



14<sup>th</sup> International Conference of IUFRO, Working Party 7.02.01

***“Root and Butt Rot of Forest Trees”***

12<sup>th</sup>-18<sup>th</sup> October 2015

Antalya, Fethiye, Bodrum-TURKEY

<http://ormanweb.sdu.edu.tr/iufro2015>

## Conference Programme



## Sunday, October 11<sup>th</sup>

### Antalya, Side (Port River Hotel)

All day Registration  
21:30 Welcome cocktail

## Monday, October 12<sup>th</sup>

### Antalya, Side (Lake & Riverside Hotel)

#### Opening Session

8:50 Transport to conference venue from Port River Hotel to Lake & Riverside Hotel  
9:00- 9:30 Welcome speech by **Prof. Dr. İlker Hüseyin Çarıkçı**  
Rector of Süleyman Demirel University  
Welcome speech by **Prof. Dr. Serdar Carus**  
Dean of Forestry Faculty  
Welcome speech by **Dr. H. Tuğba Doğmuş Lehtijärvi**  
9:30 **Opening Keynote Speech: Matteo Garbelotto**  
"Fungal Invasions: beyond the Lack-of Co-evolution Hypothesis"  
10:00 Information on Mediterranean forests of Turkey, **Dr. Nevzat Gürlevik**  
10:15 *Coffee break*

#### Session 1: Outreach, disease management and policy: Science and citizen science

##### Chair: Steve Woodward

10:45	Root and Butt Rot Diseases in Turkey	H. Tuğba Doğmuş Lehtijärvi , <a href="#">Asko Lehtijärvi</a> , A. Gülden Aday Kaya, Funda Oskay
11:00	Root rot in Norway spruce forests of the Ukrainian Carpathians - current and future challenges for forestry	Volodymyr Kramarets, <a href="#">Iryna Matsiakh</a>
11:15	Conifer decline in Siberia and the Russian Far East – role of root rot diseases	<a href="#">Igor Pavlov</a> , Kari Korhonen
11:30	Heterobasidion disease influence on the development of Norway spruce stands	<a href="#">Nenad Keča</a> , Rade Cvjetičanin, Keča Ljiljana
	<b>Short communications</b>	
11:45	Natural infection of cut small <i>Picea abies</i> and <i>Pinus sylvestris</i> stumps by <i>Heterobasidion</i> and <i>Phlebiopsis gigantea</i>	Kristine Kenigvalde, <a href="#">Astra Zaluma</a> , Indulis Brauners, Anete Eberlina, TalisGaitnieks, Rimvydas Vasaitis
11:50	Population structure of <i>Heterobasidion</i> in <i>Pinus contorta</i> plantations established on forest and agricultural land	<a href="#">Astra Zaluma</a> , Aris Jansons, Natalija Burnevica, Talis Gaitnieks, Rimvydas Vasaitis
11:55	Stump removal trials in Latvia: effects on root rot?	Burnevica N, Bruna L, Brauners I, Lazdins A, Gaitnieks T, <a href="#">Vasaitis Rimvydas</a>
12:00	<b>Discussions</b>	
12:30	<i>Transport to Port River Hotel</i>	
12:45-13:45	<i>Lunch at Port River Hotel</i>	
14:00-18:00	<b>Field trip to Akseki</b>	
19:00-21:00	<i>Dinner at Port River Hotel</i>	

## Tuesday, October 13<sup>th</sup>

### Departure from Antalya to Fethiye, visit to Turkish pine (*Pinus brutia*) forest (*Heterobasidion* root rot)

9:00 *Depart for Fethiye*  
13:30 *Arrival in Gölhisar Forest area (Field trip)*  
13:30-15:00 *Lunch*  
15:30-17:00 *Field trip in Heterobasidion infected P. brutia forest*  
17:30 *Departure to Fethiye hotel*  
19:00 *Arrival at The Bay Beach Hotel, Fethiye*  
19:00 *Dinner at The Bay Beach Hotel*

**Wednesday, October 14<sup>th</sup>**

**Fethiye, The Bay Beach Club**

09:00 **Keynote speaker: Alberto Santini**

**“Soil is a reservoir for pathogens: Europe should ban the trade of plants in pot”**

**Session 2: Genomics and plant pathogen interactions**

**Chair: Paolo Gonthier**

- 09:30 A comparative genomic analysis of *Heterobasidion* taxa identifies adaptive evolution without divergence in pathogenicity genes or genomic structure [Matteo Garbelotto](#), Fabiano Sillo, Paolo Gonthier,
- 09:45 Unlocking the genome of the only biocontrol fungus (*Phlebiopsis gigantea*) used against the conifer root and butt rot pathogen (*Heterobasidion annosum*) [Fred O. Asiegbu](#), Sarah F. Covert, Robert A. Blanchette, Daniel Cullen et al.
- 10:00 Genome-wide SNP analysis to generate a genetic map for *Armillaria ostoyae* to be used for locating a natural mutation that severely affects mycelial growth [Renate Heinzelmann](#), Daniel Rigling
- 10:15 Discussion
- 10:30 *Coffee break*

