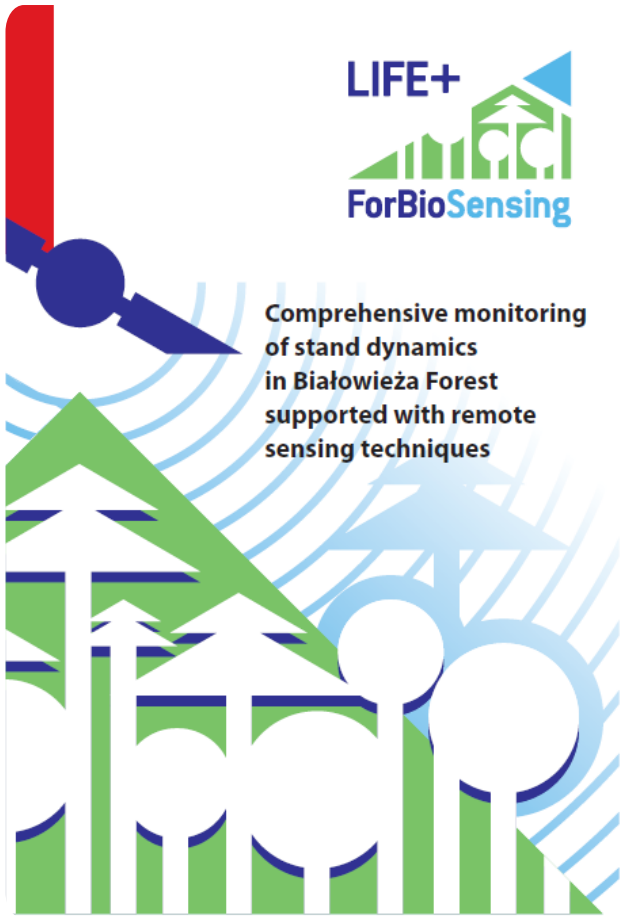
ForBioSensing | Comprehensive monitoring of stand dynamics in Białowieża Forest supported with remote sensing techniques



Comprehensive monitoring method of a large forest area with the use of innovative techniques and data.

Project activities were focused on a comprehensive representation of changes in forest stands and their dynamics (using different time series of remote sensing data) and the transition from spot monitoring (field measurements on sample plots) to large-scale monitoring. This will improve the efficiency of forest ecosystem protection and management measures. Project results have been presented in the form of publications and maps showing specific changes over the years. In addition, radio and television broadcasts, meetings, brochures and promotional films were used to inform the general public.

The main objectives of the project were:

- Monitoring of stand dynamics in Białowieża Forest (including analysis of tree species composition, monitoring of changes in the forest stand caused,

among others, by tree death)

- Analysis of natural forest regeneration and rejuvenation, including the role of gaps,
- Establishment/determination of the combination of different remote sensing techniques and data sets that are optimal for forest monitoring,
- Characteristics of the microclimate of the Białowieża Forest,
- Promotion of Białowieża Forest through the use of multimedia.

The main expected results of the project:

- Detailed analysis and maps showing in subsequent years, following information about the Białowieża Forest: Forest stand characteristics (growing stock and biomass, tree height, DBH, canopy cover and its diversity, forest diversity, tree species composition, vertical structure, biomass, etc.), location and size of dead trees, location and size of gaps, dynamics of natural forest regeneration and amount of lying dead wood.
- Map of plant communities with identification of different tree species;
- Development of monitoring methods for the dynamics of the Białowieża Forest using a small number of sample plots and additional remote sensing data covering the entire study area;
- Master tree ring chronology of the selected tree species in the Białowieża Forest;
- A unique geoportal containing created spatial data on the Białowieża Forest.

DETALII

SURSA DE LEMN

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TIPUL DE LEMN

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TIPUL DE LEMN îN CAUZă

--

IMPACTUL ASUPRA MEDIULUI ȘI BIODIVERSITăȚII

--

EFECT ASUPRA VENITURILOR

--

POTENȚIAL DE EXPLOATARE

--

HUB

Hub central-est

IMPACT ECONOMIC

--

CUNOȘTINȚE SPECIFICE NECESARE

--

POTENȚIALUL DE MOBILIZARE

--

POTENȚIAL DE SUSTENABILITATE - VALOARE

--

FACILITATEA DE IMPLEMENTARE

--

FACILITATEA DE IMPLEMENTARE - EVALUARE

--

CONDIȚII CHEIE PREALABILE

--

TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB

--

EFECT ASUPRA LOCURILOR DE MUNCă

--

COSTURI PENTRU IMPLEMENTARE (EURO - €)

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MAI MULTE DETALII

PROVOCARE ABORDATă

1. Îmbunătățirea rezilienței pădurilor și adaptarea la schimbările climatice

DOMAIN

Inventariere, evaluare, monitorizare

TIP DE SOLUțIE

Platforme de date, hub-uri de date, date deschise

CUVINTE CHEIE

stand dynamics monitoring; forestry; remote sensing; biodiversity

SOLUțIE DIGITALă

Da

INOVAțIE

Da

ȚARA DE ORIGINE

Polonia

SCARA DE APLICARE

Național

ANUL DE îNCEPUT șI DE SFâRșIT

2014 - 2022

DATE DE CONTACT

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REFERENCES AND RESOURCES

PAGINă WEB

http://www.forbiosensing.pl/home

RESURSE

Stereńczak K., Mielcarek M., Modzelewska A., Kraszawski B., Fassnacht F.E., Hilszczański J. 2019. Intra-annual Ips typographus outbreak monitoring using a multi-temporal GIS analysis based on hyperspectral and ALS data in the Białowieża Forests. Forest Ecology and Management, 442: 105–116.

WEBSITE PROJECT

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REFERINță PROIECT

ForBioSensing project is co-funded by the European Commission under European Union financial instrument LIFE+ and by the National Fund for Environmental Protection and Water Management

DESPRE EXEMPLUL DE BUNă PRACTICă

A PRINCIPALEI ORGANIZAțII

PROIECTUL îN CADRUL CăRUIA A FOST CREATă ACEASTă FIșă INFORMATIVă

Rosewood 4.0

DATA POSTăRII

21 Dec 2021

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