



Forestry and Game Management Research Institute

252 02 Jiloviště, the Czech Republic



International Calibration Course in the Czech Republic 2009 results, problems, recommendations

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- **Term:** July 7-10, 2009
- **Location ICC 09:** Milovy – Czech-Moravian Highland
in the same region as the course in 2005
- **Same plots/same trees** have been evaluated
- **Comparison** of the recent results and results of the previous course was possible



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➤ **17 participants from 11 countries**

Austria	AUS
Belgium-Flanders	B-F
Bulgaria	BUL
Belgium-Walonia	B-W
Czech Republic	CZ
Germany	GER
Hungary	HU
Netherlands	NL
Russia	RUS
Slovakia	SK
Sweden	SWE



Aims

- **Defoliation assessment** in spruce and beech plots
 - comparing of different methods
 - new routine for arrangement of ICCs in the future

- Assessment of **biotic damage**

- **Photo-assessment** exercise



Methods

- **FutMon Field Protocols**
- **assassable crown**
 - six different scorings to each tree in each plot
- First three scorings from the **fixed position**
 - upper 1/3 of the crown
 - widest part of the crown
 - whole crown - national method
- The last three scorings of the same parts of the crown done by **the national method**

National methods

AUS	light crown
B-F	whole crown
BUL	whole crown
B-W	widest part
CZ	whole crown
GER	widest part
HU	whole crown
NL	4 - 7 whorl
RUS	whole crown
SK	light crown
SWE	non affected crown



- **6 plot** were assessed: **3** in the **spruce** stand and **3** in the **beech**

- **List** of plots:
 - Mature spruce stand Pohledec – standard national level I plot J 180
 - Mature spruce stand Lisovská skála
 - Mature spruce stand Františky – standard international level I plot
 - Mature beech stand Žákova hora
 - Mature beech stand Vysoký kopec
 - Mature beech stand Čtyři palice

- 25 trees were assessed in each plot, all trees were numbered

- relevant fixed position for each tree was marked and labelled with same number



- In **two** of the plots also **biotic damage** was assessed
 - Pohledec – mature spruce
 - Žákova hora – mature beech

- in each plot the trees to be assessed, were selected and numbered

- Assessment was done according to the last version of the ICP Forest Manual in form prepared

- In the form individual codes were recorded in the columns:
tree number – affected part – symptoms – age – cause - extent

- In the field some space was devoted to **discussion about coding**



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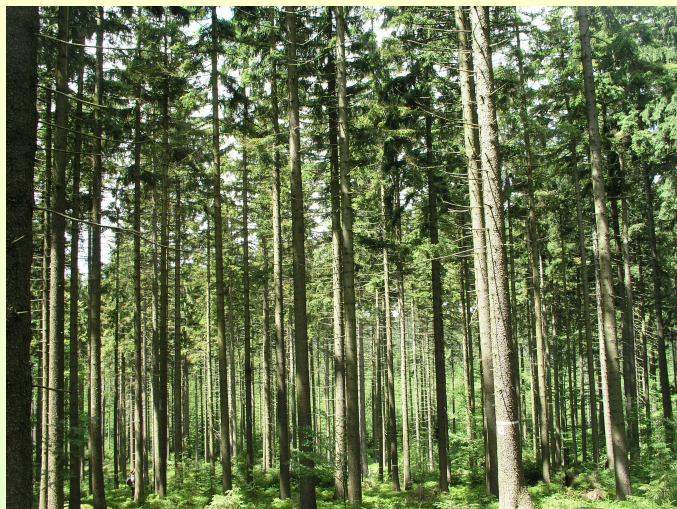




