

TREE-GRASS SEGREGATION PATTERNS

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ABSTRACT. In the preceding paper [21], we have introduced a tree-grass competition model for describing the kinematics of forest-grassland system and have found that the model admits some solutions showing coexistence of forest and grassland. The purpose of the present paper is then to investigate the boundary curves which partition forest patches and grassland patches. Through the investigations, we want to clarify the properties of segregation patterns of tree-grass coexistence in terms of forest connectivity. As it is very difficult to handle the very model equations in [21], we will make a reduction of the full model by extremely restricting the range where the parameters of equations can vary.

Key words and phrases. Segregation pattern, Numerical experiment, Forest connectivity.