

Species: *Sambucus nigra* L.

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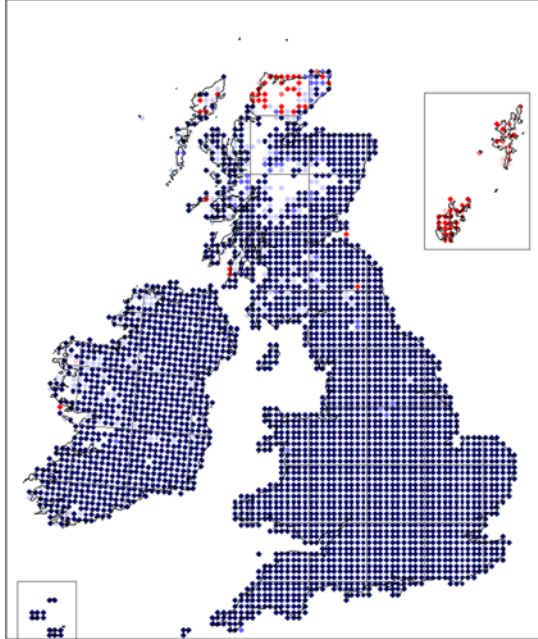
Methodology: Neaves, L. A Framework for Maximising the Capture of Genetic Diversity in Sampling for ex situ Conservation. *Preprints*. 2019, 2019120176 (doi:10.20944/preprints201912.0176.v1)

Recommendations:		Confidence
Sampling	Low risk of sampling limited diversity: Sampling should cover the range of native populations. More information is needed about the existence of genetic unicity inside the range.	High agreement/ Limited evidence
Donor selection (risk of mixing)	Some risk of mixing: Dispersal ability and modes of reproduction suggest ongoing gene flow, but information is lacking; moreover, there is no evidence about the existence of adaptive potential.	Moderate agreement/ Limited evidence
Knowledge gaps	Native range difficult to be established. Information on genetic diversity and existence of ecotypes for UK populations are lacking.	

Information:

Taxonomy	-
Hybridisation	Natural hybrids between <i>S. nigra</i> and <i>S. racemosa</i> are very rare ¹ .

Life history traits/Attributes	Organisation of diversity	Negative outcomes of mixing	Strength of evidence	
<i>Dispersal ability</i>	Effective Seeds dispersed by birds Pollen vectors: insects	Higher diversity/ Lower differentiation	Lower vulnerability	Robust evidence
<i>Mode of reproduction</i>	Mixed	Higher diversity/ Lower differentiation	Higher vulnerability	Robust evidence
<i>Longevity</i>	Long lived (5-45 yrs)	Higher diversity/ Lower differentiation	Lower vulnerability	Robust evidence
<i>First reproduction</i>	>3 yrs	-	-	Robust evidence
<i>Reproductive output</i>	High ¹	-	Lower vulnerability	Robust evidence
<i>Ploidy</i>	Diploid (2n=36)	Higher diversity/ Lower differentiation	Lower vulnerability	Robust evidence

<i>Range/ Fragmentation</i>	Widespread and continuous distribution. Widely introduced and naturalised outside its range.	Higher diversity/ Lower differentiation	Lower vulnerability	Robust evidence
				
<p>Map source: https://www.brc.ac.uk/plantatlas/plant/sambucus-nigra</p>				
<i>Ecological amplitude</i>	No information about local adaptation in the UK.	-	-	-
<i>Genetic diversity</i>	Despite the development of SSR markers for <i>S. nigra</i> ² , genetic diversity of British and European populations has not been investigated.	-	-	-
<i>Demography</i>	Stable	Higher diversity	-	Robust evidence
References	¹ Atkinson MD, Atkinson E. 2002. <i>Sambucus nigra</i> L. <i>Journal of Ecology</i> . 90 : 895-923. ² Clarke JB, Tobutt KR. 2006. Development of microsatellite primers and two multiplex polymerase chain reactions for the common elder (<i>Sambucus nigra</i>). <i>Molecular ecology resources</i> . 6 : 453-455.			