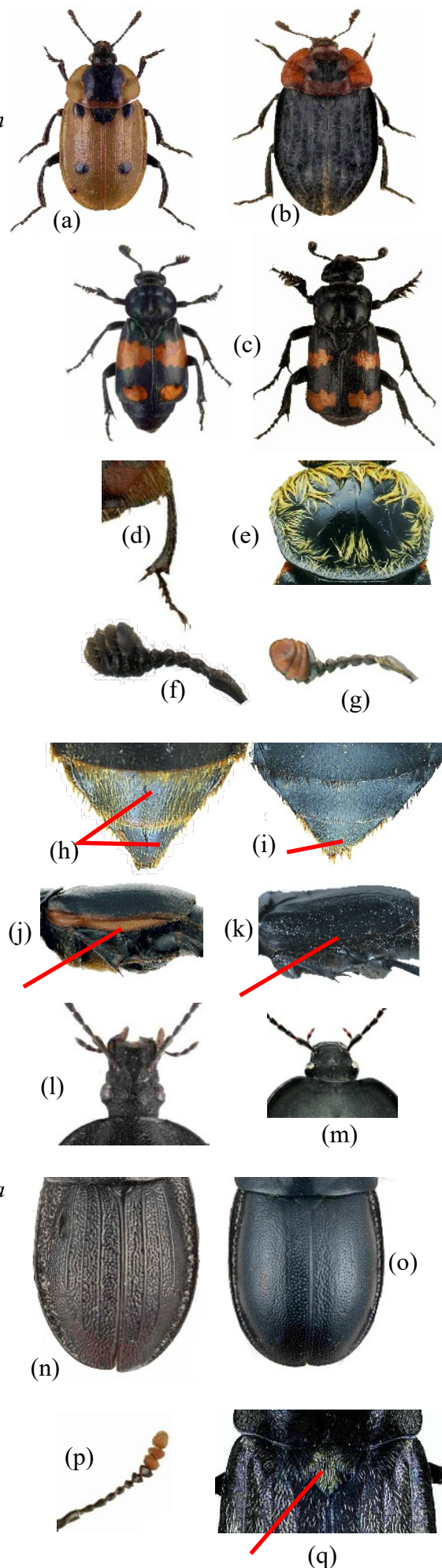


## Key to British Silphidae ( Burying beetles and allies)

1. Pattern exactly as in (a) *Dendroxena quadrimaculata*  
 Pronotum orange and elytra black (b) *Oiceoptoma thoracicum*  
 Black with orange markings on elytra (c) 2  
 None of above, generally uniform colour, mainly dark 6
2. Hind tibiae curved (d) and with golden pubescence at front of pronotum *Nicrophorus vespillo*  
 Hind tibiae straight 3
3. Pronotum with long golden pubescence around all margins (e) *Nicrophorus vestigator*  
 Pronotum glabrous, without any long golden pubescence 4
4. Club of antenna black (f) *Nicrophorus vespilloides*  
 Club of antenna largely orange (g) 5
5. All visible abdominal tergites with golden pubescence (h) *Nicrophorus interruptus*  
 Anterior orange elytral marking widely separated  
*Nicrophorus interruptus*  
 Only terminal abdominal segment with golden pubescence (i) *Nicrophorus investigator*  
 Anterior orange elytral markings **often** almost continuous across suture  
*Nicrophorus investigator*
6. Antennae with a very well-defined rounded club (g) 7  
 Antennae expanded apically, but without such a club 8
7. Elytral epipleura orange (j) (side view). Antennal club entirely dark (very rare species) *Nicrophorus germanicus*  
 Elytral epipleura black, as rest of elytra (k). Antennal club orange. *Nicrophorus humator*
8. Head and mandibles elongate (l) 9  
 Head and mandibles not elongate (m) 10
9. Elytra with raised longitudinal lines (n) *Phosphuga atrata*  
 Elytra without raised longitudinal lines (o) *Ablattaria laevigata*
10. Antennae with terminal segments orange (p) *Necrodes littoralis*  
 Antennae uniformly dark 11
11. Scutellum with some golden pubescence (q), may also be present on elytra and pronotum 12  
 Scutellum, elytra and pronotum without golden pubescence 15



12. Anterior margin of pronotum rounded (r). Usually covered with dense pubescence  
*Aclypea opaca*



Anterior margin of pronotum emarginate (s). Pubescence usually less dense 13

13. Elytral intervals with tubercles or ridges throughout length (t).  
*Thanatophilus rugosus*



Elytra intervals without tubercles or ridges, except a trace of a single ridge in the apical half (u) 14

