

Opening the black box: Explainable deep-learning classification of wood microscopic image of endangered tree species

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Table 1 Protection level, number of wood specimens and collected images for selected species

Class label	Species	Protection level	Number of specimens	Number of labeled vessels
1	<i>Carapa guianensis</i>	-	7	193
2	<i>Cedrela fissilis</i>	CITES II	6	234
3	<i>Cedrela odorata</i>	CITES II	10	262
4	<i>Dalbergia latifolia</i>	CITES II	6	215
5	<i>Dalbergia nigra</i>	CITES I	6	173
6	<i>Dalbergia stevensonii</i>	CITES II	7	185
7	<i>Dalbergia tucurensis</i>	CITES II	6	243
8	<i>Swartzia madagascar</i>	-	5	305
9	<i>Pterocarpus indicus</i>	-	6	198
10	<i>Pterocarpus macrocarpus</i>	-	6	217
11	<i>Pterocarpus soyauxii</i>	CITES II	5	88
12	<i>Pterocarpus tinctorius</i>	CITES II	5	277
13	<i>Swietenia humilis</i>	CITES II	9	241
14	<i>Swietenia macrophylla</i>	CITES II	15	257
15	<i>Swietenia mahagoni</i>	CITES II	12	321

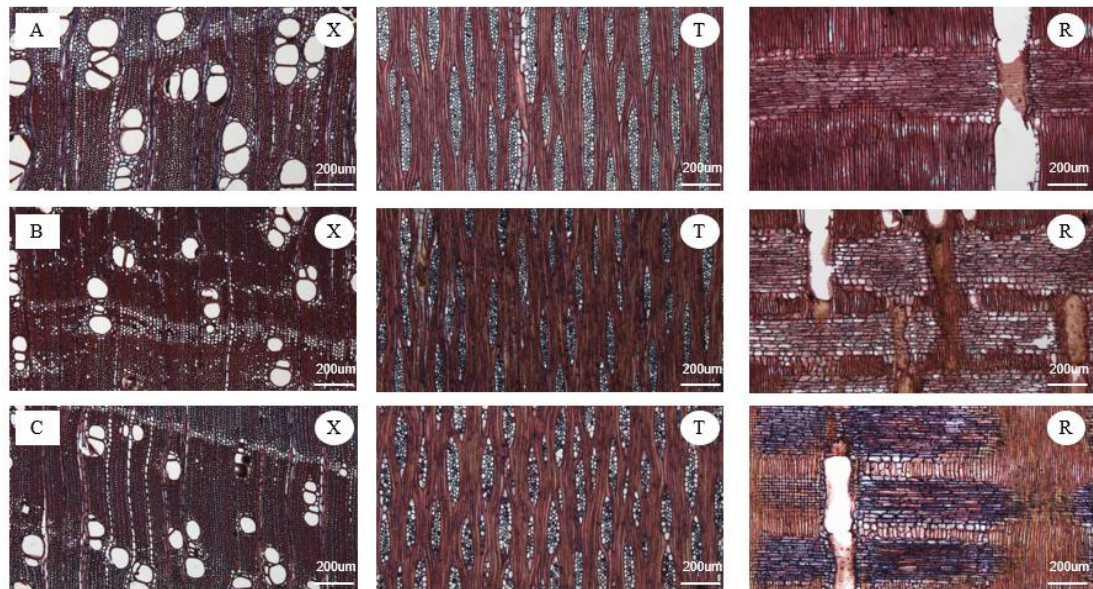


Figure S1 Light micrographs of the woods included in Group 1. X-transverse, T-tangential, and R-radial sections of *Carapa guianensis* (A), *Cedrela fissilis* (B), *Cedrela odorata* (C) showing the similarity of the three species concerning wood anatomical features.

