



**27 June 2023, Tuesday - REUFIS meeting**  
**On-line participation**



# **FORESTS HEALTH MONITORING**

## **- THE BULGARIAN PRACTICES AND NEEDS**

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# FOREST HEALTH - NATIVE, ALIEN AND INVASIVE BIOTIC SPECIES



## Bulgarian legislation

Ordinance No.9/2019 on the protection of forest territories from diseases, pests and other damage.

FOREST LAW (from 2011, last update 2023) - **Executive Forest Agency & Forest Protection Stations**

PLANT PROTECTION LAW (from 2014, last update 2020) - **Bulgarian Food Safety Agency**

BIODIVERSITY LAW (from 2002, last update 2022) - **Ministry of Environment and Water**

Convention on Biological Diversity

Convention on the Conservation of European Wildlife and Natural Habitats

Regulation EU 1143/2014 on the prevention and management of the introduction and spread of invasive alien species.

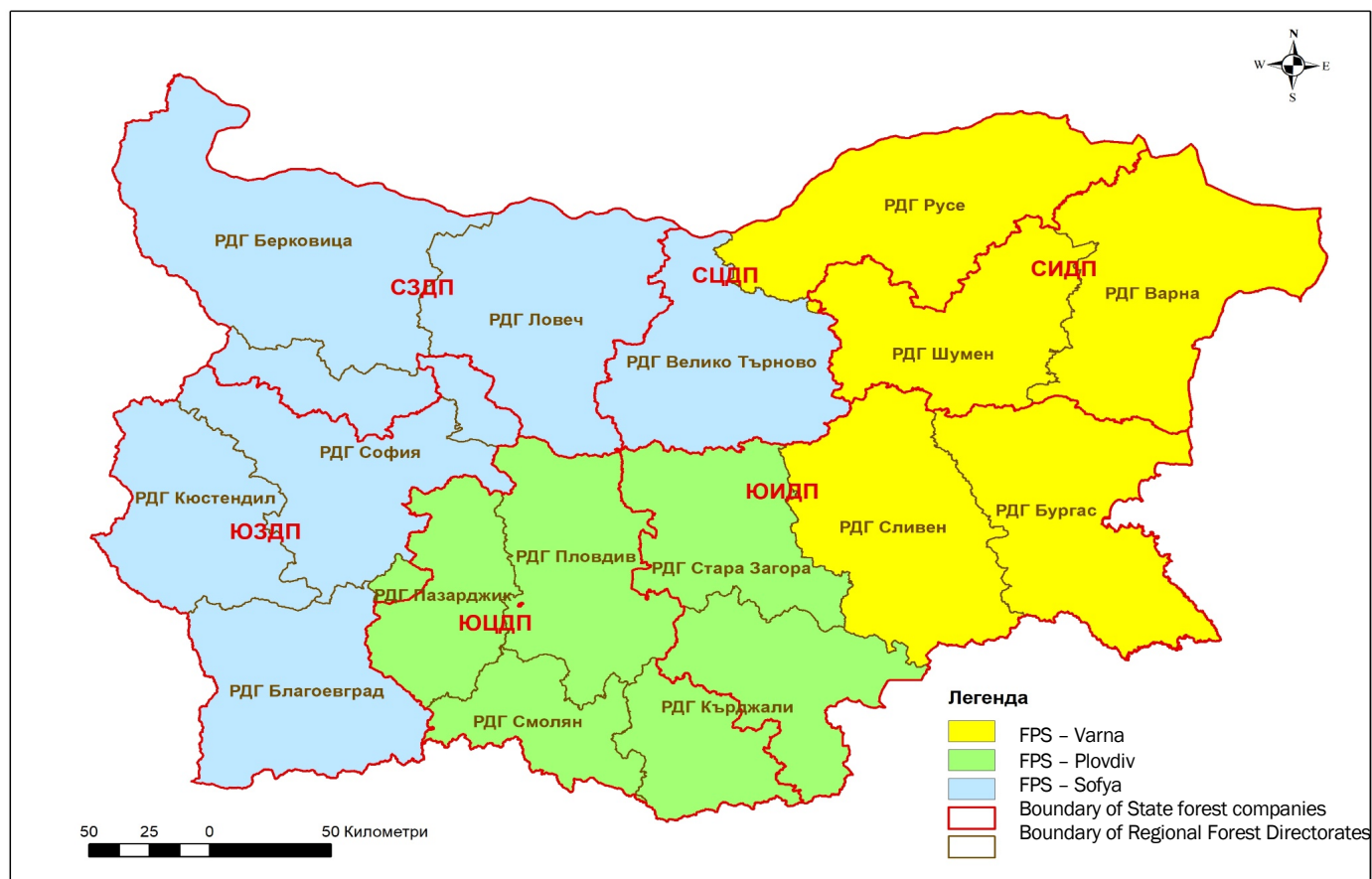


EXECUTIVE FOREST AGENCY,  
BULGARIA

# AREA OF ACTIVITY OF FOREST PROTECTION STATIONS IN BULGARIA



FOREST INVASIVE SPECIES NETWORK  
FOR EUROPE AND CENTRAL ASIA





# FOREST MONITORING OF MORE IMPORTANT INSECTS PESTS



Insect Species	egg	larva	pupae	imago
<i>Thaumetopoea pityocampa</i>	July-Sept.	Oct.-Dec.	-	Feromone traps, June-August
	average 1 egg case/tree or in crops up to 20 years old and 3 egg cases/tree for crops over 20 years old			
