Lost and Found Fungi Datasheet
Thyronectria roseovirens

WHAT TO LOOK FOR?

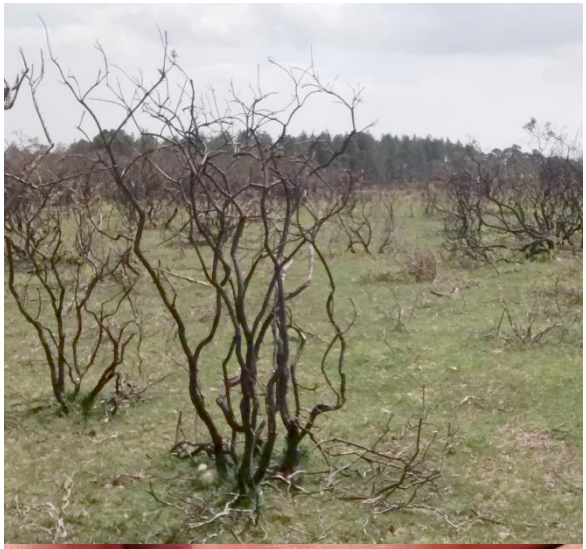
Clusters of yellow perithecia emerging/erupting from charred branches of recently burnt gorse (*Ulex europaeus*), typically in crevices. Minute, but very visible and distinctive as bright yellow patches against the charred surface.

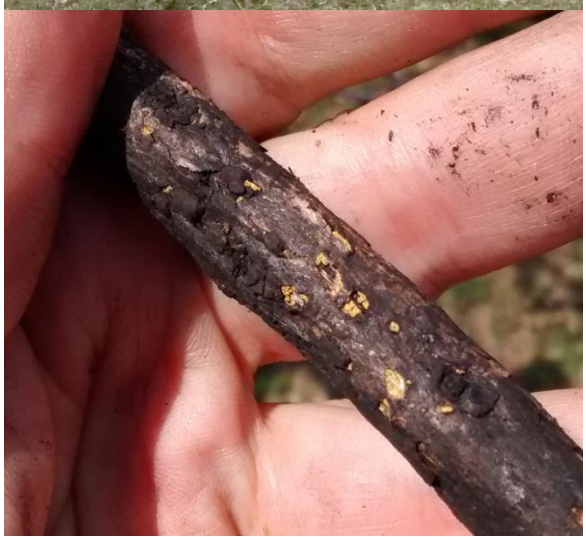
WHEN TO LOOK?

In GB&I, only found in April and May. Elsewhere, recorded March-April and October.

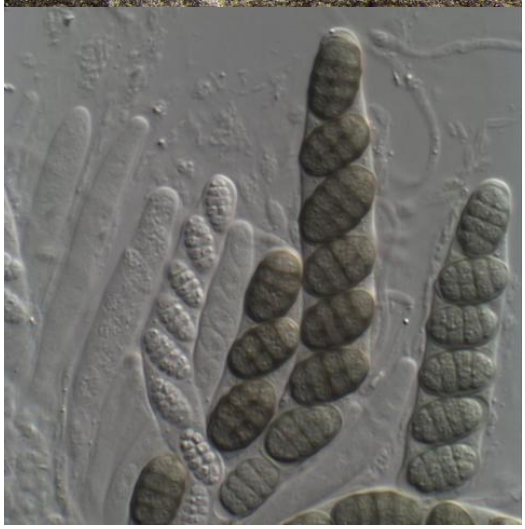
WHERE TO LOOK?

In GB&I, patches of standing and fallen burnt dead gorse, soon but not immediately (perhaps a year) after burning. Appropriate habitat age may be indicated by the absence of charred ground, but also the lack of lichen cover or other colonising fungi. Colonised branches may be commoner in dense patches.



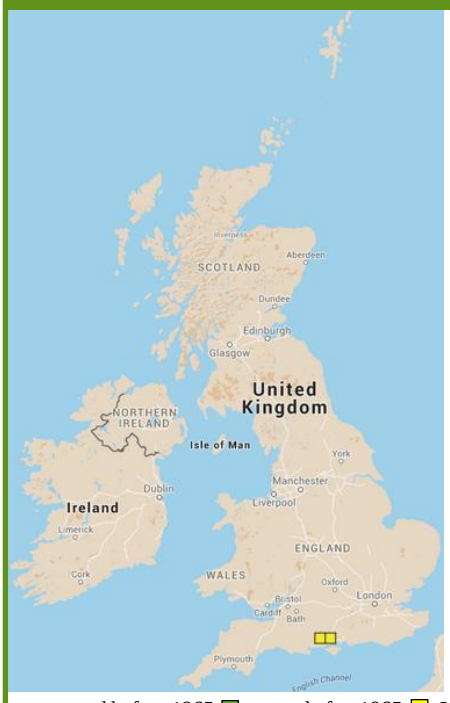


Top: habitat of the second UK site. Bottom: a colonised fallen branch. Images by Brian Douglas, CC BY-NC 3.0.



