

# My summer vacation

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Luncheon seminar 2016.10.14  
Hisayuki Wada

# introduction

Our laboratory is silviculture and forest ecology

AIM of this discipline

“ From scientific approach, to support silviculture skills and forest maintenance to use forest resource sustainably ”

But no one study outside of this campus

Many of us don't have the chance to go to the site where our study is needed.

Today, I talk about my experience during this summer, which was related to our laboratory

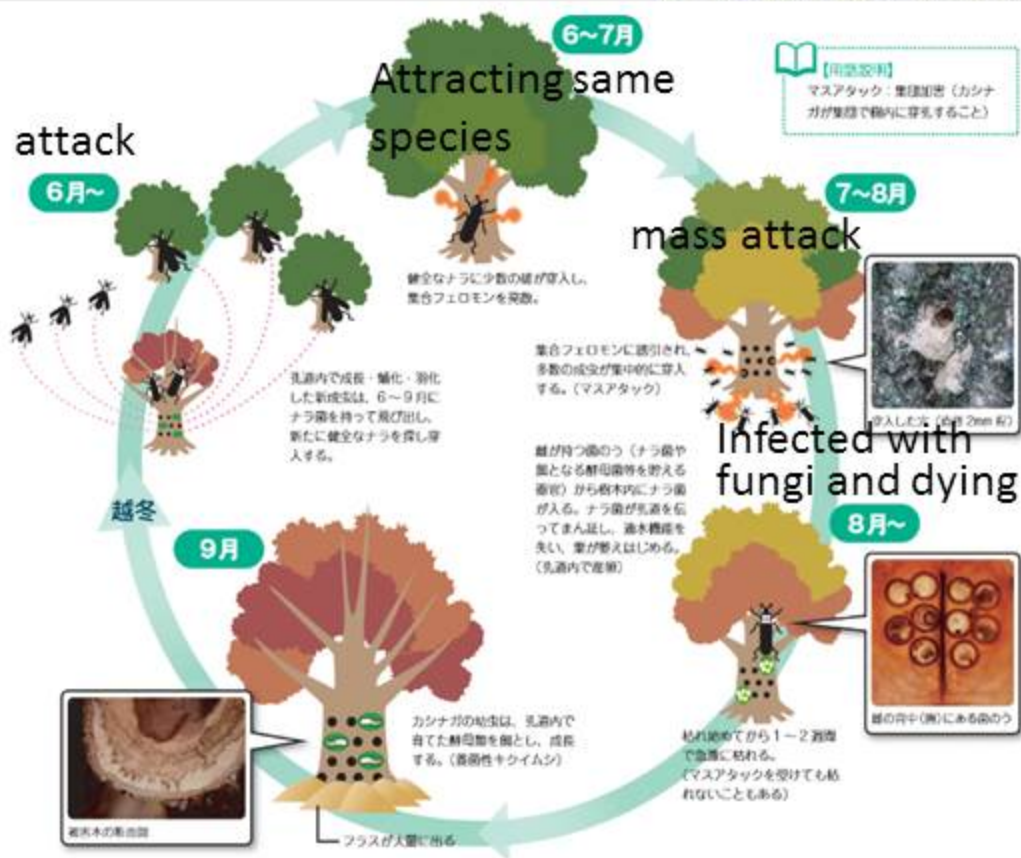
# Tadami: insect damage

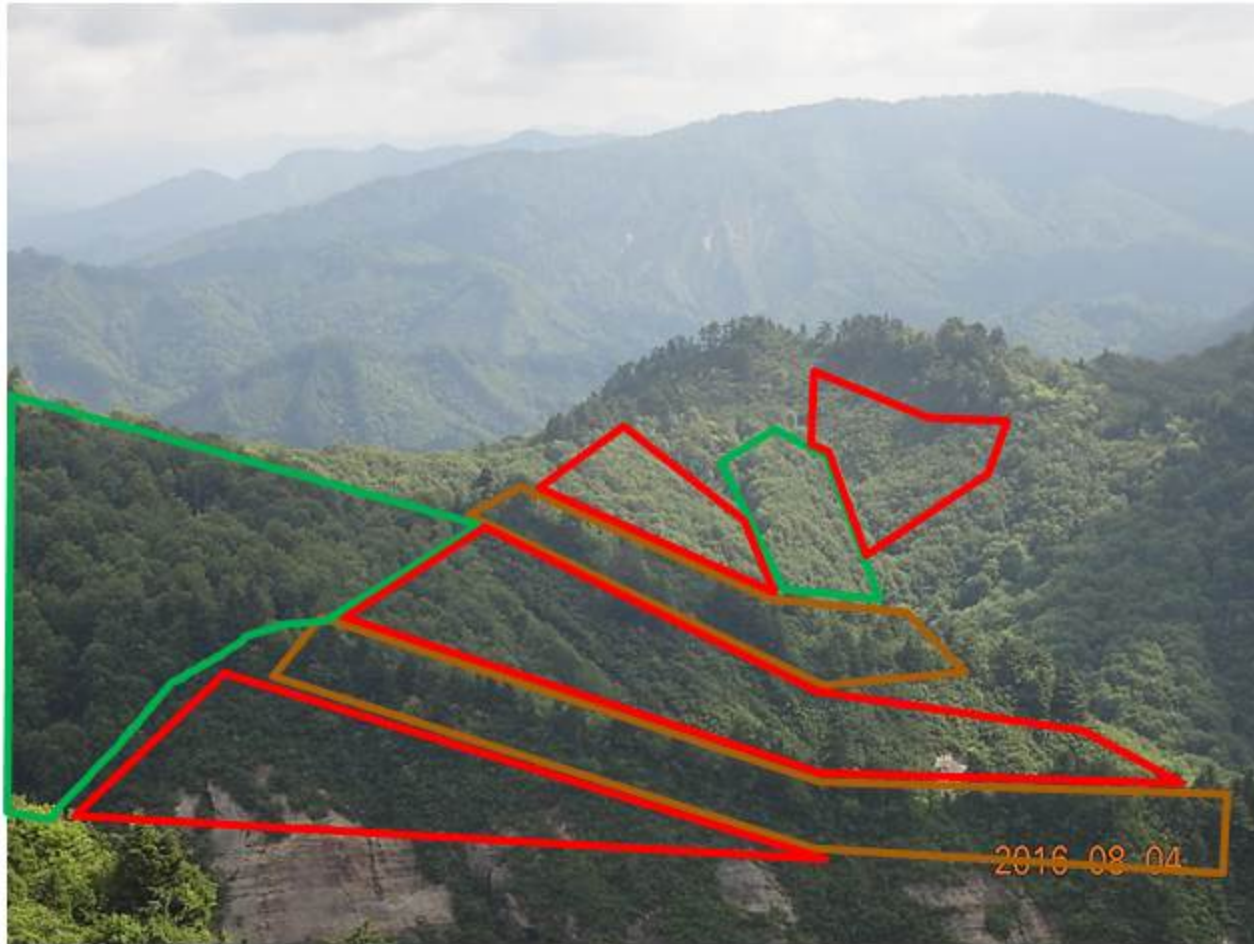
Q. What happened here?




A. Japanese oak wilt



@Uonuma, Niigata





-  conifer
-  broad-leaved tree
-  shrub