**Chair: Duncan J. Morrison**

- 11:00 Changes in transcript and terpene profiles of *Pinus sylvestris* trees inoculated with *Heterobasidion annosum* s.s. under field conditions [S. Keriö](#), E. Jaber, G. Semiz, T. Raffaello, A. Kovalchuk, W. Walter Lorenz, J. F. D. Dean, J. K. Holopainen, F. O. Asiegbu
- 11:15 A cerato-platanin-like protein HaCPL2 from *Heterobasidion annosum* sensu stricto induces cell death in *Nicotiana tabacum* and *Pinus sylvestris* Hongxin Chen, Julia Quintana González, Andriy Kovalchuk, Wimal Ubhayasekera, [Fred O. Asiegbu](#)
- 11:30 Inventory and expression profiling of ABC transporters in the conifer pathogen *Heterobasidion Annosum* [Andriy Kovalchuk](#), Bikash Baral, Yong-Hwan Lee and Fred O. Asiegbu
- 11:45 Characterization of necrotrophic small secreted proteins (SSPs) in the conifer pathogen *Heterobasidion annosum* s.l. Tommaso Raffaello, [Fred O. Asiegbu](#)
- 12:00 Discussion
- 12:30 *Lunch*

**Chair: Fred O. Asiegbu**

- 14:30 Comparative impact on physiological and biochemical response of the invasive *Heterobasidion irregulare* on *Pinus pinea* A. L. Pepori, [A. Santini](#), M. Michelozzi, L. Calamai, G. Cencetti, P. Bonello and N. Luchi
- 14:45 Gene expression profiling study of *Heterobasidion annosum* infected by partitivirus HetPV13-an1 [Muhammad Kashif](#), Jaana Jurvansuu, Tero Tuomivirta, Eeva Vainio and Jarkko Hantula
- Short communications**
- 15:00 Distribution of SSRs in the *Heterobasidion* genome: an evolutionary perspective [Paolo Gonthier](#), Fabiano Sillo, Elisa Lagostina, Angela Roccotelli, Olga S Cacciola, Matteo Garbelotto
- 15:05 Root disease centers in alpine larch are sites for interspecific hybridization, gene introgression, and rapid evolution for sympatric *Heterobasidion* species [Matteo Garbelotto](#), Maria Friedman, Gregg De Nitto, Blakey Lockman
- 15:10 Discussion
- 15:30 *Coffee break*

**Chair: Paolo Capretti**

- 16:00 Inhibition of pathogenic fungi by fungal root endophytes of Norway spruce [Eeva Terhonen](#), Nina Sipari and Fred O. Asiegbu
- 16:45 Tolerance and resistance of Douglas-fir half-sibling families and climate affect wood fiber properties. [Mike Cruickshank](#)
- 17:00 Pathogenicity screening of Finnish isolates of the conifer pathogen *Heterobasidion annosum* s.s and *Heterobasidion parviporum* [Zhen Zeng](#), Kari Korhonen, Fred O. Asiegbu
- 17:15 Pathogenicity of *Heterobasidion annosum* s.str on pine species [R. Ceyda Erdoğan Beram](#), H. Tugba Doğmuş Lehtijarvi, A. Gülden Aday, Asko Lehtijarvi, Steve Woodward
- 17:30 Discussion
- 18:00 *Trekking in sweetgum forest*
- 19:00 *Dinner (Barbeque at Garden)*

**Thursday, October 15<sup>th</sup>**

**Fethiye, The Bay Beach Club**

09:00 **Keynote speaker : Ned B. Klopfenstein**  
**Toward better understanding of the biology and genetics of *Armillaria* species: Contributions of DNA- and RNA-based studies**

**Session 3: Systematic, taxonomy, and phylogeography**

**Chair: Mee-Sook Kim**

09:30 Characterization of *Armillaria* species from surveys of broad-leaved forests in the Alborz Mountains of northern Iran  
[S. Jafarpour](#), Khalil-Berdi Fotouhifar, Mohammad Javan-Nikkhah, Mohamad Reza Asef Shayan, Jean-Marc Moncalvo, Anthony S. Davis, Amy L. Ross-Davis, John W. Hanna, Simona Margaritescu, Ned B. Klopfenstein

09:45 Wood decay fungi in living *Abies bornmülleriana*  
[A. Gülden Aday](#), Asko Lehtijarvi, H. Tugba Doğmuş Lehtijarvi, Funda Oskay, Zeynep Tunalı, Şule Yeltekin, Yusuf Şaşmaz, Ceyda Erdoğan Steve Woodward

**Short communications**

10:00 Wood decay fungi in living *Pinus nigra* subsp. *pallasiana*  
A. Gülden Aday Kaya, H. Tuğba Doğmuş-Lehtijarvi, A. Lehtijarvi, [Funda Oskay](#), Yusuf Şaşmaz, Şule Yeltekin, Zeynep Tunalı, Ceyda Erdoğan, Steve Woodward

10:05 Diversity of wood-rotting Basidiomycetes in a South African native Forest  
James M. T. Tchoet, [Martin P. A. Coetzee](#), Mario Rajchenberg and Jolanda Roux

10:10 Discussion

10:30 *Coffee break*

**Session 4: Ecology and etiology**

**Chair: Mike Cruickshank**

11:00 *Armillaria* in primeval forests of Europe: species composition, ecology and population genetic structure of the predominant species  
[Tetyana Tsykun](#), Cyril Dutech, Daniel Rigling, Simone Prospero

11:15 Fungal community associated with incomplete cover of stumps following *Phlebiopsis gigantea* stump treatment  
[J. Oliva](#), M. Elfstrand, M. Messal and L. Went

11:30 Diversity and transmission of *Heterobasidion annosum* viruses in a pathogen-affected pine forest in Finland  
[Rafiqul Hyder](#), Eeva Vainio, Tuula Piri, and Jarkko Hantula

11:45 New insights into the transmission of *Heterobasidion* viruses  
[Jarkko Hantula](#), Muhammad Kashif, Salla Mäkelä, Ping Xu and Eeva Vainio

12:00 Viruses accumulate in aging *Heterobasidion* clones and may switch hosts into other fungal species of the same habitat  
[Eeva J. Vainio](#), Taina Pennanen, Michael M Müller, Tuula Piri, Kari Korhonen, Tiina Rajala, Jarkko Hantula

12:15 Discussion

12:45 Lunch

14:00 **Keynote speaker: Martin P.A. Coetzee**  
**A global phylogeny of *Armillaria* root rot pathogens**

**Chair: Jarkko Hantula**

**Short communications**

14:30 Understanding western redcedar butt rot  
[Mike Cruickshank](#), Rona N. Sturrock, Cosmin Filipescu

14:35 *Armillaria* population in flood-plain forest of natural pedunculate oak showing oak decline  
Wojciech Szewczyk, [Hanna Kwaśna](#), Jolanta Behnke-Borowczyk

14:40 Conifer stump infection by *Heterobasidion* spp. and *Phlebiopsis gigantea* in different seasons in Latvia  
Kristine Kenigšvalde, Indulis Brauners, Anete Eberlina, [Lauma Bruna](#), Kari Korhonen, Talis Gaitnieks

14:45 Longevity and persistence for more than 45 years of *Heterobasidion abietinum* in conifer stumps  
[P. Capretti](#), N. Luchi, D. Paffetti, M. Feducci

14:50 Occurrence of *Heterobasidion* sporocarps on logging residues of *Picea abies*  
[Lauma Bruna](#), Astra Zaluma, Kristine Kenigšvalde, Talis Gaitnieks, Rimvydas Vasaitis

14:55 Spot depending root and butt rots of *Abies alba* plantations as significant factor in windthrows  
D. Migliorini, [A. Santini](#), N. Luchi, P. Capretti

15:00 Discussion

15:30 *Coffee break*

16:30 *Trip to city center*

19:30 *Dinner at hotel*

## Friday, October 16<sup>th</sup>

### Departure to Bodrum

08:30 Depart to Bodrum

13:30 Lunch at Royal Asarlık Hotel

#### 16:00 Poster presentation and coffee

Optimisation of Textile Dye Decolorization by *Armillaria* species  
Laccases from *Heterobasidion annosum* in Pollution Control  
Does *Phaeolus schweinitzii* Produce Laccases?

*Fibroporia gossypium* in biological control of root rot in spruce stands - a case study

A new bacteria canker appearance on hybrid poplars in Hungary - *Lonsdalea quercina* subsp. *populi* subsp. nov.

