

## Central Lancashire Online Knowledge (CLoK)

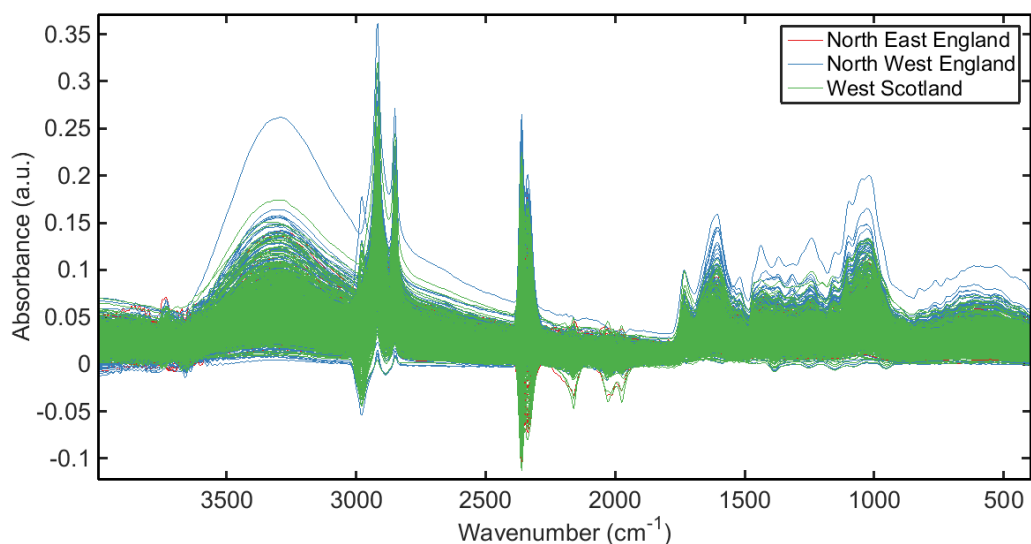
Title	Regional differences in clonal Japanese knotweed revealed by chemometrics-linked attenuated total reflection Fourier-transform infrared spectroscopy
Type	Article
URL	<a href="https://clock.uclan.ac.uk/39823/">https://clock.uclan.ac.uk/39823/</a>
DOI	<a href="https://doi.org/10.1186/s12870-021-03293-y">https://doi.org/10.1186/s12870-021-03293-y</a>
Date	2021
Citation	Holden, Claire A., Medeiros-De-morais, Camilo De Ielis ORCID icon ORCID: 0000-0003-2573-787X, Taylor, Jane E., Martin, Francis L., Beckett, Paul and McAinsh, Martin (2021) Regional differences in clonal Japanese knotweed revealed by chemometrics-linked attenuated total reflection Fourier-transform infrared spectroscopy. <i>BMC Plant Biology</i> , 21 (1). p. 522.
Creators	Holden, Claire A., Medeiros-De-morais, Camilo De Ielis, Taylor, Jane E., Martin, Francis L., Beckett, Paul and McAinsh, Martin

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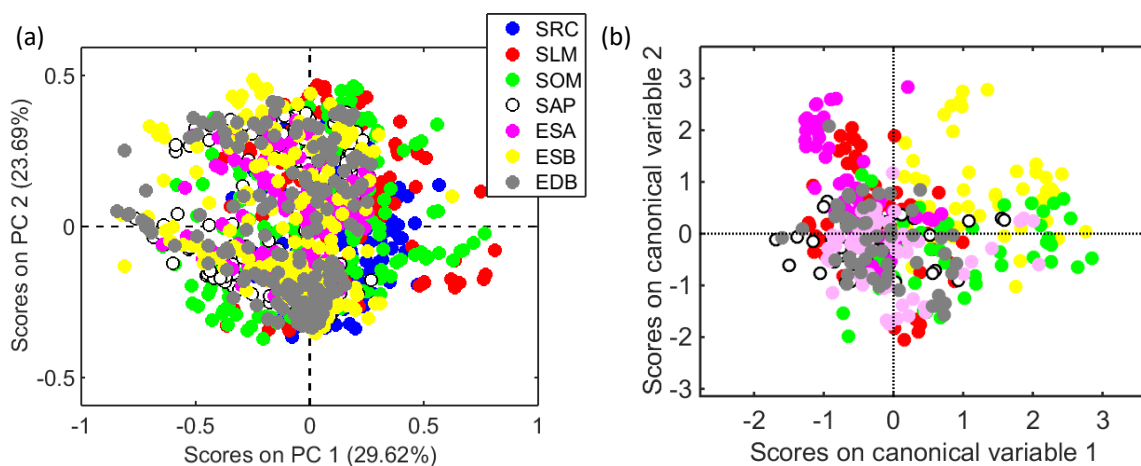
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*Regional differences in clonal Japanese knotweed revealed by chemometrics-linked Attenuated Total Reflection Fourier-Transform Infrared Spectroscopy - Supplementary Information*