14. Elytra with extensive pubescence (v) and without a small shoulder tooth.  
*Thanatophilus dispar*



Elytra without pubescence except for a small amount at base. Elytral shoulders with a very small tooth (w) *Thanatophilus sinuatus*

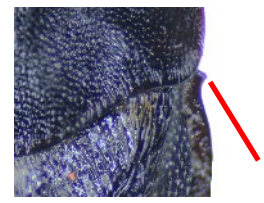
15. Second antennal segment about twice as long as third (x). Pronotum rounded in front (Very rare species)  
*Aclypea undata*

(t)

(u)

Second and third antennal segments nearly equal in length. Pronotum truncate or emarginate in front. 16

16. 8th antennal segment much longer than 9th (y). Pronotum emarginate in front (z). Very rare species.  
*Silpha carinata*

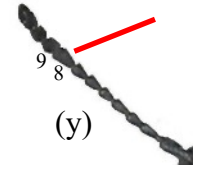
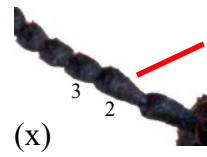


(v)

(w)

8th antennal segment not longer than 9th. Pronotum more or less truncate in front. 17

17. Longitudinal lines on elytra strong and clearly raised (aa). Each elytral puncture with a tiny shining tubercle in front (ab) (high magnification required x50 or more)  
*Silpha tristis*



(x)

(y)

Longitudinal lines on elytra much weaker. Elytral punctures without shining tubercles in front. 18

18. Elytral puncturation coarse, irregular, often confluent, rugose (ac). A shining species (ae)  
*Silpha tyrolensis*

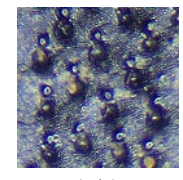


(z)



(aa)

Elytral puncturation quite regular (ad) A dull species (af).  
*Silpha obscura*



(ab)



(ae)



(af)



(ac)



(ad)



### Species accounts

The majority of Silphidae are associated with carrion. Feeding habits are only mentioned when this is not the case.

#### *Necrodes littoralis* (Linnaeus, 1758)

15 - 25 mm.

- entirely black apart from the orange apical antennal segments.
- elytra truncate apically
- antennae slightly expanded apically but without a well-defined club

The name *littoralis* suggests, it is perhaps more common near the coast, but there appears to be little evidence for this and it is by no means infrequent inland. Recorded through much of the country but apparently commoner in the south.

Attracted to light.



The three British species of *Thanatophilus* may be recognised by the combination of:

- front margin of pronotum emarginate
- elytra with raised ridges
- some pubescence on upperside, at least on scutellum

#### *Thanatophilus dispar* (Herbst, 1793)

7 - 12 mm.

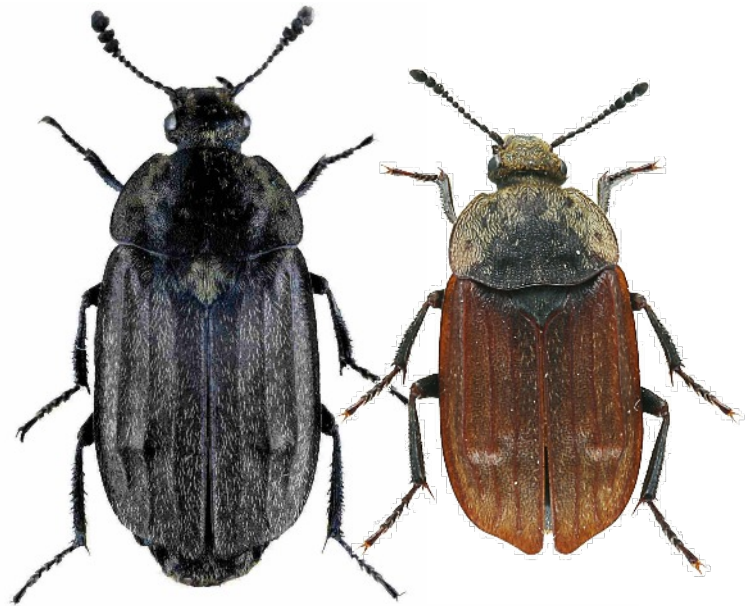
Can be distinguished from *T. rugosus* by:

- elytral intervals smooth, without tubercles

and from *T. sinuatus* by:

- elytra with extensive pubescence
- shoulders of elytra rounded, without a tooth
- underside with darker golden pubescence

A rare species. Very few records in total, widely scattered.  
UK Status: Provisional RDB1 Endangered



#### *Thanatophilus rugosus* (Linnaeus, 1758)

8 - 12 mm.