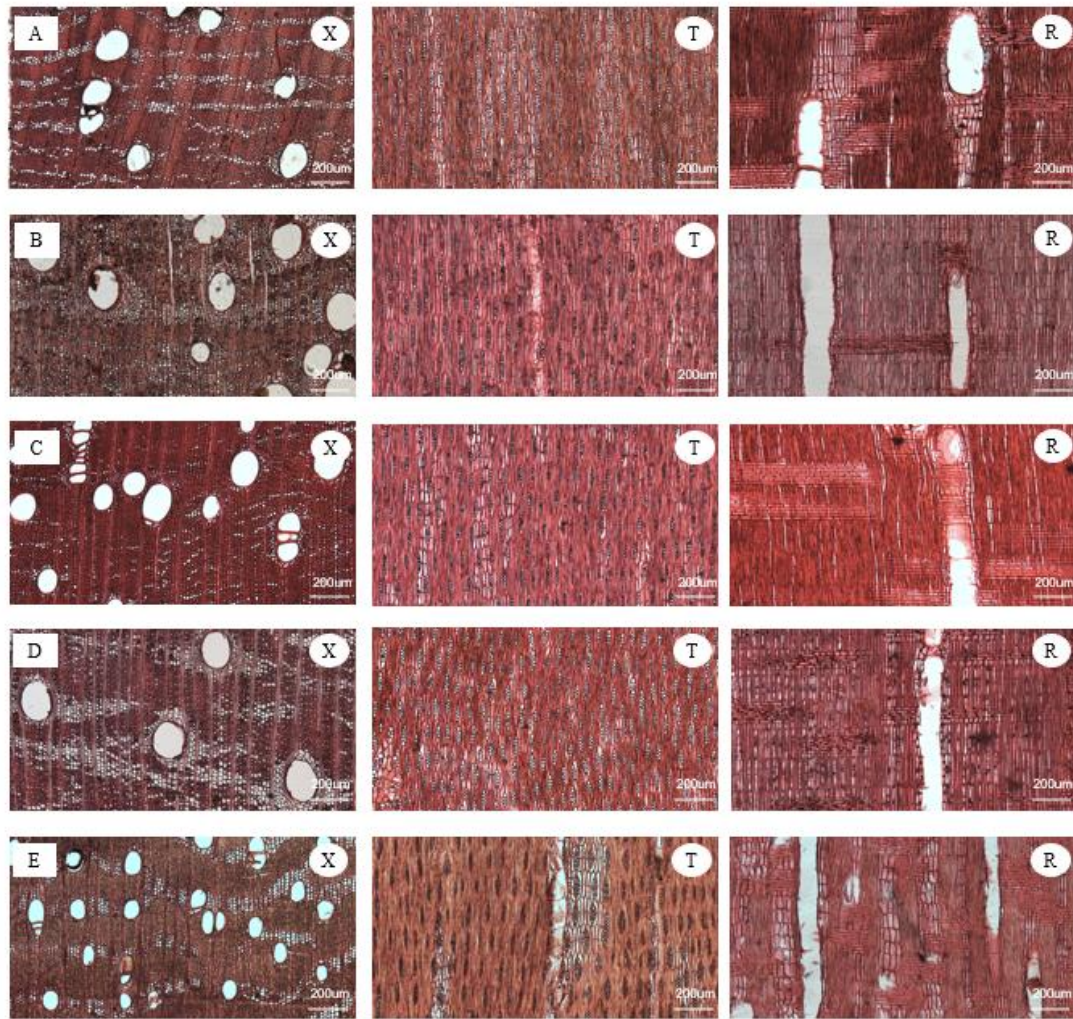


Figure S2: Light micrographs of the woods included in Group 2. X-transverse, T-tangential, and R-radial sections of *Dalbergia latifolia* (A), *Dalbergia nigra* (B), *Dalbergia stevensonii* (C), *Dalbergia tucurensis* (D), *Swartzia madagascar* (E) showing the similarity of the five species concerning wood anatomical features.