**Figure S1:** Raw IR data for different regions (North East England, North West England, West Scotland).



**Figure S2:** (a) PCA scores plot and (b) PCA-LDA canonical scores for the pre-processed spectral data in the fingerprint region for different sites where knotweed were collected (Scotland: SRC, SOM, SLM, SAP; North West England: ESA, ESB; North East England: EDB).

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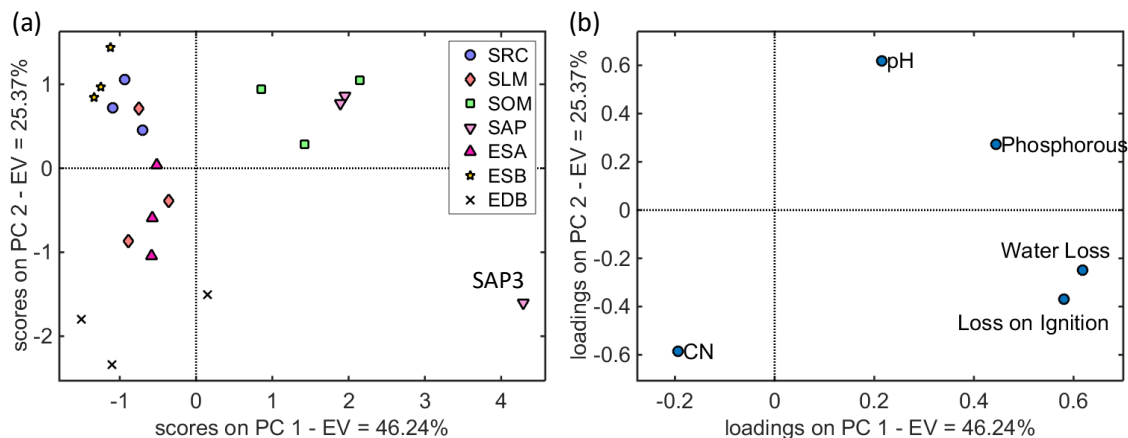


Figure S3: (a) PCA scores and (b) loadings for the soil data with extreme sample (SAP3).