Top: *T. roseovirens* perithecia. Bottom: asci and ascospores. Images by Paul Cannon, CC BY-NC 3.0.

Thyronectria roseovirens– known distribution



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record before 1965 record after 1965 2015-

Thyronectria roseovirens

General description

Ascomata perithecia, 300-380 µm diam., ± globose, lacking a neck, with an inconspicuous central ostiole, loosely aggregated on a basal stroma in clusters of (6-) 10-20. **Ascomatal wall** composed of 4-5 layers of thin-walled, golden brown, sometimes flattened textura angularis with cells 12-19 x 7-13 µm, with an inner layer composed of similarly shaped hyaline thinner-walled tissue, and covered except for the ostiolar region in a bright yellow scurfy layer that dissolves in lactic acid and goes bright orange in KOH. **Interascal tissue** of extended apical paraphyses, at least sometimes evanescent by maturity of the asci. **Asci** developing sequentially from a basal layer of amorphous very thin-walled cells, 96-115 x 9-13 µm, the width dependent on orientation of the ascospores, very thin-walled, short-stalked, the apex rounded and apparently without apical structures, 8-spored. **Ascospores** mostly arranged obliquely uniseriately, (13.5-) 15-16.5 x 8-9.5 µm, cylindric-ellipsoidal, both ends rounded, with (3-) 5 fairly thick transverse septa and a single, thinner longitudinal septum dividing most of the transverse segments, with the longitudinal walls not always exactly congruent and the outer transverse septa sometimes slightly oblique when the end cell may not be divided longitudinally, olive brown with the septa appearing darker, not constricted at the septa, smooth-walled, without a gelatinous sheath or appendages. **Anamorph**: not known.

Notes: Description by P.F. Cannon. *Mattirolia roseovirens* is a recently used synonym, but was recently reinstated in *Thyronectria* by Jaklitsch & Voglmayr (2014).

Habitat

In GB&I, on burnt (dead) *Ulex europaeus* (gorse). Surveys of burnt gorse habitats in May 2015 suggest that the fruit-bodies emerge at a specific time interval following burning, with only one of five sites surveyed apparently harbouring the fungus. More information on burning dates is being sought. Potentially widespread within patches of appropriate habitat (as seen in the Ocknell Plain site).

Records from Italy and Spain are from unburnt wood and bark of various members of the *Fabaceae* (legumes), and so the presence of this species on unburnt gorse, and other plant hosts, requires investigation.

Conservation status

Not formally assessed. The species is known only from two sites in South Hampshire (VC:11), and reported elsewhere only from a few localities in southern Europe. Bearing in mind it is a relatively conspicuous species occupying a specific ecological niche, it may well be rare. Surveillence/monitoring of known populations is recommended.

Associations

Associated with *Ulex europaeus* in GB&I, elsewhere also with members of the Fabiaceae, such as *Genista*, *Laburnum*, *Ononis and Retama*. *Thyronectria roseovirens* is also considered to be fungicolous (as are many members of *Thyronectria)*, having been reported in association with *Cucurbitaria*, *Diplodia*, or *Valsaria*, although not always in association with visible parts of the host.

Look-alikes

None in this particular habitat, although minute yellow lichens (developing long after burning) may appear similar at a distance on burnt branches. Other species of *Thyronectria* with greenish or brown ascospores include the North American *T. chryso-gramma* (from *Ulmus* bark) and *T. asturiensis* which is known from a single collection on *Quercus ilex* from Asturias, N Spain. The latter species has ± cylindrical, often curved ascospores, while in *T. roseovirens* they are usually ellipsoidal.

Known sites in GB&I

- Peartree Green, Southampton, South Hampshire (VC:11), England. 2015, coll.: S. Rogerson. Grid ref.: SU436115. Also 2014, coll.: S. Rogerson, K(M) 191916.
- Ocknell Plain, New Forest, South Hampshire (VC:11), England. 2015, coll: P.F.Cannon. Grid ref.: SU226112. Widely distributed throughout SU226112 and SU226113.

References

- Jaklitsch, W. M., & Voglmayr, H. (2014). Persistent hamathecial threads in the Nectriaceae, Hypocreales: *Thyronectria* revisited and re-instated. *Persoonia: Molecular Phylogeny and Evolution of Fungi*, 33: 182–211.

Links

- The Hampshire Fungus Recording Group's record of the first UK find: link here.
- A Spanish collection by E. Rubio on Ascofrance.fr: link here.