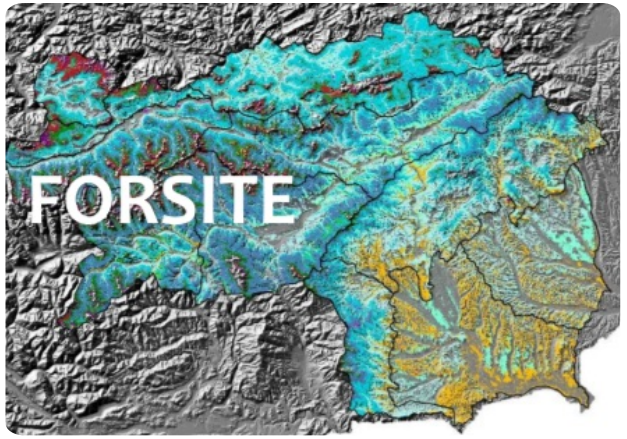
FORSITE | Dynamic ecological forest site classification



A lack of forest site information in Styria asks for a new approach to forest site classification and mapping. In this project the forest site classification will be based on a GIS-based geo-ecological stratification model.

A lack of forest site information in Styria created a need for a new approach to forest site classification and mapping, considering the changing climatic conditions, which will affect the classification of forest sites and the choice of tree species. Theoretical concepts for a new approach in "dynamic site classification" existed, but the implementation of an integrated site and forest classification in for the whole forest area in Styria has been a scientific challenge. In this project the forest site classification is based on a GIS-based geo-ecological stratification model. The database is based on a digital elevation model, a geological base map, digitally available site and climate data as well as empirical site parameters. A map of forest types is derived based on several thematic maps, including information about energy, water and nutrient balance. Those parameters are modeled on the basis of point and area related data, which are then combined into forest types with a uniform combination of factors. The model allows a stratification of the forest types on all sites based on digital geo-ecological parameters. In addition to the ecological facts, each forest type is characterized by a description of silvicultural guidelines containing information on the appropriate choice of tree species, potential hazards and adaptation methods. These guidelines also describe previous experiences with the tree species and their mixtures, and will provide recommendations for the future forest management with regard to climate change.

PLUS DE DéTAILS

DéFI CONCERNé

1. Améliorer la résilience de la forêt et son adaptation au changement climatique

DOMAINE

Getsion forestière, sylviculture, services écosystémiques, résilience

TYPE DE SOLUTION

Modélisation, DSS, simulation, optimisation

MOTS-CLéS

Silviculture; Forest ecology; Forest growth; Soil science; Tree Secies suitability; climate change; Site classification; Silvicultural Guidelines;

SOLUTION DIGITALE

Oui

INNOVATION

Oui

PAYS D'ORIGINE

Autriche

ECHELLE D'APPLICATION

Régionale/subnationale

DéBUT ET FIN D'ANNéE

--

INFORMATIONS DE CONTACT

PROPRIéTAIRE OU AUTEUR

University of Natural Resources and Life Sciences, Vienna (BOKU)
Harald Vacik
harald.vacik@boku.ac.at
https://forschung.boku.ac.at/fis/suchen.projekt_uebersicht?sprache_in=en&menue_id_in=300&id_in=12683

RAPPORTEUR

Holzcluster Steiermark GmbH
DI Masa Jasarevic
info@holzcluster-steiermark.at

REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

https://forschung.boku.ac.at/fis/suchen.projekt_uebersicht

SITE WEB DU PROJET

--

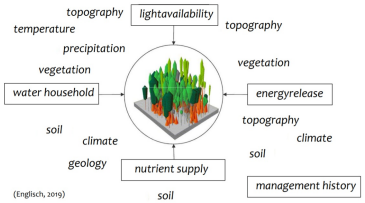
RéFéRENCE DU PROJET

--

RESSOURCES

--

LOGO DE LA BONNE PRATIQUE



LOGO DE L'ORGANISATION PRINCIPALE

PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A éTé CRééE

Rosewood 4.0

DATE DE PUBLICATION

11 aoû 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY