








Montane willow identification workshop: BSBI Scottish Botanists' Conference 2023

Sarah H. Watts

Component species of montane willow scrub in Scotland: 5 montane/arctic-alpine specialists and 2 secondary montane willow species. IUCN conservation status for Britain derived from Cheffings et al. (2005) and the Botanical Society of Britain & Ireland (2021). Nationally Rare = occurring in 15 or fewer 10x10 km squares within Britain and Ireland; Nationally Scarce = occurring in 16-100 10x10 km squares. 10x10km OS grid squares = the number of squares in Scotland that each species has been recorded in post-1950, calculated using data by Watts (2023a). Sources for altitudinal data, growth form and habitat requirement are: Meikle (1984), Montane Scrub Action Group (2016a), Pearman and Corner (2022), Stroh et al. (2023) and Watts (2023b). *for records above 400m only.

Species (montane/arctic-alpine specialist)	Conservation status	10x10km OS grid squares	Altitude range (m)	Habitat requirements	Growth form	Twigs	Buds	Leaves	Unique identification feature
<p><i>Salix lanata</i> (Woolly Willow)</p> 	<p>Vulnerable</p> <p>Nationally Rare</p>	12	550 - 1044	<p>Highly calcareous soils</p> <p>Often on north-facing slopes</p>	<p>Low-growing or small bush</p> <p><1.5m in height</p>	<p>Robust</p> <p>Prominent leaf-scars</p> <p>Young shoots are very hairy</p>	<p>Large</p> <p>Hairy at first</p> <p>Rich brown, tan or yellowish</p>	<p>Ovate or orbicular</p> <p>3.5-7cm long</p> <p>Broad: 3-6.5cm wide</p> <p>Felted above</p> <p>Network of raised veins on underside</p>	<p>Does what it says on the tin i.e. very hairy!</p> <p>Large round leaves</p>
<p><i>Salix lapponum</i> (Downy Willow)</p> 	<p>Vulnerable</p> <p>Nationally Scarce</p>	90	140 - 1125	<p>Wide range of soils and situations</p> <p>Avoiding the most acid sites</p>	<p>Low growing to erect bush</p> <p><2m in height</p>	<p>Erect or somewhat twisted</p> <p>Glossy</p> <p>Dark reddish-brown</p>	<p>Can be fairly large</p> <p>Dark brown or dark reddish-brown</p>	<p>Lanceolate/elongated</p> <p>1.5-4cm long; 1-2.5cm wide</p> <p>Grey-green</p> <p>Downy both sides</p> <p>Leaf edge often curled downwards</p>	<p>Overall colour is obvious from a distance</p> <p>Buds and leaf shape</p>

Species (montane/arctic-alpine specialist)	Conservation status	10x10km OS grid squares	Altitude range (m)	Habitat requirements	Growth form	Twigs	Buds	Leaves	Unique identification feature
<i>Salix myrsinites</i> (Whortle-leaved Willow) 	Endangered Nationally Scarce	70	150 - 1020	Usually some calcareous enrichment and flushing On crags or sometimes in open flushes	Low-growing Spreading Gnarled appearance <1m in height	Rich dark brown Prominent leaf-scars Older branches turn dark grey	Tan to dark reddish-brown	Variable: obovate to lanceolate 2-5cm long; 0.5-2.5cm wide Small but thick Serrated Shining green above and below	Retains previous year's leaves Leaves shiny both sides Reddish-purple inflorescences Distinctive robust twigs
<i>Salix arbuscula</i> (Mountain Willow) 	Least Concern Nationally Scarce	42	342 - 870	Calcareous soils On crags as well as within damp heath and grassland	Procumbent to semi-erect <1m in height	Repeatedly divided Thin Yellow or reddish-brown	Small Reddish brown	Ovate to lanceolate Small: 1-4cm long; 1-1.5cm wide Hairless & bright green above, duller grey-green below Small gland-tipped teeth	Tiny catkins Leaves usually small
<i>Salix reticulata</i> (Net-leaved Willow) 	Least Concern Nationally Scarce	23	430 - 1125	Calcareous rock ledges and moist cliffs	Prostrate and creeping <0.2m in height	Very low-growing Long, thin Dark reddish-brown	Small and rounded Greenish or reddish-brown	Oval Thick Prominent nervation Dark green 1-4cm long; 1-2.5cm wide	You'll know it when you see it Dark red hairy catkins

Species (secondary montane willows)	Conservation status	10x10km OS grid squares	Altitude range (m)	Habitat requirements	Growth form	Twigs	Buds	Leaves	Unique identification feature
<i>Salix myrsinifolia</i> (Dark-leaved Willow) 	Least Concern	53*	0 - 940	Wide range of soils Damp mountain slopes	Erect bush <3m in height	Dull brown or greenish Densely hairy at first	Blunt Small Pubescent Bright red or tan	Obovate or oblong Dark green above and green below Blackening when dried Prominent stipules (leafy structure at the base of leaf stalks) 2-7cm long; 1.5-3.5cm wide	Hairy young shoots Frequent invertebrate damage Strong smell
<i>Salix phylicifolia</i> (Tea-leaved Willow) 	Least Concern	73*	0 - 1020	Wide range of soils Often associated with water-body margins	Erect bush <3m in height	Rich glossy reddish-brown or yellowish-green Usually hairless	Small Dark brown	Rather rigid Bright shining green above, greyish green below Bluntly serrated 2-6cm long; 1-5cm wide	Large leaves, shining green on upper side Very long catkins

Also watch out for:

A dwarf-shrub of high altitudes: *Salix herbacea* (Dwarf Willow)

Other willows that can occur at high altitudes: *Salix aurita* (Eared Willow), *Salix cinerea* (Grey Willow), *Salix repens* (Creeping Willow), *Salix caprea* (Goat Willow) + various hybrids!