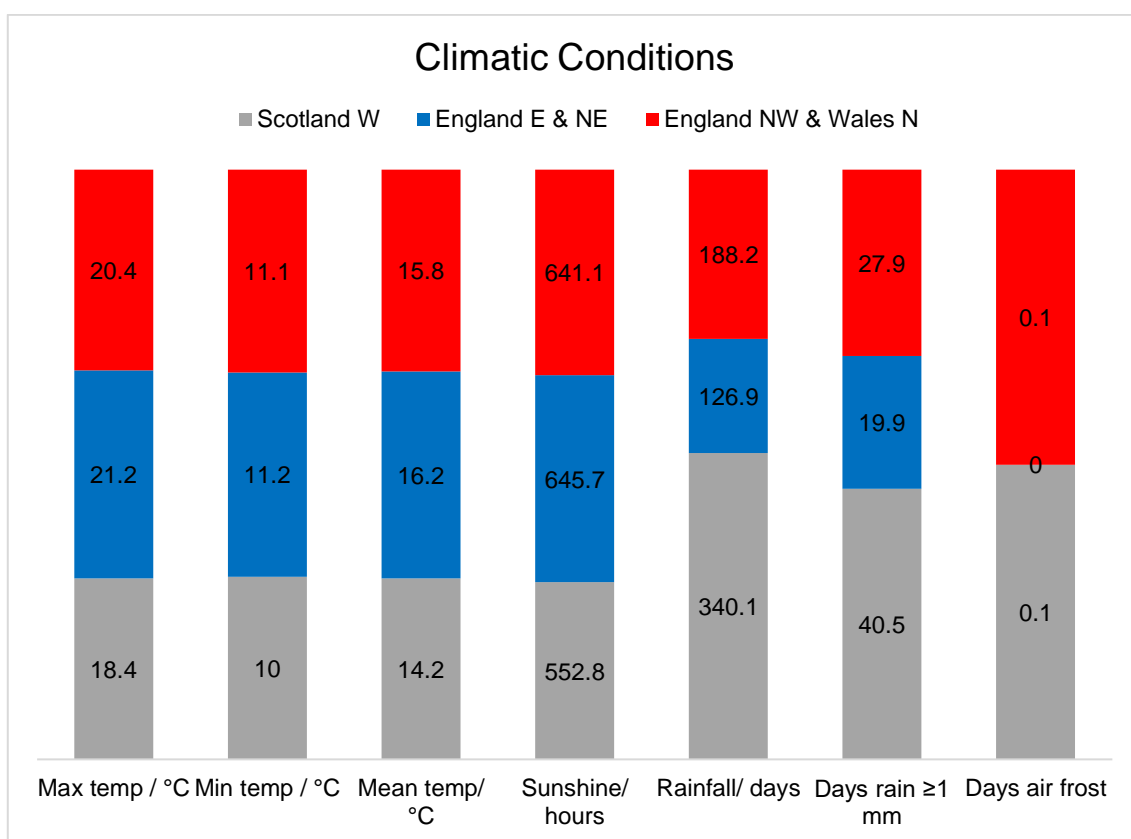


Figure S4: Climatic conditions for each region

