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Supplementary Material

Tab. S1 - Description of the independent variables: socio-economic (quantitative), geographical (interval and ratio scales), qualitative and quantitative forest variables.

Group	Variable name	Variable definition
Socio-economic (quantitative), geographical (interval and ratio scales)	population_density	Population density [people/km^2]
	net_migration	Net migration [people]
	population_cities	Population in the cities
	unemployment	Unemployment rate [%]
	distance_road	Distance from the road [m]
	distance_railway	Distance from the railway track [m]
	distance_buildings	Distance from buildings from Corine Land Cover [m]
	asl	Average height above sea level [m]
	slope	Average slope in the forest stand [degrees]
	aspect	Aspect dominating in the forest stand
	aspect_transformed	Transformed aspect
	distance_water	Distance from the surface water bodies [m]
	distance_edge	Distance from the forest Edge [m]
	population_grid	Population in the nearest point (1×1 km grid)
	Income	Average income [Polish zloty - PLN]
Aggregated forest site types (habitats), coded as dummy variables (0/1)	habitat_1	dry and fresh coniferous and mixed coniferous sites
	habitat_2	wet coniferous and mixed coniferous sites
	habitat_3	swamp coniferous and mixed coniferous sites
	habitat_4	fresh broadleaved and mixed broadleaved sites
	habitat_5	wet broadleaved and mixed broadleaved sites
	habitat_6	swamp mixed broadleaved, alder, alder-ash and riparian sites
	habitat_7	montane coniferous and mixed coniferous, high-mountain coniferous sites
	habitat_8	montane broadleaved, mixed broadleaved and riparian sites
	habitat_9	upland mixed coniferous, broadleaved and mixed broadleaved sites
Aggregated dominating species, coded as dummy variables (0/1):	species_1	Scots pine, other pines, European larch
	species_2	Oaks, including Red Oak, Common Oak and Pedunculate Oak, Black locust, Bird cherry, Hornbeam, Sorb, Ash, Maple, Sycamore, Elm, Linden, Black walnut
	species_3	European Beech
	species_4	Birch, Aspen, Poplar, Willow, Goat Willow
	species_5	Douglas Fir, Fir
	species_6	Alder, Gray Alder
	species_7	Norway Spruce
Other qualitative forest stand characteristic, coded as dummy variables (0/1):	share_1	Share of pines (species_1) > 50%
	share_2	Share of oaks or similar species (species_2) > 50%
	share_3	Share of beech (species_3) > 50%
	share_4	Share of birch, aspen, poplar or willow (species_4) > 50%

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Group	Variable name	Variable definition
	share_5	Share of fir or Douglas fir (species_5) > 50%
	share_6	Share of alders (species_6) > 50%
	share_7	Share of Norway spruce (species_7) > 50%
	cover_1	Leaf litter ground floor
	cover_2	Mossy ground floor
	cover_3	Mossy-blueberry ground floor
	cover_4	Bare ground floor
	cover_5	Heavily turfed ground floor
	cover_6	Heavily weedy ground floor
	cover_7	Turfed ground floor
	cover_8	Herbaceous ground floor
	vert_struct_code	Stand vertical structure
	other_species	Second main species
	understory_1	Main species in the underbrush
	understory_2	Second main species in the underbrush
Quantitative forest stand characteristics	age_1	Main species age [years]
	height_1	Main species height [m]
	age_2	Second main species age [years]
	height_2	Second main species height [m]

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Tab. S2 - Basic characteristics of the distribution (mean, standard deviation, coefficient of variation, asymmetry, kurtosis).