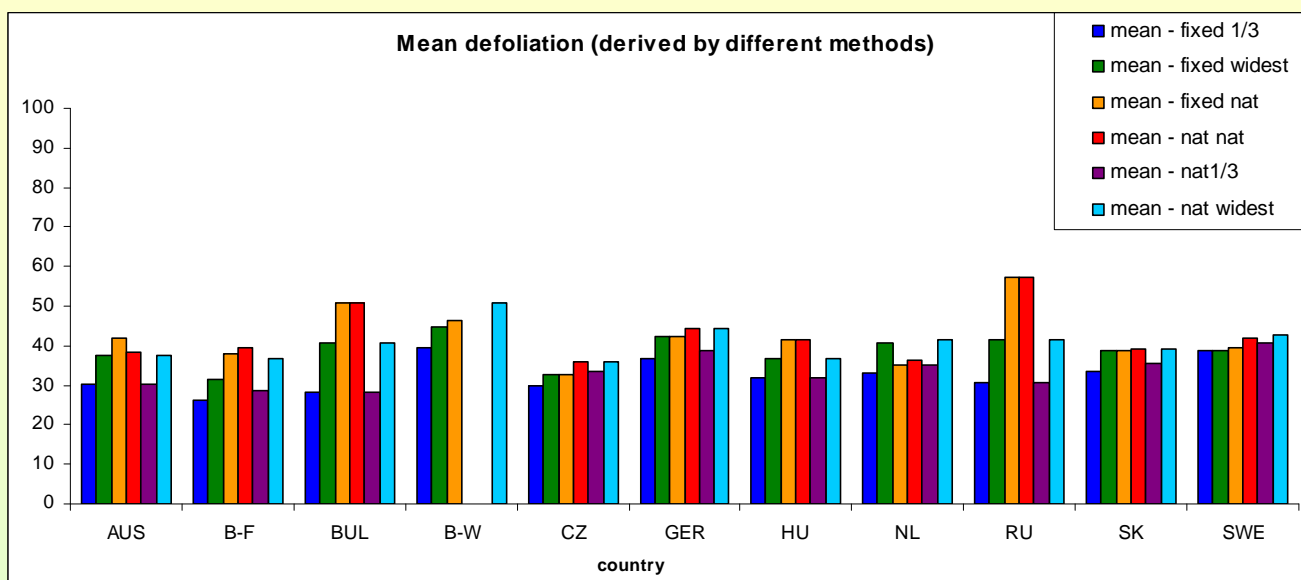
Photo-assessment exercise

- Due to extremely wet and rainy weather before and during the course the organizers were not able to prepare photos for the photo-test
- The photos were distributed later, via e-mail, and the results sent back by most of the participants
- Results were presented in the final evaluation