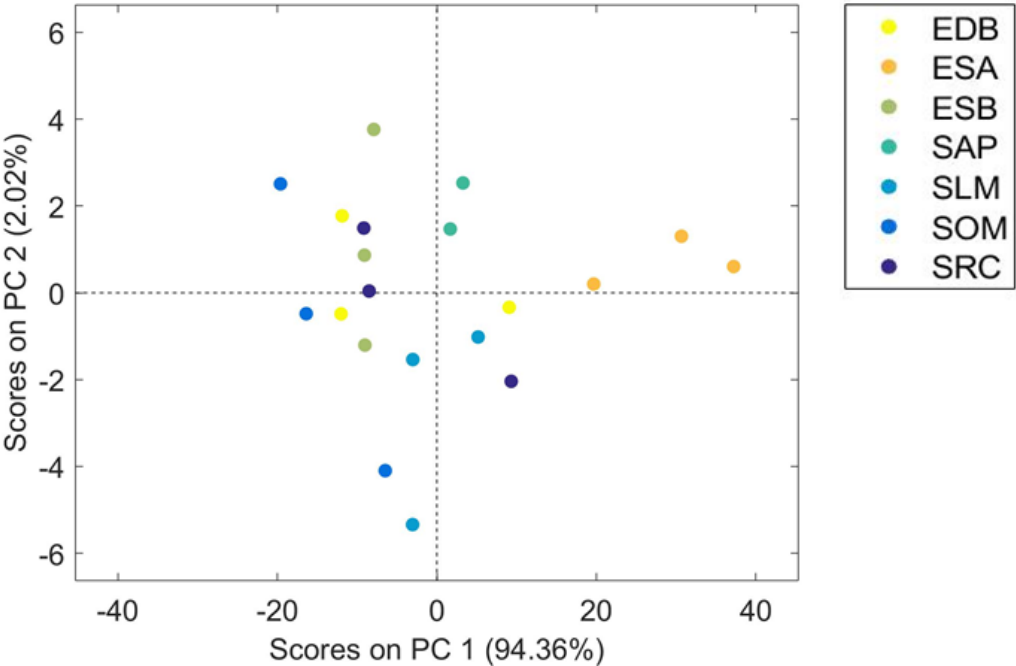
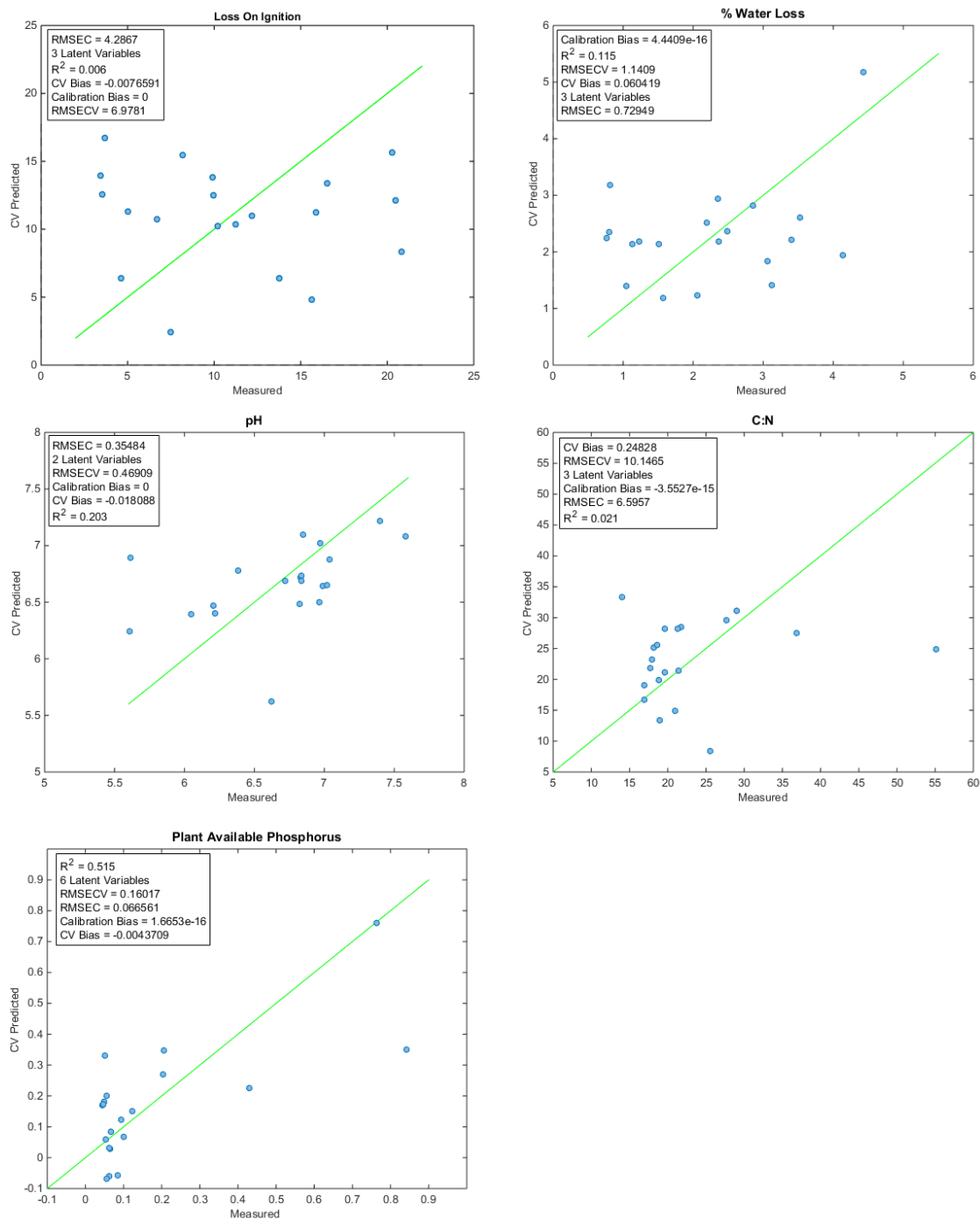