Factor	Mean	Median	Min	Max	StD	Coefficient of variation	Asymmetry	Kurtosis	Percentyl 5%	Percentyl 95%	Zakres Q3-Q1
habitat_2	0.0	0.0	0.0	1.0	0.2	4.4	4.2	15.5	0.0	0.0	0.0
habitat_3	0.0	0.0	0.0	1.0	0.1	13.9	13.8	188.4	0.0	0.0	0.0
habitat_4	0.2	0.0	0.0	1.0	0.4	1.8	1.3	-0.4	0.0	1.0	0.0
habitat_5	0.0	0.0	0.0	1.0	0.2	4.4	4.2	15.5	0.0	0.0	0.0
habitat_6	0.0	0.0	0.0	1.0	0.1	6.9	6.7	43.1	0.0	0.0	0.0
habitat_7	0.0	0.0	0.0	1.0	0.1	15.0	15.0	221.7	0.0	0.0	0.0
habitat_8	0.0	0.0	0.0	1.0	0.2	4.7	4.5	18.0	0.0	0.0	0.0
habitat_9	0.2	0.0	0.0	1.0	0.4	2.4	1.9	1.7	0.0	1.0	0.0
species_2	0.1	0.0	0.0	1.0	0.3	3.0	2.6	5.0	0.0	1.0	0.0
species_3	0.0	0.0	0.0	1.0	0.2	4.7	4.5	18.0	0.0	0.0	0.0
species_4	0.1	0.0	0.0	1.0	0.2	4.1	3.9	13.2	0.0	1.0	0.0
species_5	0.0	0.0	0.0	1.0	0.1	8.1	8.0	62.0	0.0	0.0	0.0
species_6	0.0	0.0	0.0	1.0	0.2	4.6	4.4	17.5	0.0	0.0	0.0
species_7	0.0	0.0	0.0	1.0	0.2	4.5	4.3	16.7	0.0	0.0	0.0
population_density	201.2	68.0	3.5	1832.2	278.9	1.4	2.5	7.8	18.9	804.5	225.4
net_migration	-36.4	-38.9	-496.7	1437.4	204.5	5.6	3.6	21.7	-271.9	204.5	99.9
population_cities	83076.7	29206.7	143.4	978828.0	154035.0	1.9	3.8	15.6	3317.3	374306.0	66834.5
unemployment	12.9	12.3	4.6	26.8	4.3	0.3	0.5	0.0	6.6	21.5	5.3
distance_road	69.3	43.4	0.0	2996.0	82.1	1.2	4.1	57.9	3.0	217.7	75.9
distance_railway	5529.0	3839.3	0.0	61265.7	5755.6	1.0	2.5	11.1	212.0	16128.7	6274.2
distance_buildings	659.9	204.3	0.0	9432.0	975.8	1.5	2.5	8.0	15.0	2713.5	799.3
asl	169.5	140.0	-3.0	1180.0	129.7	0.8	2.5	8.7	41.0	411.0	114.0
slope	90.7	6.6	0.0	359.7	117.5	1.3	1.0	-0.5	0.4	335.6	179.8
aspect	88.9	8.0	-1.0	359.6	114.4	1.3	1.0	-0.6	0.5	322.4	178.4
aspect_transformed	1.0	1.1	0.0	2.0	0.7	0.7	-0.1	-1.5	0.0	2.0	1.4
distance_water	1074.9	715.3	0.0	8892.9	1091.4	1.0	2.0	5.1	69.0	3342.9	1120.0
distance_edge	214.9	113.6	0.0	4627.0	307.8	1.4	3.7	21.4	0.0	795.0	204.7
population_grid	162.9	31.0	3.0	12227.0	591.5	3.6	9.6	119.5	3.0	611.0	90.0
Income	3573.2	3470.8	2870.1	6383.1	442.8	0.1	2.8	12.3	3131.7	4369.6	388.3
vert_struct_code	0.9	1.0	0.0	1.0	0.3	0.3	-2.9	6.6	0.0	1.0	0.0
other_species	0.0	0.0	0.0	1.0	0.1	8.2	8.1	63.0	0.0	0.0	0.0
understory_1	0.1	0.0	0.0	1.0	0.3	3.6	3.3	9.0	0.0	1.0	0.0
understory_2	0.0	0.0	0.0	1.0	0.0	50.4	50.4	2534.3	0.0	0.0	0.0
cover_2	0.1	0.0	0.0	1.0	0.3	2.6	2.2	2.7	0.0	1.0	0.0
cover_3	0.0	0.0	0.0	1.0	0.2	4.5	4.3	16.1	0.0	0.0	0.0
cover_4	0.0	0.0	0.0	1.0	0.1	18.3	18.2	329.1	0.0	0.0	0.0
cover_5	0.1	0.0	0.0	1.0	0.4	2.4	2.0	2.0	0.0	1.0	0.0
cover_6	0.1	0.0	0.0	1.0	0.3	3.5	3.2	8.1	0.0	1.0	0.0
cover_7	0.0	0.0	0.0	1.0	0.2	5.0	4.8	21.1	0.0	0.0	0.0
cover_8	0.5	0.0	0.0	1.0	0.5	1.1	0.2	-2.0	0.0	1.0	1.0
share_1	0.1	0.0	0.0	1.0	0.3	3.1	2.8	5.8	0.0	1.0	0.0

Factor	Mean	Median	Min	Max	StD	Coefficient of variation	Asymmetry	Kurtosis	Percentyl 5%	Percentyl 95%	Zakres Q3-Q1
share_2	0.0	0.0	0.0	1.0	0.1	11.4	11.3	125.9	0.0	0.0	0.0
share_3	0.0	0.0	0.0	1.0	0.2	5.0	4.8	21.5	0.0	0.0	0.0
share_4	0.1	0.0	0.0	1.0	0.3	3.7	3.4	9.5	0.0	1.0	0.0
share_5	0.1	0.0	0.0	1.0	0.3	3.2	2.8	6.0	0.0	1.0	0.0
share_6	0.1	0.0	0.0	1.0	0.3	3.0	2.6	4.9	0.0	1.0	0.0
share_7	0.1	0.0	0.0	1.0	0.3	2.9	2.6	4.6	0.0	1.0	0.0
share_8	0.1	0.0	0.0	1.0	0.3	2.7	2.4	3.7	0.0	1.0	0.0
share_9	0.1	0.0	0.0	1.0	0.3	2.8	2.4	3.9	0.0	1.0	0.0
share_10	0.4	0.0	0.0	1.0	0.5	1.4	0.6	-1.6	0.0	1.0	1.0