded at the sides, so the whole weevil looks more like a narrow figure of 8. Rostrum longer than other <i>Trachyphloeus</i> , and narrower on top, exposing part of the antenna sockets.	Top of rostrum wide , covering most of the sides. Plates behind rear legs on the underside of abdomen are covered in dull scales.	Top of rostrum narrower than in <i>Trachyphloeus</i> , exposing more of the sides and the antenna sockets. Often mahogany brown wing-cases. Plates behind rear legs on the underside of abdomen are shining.

Name changes

Romualdius angustisetulus	Included in Trachyphloeus scaber in Fowler (1891)	Trachyphloeus rectus	Trachyphloeus laticollis in Joy (1932) and Fowler	Cathormiocerus aristatus	Trachyphloeus aristatus in Morris (1997), Joy (1932),
	Included in Trachyphloeus bifoveolatus in Joy (1932)		(1891)		and Fowler (1891)
	Trachyphloeus angustisetulus in Morris (1997)	Cathormiocerus spinosus	Trachyphloeus olivieri in Joy (1932)	Cathormiocerus myrmecophilus	Includes Cathormiocerus britannicus
Romualdius bifoveolatus	Trachyphloeus scaber in Fowler (1891)		Trachyphloeus squamulatus in Fowler (1891)	Cathormiocerus socius	Includes Cathormiocerus maritimus
	Trachyphloeus bifoveolatus in Morris (1997)		Trachyphloeus asperatus in Morris (1997)		

	Romualdius . Two large species with wider , but relatively shorter proout, like a hippo-nose . The tips of the front tibiae have a fringe of sn <i>Cathormiocerus</i>). The abdomen of both <i>Romualdius</i> spp looks larger	Trachyphloeus rectus. Although included in <i>Trachyphloeus</i> , this species differs by the longer rostrum, with a narrower top exposing more of the sides and some of the antenna sockets. It also has a straighter scape. The tip of front tibia is not strongly lobed in either sex.		
	Romualdius angustisetulus	Romualdius bifoveolatus Scarce	Trachyphloeus rectus Very scar	
	3.0-4.0 mm. Widespread as far north as southern Scotland.	3.0-4.0 mm. Widespread as far north as southern Scotland.	2.0-3.0 mm. Scarce along the west coast of Britain, very rare on the east coast	
lead and ight front ibia.				
ront tibiae	Rounded with a spur, fringe of blackish spines.	Rounded with a spur, fringe of blackish spines.	Slightly angled or slightly lobed, with large yellow-brown spines.	
cape	Almost straight, gradually widening.	Almost straight, gradually widening.	Almost straight, with a slightly swollen club.	
ostrum	Top narrowing from eyes to tip. Sides exposed, arching out.	Top narrowing from eyes to tip. Sides exposed, arching out.	Top narrowing from eyes to tip. Sides exposed.	
intenna ockets	Partly visible from above.	Partly visible from above.	Partly visible from above.	
ronotum	Much wider than long. Shallow groove down the middle. Indented front corners.	Much wider than long. Shallow groove down the middle. Indented front corners.	No groove, or a very faint one. Slightly indented front corners, rounded rear corners.	
	Both Romualdius appear less spiky than Trachyphloeus scabricul or the Cathormiocerus spp. The straighter antennae, fat abdomen, hippo-like rostrum, and relatively short but very wide pronotum will distinguish them from other species. Unlike all the other species, they have a slight groove across the rostrum in front of the eyes, but this is often hidden by encrusted dirt.	Wing-cases less rounded at the sides than in angustisetulus, straighter and narrower at the front, so shoulders are weaker and less rounded. Eyes slightly flatter and longer, and paddle scales slightly larger and wider (more paddle shape than balloon shape). Less commonly recorded than angustisetulus, but the two were much confused in the past. References to bifoveolatus in Britain before 1993 could refer to either species.	Top of rostrum more like that of <i>Romualdius</i> than other <i>Trachyphloeus</i> , but t sides do not arch out so much in front of the eyes. Front tibiae angled or only slightly lobed, not fingered, so they are unlikely to be confused with other female <i>Trachyphloeus</i> . Compared with both sexes of <i>Trachyphloeus scabricul</i> the front corners of the pronotum are not so indented , the paddle scales are smaller , and the spines on the front tibiae are weaker . Pronotum and wingcases more slender (longer in proportion to width) than other <i>Trachyphloeus</i> Differs from <i>Cathormiocerus spinosus</i> and <i>aristatus</i> by the more angled front tip of the tibiae, with stouter spines; the longer rostrum, more hidden antenis sockets, scaled in front of the eyes; and its more slender appearance.	
	angustisētulus = slender bristles	bifoveolātus = two dimples	rectus = straight	

Trachyphloeus. The top of the rostrum is **wide**, and it covers the antenna sockets and most of the sides from above. Scape slightly or strongly bent in the middle, with a club-like swollen tip. Females have lobed **fingers** at the end of the front tibia, males have an angled tip, with **wide** yellow or brown spines. So far only *Trachyphloeus scabricul* males have been found in Britain: the other species can reproduce without males, and only females have been found. If you find a male (without fingers on the tibiae), you should rule out *scabricul* before considering any of the other species.