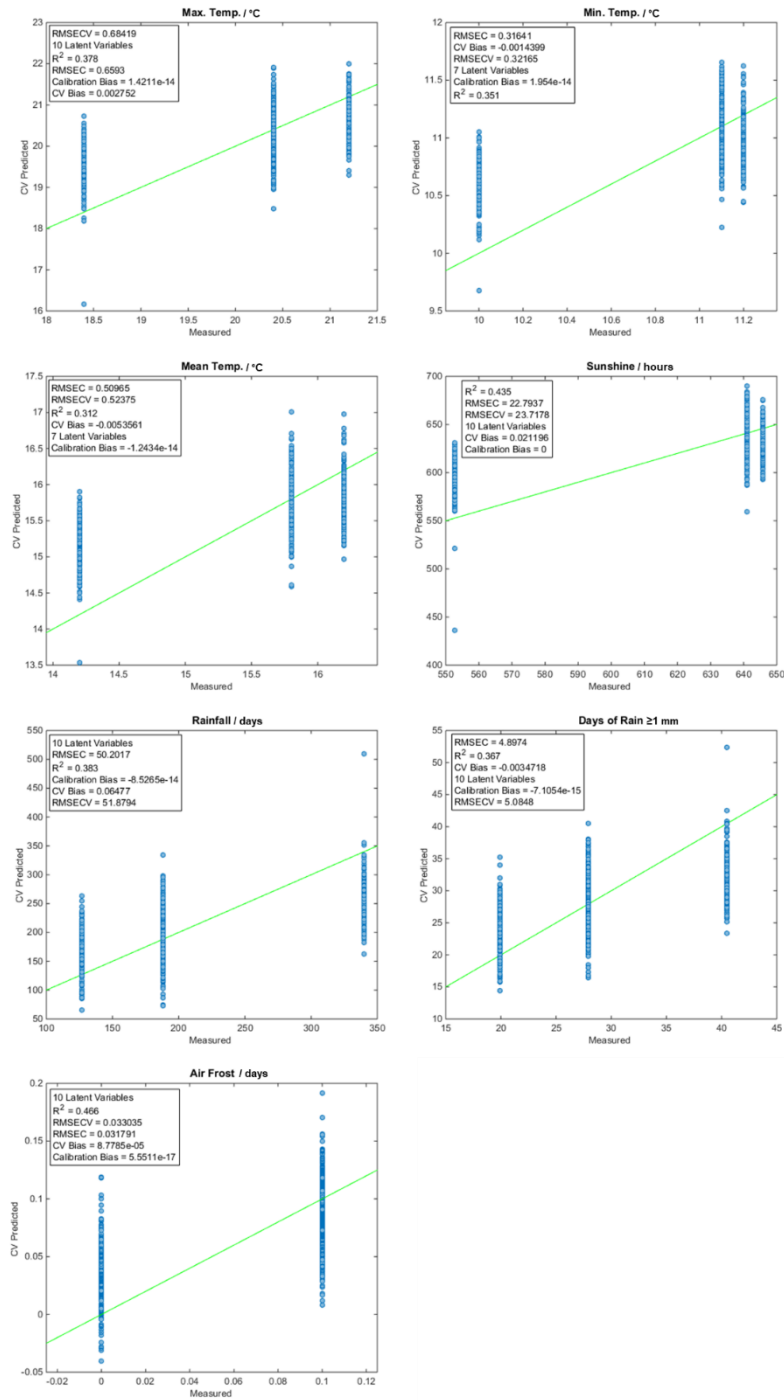
Figure S5: PCA scores for spectral and soil data combined (block-scaling applied before PCA).

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**Figure S6:** Measured versus predicted soil parameters based on the pre-processed spectral data using leave-one-out cross-validated partial least squares (PLS).




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**Figure S7:** Measured versus predicted meteorological parameters based on the pre-processed spectral data using leave-one-out cross-validated partial least squares (PLS).

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**Table S1:** Site Descriptions. Images taken by Claire Holden.

<b>Stand</b>	<b>Description</b>	<b>Soil Type</b>	<b>Google Map Co-ordinates</b>	<b>Photo</b>
<b>SAP</b>	Between a public footpath and a railway line in an urban area, near a road. Dead the following year.	Urban	55.8236264, -4.0916304	
<b>SRC</b>	In full sun on Eastern bank of River Clyde	Mineral gleys	55.8186110, -4.0944440	
<b>SLM</b>	Western bank of River Clyde. Noticeably smaller leaves than those of SRC but appeared in overall better health	Mineral gleys	55.8026350, -4.0905780	

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<p><b>SOM</b></p>	<p>Brownfield site, previously used for numerous purposes including a railway siding and an old mine, but now transformed into a public park. Dead the following year.</p>	<p>Urban</p>	<p>55.8211260, -4.0554206</p>	
<p><b>ESA</b></p>	<p>Wooded area further removed from river and path than ESB</p>	<p>Clay-to-sandy loam</p>	<p>53.9491670, -2.7550000</p>	
<p><b>ESB</b></p>	<p>Edge of River Wyre. Main stand in full sun, however accessible leaves collected from the shaded side. Dead the following year.</p>	<p>Clay-to-sandy loam</p>	<p>53.94977780, -2.75541670</p>	
<p><b>EDB</b></p>	<p>Adjacent to a wooded stream on the edge of one of the repurposed old railway lines now part of the Broompark cycle path network.</p>	<p>Slowly permeable seasonally wet acid loamy and clayey soils</p>	<p>54.764993, -1.609166</p>	