*T. rugosus* can be distinguished by:

- raised tubercles or ridges on the elytral intervals

Probably the commonest species. Apparently widespread through most of the country, but perhaps scarcer in the south.



*Thanatophilus sinuatus* (Fabricius, 1775)  
9 - 12 mm.

Can be distinguished from *T. rugosus* by:

- elytral intervals smooth, without tubercles

and from *T. dispar* by:

- elytra almost without pubescence, only at base
- shoulder of elytra with a small tooth (may be difficult to see)
- underside with pale yellowish-gold pubescence

The extent of pubescence on the pronotum and head varies. The apex of the elytra differs in males and females.

Widespread and locally common at least in England and Wales, scarcer to the north.

*Oiceoptoma thoracicum* (Linnaeus, 1758)  
11 - 16 mm.

Very easy to recognise from the colour pattern, as shown.

(Be aware that some other Silphidae which are normally black can have reddish forms, while teneral specimens may also be reddish. However, the combination of orange pronotum and dark elytra is only found in this species)

Found on carrion, fungi and dung. Said to have a particular association with the stinkhorn fungus *Phallus impudicus*.

Recorded throughout Britain. Apparently common in some areas, but very local in others.

*Aclypea opaca* (Linnaeus, 1758)  
9 - 12 mm.

Distinguished by:

- more or less dense golden pubescence all over
- smooth elytral intervals
- pronotum smoothly rounded in front
- second antennal segment only slightly longer than third

Apparently a vegetarian species which has been a pest of beet crops in the past, but appears scarce at present.

Records widespread, but very scattered.

UK Status: Nationally Scarce "A", probably an exaggeration of its true status, appears somewhat commoner than this.



***Aclypea undata*** (Müller, O.F., 1776)  
11 - 15 mm.

Differs from *A. opaca* by:

- only sparse, dark pubescence, denser on the head
- antennal club very gradual
- second antennal segment twice as long as third

Separated from *Silpha* species by :

- clypeus with a deep triangular emargination

A very rare species, with very few British records.

UK Status: Provisional RDB1 Endangered



***Dendroxena quadrimaculata*** (Scopoli, 1772)  
12 - 14 mm.

A very distinctive beetle which could not easily be mistaken for any other British species.

Unlike other members of the family, this species is normally found on trees, especially oak, where it hunts caterpillars. Mainly in woodland.

Throughout England and Wales, local in Scotland.

UK Status: Nationally Scarce "B". Appears to have declined in some areas.



***Phosphuga atrata*** Linnaeus, 1758

10 - 15 mm.

- upperside completely glabrous, without pubescence, even on the scutellum
- elongate head and mandibles
- front of pronotum rounded
- elytra each with three raised keels

While the black variety is commoner, the red type v. *brunnea* is by no means scarce.

There is also a subspecies *subrotundata* with the explanate sides of the elytra deeper and wider. This variety is found in western areas and was at one time considered a separate species.

This species is a specialised predator of snails. The elongate head and mandibles are an adaptation to reach inside the shells of snails.

Widespread throughout. Often common, especially in wooded areas.





***Ablattaria laevigata*** Fabricius, 1775

12 - 18 mm.

- upperside completely glabrous, without pubescence, even on the scutellum
- elytra without any trace of raised lines
- head elongate
- pronotum strongly contracted and rounded in front

A predator of snails, like *S. atrata*

Usually on sandy soil, sometimes abundant in coastal regions.

Mainly in England south of the Severn - Wash line.



***Silpha carinata*** Herbst, 1783

11 - 20 mm.

- head and mandibles not elongate
- upperside completely glabrous, without pubescence, even on the scutellum
- eighth antennal segment much longer than ninth
- pronotum distinctly emarginate in front

Extremely few British records, from Hampshire and Wiltshire only.

UK Status: RDB1 Endangered



***Silpha obscura*** Linnaeus, 1758

13 - 17 mm.

- very indistinctly raised lines on the elytra (i)
- interstices fairly evenly punctured (ii) (much more so than *S.tyrolensis*)
- dull, not shining
- pronotum wide and evenly rounded

Scattered records in England and Wales, commoner in coastal areas.

