Vegetation and Habitats of Vöigaste Forest, Estonia

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Abstract: The study aimed at a floristic characterisation and management suggestions for an area of forest, open woodland and fens in Matsalu Nature Reserve. The semi-natural vegetation will loose its mosaic structure and small-scale diversity if left abandoned, so that diversifying management should be considered. As a large, unfragmented territory the Vöigaste woodlands contribute to Estonia's ecosystem diversity.

Questions

Which habitats and vegetation types
What nature conservation value
What suitable management

Material and Methods

Vegetation relevés (Braun-Blanquet)
+ light measurements (horizontoscope)
+ indicator values (Ellenberg)

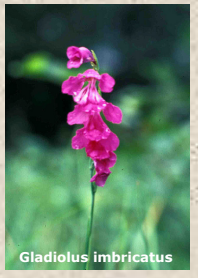
Results: 11 vegetation types

	TREES / SHRUBS	CHARACTERISTIC SPECIES	AVERAGE SPECIES NUMBER	
Alvar grassland	(Juniperus communis) (Rhamnus cathartica)	Plantago media Anthyllis vulneraria Pimpinella saxifraga	32	OPEN
Moist grassland	(Frangula alnus) (Populus tremula) (Betula pubescens)	Scorzonera humilis Anthoxanthum odoratum Carex pallescens	39	OPEN
Temporarily wet rich fen	(Frangula alnus) (Salix cinerea) (Betula spp.)	Carex hartmanii Carex davalliana Primula farinosa	25	OPEN
Permanently wet rich fen	(Frangula alnus) (Alnus incana)	Carex flava Potentilla palustris Eriophorum angustifolium	17	OPEN
Abandoned wooded meadow, dry	Populus tremula Quercus robur Corylus avellana	Hepatica nobilis Dactylis glomerata Mercurialis perennis	42	SEMI OPEN
Abandoned wooded meadow, wet	Populus tremula Quercus robur Fraxinus excelsior	Aegopodium podagraria Deschampsia cespitosa Geum rivale	34	SEMI OPEN
Temporarily wet rich fen, overgrowing	Betula pubescens Populus tremula Frangula alnus	Carex hartmanii Cirsium heterophyllum Inula salicina	30	SEMI OPEN
Hardwood forest	Quercus robur Corylus avellana Tilia cordata	Acer platanoides Viola mirabilis Polygonatum spp.	31	CLOSED
Wet deciduous forest	Betula pubescens Fraxinus excelsior Alnus glutinosa	Cirsium oleraceum Trollius europaeus Phragmites australis	28	CLOSED
Swamp forest	Alnus glutinosa Alnus incana Fraxinus excelsior Frangula alnus	Lycopus europaeus Galium palustre Lythrum salicaria Iris pseudacorus	22	CLOSED
Intact wooded meadow	Quercus robur Corylus avellana Betula spp.	(Ohioglossum vulgatum) (Dactylorhiza spp.)	61	CLOSED

All communities contained protected species.

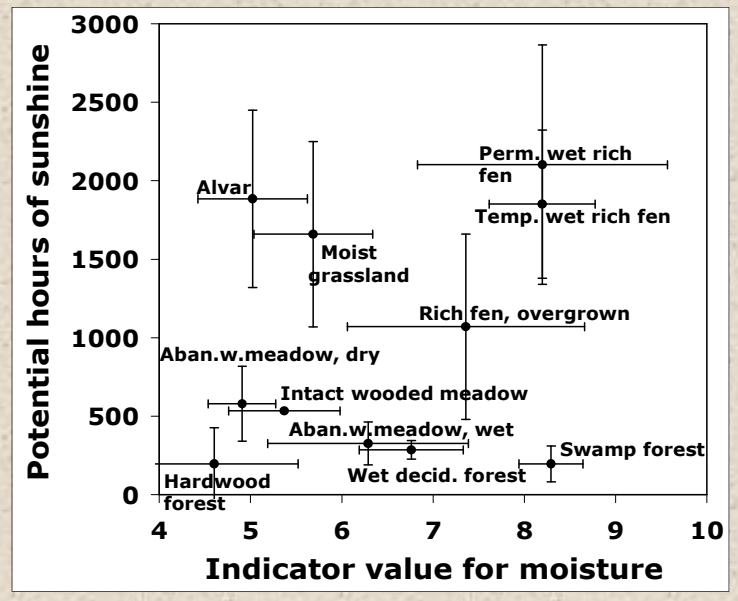

Dactylorhiza fuchsii

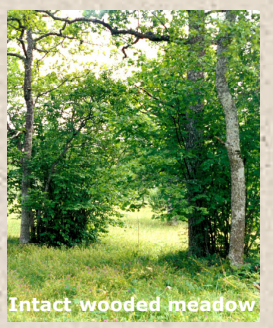

Platanthera spec.


Gladiolus imbricatus


Daphne mezereum

Ordination for light and moisture allows clear differentiation:




Intact wooded meadow


Temporarily wet rich fen

Discussion

Abandonment and overgrowing changes species composition

BUT

Undisturbed old forest provides rare habitats for flora + fauna


Beaver

Conclusions

Internal mosaic cycle should be encouraged
Management is necessary for open communities
Transition stages contribute to ecosystem diversity