

SUPPLEMENTARY MATERIAL

Jevšenak, J., Džeroski, S., Zavadlav, S., Levanič, T., 2018. A machine learning approach to analyzing the relationship between temperatures and multi-proxy tree-ring records. *Tree-Ring Research* 74(2):209-223. (Supplementary Material PDF: TableS1)

Table S1: Tuned parameters for nonlinear methods: Artificial Neural Networks (ANN), Model Trees (MT), Bagging of Model Trees (BMT) and Random Forests of regression trees (RF).

Method	Parameter	Tuned values of parameters	
		Spring model	Summer model
ANN	neurons – number of neurons used	1	1
MT	M – minimum number of instances per leaf	15	15
MT	N – use unpruned tree/rules	TRUE	TRUE
MT	U – use unsmoothed predictions	FALSE	FALSE
MT	R – build regression tree/rule rather than a model tree/rule	FALSE	FALSE
BMT	P – size of each bag, as a percentage of the training set size	80	80
BMT	I – number of iterations	100	100
BMT	M – minimum number of instances per leaf	15	15
BMT	N – use unpruned tree/rules	TRUE	TRUE
BMT	U – use unsmoothed predictions	FALSE	FALSE
BMT	R – build regression tree/rule rather than a model tree/rule	FALSE	FALSE
RF	P – size of each bag, as a percentage of the training set size	100	100
RF	I – number of iterations	100	100
RF	depth – maximum depth of the tree, 0 for unlimited	2	2