	Trachyphloeus scabricul Scarce	Trachyphloeus heymesi Rare	Trachyphloeus spinimanus Rare	I .	Trachyphloeus alternans Scarce
			No.		
	2.5-3.0 mm. Widespread but uncommon in eastern England and south-east Scotland. Rare in the west and in Wales.	2.5-3.0 mm. So far known only from Anglesey.	2.0-3.0 mm. Scarce in southern and south-east England and East Anglia.	2.0-3.0 mm. Scattered but very rare in southern England.	2.0-3.0 mm. Widespread but uncommon in southern Britain. A few records further north.
Head and right front tibia					
Front tibiae	Fingered (female) or angled (male), with large yellow spines.	Fingered (female), with large yellow spines.	Widely and deeply fingered (female) or angled (male), with large yellow spines.	Widely and deeply fingered (female) or angled (male), with large yellow spines.	Widely and deeply fingered (female) or angled (male), with large yellow spines.
Scape	S-shape (curved at base and bent in middle), like bike handlebars.	Bent in middle, straight at base.	Bent in middle, straight at base.	Bent in middle, straight at base.	Bent in middle, straight at base.
Rostrum	Top flaring up and out after the eyes, concave . Most of sides hidden from above.	Top very slightly flaring out after eyes, very slightly concave. Most of sides hidden from above.	Top almost straight from eyes to near the tip, almost flat. Most of sides hidden from above.	Top almost straight from eyes to near the tip, almost flat. Most of sides hidden from above.	Top almost straight from eyes to near the tip, almost flat. Most of sides hidden from above.
Antenna sockets	Hidden from above.	Hidden from above.	Hidden from above.	Hidden from above.	Hidden from above.
Pronotum	Wide, with a shallow groove down the middle. Front and rear corners strongly indented.	Wide, with a very faint, shallow groove down the middle. Front corners indented, rear corners very slightly indented.	Wide, no groove down the middle. Indented front corners.	Wide, no groove down the middle. Indented front corners.	Wide, no groove down the middle. Indented front corners.
	The spikiest of the <i>Trachyphloeus</i> . Denser, larger, and more erect paddle scales than the other species. Two unique features are the strongly concave rostrum top, flaring up and out in front of the eyes; and the strongly indented front and rear corners of the pronotum. The curved base to the scape separates it from all other species apart from <i>Cathormiocerus spinosus</i> , which has more rounded corners on the pronotum; a narrower rostrum top; and weaker spines on the tip of the front tibiae. Wing-cases often more strongly mottled than in other <i>Trachyphloeus</i> .	Somewhat intermediate between scabricul and spinimanus. It differs from scabricul by its flatter rostrum, only slightly wider in front of the eyes; the straight base of the scape; the slightly smaller paddle scales; and the less indented corners of the pronotum. From spinimanus and digitalis, it differs by the less deeply lobed front tibiae, denser paddle scales; and more slender antennae.	Compared with heymesi and scabricul, female front tibiae have a wider and deeper gap between the middle lobe and the outer one. In both sexes, the paddle scales of spinimanus are sparser; the rear corners of the pronotum are rounded rather than indented; and the antennae are thicker. The straight base to the scape further distinguishes it from scabricul. Usually encrusted in clay.	Differs from other species, by the same features as <i>spinimanus</i> . Very like <i>spinimanus</i> , but the paddle scales are shorter, more recurved, and confined to the rear part of the wing-cases.	Paddle scales on the wing-cases are on alternate rows only. In all other species, they are on every row. The paddle scales are also larger than those of <i>spinimanus</i> or <i>digitalis</i> .
	scábricul = rough	heymesi, after Paul Heymes	spinimánus = spiny hand	digitālis = fingered	altérnans = alternate

Cathormiocerus. The top of the rostrum is narrower than in Trachyphloeus, so more of the sides and the antenna sockets are exposed. The front tibia is rounded to a spur, and has a fringe of slender, yellow or brown spines. The pronotum is often narrower than in Trachyphloeus (the exception is Cathormiocerus aristatus). These weevils often have mahogany brown wing-cases unlike Trachyphloeus, but all Trachyphloeini are often encrusted with clay or soil that obscures the colour of the body.