Other resources

Willows of Northern Europe Identification Guide: <http://www.willows-of-northern-europe.org/identification.html>

Mountain Woodland Project winter twigs identification guide: <https://www.msag.org.uk/uploads/4/0/7/3/40732079/mwp-identificationguide.pdf>

Mountain Woodland Action Group Best Practice Guides: <https://www.msag.org.uk/best-practice-guides.html>

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Mountain Woodland Action Group Scrubbers' Bulletins: <https://www.msag.org.uk/publications.html>

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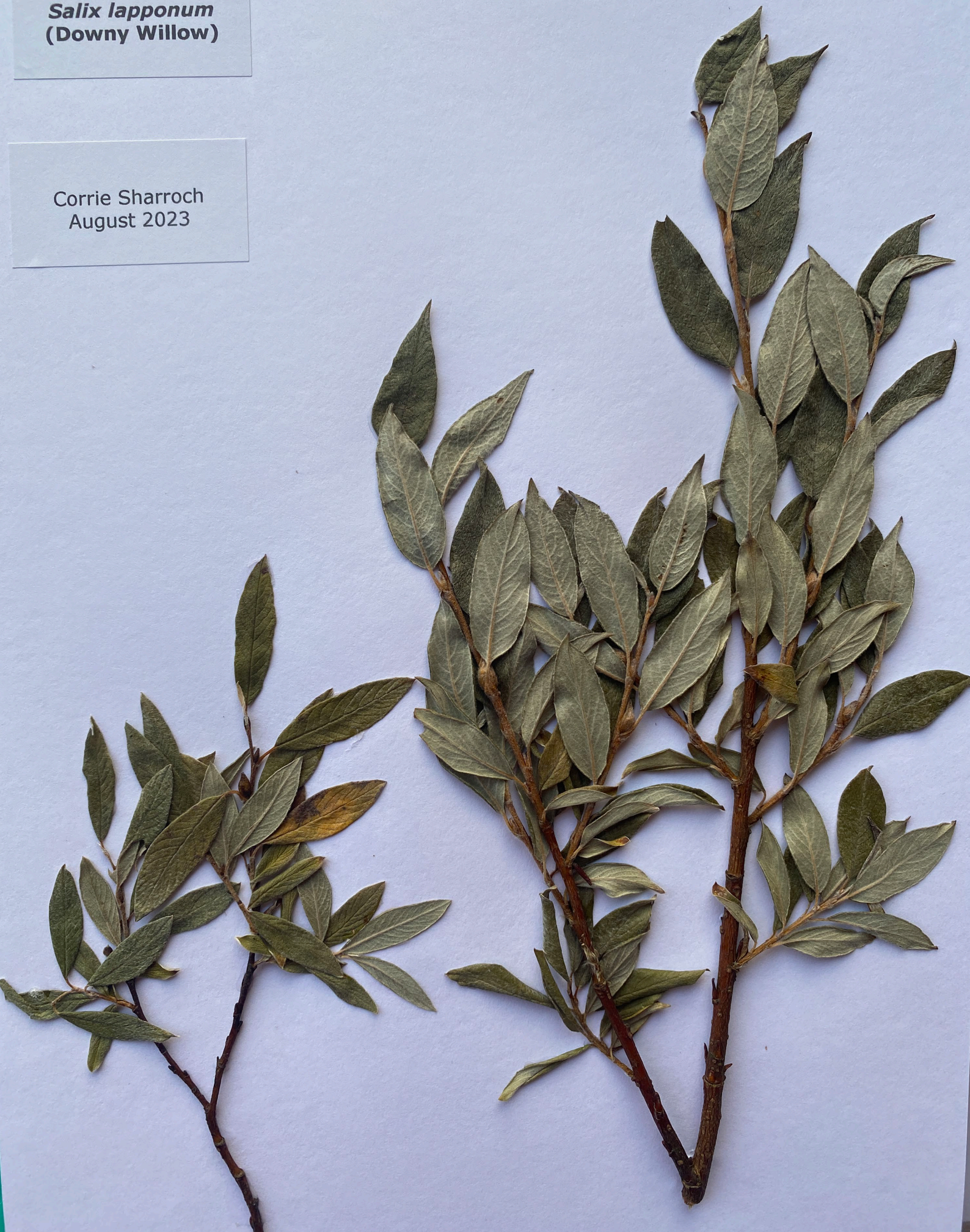
Salix lanata
(Woolly Willow)



