Drosera (Sundew) Identification & Recording

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Native Drosera taxa

3 species plus two hybrids

Drosera rotundifolia (Round-leaved Sundew) Drosera anglica (Great Sundew) Drosera intermedia (Oblong-leaved Sundew)

Drosera x obovata (Obovate Sundew (D. rotundifolia x anglica)) Drosera x belezeana (D. rotundifolia x intermedia)

A note on names:

The name *D. longifolia* has been applied to both *D. anglica* and to *D. intermedia*.

Drosera intermedia was given the common name 'Long-leaved Sundew' in 'Flora of the British Isles (Clapham et al 1952, 1962, 1987). Stace's 'New Flora' (1991, 1997, 2010) adopted the common name 'Oblong-leaved Sundew'. NB the *Drosera* with the longest leaf blades is *D. anglica*.

In addition to accounts in the standard Floras see the account by Culham in the BSBI Plant Crib, available online at:

http://bsbi.org/wp-content/uploads/dlm_uploads/Drosera_Crib_3.pdf

Culham raises two important points re identification:

•stunted or juvenile material tends towards a round leaf shape in all species.
•In *D. anglica* and *D. rotundifolia* new leaves grow in the centre of the rosette after flowering which makes old inflorescences look as if they arise laterally, resulting in some possible misidentifications if other characters are not checked.

Treatments of *Drosera* in some popular Field Guides are inadequate, especially for identification of *D. intermedia*.

(NB – identification of Drosera intermedia x rotundifolia = D. x belezeana is not covered in these slides. See Stace et al (2015). Hybrid Flora of the British Isles).

Drosera rotundifolia



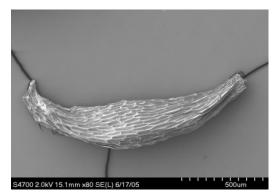


- •Familiar & ± unmistakeable
- •Leaf blade ± round, or wider than long, very abruptly narrowed into petiole. Table-tennis bat shaped.
- •Leaves forming a spreading rosette
- •Seeds reticulate

Drosera anglica



- •Leaves ± erect
- Leaf blades long (≤ 30mm), (3-)46 x width in at least some leaves, very gradually narrowed into petiole
- •Leaf blades green with red tentacles
- Flowering stem appearing to arise from centre of leaf rosette
 Seeds reticulate



Drosera x obovata



Found growing with parent species (may be locally frequent)
Leaves ± erect, can approach length of *D. anglica*Leaf blade length 2-3 x width, gradually narrowed into petiole
Flowering stem appearing to arise from centre of leaf rosette
Sterile. Seed pods remain slim and pointed and contain only light brown thread like sterile seeds.

Drosera x obovata

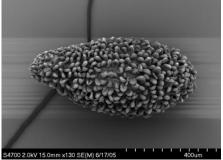


Comparison of typical leaf shapes of: Drosera anglica (left), Drosera x obovata (centre) & Drosera rotundifolia (right)

Leaf shape of this hybrid is nicely 'intermediate' between the two parents, inviting possible confusion with *Drosera intermedia*

Drosera intermedia





https://mobile.twitter.com/KewScience/status/975672702274101248

- •Leaves ± erect, shorter than *D. anglica*
- •Leaf blades obovate, \leq 10mm in length, (1-)2-3 x longer than wide, gradually narrowed into petiole
- •Leaf blades green or may be reddish
- Flowering stem arising laterally, from below terminal rosette

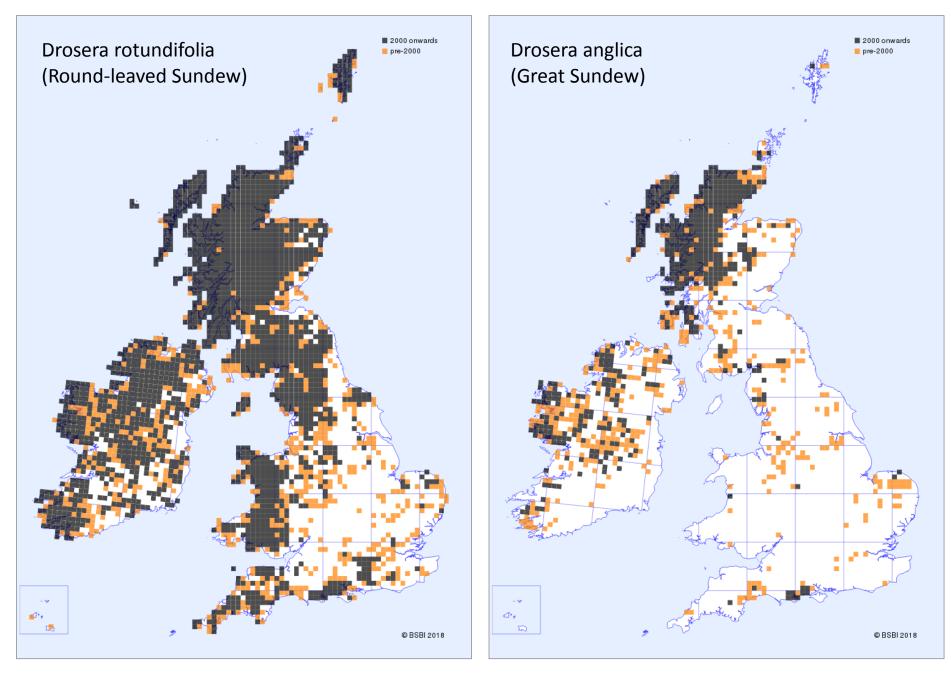
•Seeds papillose (diagnostic feature). Compared to *D. x obovata*, capsules are usually very plump and somewhat blunt ended.



