

REFORESTATION SERIES OF BILBERRY SPRUCE FORESTS IN EASTERN FENNOSCANDIA

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The article presents an ecological–dynamic model of the bilberry spruce forests restoration. It reflects the current state of forests. Within the age stage, associations are arranged according to moisture conditions and named by the indicator (usually dominant) species. Four associations were identified in the conditions of bilberry spruce forests (*Picea abies*–*Vaccinium myrtillus*, hereinafter “P.a.–V.m.”) at the stage of clear-cutting (P.a.–V.m.: *Vaccinium vitis-idaea*, P.a.–V.m.: *Avenella flexuosa*, P.a.–V.m.: *Calamagrostis arundinacea*, P.a.–V.m.: *Carex canescens*); 3 associations (P.a.–V.m.: *Picea abies*+*Betula* spp.+*Pinus sylvestris*–*Vaccinium vitis-idaea*, P.a.–V.m.: *Betula* spp.+*Populus tremula*–*Avenella flexuosa*, P.a.–V.m.: *Betula* spp.+*Populus tremula*–*Calamagrostis arundinacea*+*Geranium sylvaticum*) at the stage of young forest (10–40(60) years); and 3 associations at the next stage aged 60 to 100(120) years (P.a.–V.m.: *Picea abies*+*Betula* spp.+*Pinus sylvestris*–*Vaccinium myrtillus*–*Pleurozium schreberi*, P.a.–V.m.: *Picea abies*+*Populus tremula*+*Betula* spp.–*Vaccinium myrtillus*+*Calamagrostis arundinacea*+*Hylocomium splendens*, P.a.–V.m.: *Betula* spp.+*Picea abies*–*Calamagrostis arundinacea*+*Gymnocarpium dryopteris*). At the age of 100–120 years, the dynamic series converge: birch and aspen influence on the structure of the community decreases, and the dominance of spruce evens the conditions and the structure of the ground cover. From this moment till the climax, only one association is distinguished, namely P.a.–V.m.: *Picea abies*–*Vaccinium myrtillus*–*Pleurozium schreberi*. The temporary or local states of the communities that differ in structure but do not reflect natural dynamic mechanisms and are associated with antropogenic activity or local natural disturbances belong to the rank of subassociations. The typology takes into account the current state of forests, natural and antropogenic dynamics and can serve as a basis for planning forest management activities.

Keywords: bilberry spruce forests, bilberry spruce forests reforestation, species biodiversity, bilberry spruce forests dynamics, forest typology, eastern Fennoscandia, middle taiga, northern taiga

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