Why are there  
three  
vegetation  
types here?

# This is because heavy snow

## Steep slope side

high potential of avalanche  
⇒ trees can't grow tall

## Ridge line

poor nutrients, low moisture...  
⇒ pine is dominant species

## Other area

⇒ Beech forest  
(potential vegetation)





# Vegetation recovery

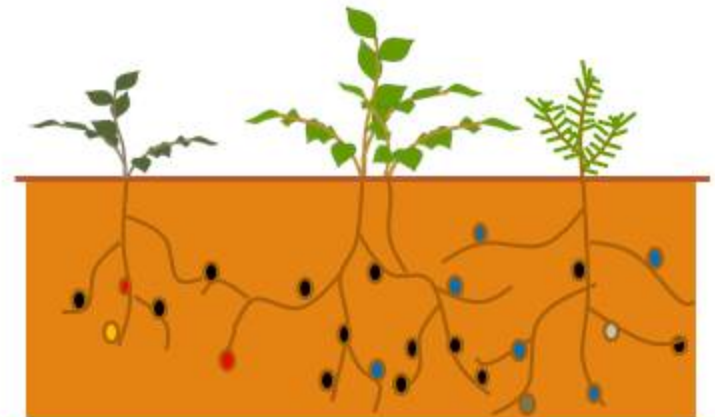
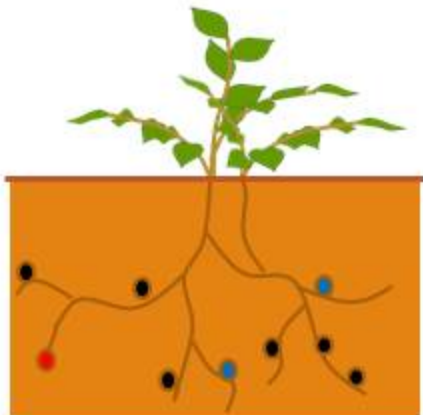
at Mt Fuji



and



No fugues



# Tenryu

one of the most beautiful and famous artificial forest in Japan

Forest age is 10 years older than Japanese average

Interned at shizuoka university experimental forest

(Tenryu and Kawane)



## Topics

Mammal damages

Forestry company



Do you know the difference of this two picture?  
What is the cause of death?