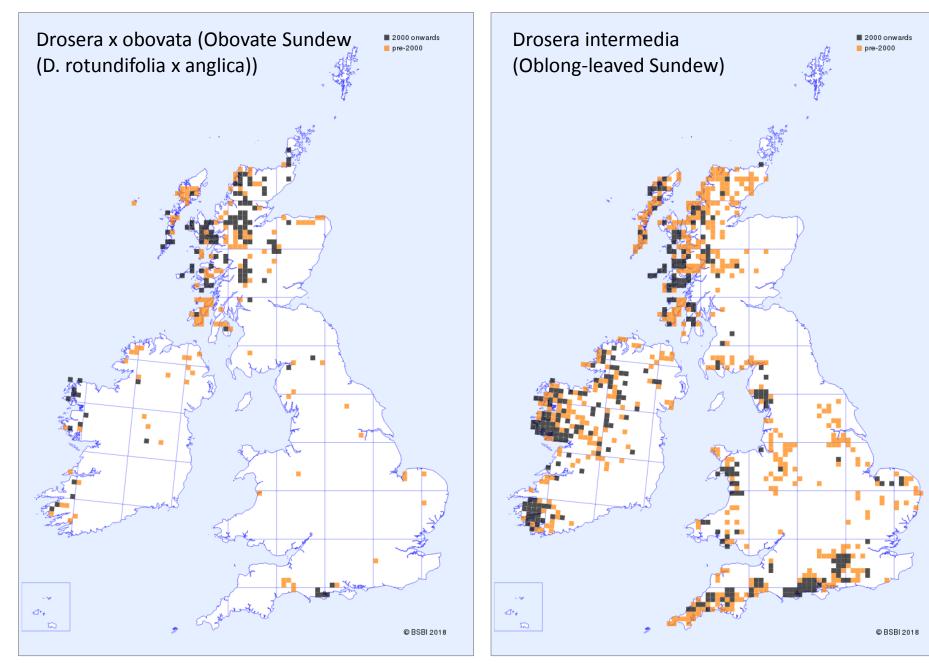


Left to right:

Drosera rotundifolia Drosera intermedia Drosera anglica Drosera x obovata



Distribution maps from BSBI DDb 18th November 2018, showing hectad distribution post 1999 cf pre 2000



Distribution maps from BSBI DDb 18th November 2018, showing hectad distribution post 1999 cf pre 2000

Native Drosera taxa – percentage hectad refind rates

	Percentage hectad refind rates, pre-2000 cf post 1999			
Total hectads post 1999	England, IOM & Channel Islands	Scotland	Wales	Ireland
554	15.9	70.0	20.0	40.6
119	21.7	34.0	0.0	7.4
305	33.3	25.2	45.9	43.4
1	50.0			
1915	53.4	88.2	77.0	72.4
	554 119 305 1	Total hectads post 1999 England, IOM & Channel Islands 554 15.9 119 21.7 305 33.3	Total hectads post 1999 England, IOM & Channel Islands Scotland 554 15.9 70.0 119 21.7 34.0 305 33.3 25.2 1 50.0 50.0	119 21.7 34.0 0.0 305 33.3 25.2 45.9 1 50.0

Refind rates calculated from records on BSBI DDb on 23rd January 2019

•Scotland has the **highest** hectad refind rates for *D. anglica, D. rotundifolia and D. x obovata,* but has the **lowest** refind rate for *D. intermedia*.

•England has the **lowest** refind rates for *D. anglica* and *D. rotundifolia* (historic loss of habitat)

•Wales has the **highest** refind rate for *D. intermedia*.

Drosera intermedia in Scotland - Over-recorded, overlooked or declining?

•In Scotland, *Drosera intermedia* has a very low hectad refind rate (25%), & post 1999 has the fewest hectad records (81).

•Observers may have been reluctant to record *D. intermedia* through lack of familiarity, or •It may have been over-recorded in the past, or •It may have declined (but if so why?).

VCRs and field recorders in Scotland (especially) should note:

•Overemphasis, in keys and descriptions, of the flowering stem character (arising laterally, from below terminal rosette). Open to misinterpretation.

Need to make use of additional ID characters, especially the (diagnostic) papillose seeds.
Drosera x obovata is obviously intermediate in leaf blade shape between D. rotundifolia and D. anglica, and may be under recorded.

•The name *D. longifolia* was, historically, applied to both *D. anglica* and to *D. intermedia*. Need to check ID of herbarium specimens.

•VCRs should check all post 1999 records of *D. intermedia*; mark as Confirmed, Doubtful or Rejected on DDb.

•The DDb distribution map may be significantly incorrect in parts of Scotland.

Acknowledgements

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