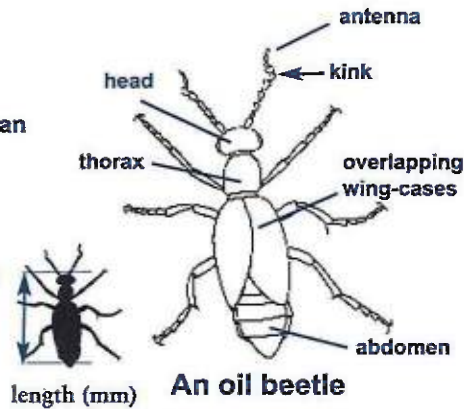


Oil beetles are incredible insects, but they are under threat. Three of the UK's native oil beetles are thought to be extinct, and the remaining five species have suffered drastic declines due to changes in the way our countryside is managed.

Identifying oil beetles

There are three species of oil beetle found in Wales. **Violet** and **Black oil beetles** are widespread and can be locally common whereas the **Rugged oil beetle** is rare and known only from a small number of sites in south-east Wales. In other parts of Britain **Mediterranean** and **Short-necked oil beetles** can be found, but are rare. It is possible that these species are present in Wales but we need you to help us find them!

Oil beetles can be identified in the field using this guide. By studying this beetle diagram before you start you can familiarise yourself with the names of the beetle body parts and key identification features. Please take photographs of the oil beetles you record and submit them with your records.



Beware lookalikes!

Oil beetles are distinctive but can sometimes be mistaken for other beetles like these. Oil beetles have **overlapping wing-cases** which are usually shorter than their abdomens. The beetles below all have wing-cases which do not overlap.



Bloody-nosed beetle
Timarcha tenebricosa



Violet ground beetle
Carabus violaceus



Leaf beetle
Galeruca tanacetii

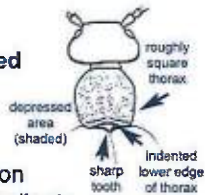


Devil's coach horse
Ocyopus olens

Violet oil beetle

Meloe violaceus

Has a roughly **square-shaped thorax**. Males have **kinked antennae**. Females have slightly-kinked antennae. Black with violet-blue reflection or all black in colour. Very similar to the Black oil beetle but it has an **indented lower edge of the thorax with a depressed area at the base**. Has a **distinct sharp tooth at the base of the thorax**.



Life Size
up to 30 mm
long



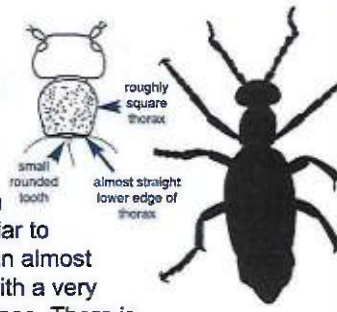
Violet oil beetle



Black oil beetle

Meloe proscarabaeus

Has a roughly **square-shaped thorax**. Males have **kinked antennae**. Females have slightly-kinked antennae. Black with violet-blue reflection or all black in colour. Very similar to the Violet oil beetle but it has an **almost straight base to the thorax with a very small rounded tooth at the base**. There is no depressed area at the base of the thorax.



Life Size
up to 30 mm
long



Black oil beetles

Rugged oil beetle

Meloe rugosus

Has a **rectangular-shaped thorax** which is wider than it is long, with a **distinct narrow groove in the middle**. The **antennae are straight**. **Dull black** in colour with a roughened surface.



Life Size
up to 19 mm
long



Rugged oil beetle



Mediterranean oil beetle

Very rare. Mainly nocturnal. Found from September to April in grasslands on chalk, limestone and sandy soils. Currently known from a few sites in south east Wales but it may be overlooked.

Mediterranean oil beetle

Meloe mediterraneus

Very similar to the Rugged oil beetle. Has a **rectangular-shaped thorax** which is wider than it is long **without a distinct groove running down the centre**. The antennae are straight. **Dull black** colour with a roughened surface.



Life Size
up to 36 mm long
usually up to 20 mm
in Britain



Rugged oil beetle

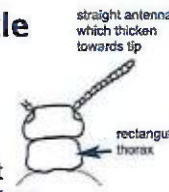


Mediterranean oil beetle

Short-necked oil beetle

Meloe brevicollis

Has a **rectangular-shaped thorax** which is wider than it is long. The antennae are **short, straight** and slightly thickened at the tips. **Shiny, blue-black** in colour.



Life Size
up to 24 mm
long



Found from March to June in meadows and woodlands in scattered sites across Wales.

Not currently known in Wales but has been found in western Scotland, south-east Ireland and south Devon so may occur here. Found on coastal grasslands,

An extraordinary life cycle

Oil beetles have one of the most extraordinary life cycles of any British insect - they are nest parasites of solitary mining bees. Female oil beetles dig nest burrows in the ground, in to which they lay hundreds of eggs. Once hatched, the active, louse-like, larvae climb up on to flowers and lay in wait for a suitable bee. Their hooked feet enable a firm hold on an unwitting bee collecting pollen for its own nest. Once in a bee's nest the larva disembarks and eats the bee's eggs and the store of pollen and nectar. The larva develops in the bee burrow until it emerges as an oil beetle ready to mate and start the whole cycle again.

Looking for oil beetles

Oil beetles are conspicuous, charismatic insects which are often encountered when walking and enjoying the countryside. Their habit of seeking out bare ground in which to dig nest burrows means that they are frequently seen on footpaths. The best time of year to look for oil beetles is March to July.

Oil beetle conservation

Oil beetles are priority species for conservation action in Wales - meaning urgent work needs to be done to conserve them and their habitats. Oil beetles have an intimate relationship with solitary bees and are therefore dependant on the health and diversity of wild bees. The ideal habitat for oil beetles is wildflower-rich grassland and heathland - two habitats that have been lost from large parts of our countryside. By sending us your oil beetle records you are playing an important part in the conservation of these magnificent insects.

How to take part

Please send us your oil beetle records and photographs via the Buglife website.

www.buglife.org.uk/wales-oil-beetle-survey

Buglife – The Invertebrate Conservation Trust, Bug House, Ham Lane
Orton Waterville
Peterborough, PE2 5UU

 @buzz_dont_tweet

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Buglife - The Invertebrate Conservation Trust

Registered charity number 1092293
Scottish Charity number SC046004

Company number 4132695

All photos © John Walters except Black oil beetle in burrow © D. & M. Nesbit and Boy and beetle © Richard Clarke



Black oil beetle digging her nest burrow.



Violet oil beetle larvae (2 mm long) on a lesser celandine flower.



Black oil beetle larva (1.5 mm long) on a thrift flower.



Violet oil beetle larva hitching a ride on the back of a solitary mining bee.

Cover photo: Violet Oil Beetle



Ariennir gan
Lywodraeth Cymru
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Join the hunt for amazing oil beetles in Wales



We are searching for these fascinating but threatened beetles, and need your help in Wales...