	encrusted with clay or soil that obscures the colour of the body.					
	Cathormiocerus spinosus Scarce	Cathormiocerus aristatus Scarce	Cathormiocerus myrmecophilus Rare	Cathormiocerus socius Rare	Cathormiocerus attaphilus Rare	
	2.5-3.0 mm. Widespread but	2.5-3.0 mm. Widespread but uncommon in	2.5-3.0 mm. South coast counties of	3.0-3.5 mm. South coast counties	3.5-4.5 mm. South Cornwall and Devon	
	uncommon in England and Wales.	England and Wales.	England only.	of England and Wales only.	only.	
Head and right front tibia						
Front tibiae	Rounded to a spur, with a fringe of	Rounded to a spur, with a fringe of yellow-	Rounded to a spur, with a fringe of	Rounded to a spur, with a fringe	Rounded to a spur, with a fringe of	
	yellow-brown spines.	brown spines.	yellow-brown spines.	of yellow-brown spines.	yellow-brown spines.	
Scape	S-shape (curved at base and bent in middle), like bike handlebars.	Slightly curved or bent in middle, straight at base.	Slightly curved, straight at base. More slender than in other species.	Straight at base. Swollen bead at the base.	Straight at base. Long club.	
Rostrum	Top narrowing from eyes to tip. Sides exposed.	Top narrowing from eyes to tip. Sides exposed.	Top narrowing from eyes to tip, constricted in front of eyes. Sides exposed.	Top narrowing from eyes to tip, constricted in front of eyes. Sides exposed.	Top narrowing from eyes to tip. Sides exposed.	
Antenna	Partly visible. Angled inwards between	Partly visible. More or less straight from the	Mostly visible.	Mostly visible.	Mostly visible.	
sockets	the base of the antenna and the eye.	antenna to the eye.				
Pronotum	No groove down the middle.	Faint or no groove down the middle, wider than other <i>Cathormiocerus</i> .	No groove down the middle.	No groove down the middle.	No groove down the middle. Almost as long as wide.	
	The s-shape scape , curved at the base, is shared only with <i>Trachyphloeus scabricul</i> . See <i>aristatus</i> : these two are the only <i>Cathormiocerus</i> spp known away from the south coasts of England and Wales, and they should be eliminated before considering any of the rare species.	This species and <i>spinosus</i> are by far the most widespread <i>Cathormiocerus</i> spp. In both <i>spinosus</i> and <i>aristatus</i> , the top of the rostrum covers more of the antennal socket and the sides than in the rarer species. <i>Cathormiocerus aristatus</i> has larger paddle scales and a wider pronotum than <i>spinosus</i> , and the outer edge of the antenna sockets is not angled inwards between the eye and the antenna. The antennae are s-shape in <i>spinosus</i> , slightly angled with a straight base in <i>aristatus</i> .	This species has a more slender and evenly curved scape than any of the other <i>Cathormiocerus</i> . It has a narrower pronotum than <i>aristatus</i> , and the eyes are more rounded and bulging than in <i>aristatus</i> or <i>spinosus</i> . Slightly paler specimens with relatively narrower wing-cases were separated as <i>Cathormiocerus britannicus</i> . However, the two entities seem to merge into each other, and <i>britannicus</i> is no longer considered a separate species.	Easily identified by the swollen bead at the base of the club on the scape. Pale specimens with more rounded eyes, shorter antennae, and less obvious pits on the wing-cases were called Cathormiocerus maritimus. These are now considered part of the variation within myrmecophilus.	The largest Cathormiocerus. The unique antenna shape alone should identify it: it has a long and more abruptly swollen club with slightly wavy edges, like a lumpy sausage. The pronotum is longer and more rounded than in the other species. The top of the rostrum is not so constricted after the eyes as it is in myrmecophilus and socius.	
	spinōsus = spiny	aristātus = having ears of corn Image by Udo Schmidt	myrmecóphilus = ant-loving	sócius = friend	attaphilus = loving Atta. The first specimens were found around a nest of the ant Atta barbara.	





Romualdius angustisetulus





Trachyphloeus spinimanus (female)



Trachyphloeus scabricul (male)



Cathormiocerus spinosus



Trachyphloeus heymesi (female)



Cathormiocerus aristatus Image by Udo Schmidt.

Scale ×16.



Romualdius angustisetulus (left) and Romualdius bifoveolatus (right). Romualdius bifoveolatus is not so fat. Its narrower wing-cases are most obvious at the front, where it has less narrow shoulders and less inflated sides. Its eyes are slightly flatter.



The more expanded shoulders of *Romualdius angustisetulus* are often apparent in the field. This is one of the less obvious examples, but the shoulders are still more prominent and more rounded than they are in the *bifoveolatus* in the picture below.



Romualdius bifoveolatus. Telling the two Romualdius apart in the field requires some experience, but the genus can be readily told from the other species. The pronotum of both Romualdius species is short for its width, and it merges more seamlessly into the wing-cases: Trachyphloeus and Cathormiocerus have a more pronounced and constricted waist because the pronotum is more narrowed at the base. Note also the straight, gradually expanded (not clubbed) scape, and the swollen rostrum sides like a hippo nose.

