Dissingia confusa new to Britain

Charles E. Aron*

During late November 2017 I was searching for fungi in a rather dense spruce plantation at Tyddyn Isaf, Penrhoslligwy, on Anglesey. The site, which has proven very productive for interesting fungi, is close to Lligwy Woods which was visited by the BMS during October of the same year. On the sides of a small brook (Fig. 1) running through the plantation I noticed what appeared to be some *Helvella*. I was surprised as it seemed a strange site and time of year to find these fungi; they were cupulate with ribbed stipes, rather similar to *H. leucomelaena*, which occurs on the sand in Newborough Forest, south west Anglesey, a completely different habitat. Also, *H. leucomelaena* is a somewhat stockier, darker species. Using available texts such as Dissing (2000) the best fit seemed to be *H. solitaria*.

Further information was provided by Skrede *et al.* (2017); this detailed review of the morphology and phylogeny of the European *Helvella* species also provides a key. In the key *H. solitaria* forms a couplet with *H. confusa*. Of the two, *H. confusa* fitted best, *H. solitaria* being a larger and darker taxon. Another factor is that *H. solitaria* seems to prefer broad-leaved woodland, especially *Salix*, while *H. confusa* prefers conifers, usually *Picea*. It also occurs on rich or calcareous soils.

In Britain many spruce plantations are in upland situations on mostly acidic soil, however, in the Anglesey site there is runoff from an adjacent area of Carboniferous limestone, creating an ideal habitat for *H. confusa*. Inger Skrede (pers. comm.) agreed that photos of macro- and microscopic characters were close to *H. confusa*. She also sent me a further paper on *Helvella* (Hansen *et al.*, 2019). In this study *Dissingia* is erected as a separate genus from *Helvella* species on the basis of lacking croziers while they are present in other *Helvella* species apart from the *H. alpina/corium* lineage. This new genus consists of *D. confusa*, *D. crassitunicata*, *D. leucomelaena* and *D. oblongispora*. Of these only *D. leucomelaena* is known to occur in Britain.

Further examination of the Anglesey material confirmed the absence of croziers thus pointing to *D. confusa*. Material was sent to Paul Cannon who confirmed this identification and created a page for *Dissingia confusa* in his *Fungi of Great Britain and Ireland* website (see http://fungi.myspecies.info/all-fungi/dissingia-confusa).

Since its initial discovery *D. confusa* has been found on several occasions at the Anglesey site, from the winter months through to April, always in the same spot close to water. There is also a record on FRDBI from a spruce forest in Northern Ireland by C. Stretch, May 2021.

Fig. 1. Habitat of *Dissingia confusa*. Photograph © C.E. Aron.

Fig. 2. *Dissingia confusa* on wet ground in spruce plantation, showing the undersurface with broad ribs. Tyddyn Isaf, 24/11/17. Photograph © C.E. Aron.

Fig. 3. Specimens of *D. confusa* from Cae Brych Forestry, 25 Nov. 2021. Photograph © C.E. Aron.

A description based on the Tyddyn Isaf (VC 52, SH48698549) collections is given below:

Dissingia confusa (Harmaja) K. Hansen & Y.–H. Wang

Ascomata 22–43 mm (Figs 2 & 3). At first cyathiform, bowl-shaped and finally shallow-concave with a revolute margin.

Hymenium pale grey to grey-brown.

Excipulum pale to dark grey-brown in young specimens, becoming pallid to light grey but often remaining darker towards the margin. Finely downy under lens (Fig. 4).

Stipe distinct, 5–20 x 3–6 mm, tapering downwards with 4–5 ribs extending to excipulum, pallid.

Ascospores oblong-ellipsoid, 21–23 x 15–15.5 µm (Fig. 5).

Asci cylindrical 225–330 x 20–25 µm, without croziers (Fig. 6).

Paraphyses with greyish brown pigmentation, apex simple or somewhat gnarled and irregular (Fig. 7). Width at apex 6–9 µm.

Acknowlegements

Many thanks to Paul Cannon for confirming the identity of the *Dissingia confusa* material; to Caroline Hobart for sending me the paper on *Helvella* (Skrede *et al.*) and also for the loan of her *Helvella* specimens and thanks to Inger Skrede for help with identification and sending the link to '*Pindara* revisited' (Hansen *et al.*).

*4 Refail Fields, Pentraeth, Anglesey, UK, LL758YF; aronmycology@aol.com

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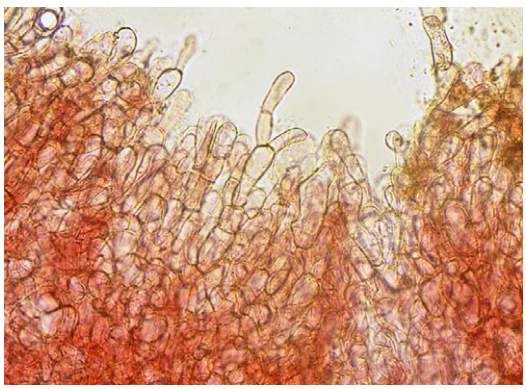

Fig. 4. Excipular cells of *D. confusa*. Photograph © C.E. Aron.

Fig. 5. Ascospores of *D. confusa*. Photograph © C.E. Aron.

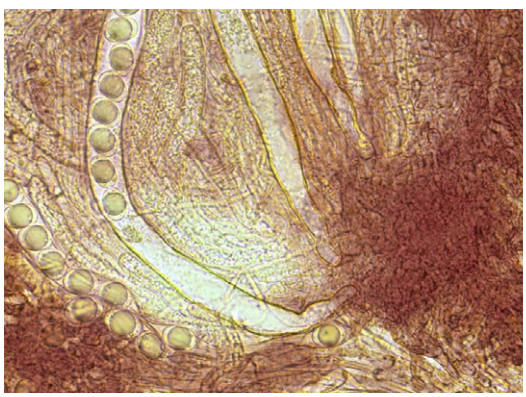

Fig. 6. Asci of *D. confusa*, showing simple bases. Photograph © C.E. Aron.

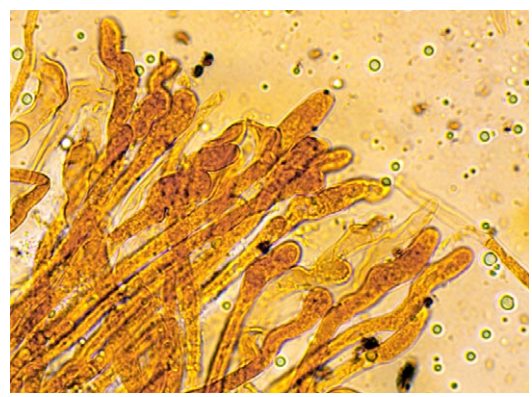

Fig. 7. Paraphyses of *D. confusa*. Photograph © C.E. Aron.