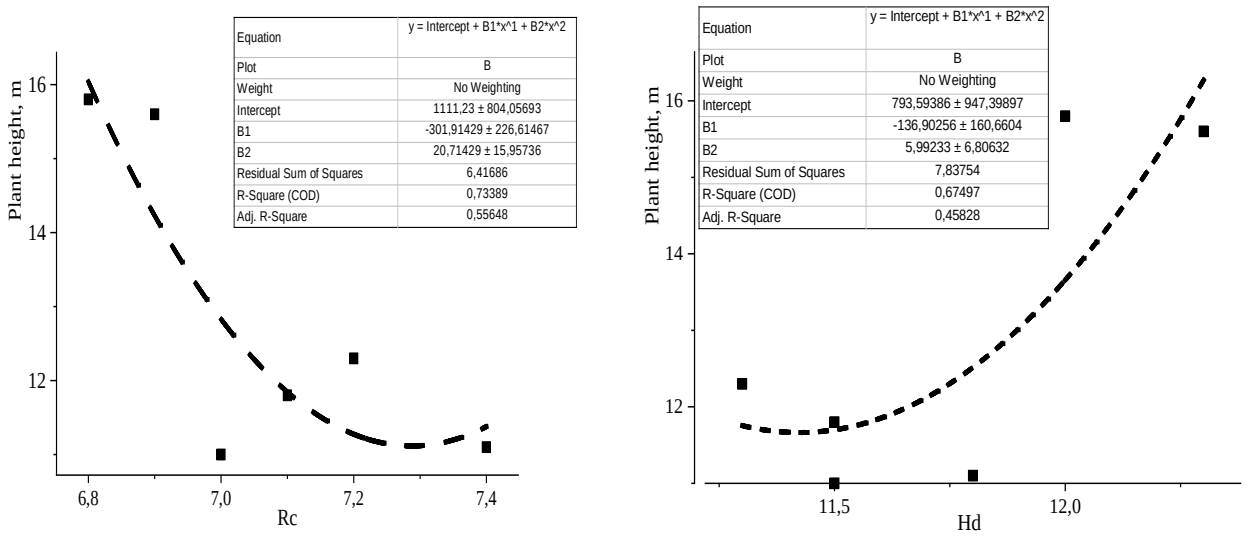
Supplementary materials

Invasion of Parthenocissus quinquefolia (L.) Planch in the forest-steppe of Ukraine

Blinkova et al.

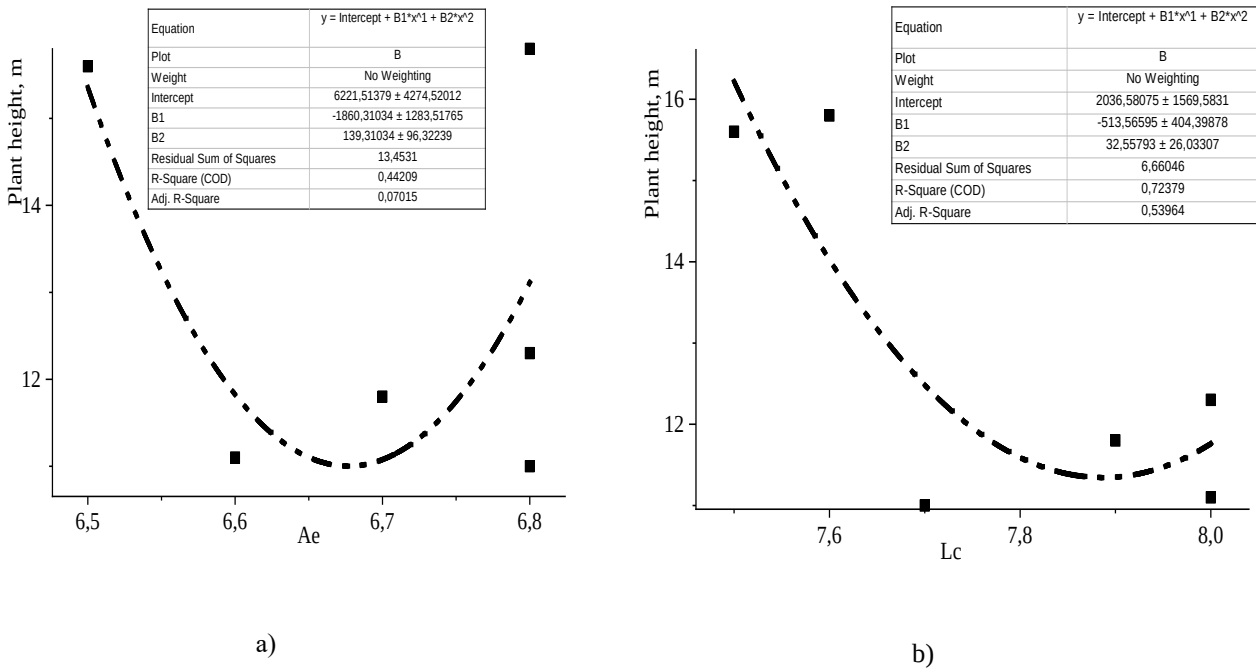
Ecological Questions 34(2023)1 http://dx.doi.org/10.12775/EQ.2023.011