UK Status: Provisional RDB2 Vulnerable



***Silpha tristis*** Illiger, 1798

13 - 17 mm

- upperside completely glabrous, without pubescence, even on the scutellum
- antennae with second segment only slightly longer than third
- elytra with three strongly raised smooth keels on each
- interstices very closely and rather coarsely punctured, each puncture with a tiny shining tubercle in front of it (high magnification)
- pronotum transverse, with anterior margin truncate

Largely coastal or on sandy soils inland.

Widespread but local, mainly England and Wales. Some records for southern Scotland.



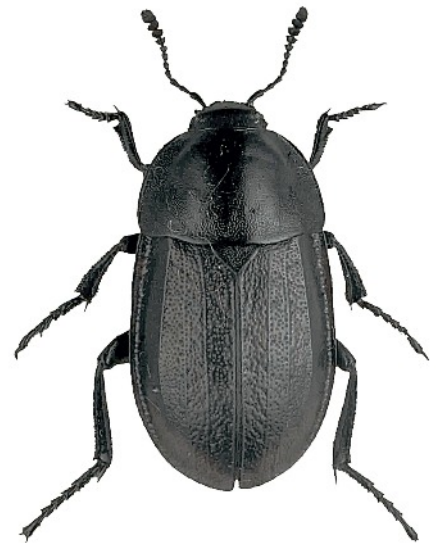
***Silpha tyrolensis*** Laicharting, 1781

12 - 16 mm

- elytra with the inner two lines usually indistinctly raised, and the third only moderately raised, lines sometimes absent
- interstices coarsely, unevenly and rugosely punctured
- shining species (*S. obscura* is dull)

Scattered records, apparently commoner in the north and west of England and Wales.

UK Status: Nationally Scarce "B"



All seven species of *Nicrophorus* are regularly attracted to light

***Nicrophorus germanicus*** (Linnaeus, 1758)

20 - 30 mm.

The only species that is entirely black apart from the orange elytral epipleura (view from side).

The very common *N. humator* is very similar but is entirely black apart from the antennal club..

A very rare species, probably only an occasional immigrant and not established as a resident.



*Nicrophorus humator* (Gleditsch, 1767)  
18 - 26 mm.

The only resident British species with :

- entirely black elytra, including the epipleura
- antennae with orange club

One of the commonest species, recorded throughout Britain.



*Nicrophorus interruptus* Stephens, 1830  
12 - 20 mm.

- antennal club with three yellow segments
- pronotum without golden pubescence
- hind tibiae straight
- all abdominal tergites with fine golden-yellow pubescence (best character to separate from *N. investigator*)
- distance between anterior orange markings large, often greater than between posterior markings

One of the scarcer species, scattered records from the southern half of England and from Wales.

UK Status: Nationally Scarce "B"



*Nicrophorus investigator* Zetterstedt, 1824  
12 - 22 mm.

- antennal club with three yellow segments
- pronotum without golden pubescence
- hind tibiae straight
- only last abdominal tergite with fine golden-yellow pubescence (best character to separate from *N. interruptus*)
- anterior orange markings on elytra **usually** more or less continuous across the suture (but not always)

One of the commonest members of the genus, apparently widespread throughout.





*Nicrophorus vespillo* (Linnaeus, 1758)  
12 - 22 mm.

Distinguished from all other species by the:

- curved hind tibiae

It also has:

- golden pubescence on the front of the pronotum only
- abdomen with dense yellow pubescence
- club of the antenna partly yellow

A common species in England and Wales, becoming scarcer further north and apparently uncommon in Scotland.



*Nicrophorus vespilloides* Herbst, 1783  
10 - 18 mm.

Distinguished from all other British species by:

- club of antenna entirely black (partly yellowish in all other species)

Also:

- pronotum glabrous, without golden pubescence
- hind tibiae straight
- abdomen with dark pubescence, except for a tuft of yellowish hairs at the apex

One of the commonest of the orange-marked species.  
Widespread throughout the country.



*Nicrophorus vestigator* Herschel, 1807

12 - 22 mm.

Distinguished from all other species by the :

- golden pubescence around all margins of the pronotum

The rarest species of the genus in the UK.

Appears confined to sandy habitats.

Perhaps commonest in the Breckland of East Anglia, otherwise very scattered records from the coast of England and Wales.

UK Status: Nationally Scarce "A"