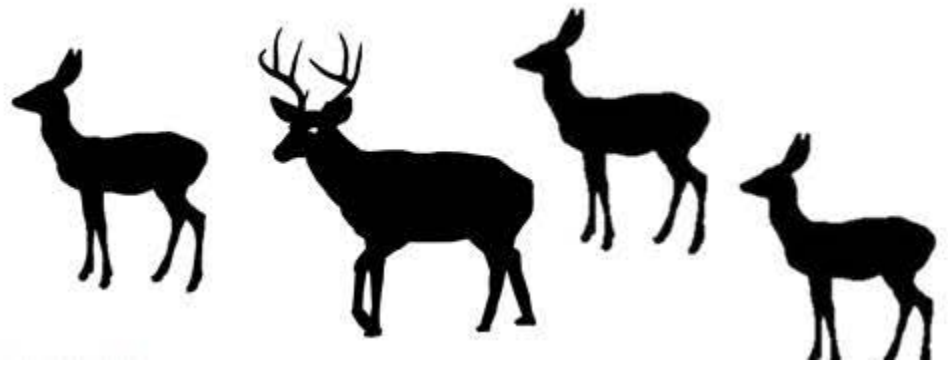
↑ Flowering synchronously



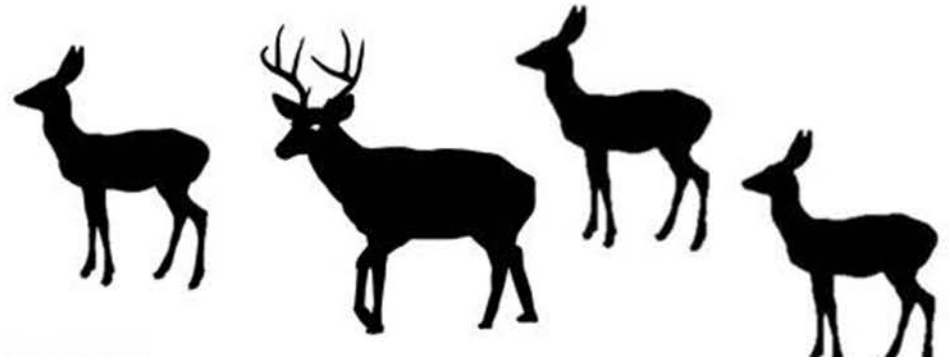
↑ Eaten by deer



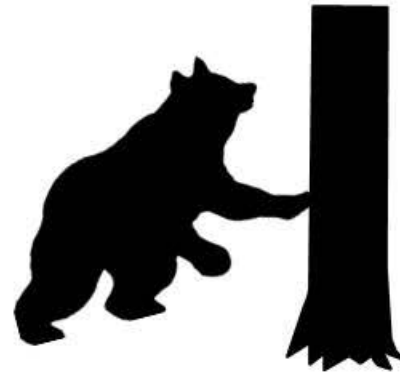
# Deer damage



# Deer damage



# Bear damage



↑ This tape is for avoiding bears

# Forestry company ①

- ・民有林を中心に間伐事業の請け負い
- ・受注は路網整備～造材まで
- ・緩傾斜地を中心に高性能林業機械を駆使した低コスト林業
- ・補助金の活用を積極的に行う
- ・間伐方法は山主との相談で(山主が切り捨てを望めば切り捨て間伐)

## 主な造材までの流れ

- ・間伐作業の交渉、伐採木の選定
    - チェーンソー伐倒、ウィンチで路肩まで木寄せ
    - フェラーバンチャで造材
    - フォワーダで土場まで運ぶ
- 緩傾斜地は3～4人1組



# 伐倒～木寄せ チェーンソー⇒ウィンチ(グラップル)



伐倒木の選別



受け口



ワイヤーの固定



伐倒



伐倒



木寄せ



# 風倒被害



小面積でも風の入しやすい  
ところは大きな被害

# Forestry company ②

- ・伐採(時には育林～)→製材→販売まで一貫して行っている
- ・FSC認証取得
- ・民有林から立木単位で購入
- ・架線集材が中心
- ・コストがかかる分、単木当たりの価値を高めて利益を出す  
ex 伐採の時期、順番、需要をもとにした伐採単位、葉枯らし...



# Why doesn't beech flower every year?

## What does control the expression of flowering gene?

past

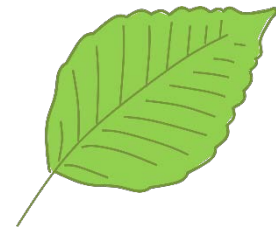
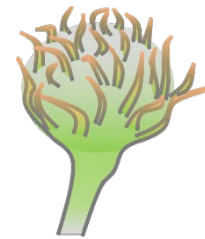
Floral transition  
timing

future

"past"  
environment

DNA  
methylation

Flowering gene



**Flowering is  
controlled by two  
pathway**

"now"  
environment