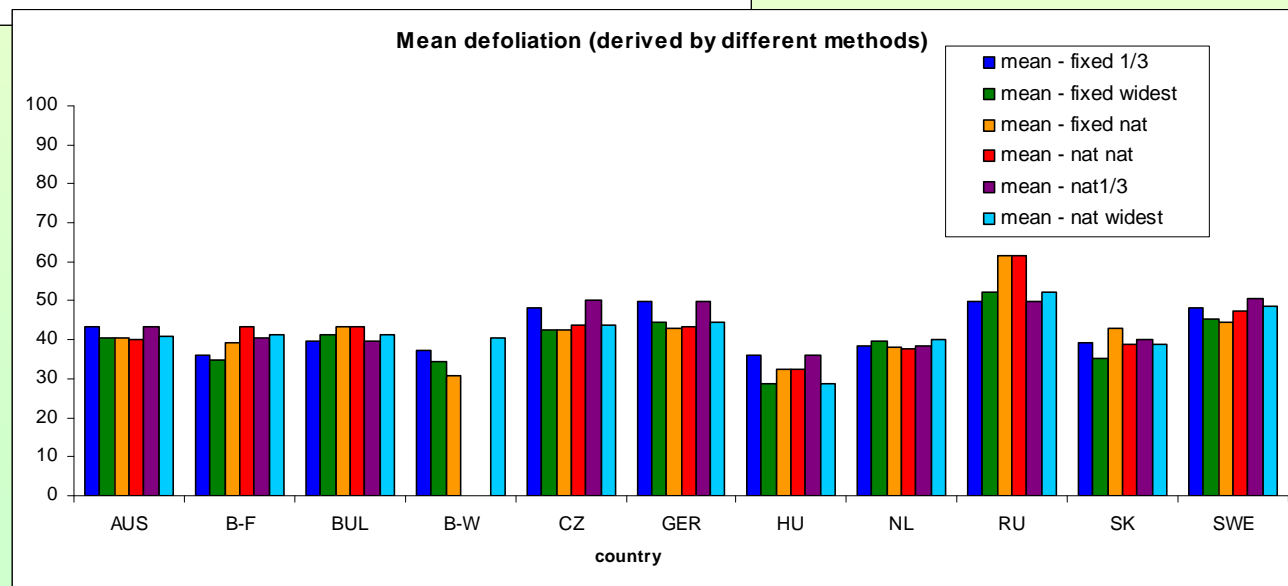


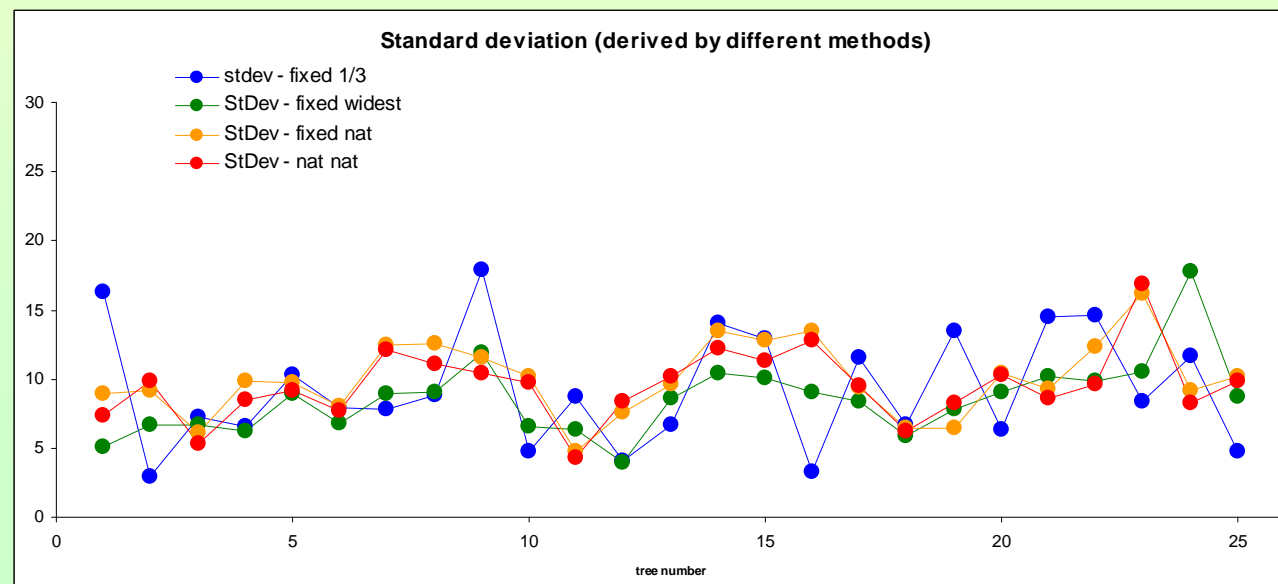
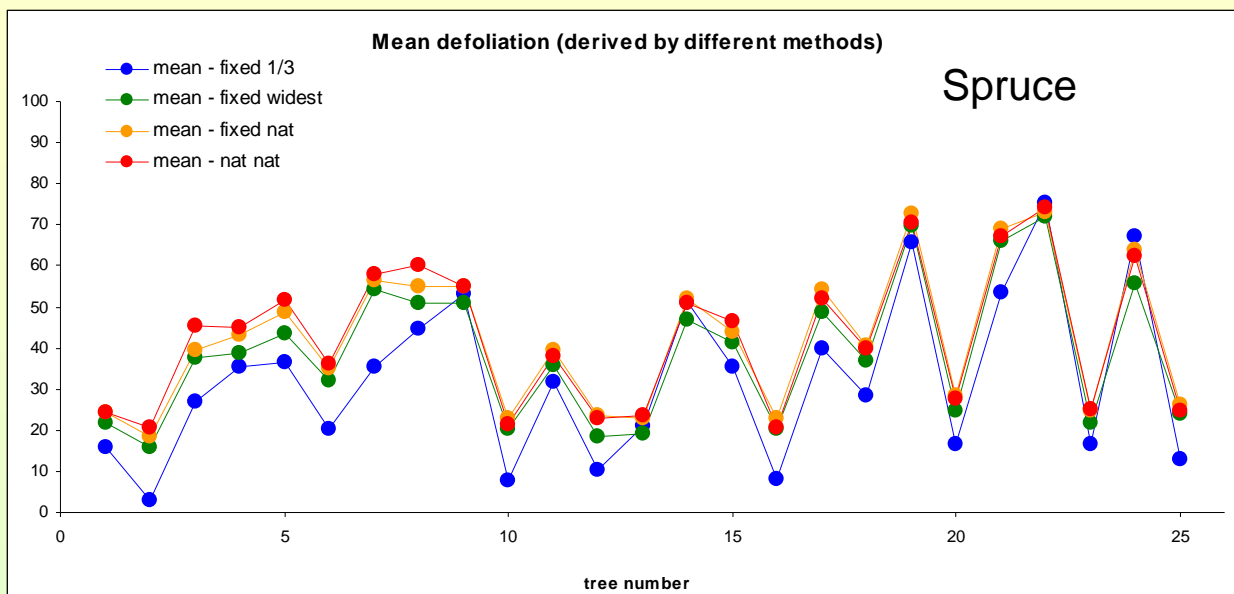
Example of Results:

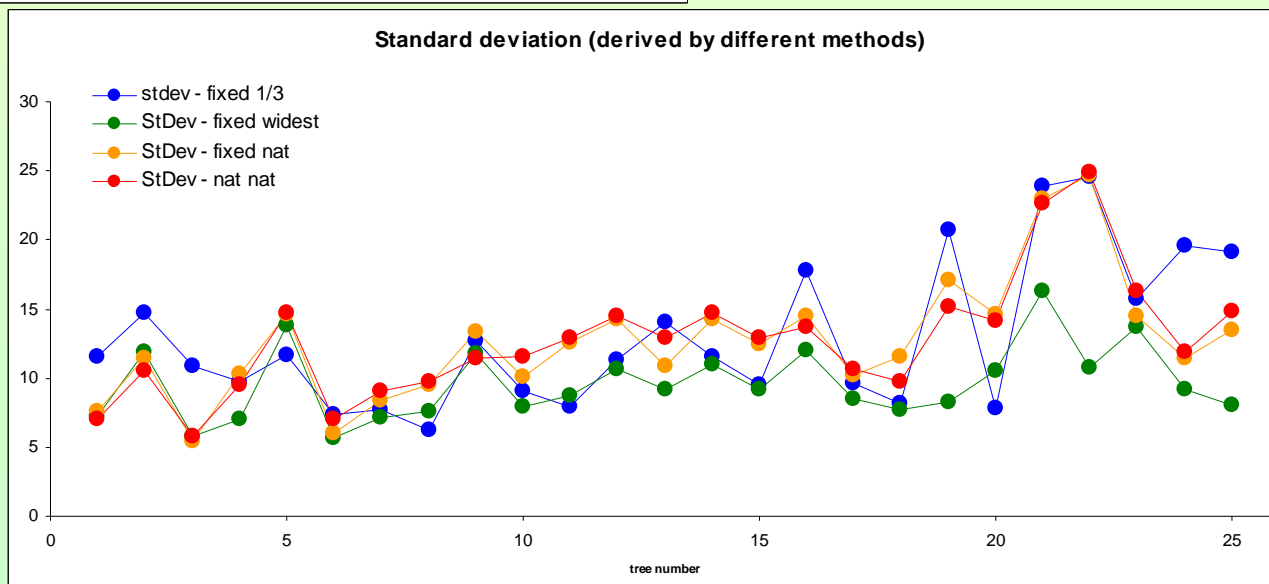
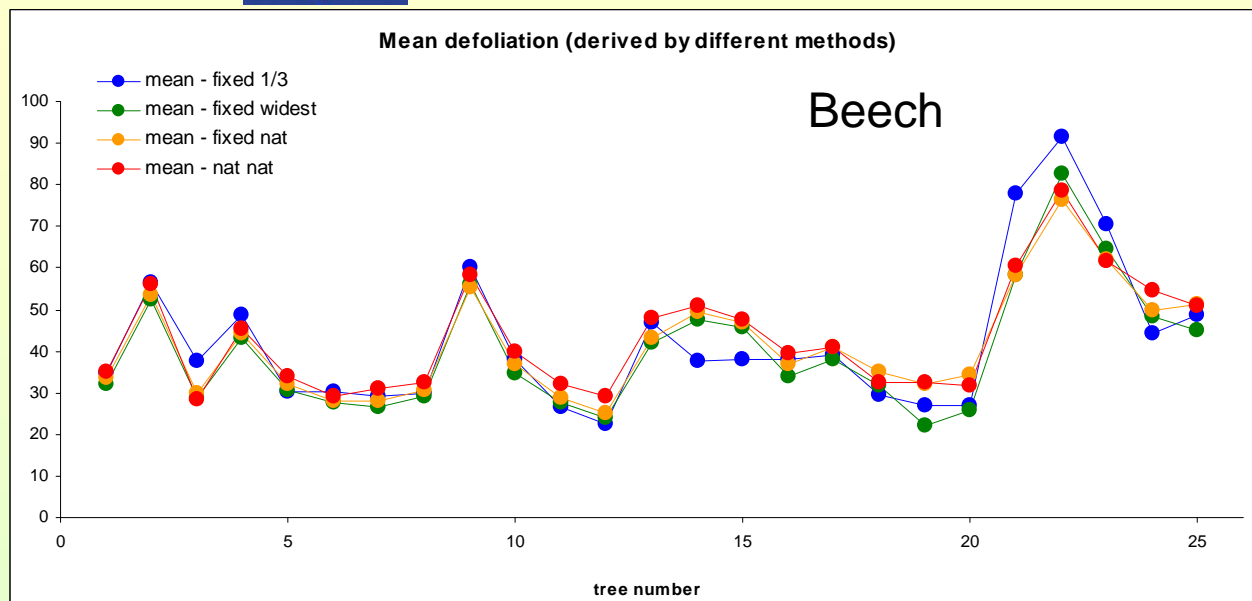
Spruce – Lisovská skála



Beech - Žákova hora







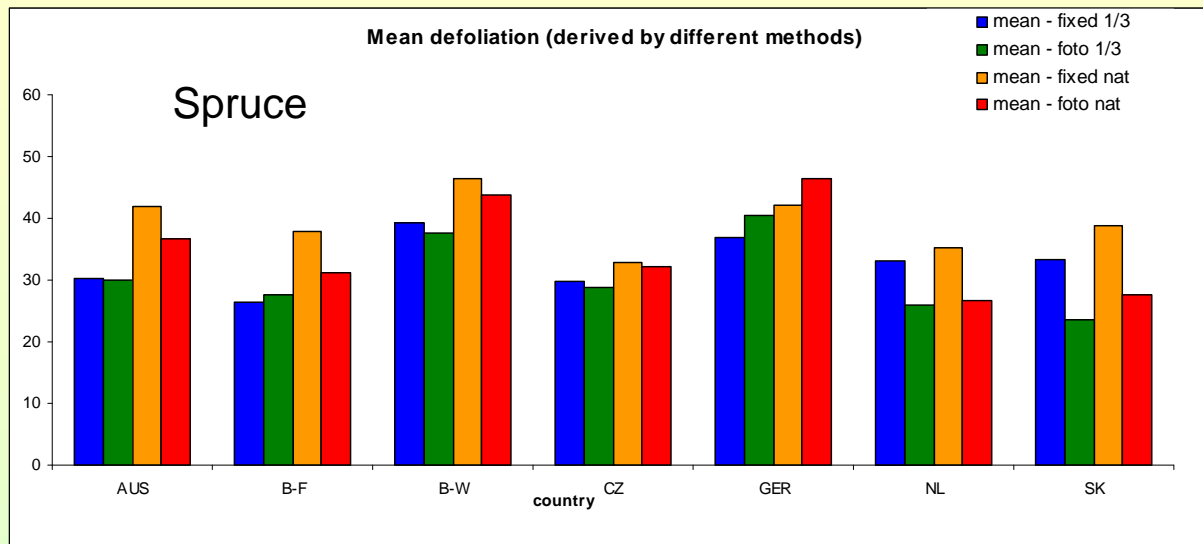
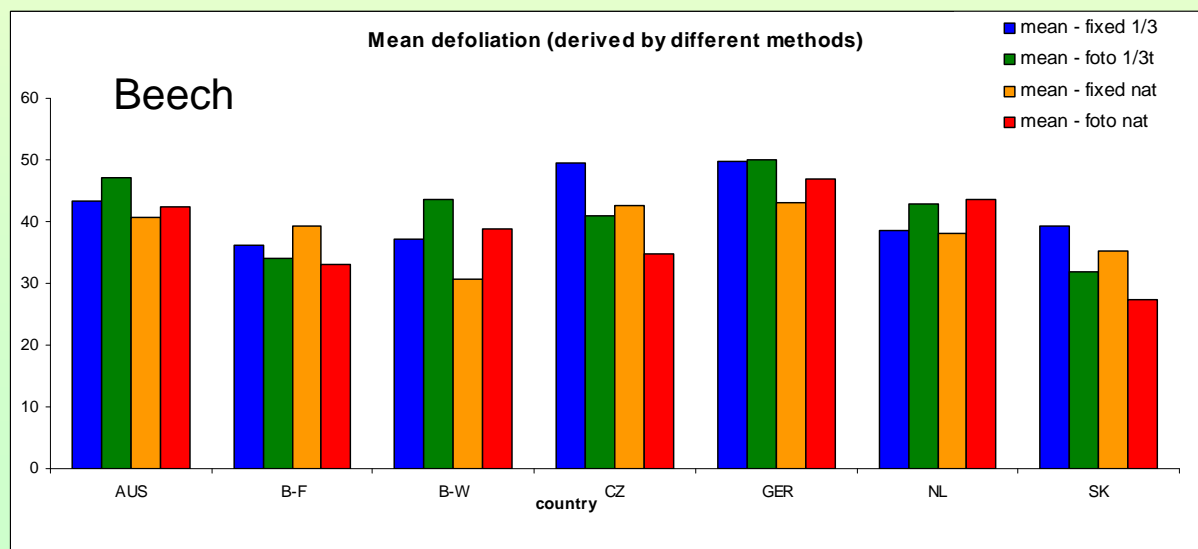