<i>Neodiprion sertifer</i>	-	April- May	August- Sept.	-
	When establishing 4 pcs./m2 of healthy female pupae, 100% defoliation is expected			
<i>Lymantria dispar</i>	August-Oct.	May-June	-	Feromone traps
<i>Geometriidae</i>	-	April- May	-	Oct. -Nov. Through sticky belts
	The belts are placed on 3-5 trees every 500 decares			
<i>Tortriciidae</i>	Jan-Febr.			
	Light traps in the laboratory that attract hatching caterpillars from test twigs.			

# FOREST MONITORING OF MORE IMPORTANT INSECTS PESTS



*Light traps*

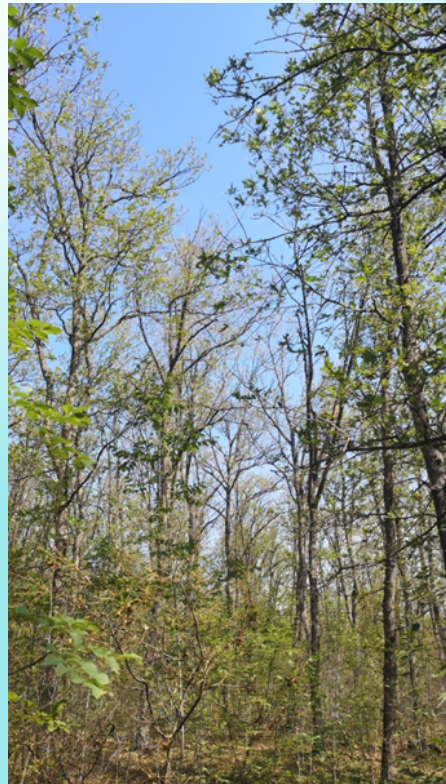


*L. dispar - eggs*



*N. sertifer - pupae*

# FOREST MONITORING OF MORE IMPORTANT INSECTS PESTS



Defoliation by  
*Lymantria*  
*dispar*, 2020

Ash shelterbelts  
decline





# INVASIVE ALIEN SPECIES IN BULGARIAN FORESTS (INSECT AND DISEASES):



**A Field Guide to Invasive Alien Species in European Forests**



*Corythucha arcuata*,  
*Corythucha ciliata*,  
*Leptoglossus occidentalis*,  
*Phytophthora spp.*,  
*Biscogniauxia mediterranea*,  
*Cryphonectria parasitica*,  
*Ophiostoma novo-ulmi*,  
*Lecanosticta acicola*,  
*Dothistroma septosporum*,  
*Sicyos angulatus*.

*Hymenoscyphus fraxineus* ???

**In an urban environment:**

*Aproceros leucopoda*  
*Cameraria ohridella*  
*Cydalima perspectalis*

**Science support:**

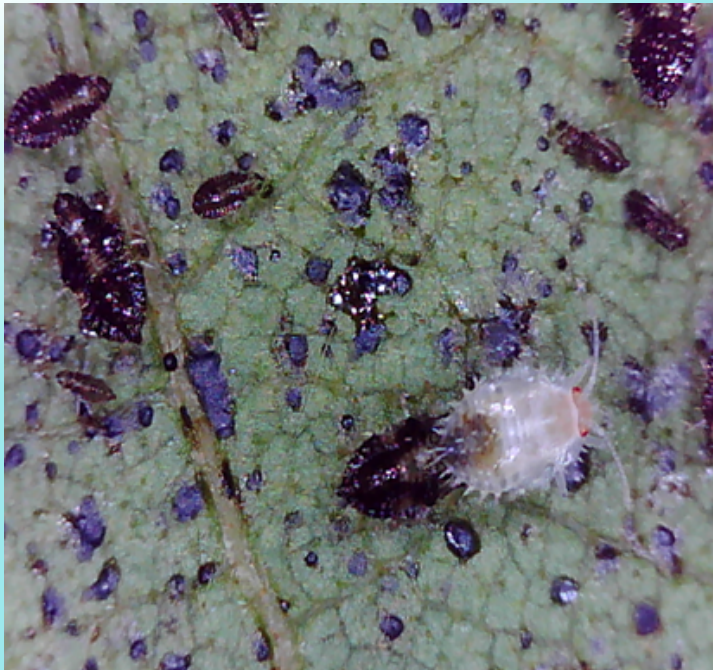
FRI – BAS  
University of Forestry  
IBER – BAS



