

## Supplementary material

# Comprehensive Characterization of Chemical Composition and Antioxidant Activity of Lignan-rich Coniferous Knotwood Extractives

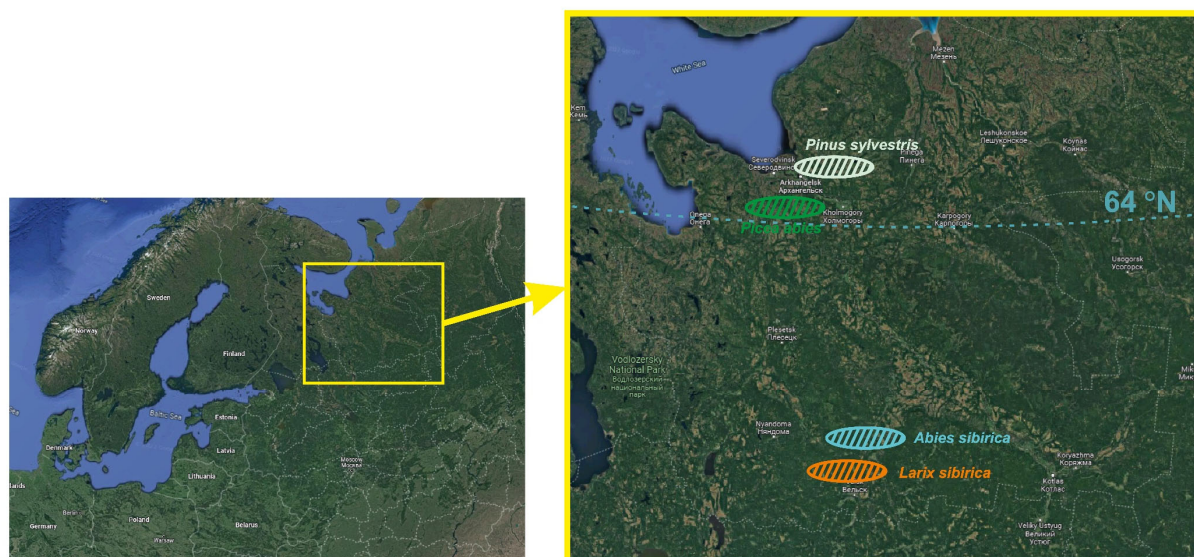
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**Figure S1.** Areas of trees harvesting in the Arkhangelsk region of Russia.

**Figure S2.** An example of 2D-NMR workflow for unknown compound structure elucidation in complex mixture using ACD/Labs expert system.

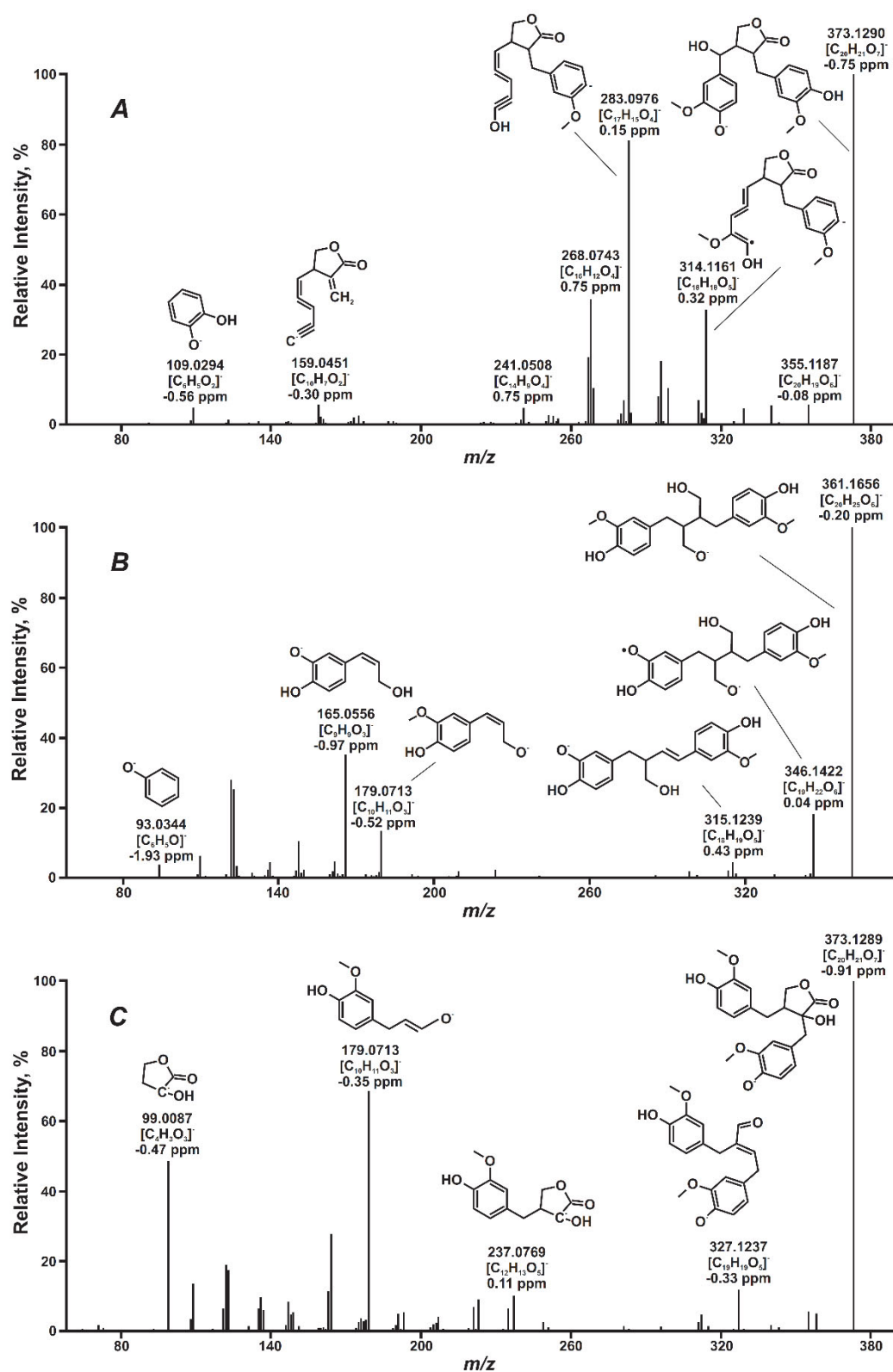
**Figure S3.** Tandem mass spectra of the major lignans in knotwood extracts and assignment of the product ions (A – hydroxymatairesinol; B – secoisolariciresinol; C – nortrachelogenin).