Corrie Sharroch
August 2023

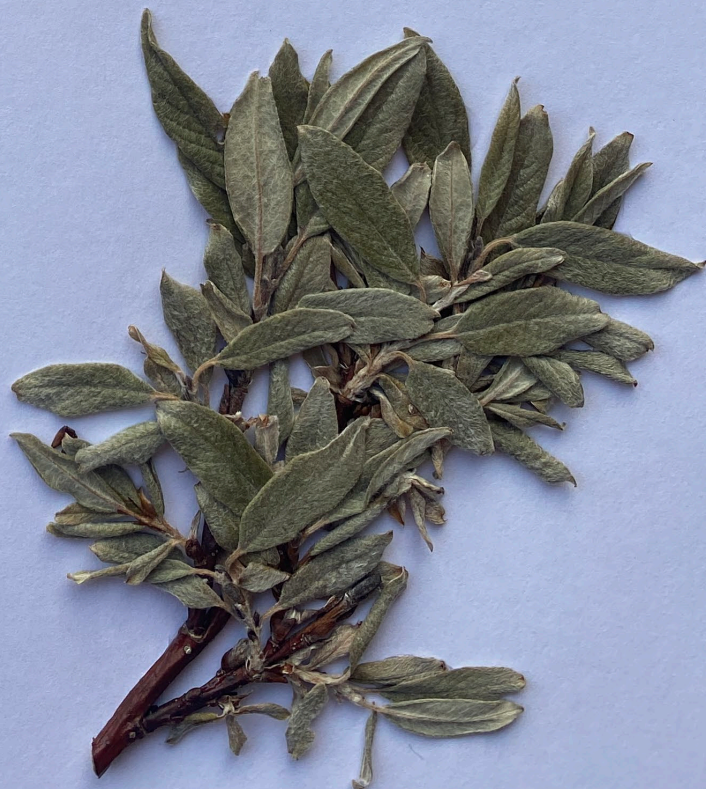
Salix lapponum
(Downy Willow)

Corrie Sharroch
August 2023



Salix lapponum
(Downy Willow)

Creag an Lochain
(Ben Lawers NNR)
September 2023



Salix myrsinites
(Whortle-leaved
Willow)

Stob Coire Sgriodain
(Corroul)
September 2023



Salix arbuscula
(Mountain Willow)



Creag an Lochain
(Ben Lawers NNR)
September 2023

Salix reticulata
(Net-leaved Willow)



Corrie Sharroch
August 2023

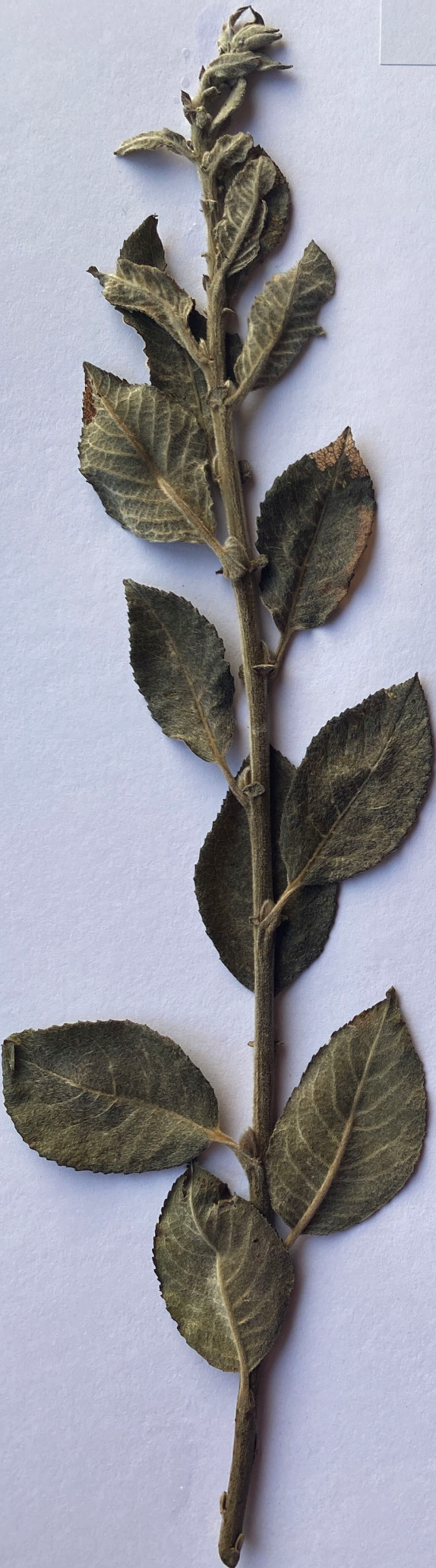
Creag an Lochain
(Ben Lawers NNR)
September 2023

Salix myrsinifolia
(Dark-leaved
Willow)



Salix myrsinifolia
(Dark-leaved
Willow)

Creag an Lochain
(Ben Lawers NNR)
September 2023



Salix phylicifolia
(Tea-leaved Willow)

Uisge Labhair
(Corrour)
September 2023

