

A Practical approach toward better tending the stand class “BC” in pine stands; cleaning and considering the understory stand class “A” into consideration: A case study of Kocanlı Forest Directorate of Taşköprü, Kastamonu

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Abstract: Turkish forests are managed according to professional forest management practices. Different rotation cycles are applied to deciduous and coniferous species as experienced through a long lasting familiarity with the indigenous tree species such as pine, fir, spruce, cedar, oak and beech. Forest management-wise, stands are categorized in four stages, depending upon the stand diameter at breast height “dbh” in centimeter. When “dbh” is between 0-7.9 cm, a development class sign, “a”, “stand initiation” is designated; between 8-19.9 cm “b”, “stem exclusion” is designated; between 20-35.9 cm “c”, “understory reinitiation” is designated, and ≥ 36 cm “d”, “mature/multi age stand” is designated. Stands having either pure or mixed tree species with these or in any following double signage, i.e. “ab”, “bc”, “cd” are named using the acronym(s) of the species along with the development sign and crown closure. Crown closure is categorized in three classes; %11-40 closure is designated as class “1”, %41-70 designated as “2” and >70 designated as “3”. Starting from the development age “b”, an amount of allowable cut, tending, in “m³” as prescribed in forest management plans, is assigned to compartments within the administration units, forest directorates. Tending procedures are implemented by responsible foresters in 10 year rotations. This study showed within stands, designated as “bc”, in which Anatolian Black and Scotch Pine species are dominant, there is a stiff competition coming from the understory class “a” to reach the crown. As a result of this competition, understory young trees behave like whiplashes damaging the crown and foliage of the “would be future trees”. Besides, fallen, broken and leaned young trees of class “a” litter the forest floor and form ladders against such promising trees so bad that the situation create serious fire hazard during fire seasons. In order to eliminate such risks, tending works are performed by the forest service. However, since the amount of allowable cut, assigned to such a “bc” compartment within the stand(s), is filled with such understory trees, < 8 cm, the actual dominant trees are lightly tended than what it has actually been prescribed in forest management plans. This might create problems in the long run because such stands are very lightly thinned out, which will probably limit or reduce the further development of the trees.

Keywords: Stand tending, Allowable cut, Fire risk, Understory reinitiation