

WHAT TO LOOK FOR?

Leathery but smooth brown cup-fungi of up to 5 mm diameter on *Carpinus betulus* (common or European hornbeam), found erupting from bark in clusters, either high-up on dead/dying branches, or on fallen branches. Apothecia have a pale ragged margin, and curved sausage-shaped ascospores 12-15 x 3-3.5 µm in size.

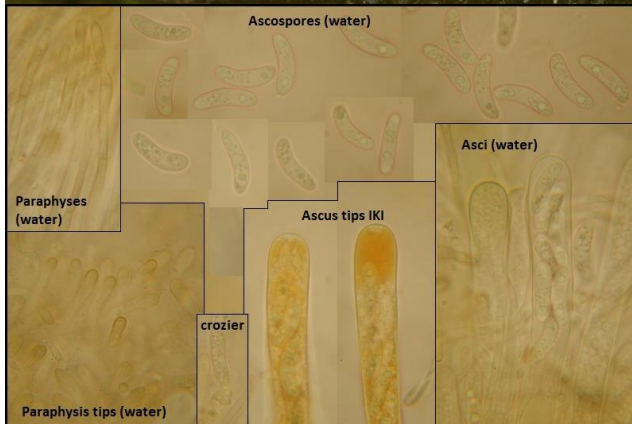
WHEN TO LOOK?

July and October, based on the two confirmed collections of *Encoelia carpini* reported to date in the UK.

WHERE TO LOOK?

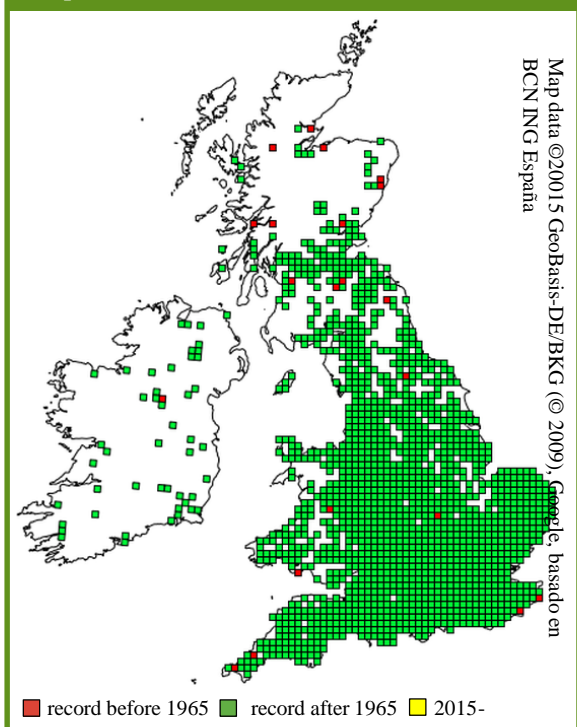
On attached (high up) or fallen dead branches of *Carpinus betulus* (hornbeam), most likely in hornbeam woodlands (common in the UK only in Kent, Sussex and East Anglia), or in mixed woodlands distributed throughout GB&I.

Encoelia carpini



Images © Nick Aplin

Carpinus betulus – known distribution



Encoelia carpini – known distribution



Encoelia carpini

General description

Teleomorph: dark-brown apothecia, leathery and minutely striated on the outside, yellowish-brown when dry, erupting through bark in clusters or bunches, initially closed, then opening into uneven discs of 2-4 mm diam. with a white or pale ragged edge, lacking a stipe. Asci cylindrical-clavate, with rounded to almost truncate apex, 75-80 x 8-9 µm, 8-spored. Ascospores ellipsoidal to (typically) allantoid, 12-15 x 3-3.5 µm, with a globular refractive body at each pole, arranged in two rows within asci. Paraphyses filiform with clavate apex up to 4 µm diam., tips with a light brown encrustation. Anamorph not known.

Note: description based on Saccardo (1889: 566-567), Kirschstein (1935), and details of Nick Aplin's collection.

Habitat:

On attached (high up) or fallen dead dry branches of *Carpinus betulus*.

Conservation status

Not formally assessed in GB&I. *Encoelia carpini* appears to be represented by only two authenticated records; an IMI specimen from 1929 listed in FRDBI is actually *E. glaberrima* (see below). The first genuine record, from 2004, was briefly described in Robinson (2007). More work is required to determine if this species is under-recorded or restricted to very specific microhabitats, or if it could be a new arrival.

Associations

Appears to be specific to *Carpinus betulus*.

Look-alikes

➤ *Encoelia glaberrima*, a similar species colonising *Carpinus* and *Corylus*, is also known only from a small number of sites in the UK. *E. glaberrima* possesses much larger apothecia (5-25 mm), and smaller ascospores (6-7 x 1.5 µm)

than *E. carpini*, and so should be clearly distinguishable in mature collections.

- *Encoelia furfuracea*: a widespread and frequently recorded species more typically found on Hazel (*Corylus*) or Alder (*Alnus*), also has three records on *Carpinus*. It should be easily distinguishable on close examination due to the apothecia of this species being scurfy or "furfuraceous" (looking as if covered in flakes of bran, which can be brushed off).
- *Rutstroemia bolaris*: a deep yellow to bright olive-yellow to light brown discomycete, stalked to minutely stalked, often cupulate, sometimes appearing sessile, not erumpent, 2-8 mm in size. Locally common when found, typically on dead branches of *Alnus*. Probably under-reported in the UK, with seven records in the FRDBI, four from fallen dead wood and twigs of *Carpinus*. Unlikely to be mistaken for *E. carpini* unless immature and near-sessile.

Known sites in GB&I

- Woods next to Gatwick Airport on Charlwood road near Povey Cross, Hookwood, Horley, Surrey VC:17, England. 17 Oct. 2014, coll.: Nick Aplin. Grid ref: TQ265418.
- Balls Wood Nature Reserve, Hertford Heath, Hertfordshire VC:20, England. 18 Jul. 2004, coll.: K. Robinson. Grid ref: TL3410.

Literature

- Kirschstein, W. (1935). Neue und seltene Ascomyceten. *Annales Mycologici* 33: 202-229. Available online at: <http://www.cybertruffle.org.uk/cyberliber/59685/0033/003/0222.htm>
- Robinson, K. (2007). A mycologist's diary. *Field Mycology* 8 (4): 134-138.
- Saccardo, P. A. (1889). *Sylloge Fungorum*, Vol. 8. Saccardo: Patavia. Available online at: <http://www.biodiversitylibrary.org/item/102784#page/590/mode/1up>

Links

Images of *Encoelia glaberrima* and *G. furfuracea* in H.-O. Baral's online image collection (in /Helotiales/Encoelioideae): <http://www.invivoveritas.de/dvd-download/>