**Figure S4.** HPLC-DAD chromatograms (280 nm) of the knotwood PLE extracts.



**Figure S1.** Areas of trees harvesting in the Arkhangelsk region of Russia





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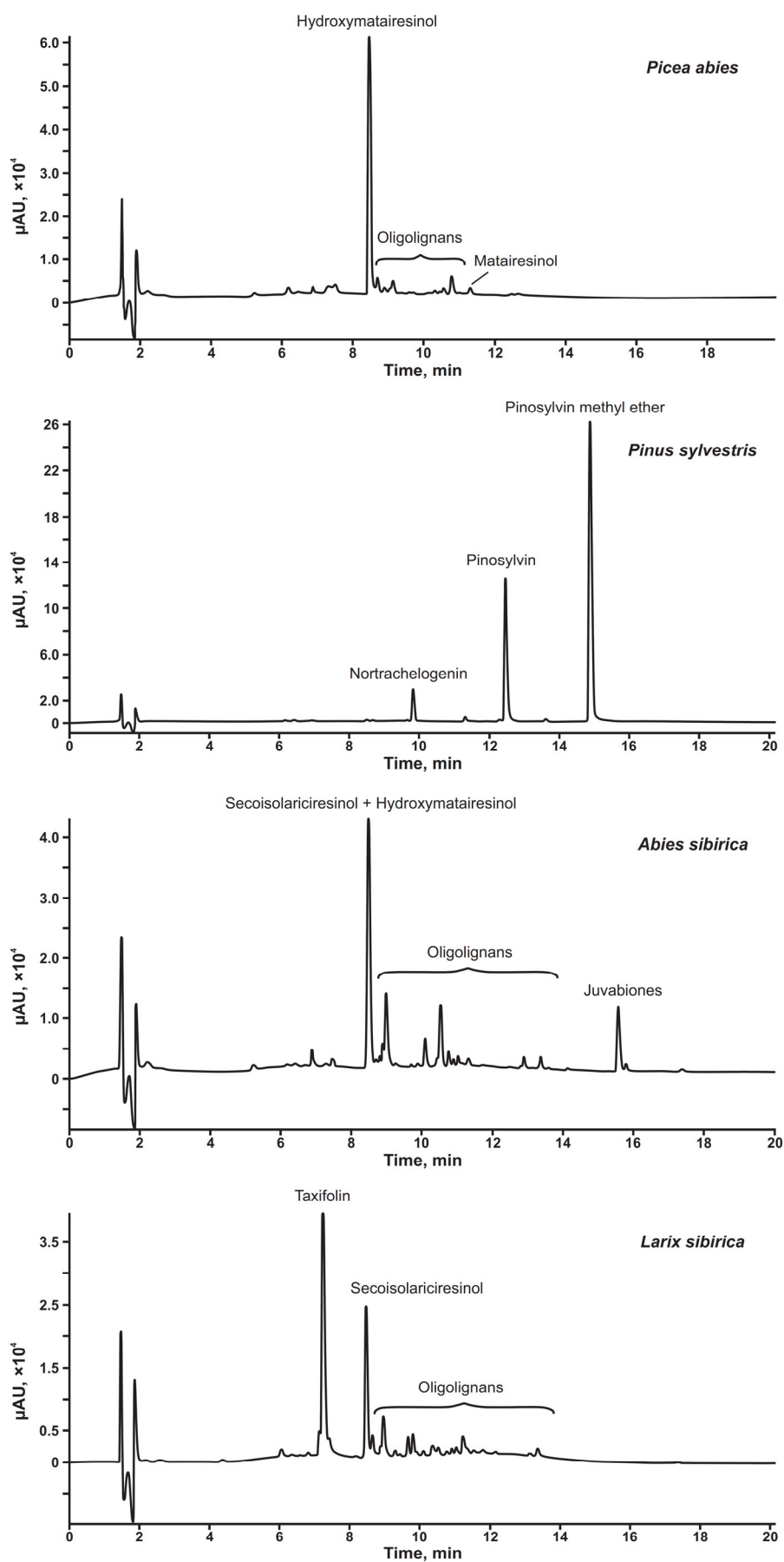


Figure S4. HPLC-DAD chromatograms (280 nm) of the knotwood PLE extracts