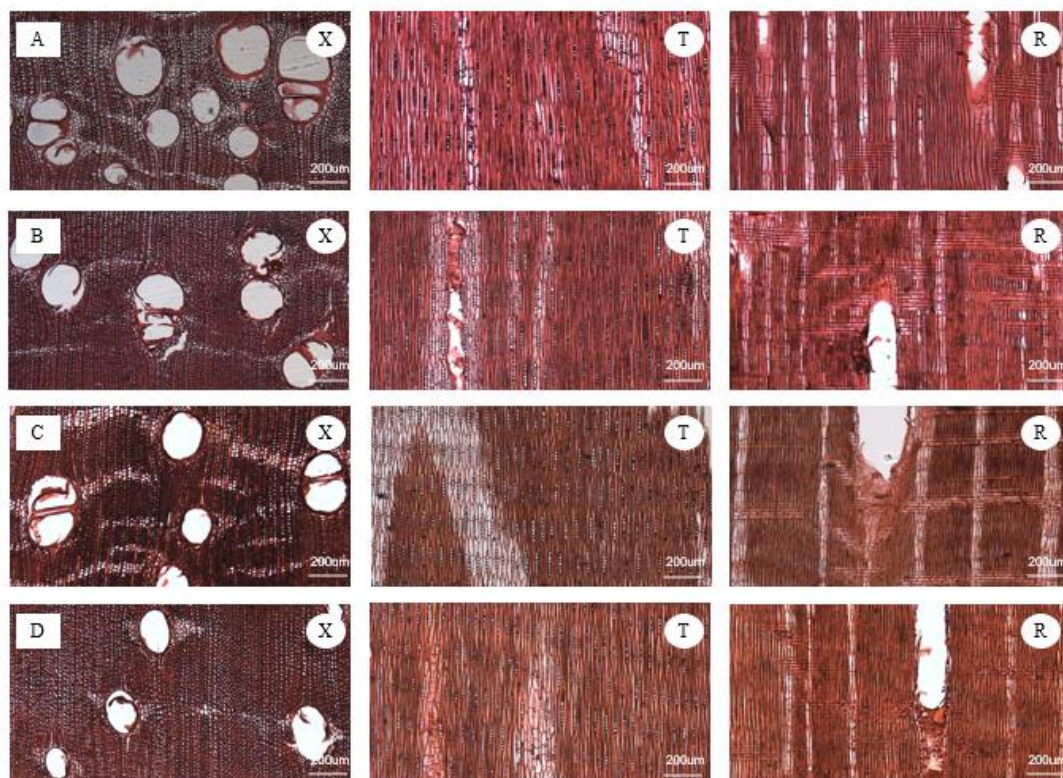


Figure S3: Light micrographs of the woods included in Group 3. X-transverse, T-tangential, and R-radial sections of *Pterocarpus indicus* (A), *Pterocarpus macrocarpus* (B), *Pterocarpus soyauxii* (C), *Pterocarpus tinctorius* (D) showing the similarity of the four species concerning wood anatomical features.

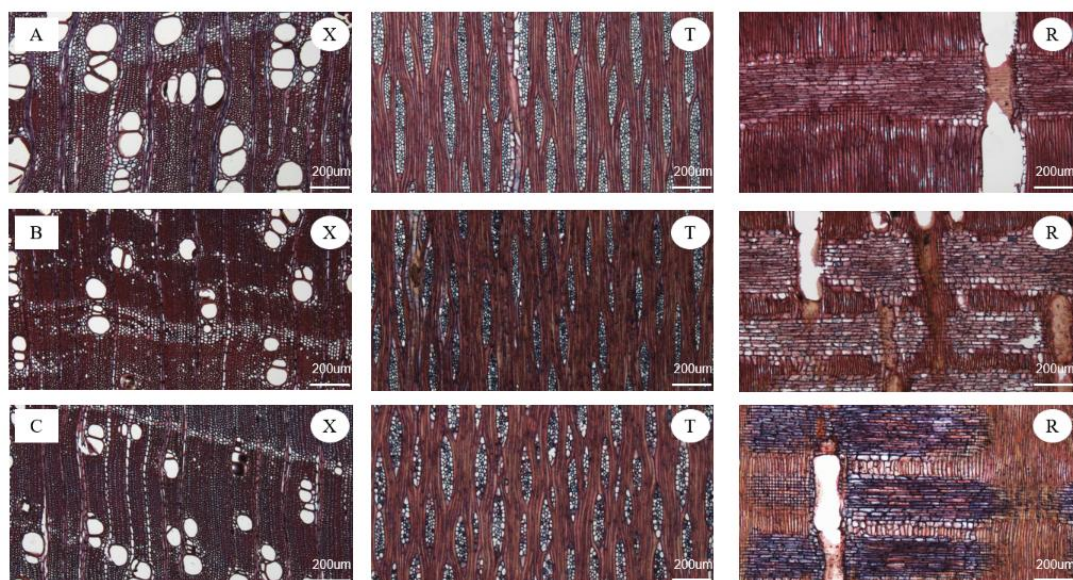


Figure S4: Light micrographs of the woods included in Group 4. X-transverse, T-tangential, and R-radial sections of *Swietenia macrophylla* (A), *Swietenia humilis* (B), *Swietenia mahagoni* (C) showing the similarity of the three species concerning wood anatomical features.