

Coral tooth fungus

Hericium corralloides



The Coral tooth fungus fruitbody is commonly up to 25cm across, but can reach 400 mm in width. They are recognisable by the extensively branching coral-like growths with pendulous hanging spines (teeth) which are 5mm-10mm long and soft and rubbery. They are white in colour, becoming yellow-brown and more brittle with age. It is a NERC Act Section 41 priority species and appeared on the national Red List in 1992 (VU), 2006 (NT) and 2015 (EN).

Distribution

The majority of confirmed records are limited to the south, and particularly the south east of England, with some satellite records from as far north as Nottinghamshire and Yorkshire.

The New Forest, Epping Forest and Windsor Great Park are important locations for this species, with

each having a good proportion of the population over a long period of time.



Distribution of the Coral tooth fungus in the United Kingdom
Black: post -1990 Yellow: pre -1990

Habitat

Coral tooth fungus can be found on the trunks, stumps and logs of standing or fallen Beech and Ash. It favours the mature to ancient trees which tend to be found in old deciduous woodland and parkland.



© Paul Rutter
Old beech

Life cycle

While the exact mechanism of inoculation is unclear, spores of the Coral tooth fungus that establish themselves eventually lead to the fungus developing, feeding and growing within the 'dead' heartwood of host trees. To do this, the fungus releases enzymes that degrade the lignin in cell walls giving it access to the cellulose within. The observable effect of this is a fibrous, bleached wood that is soft when wet and known as white rot.

Heartwood rotting fungi like this are extremely beneficial to the longevity of veteran trees because as they remove the core of the tree, it becomes lighter and more flexible as a hollow cylinder.

When conditions are right, this species will produce visible fruitbodies on the outside of the tree/log. These spore-bearing structures are likely to reappear regularly from August to December over 4 to 5 years.

Coral tooth fungus is capable of producing both asexual and sexual spores, although the majority of these spores will fall close to the source.

Although the fruitbodies of this species may only be seen for 4-5 years, the organism itself will have been present in the heartwood for some years before this and may persist beyond its reproductive phase.

Reasons for decline

- The main reason for decline is habitat loss, as the number of suitable veteran trees with connectivity to an established population of Coral tooth fungus decreases.
- The dwindling number of potential host trees is due to a number of factors, not limited to: Removal of veteran trees for health and safety; removal of bulky deadwood; introduced diseases and pathogens that kill trees before they reach maturity; and historical woodland/parkland management failing to recruit new generations of mature trees through planting or regeneration.
- A potential future threat for this edible species is the growing popularity of foraging and wild mushroom collection.

Habitat management

Management plans should include typical methods for preserving existing veteran trees within broadleaf woodland (especially Beech and Ash):

- Leave dead limbs on trees and standing dead trees where they are.
- Divert paths away from potentially dangerous trees rather than fell them.
- When mature trees must be reduced or felled, larger woody debris (trunks, stumps and thick branches) should be left in situ.
- Ensure woodland regeneration is occurring, protecting young trees from browsing where necessary.

- Help develop mature Beech and Ash using methods like halo felling around selected trees.
- Some success has been had with manual inoculation of Coral tooth fungus into suitable host trees. As the research progresses on this, it may be a useful management tool of the future.

Survey methods

This species can be fairly reliable in producing visible fruitbodies during each year of its fertile stage (see Life Cycle), and so visual checks of each tree at regular intervals between August and December each year remains the simplest and most reliable method for surveying this easy-to-identify species.

Core samples from dead and living trees can provide genetic evidence of the presence of this fungus, however only positive results would be conclusive. This is because Coral tooth fungus is a poor competitor against other wood-rotting fungi, and so it might find itself restricted to a single part of the woody substrate that is missed by a core sample.

Further reading:

<https://coek.info/pdf-ecology-of-hericium-cirrhatum-h-coralloides-and-h-erinaceus-in-the-uk-.html>

<http://www.czechmycology.org/cmo/CM71104.pdf>

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