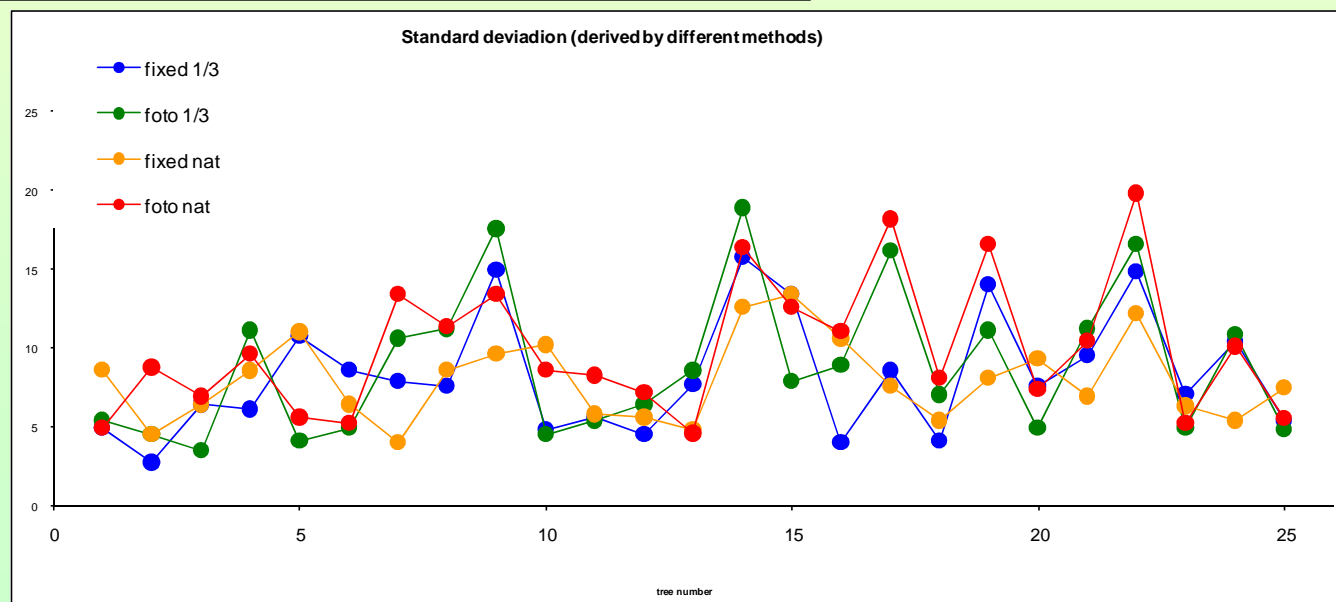
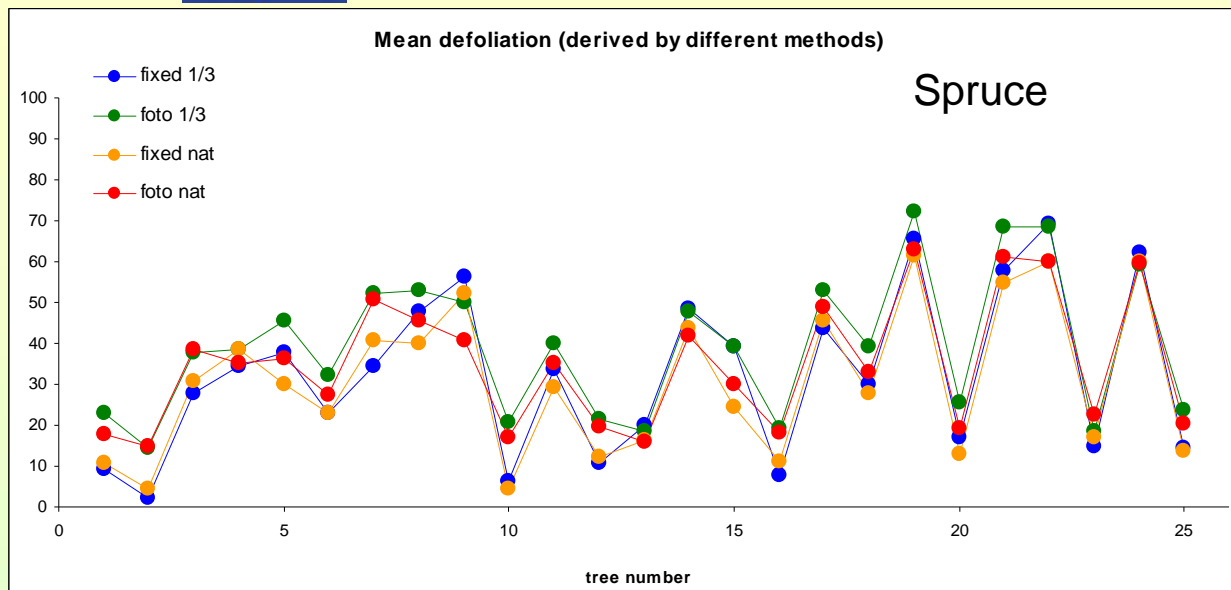
