### ICP Forests Expert Panel on Crown Condition Assessment Ad hoc Group Biotic Damage

Orléans 7-9 June 2004

List of symptoms

Louis-Michel Nageleisen, Forest Health Department (DSF) France.

#### Leaves

## Partly or totally devoured/missing

#### **Broadleaf Trees**



Geometrid moths on Oak



Lymantria dispar on Oak



# Leaves mined



**Rhynchaenus fagi on Beech** 

#### **Broadleaf Trees**

#### skeletonised



Agelastica alni on Oak



**Coleophora laricella on Larch** 

#### Needles

# **Missing or incomplete needles**



Phaeocryptopus gaeumannii on Douglas Fir



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**Missing needles on Silver Fir** 

#### Leaves

## **Yellow discolourations**

Broadleaf Trees



**Magnesium deficiency on Beech** 



Heat effect on Birch

#### Needles

### **Light green to yellow discolouration** CONIFERS



**Magnesium deficiency on Silver Fir** 

Magnesium deficiency on Spruce

#### eaves

## **Brown discolouration (necrosis)**

#### Broadleaf Tree



Discula umbrinella on Beech



Discula umbrinella on Oak





Frost damage on Reech

## **Reddish to brown discolouration**



Rhizospheara on Silver fir

Veedles



Sphareopsis sapinea on Pine





### Leaves

# Bronzing

Ozone injury?

#### Broadleaf Trees



Beech



Hornbeam

© Buissotti

#### eaves

### **Coverings on leaves**

#### **Broadleaf Trees**



# © D.Adam

#### Microsphaera alphitoides on Oak



#### eaves/Needles

#### Small



Small needles

Normal needles

Atlas Cedar

#### **Premature falling**



Heat effect on Oak in August 2003



#### **Deformations**

#### Broadleaf Trees

# curling





Heat effect on Beech in July 2003



Tortrix viridana on Oak



Mikiola fagi on Beech

#### Needles

### **Deformation of needles**

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Dreyfusia nordmannianae on Silver Fir

Adelges laricis on Larch

#### eaves/needles

## Signs of insects



Aphids on Sorbus torminalis

#### Exuvia and aphids



Euproctis chrysorrhoea on Oak

Egg mass



Pulvinaria on Maple coccoid shell



Euproctis chrysorrhoea on Oak



Neodiprion sertifer on Pine larvae



Choristoneura murinana on Silver Fi

pupa

#### eaves/needles

# Signs of fungi



Melampsora larici populina on Poplar

Melampsora caryophyllacearum on Silver Fir

### oung shoots and buds

#### Deformation

#### CONIFEF



Melampsora pinitorqua on Pine



Adelges laricis on Spruce

# Coung shoots/Twigs

# Dieback



© G.Landmann

Silver Fir decline

#### Young shoots/twigs

# Wilting

#### Broadleaf Tree



Ophiostoma novo-ulmi on Elm



Verticilium dahliae on Maple

### Young shoots

# Necrosis

#### Broadleaf Trees



Frost damage on beech



Frost damage on beech

### Young shoots and buds

Necrosis

#### CONIFERS



Frost damage on Silver fir



Sphaeropsis sapinea on Pine