











The white-flowered water-buttercups are a notoriously tricky group to identify – even for experts. Genetic analysis is currently adding confusion! A few years ago the general consensus was that there were 10 or so species in the UK – new genetic studies are showing that on one hand hybridization and back-crossing is so common that it can be difficult to identify ‘pure’ species. Whilst on the other, plants that were once thought to be a single species, like Thread-leaved Water-crowfoot (*Ranunculus trichophyllus*) may include a dozen or more distinct genetic types. It’s a problem that won’t be sorted out for a few years!

Three-lobed Water-crowfoot (*Ranunculus tripartitus*) is by far the rarest Water-crowfoot in the UK, but fortunately it is one of the more straightforward species to identify - once you have your eye in for the right leaf shape (see below). The main issue is that it sometimes hybridises with another Water-crowfoot (Round-leaved Water-crowfoot *Ranunculus ompiophyllus*) to create the hybrid (*Ranunculus novae-forestae*).

Separating Three-lobed Water-crowfoot from other Water-crowfoot species



Three-lobed Water-crowfoot is one of three mud-loving species that can be separated from all the other Water-crowfoots by their particularly small flowers (all have a petal length of less than 6mm). All three typically grow on wet mud at the edge of small shallow pools that dry out during the year. They like moderately disturbed habitats such as small pools trampled by cattle and track-ruts occasionally used by off-road vehicles. They also occur at the muddy edge of deeper pools, ditches and sometimes small streams.

A table of the more reliable methods for separating the three mud species is given below:

Flower size	If the majority of flowers on your Water-crowfoot are small (all petals less than 6mm) ➤ Compare with all the features below to determine whether you have Three-lobed Water-crowfoot		
	Three-lobed Water-crowfoot <i>Ranunculus tripartitus</i>	Round-leaved Water-crowfoot <i>Ranunculus ompiophyllus</i>	Ivy-leaved Water-crowfoot <i>Ranunculus hederaceus</i>
Broad leaves (laminar leaves)	Leaves usually deeply 3-lobed (rarely 5-lobed), lobes narrowest at base.	Usually shallowly 5-lobed (rarely 3- or 7-lobed), lobes narrowest at base.	Usually shallowly 5-lobed (occ 3- or 7-lobed), lobes broadest at base.
	Leaf lobes cut more than half way to the centre of the leaf  Leaf lobes narrow towards the base	Most lobes not cut more than half way to the centre of the leaf  Leaf lobes usually narrow towards the base	Leaves shallowly lobed  Leaf lobes broadest at the base
Leaf shape (very varied in all species)			
Thread-like (capillary) leaves	Sometimes present 	Absent	Absent
Petals	1-5 mm long	(3.5-) 5-6 (-7) mm long	(1-) 2.5-3.5 (4.5) mm
Sepal length	1-3 mm	(1.5-) 2.5-3 (-4) mm	(1-) 2-2.5 (-3) mm
Jizz features	Middle lobe of leaf often resembles a crown with three peaks. Smaller flowers. Petals similar or slightly longer than the sepals underneath.	Leaf outline often rather rounded. Leaf lobes sometimes overlap. Has larger flowers. Petals 2 to 3 times longer than the sepals beneath.	Leaf outline often rather triangular. Mature leaves can have dark green marks near the centre. Petals and sepals similar length.
Photos	 © RV Lansdown	 © Tico	 © Frank Vassen
Flowering time	Typically an early plant that can flower in winter (Dec-April) and (usually) dies back by May.	Variable flowering time from early spring (March) to autumn (November).	Variable flowering time from early spring (March) to autumn (November).

Identifying the hybrid

Ranunculus tripartitus can hybridise with *Ranunculus ompiophyllus* to create the rare hybrid *R. novae-forestae* – named after the New Forest in Hampshire where it is found. The hybrid often has a leaf shape and flower size that are intermediate between its parents, *but* both are very variable, and ideally genetic analysis would be required to make an accurate distinction between them.

Three-lobed Water-crowfoot <i>Ranunculus tripartitus</i>		Silhouettes (del R.V. Lansdown 1997), from <i>The Plant Crib</i> 1998 Rich & Jermy BSBI
Hybrid <i>Ranunculus novae-forestae</i>		
Round-leaved Water-crowfoot <i>Ranunculus ompiophyllus</i>	