

Oak click beetle

Lacon querceus



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The Oak click beetle is about 10mm long, with a mostly blackish body with patterning of yellow scales, most noticeably on the sides of the pronotum and as a band across the elytra (wing cases) just before the tip. Classified as Vulnerable (EU27) or Near Threatened (Europe) on the European Red List of Saproxylic Beetles (2010). It is a Red Data Book species in Britain.

Distribution

Currently only found at Windsor Forest and Great Park (Berkshire), and Langley Park (Buckinghamshire). The importance of Windsor Forest and Great Park for saproxylic invertebrates is reflected in its designation as a Site of Special

Scientific Interest (SSSI) and a Special Area of Conservation (SAC).



Distribution of Oak click beetle in the United Kingdom

Habitat

At Windsor, the Oak click beetle is associated with old oak trees in wood pasture, and in a high forest setting. Larvae develop exclusively in decaying oaks, with records from dry, flaky wood in red-rotten trunks and boughs. Red-rotten wood develops during heartwood decay through the actions of wood decay fungi. The quality of the substrate and stage of decay are also considered important.

Life cycle

Little is known about the habits of adult Oak click beetles, which have only been found in rotten wood substrates suitable for larval development. Oak click beetle larvae probably predate larvae of the Hairy fungus-beetle (*Mycetophagus piceus*) which feeds on Chicken-of-the-woods (*Laetiporus sulphureus*) fungus. The usual period required for larval development is unknown, although pupation takes place in late summer and adult over the winter. Pupal chambers are probably formed within chunks of dead wood within the cavity lining. The newly formed adults remain in their pupal chambers over winter before emerging the following spring to copulate and lay eggs. The oviposition site is presumably in cracks within the decaying wood lining the cavity. Adult diet is unknown.

Reasons for decline

- The Oak click beetle requires the continuous presence of old decaying oak trees in a landscape. The natural or deliberate loss of decaying oak trees is the greatest threat the beetle faces, particularly the potential loss of continuity if replacement trees are not available.
- The beetle may have poor dispersal abilities, which may prevent it colonising suitable habitat away from its current stronghold.

- Old trees are under threat from a wide range of factors including under-management, tree diseases, and climate change.
- Increasing canopy density due to lack of grazing can lead to some old trees being shaded out by younger trees, leading to premature death.
- Intensive activity around the roots of old trees, such as heavy grazing, ploughing, chemical spraying, and visitor footfall can lead to direct damage of roots and soil compaction, as well as disrupting vital mycorrhizal (fungal) associations that help sustain trees.
- The arrival of novel tree pathogens, increased temperatures, extended periods of drought, or heavy rainfall causing soil instability, may mean that some tree species die prematurely, or are no longer able to reach the age at which red-rot develops.
- Cessation of traditional management has left old pollards at risk of collapse due to top heavy crowns.



Dry, flaky red rotten heartwood in oak

Habitat management

The aim of the following management advice is to ensure the long-term continuity and connectivity of red-rotten oak across a landscape through the provision and protection of old trees.

- Ascertain whether tree recruitment rates have been sufficient to prevent an age gap in the availability of red-rotten oak trees, and that recruitment is still taking place.
- Maintain longevity of existing old trees (both dead and alive).
- Allow natural regeneration/plant oak trees in places where they can be allowed to persist for hundreds of years to provide the next generation of old trees.



© Steven Falk

Old oak, Windsor Park, Berkshire

- Resist urge to tidy away pieces of fallen decaying wood or to remove old standing dead trees.
- Continue/reintroduce traditional practices such as pollarding and coppicing.
- Acorns can also be collected and distributed into suitable areas.
- Establishment will be greatest where the trees are protected by thorn bushes. If grazing is

preventing regeneration, it may be necessary to establish temporary stock-exlosures.

- Establishment of new trees near old oak trees needs to be carefully planned, as oak is a light-demanding tree and sensitive to overcrowding.
- Where important trees are experiencing crown competition from adjoining younger trees, the younger trees should be removed gradually over a period of years.
- Consider veteranising younger trees to accelerate development of decay and help prevent gaps in the availability of suitable trees.
- Veteranisation techniques could include pollarding a new generation of young trees, and there is also a need to study the potential of fungal inoculation to start the creation of suitable red-rotten wood.

Survey methods

The best method available for landowners and site managers is to monitor the availability of trees based on their suitability. Searching potential/known trees for adults may produce results, although the red-rotten substrate should not be disturbed due to the disruptive effect this will have on the condition of the rotten wood. Another click beetle species recorded in the same red-rotten wood is Cardinal click beetle (*Ampedus cardinalis*), as well as the weevil (*Dryophthorus corticalis*) and the Timberworm beetle (*Lymexylon navale*).

Nieto.A and Alexander.K.N.A. (2010) European Red List of Saproxyllic Beetles, IUCN

The Back from the Brink Ancients of the Future project is led by Buglife in partnership with Plantlife and the Bat Conservation Trust.

