Special Issue Reprint

Modeling Aboveground Forest Biomass

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Forest biomass modelling is essential for monitoring and storage. However, biomass in stands and forests varies according to the species, stand structure, and site. Biomass models can be developed using data obtained from destructive sampling, forest inventory, remote sensing, and ancillary. There is a wide range of data science methods and techniques that are currently applied in order to fit the models and evaluate their uncertainties. Biomass models are utilized in order to produce management alternatives. This reprint offers an overview of the various datasets and modelling methods employed to develop biomass functions, as well as their applicability at both the tree and area levels.

The topics covered include the following: Biomass models at the tree level; Biomass models at the stand level; Datasets used in biomass modelling; Data science methods and techniques used in biomass modelling; Model performances and uncertainties; Development of management alternatives with biomass models.

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