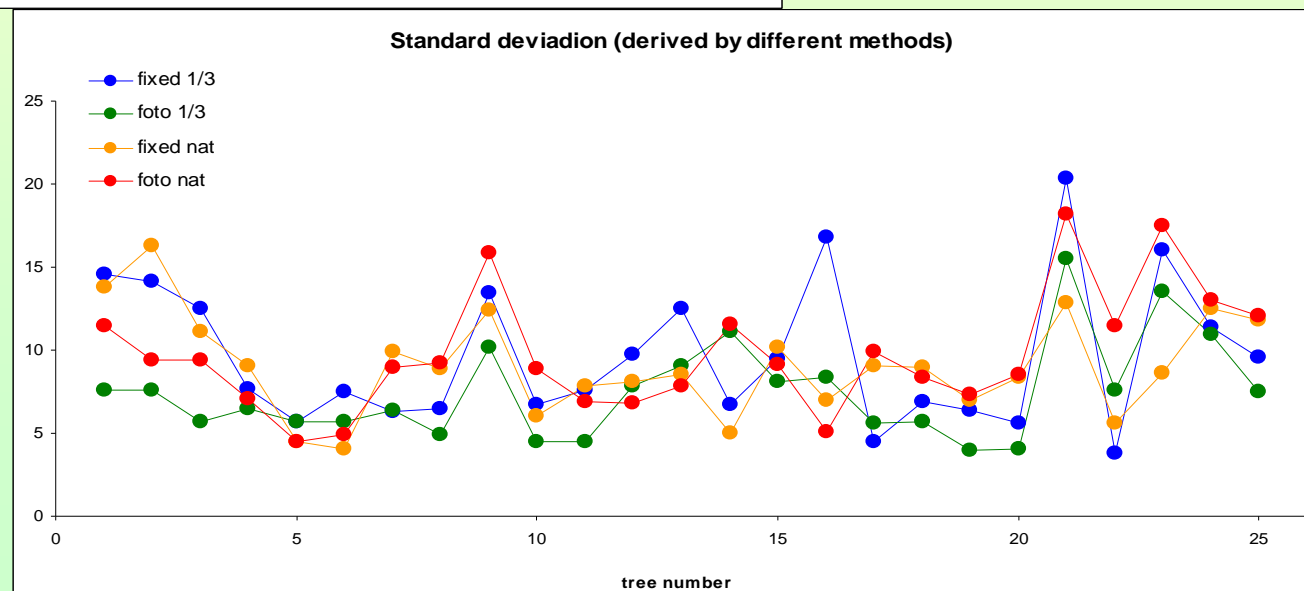
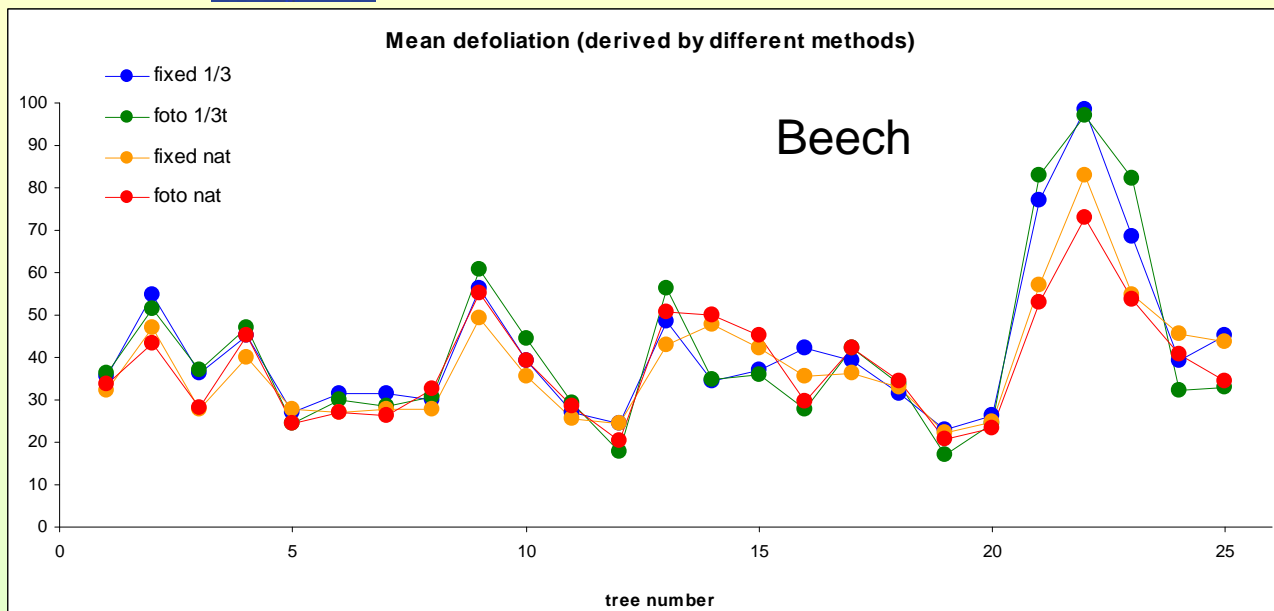