Ligninolytic activity of *Phlebiopsis gigantea* strains grown on Norway spruce wood

Mortality from root disease following pre-commercial thinning in British Columbia

Insight into environment of *Heterobasidion annosum* s.l. in the Czech Republic

17:30 Trip to city

[Temitope Abayomi](#), [Steve Woodward](#)

[Taiwo Obafemi](#), [Temitope Abayomi](#), [Steve Woodward](#)

[Mai Marafi](#), [Faizah Alenezi](#), [Marta Belka](#), Mostafa

[Rateb](#), [Rainer Ebel](#), [Lassaad Belbahri](#), [Steve Woodward](#)

[Monika Małecka](#), [Anna Żółciak](#), [Zbigniew Sierota](#) and

[Katarzyna Sikora](#)

[Tímea Tóth](#), [Tamás Lakatos](#), [András Koltay](#)

[Anna Żółciak](#), [Justyna Bohacz](#)

[Duncan Morrison](#), [Jonas Rönnerberg](#) and [Michelle Cleary](#)

[Petr Sedlák](#)

## Saturday, October 17<sup>th</sup>

### Royal Asarlık Hotel, Bodrum

#### Session 5: Population genetics and epidemiology

##### Chair: Ned B. Klopfenstein

10:00 Modeling *Heterobasidion annosum* spore infection and stump colonization mechanisms

10:15 Carbon dioxide and methane formation in Norway spruce stems infected by white-rot fungi

10:30 Genetic characterization of the brown root-rot pathogen (*Phellinus noxius*) of diverse woody plants in eastern Asia, Australia, and Pacific Islands

10:45 *Armillaria ostoyae* in managed coniferous forests in Kastamonu in Turkey

11:00 Discussion

11:30 Coffee break

[Juha Honkaniemi](#), [Tuula Piri](#), [Juha Heikkinen](#) and [Risto Ojansuu](#)

[Ari M. Hietala](#), [Peter Dörsch](#), [Harald Kvaalen](#), [Halvor Solheim](#)

[Mee-Sook Kim](#), [Jane E. Stewart](#), [Phil G. Cannon](#), [Ned B. Klopfenstein](#)

[Asko Lehtijärvi](#), [H. Tugba Doğmuş-Lehtijärvi](#), [A. Gülden Aday Kaya](#), [Steve Woodward](#)

##### Short communications

12:00 Extreme drought followed decline in natural and artificial stands of Turkey oak in Serbia

12:05 Distribution of *Heterobasidion abietinum* genets in mixed and pure stands

12:10 Does the soil preparation before planting influence *Heterobasidion* root rot disease development over succeeding decades: A long-term study

12:15 Molecular characterization of *Fusarium oxysporum*, the causal agent of koa (*Acacia koa*) mortality in Hawaii

12:20 Discussions

12:40 Lunch

[Nenad Keča](#), [Ljiljana Keča](#)

[Asko Lehtijärvi](#), [H. Tugba Doğmuş](#), [Lehtijärvi A. Gülden Aday](#), [Funda Oskay](#)

[Piotr Łakomy](#), [Hanna Kwaśna](#), [Roman Gornowicz](#), [Robert Kuźmiński](#), [Antoni Sienkiwiecz](#), [Mateusz Konopka](#), [Tomasz Rażny](#)

[Mee-Sook Kim](#), [Jane E. Stewart](#), [Nicklos Dudley R. Kasten Dumroese](#), [Ned B. Klopfenstein](#)

#### Session 1: Outreach, disease management and policy: Science and citizen science

#### Session 6: New reports, diagnostics, and research applications of diagnostic methods

##### Chair: Martin P.A. Coetzee

14:00 An integrated disease management approach to minimize damage and the risk of spread of *Heterobasidion irregulare* from central Italy

14:15 Stump size and efficacy from treatment with *Phlebiopsis gigantea* and urea against *Heterobasidion*

14:30 Contamination risk during sampling for *Heterobasidion annosum* s.l.

14:45 Influence of stump height on secondary spread of *Heterobasidion parviporum*

14:50 Discussion

15:30 Coffee break

#### 16:00 Closing Speech; Matteo Garbelotto & Steve Woodward

16:30 Trip to city center

19:30 Dinner at Hotel

[Paolo Gonthier](#), [Naldo Anselmi](#), [Paolo Capretti](#) et al.

[Jonas Rönnerberg](#), [Johan Hofmann](#), [Anna Gunulf Åberg](#)

[Anna Gunulf Åberg](#), [Johanna Witzell](#), [Jonas Rönnerberg](#)

[Anna Gunulf Åberg](#), [Iwona Urban](#), [Jonas Rönnerberg](#)