Annex



a) b)

Figure S1. The correlation of plant height and changes in acidity (a) and hydrological regime (b) of the soil within the coenopopulations of *P. quinquefolia.*



a) b)

Figure S2. Correlation of plant height and changes in aeration (a) and soil luminance (b) within coenopopulations of *P. quinquefolia.*

Table S1. Recreational transformation of the urban forest ecosystem is shown via basic characteristics of the change in the state of herbaceous cover, leaf-litter, tree stratum, undergrowth and soil surface.

Transformation stage	Herbaceous cover and leaf-litter	Tree stratum and undergrowth	Soil surface
1	full species composition of the herbaceous plant, the projective cover is 90 – 100%, leaf-litter is not broken	trees are healthy, the undergrowth is numerous and different ages	I stage of digression
2	the occurrence of ruderal, pratal herbaceous species, the projective cover is 80–90%, leaf-litter begins to trample down	trees are weakened, the undergrowth is numerous but not different ages	II stage of digression
3	share of ruderal, pratal herbaceous species is 5–10%, the projective cover is 70– 80%, leaf-litter is trampled down	trees are weakened or heavily weakened, the undergrowth is limited	III stage of digression
4	share of ruderal or pratal herbaceous species is 10 – 20%, the projective cover is 50–70%, leaf-litter begins to deteriorate	trees are heavily weakened, low viability of undergrowth is located clumps	IV stage of digression
5	share of ruderal or pratal herbaceous species are dominating species, the projective cover is 0–50%, leaf-litter is completely absent	trees are heavily weakened or wilting with significant mechanical damage, the undergrowth is absent	V stage of digression

Table S2. The morphometric parameters of *P. quinquefolia* under consideration.

No.	Morphometric parameters	Symbol
1	Plant height (m)	h
2	The number of flowers per plant (pcs.)	N_{Fl}
3	Stem diameter (mm)	d
4	Length of tendrils (cm)	L_m
5	The number of crotches of tendrils (pcs.)	N_{mr}
6	Leaf length (cm)	L_l
7	Leaf width (cm)	W_l
8	Inflorescence length (cm)	L_s

Table S3. Anthropogenic transformation of habitats of *P. quinquefolia.*

Cenopopulation number	Quantity, pcs.	Projective cover, %	Environmental threats	Transformation stage
1	58	25	Grazing, recreational load, the gathering of medicinal herbs, mushroom picking	II
2	74	31	Grazing, recreational load, the gathering of medicinal herbs, mushroom picking, logging, afforestation with inappropriate forest crops, proximity to the transport network	II
3	125	68	Recreational load, urbanization, transport, municipal waste	IV
4	35	14	Grazing, recreational load, the gathering of medicinal herbs, mushroom picking, logging	III
5	58	21	Grazing, recreational load, the gathering of medicinal herbs, mushroom picking, logging	II
6	123	75	Recreational load, urbanization, transport, electric power line, municipal waste, 1 landfill site	III