Photo v. field assessment









Damage assessment - results

- On the base of the forms completed individual countries cannot be compared
- In some of the forms completed there were no codes but only verbal description
- For some damage not all the codes were recorded (most often Symptom/sign specification)
- In some forms even non existing codes were used



Damage assessment - results

- Some codes were in incorrect columns
- For the same tree different number of damage was described
- One damage was described using different codes



Conclusions

- **Standard deviation** - similar differences in all the methods of assessment
- **Differences** among individual scorings - more **significant in spruce** than in beech
- **Defoliation** assessment from the **fixed position did not prove** higher similarities **than** assessment without this marked point (**national methods**)
- Results of **photo assesement** **did not prove better comparability** than the field assessment



Conclusions

- **Preliminary calibrating** of the assessors at the start of the course would be useful
- **Precisely and unambiguously** defined „assessed crown“ is the basic pre-condition to calibrate individual assessors or countries respective
- **Damage assessment** proved **big differences** and discrepancies among the teams, some people were **not familiar with the Manual ICP coding**



Recommendations

- Repeated **training courses** should be held **under same conditions**: same plots/trees, same stage of the vegetation period etc..
- **Precise definition of the object of „Assessable crown“** should be the **main goal** of the ICCs, to reach maximal possible objective comparability
- **Evaluation** of the courses **should be done in the same way**, to get optimal comparability in the time series. Individual **vegetation zones** in Europe **should be respected** (Northern, Central, Southern).



Recommendations

- Each participant represents the country and **guaranties stability and comparability** of the the assessment. **Same person** would be ideal.
- It would be very useful to start the course with one demonstration plot to calibrate teams; to have chance to **discuss some problems trees directly** in the plot
- **Damage assessment** shoud be trained in **special block** – one more extra day in the course?



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Thank you very much for your attention



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FutMon/ICP Forest Expert Meeting, Feb 15-19 2010, Tampere