# INVASIVE ALIEN SPECIES IN BULGARIAN FORESTS (INSECT AND DISEASES):



FOREST INVASIVE SPECIES NETWORK  
FOR EUROPE AND CENTRAL ASIA







EXECUTIVE FOREST AGENCY,  
BULGARIA

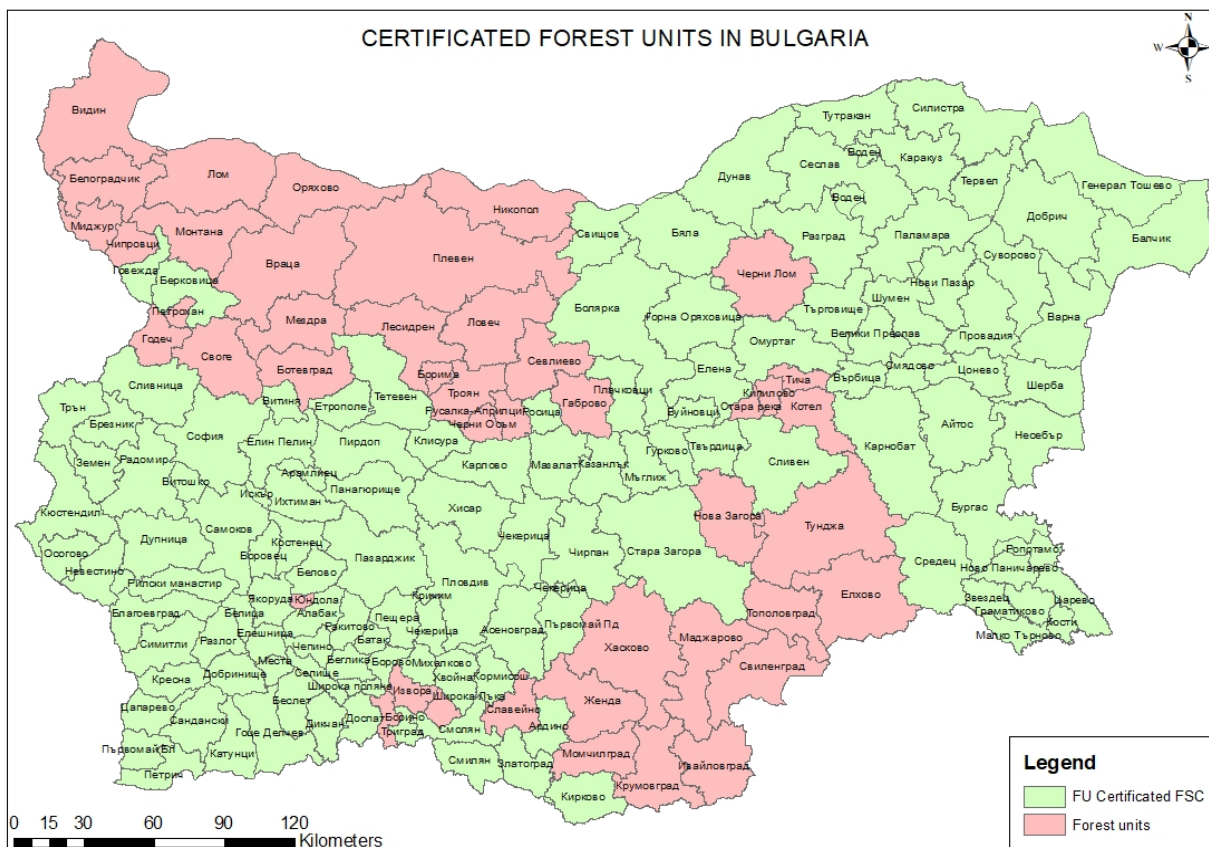
# FOREST STEWARDSHIP COUNCIL®

16 AUGUST 2017 Г.



FOREST INVASIVE SPECIES NETWORK  
FOR EUROPE AND CENTRAL ASIA

CERTIFICATED FOREST UNITS IN BULGARIA



FSC forest certification equals 58% of the total forest area in the country. (data from 03.08.2022).

The Standard specifies the tree and shrub invasive alien species that should not be used for afforestation:

- Acer negundo*
- Ailanthus altissima*
- Amorpha fruticosa*
- Eleagnus angustifolia*
- Fraxinus pennsylvanica*
- Fraxinus americana*
- Robinia pseudoacacia*



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# FORESTS HEALTH MONITORING - THE BULGARIAN PRACTICES AND NEEDS

To be a bridge between science and practice!!!

I would be happy to exchange experiences via email: [p.mateva@iag.bg](mailto:p.mateva@iag.bg)

Thank you for your attention!