

Conference Programme/Program

Inaugural Global Forest Biodiversity Initiative Conference & GFBI-FECS Joint Symposium 2017

Forest Research in the Big Data Era

September 6-9, 2017 Beijing, China



Summary

Sunday 3- Tuesday 5, September.....	2
Pre-conference trip for GFBI Steering Committee and Invited Guests	2
Wednesday 6 September	2
Sep 6 (Wednesday)- 8:30-9:30 Opening Session.....	2
Sep 6 (Wednesday)- 9:30-10:00 Group photo and coffee	2
Sep 6 (Wednesday)- 10:00 - 12:00 Plenary Session I	2
Sep 6 (Wednesday)- 11:30-1:30 Lunch	2
Sep 6 (Wednesday)- 13:30 - 15:10 Parallel Sessions I.....	3
Sep 6 (Wednesday)- 15:10-15:30 Coffee break	3
Sep 6 (Wednesday)- 15:30 - 17:10 Parallel Sessions II.....	4
Sep 6 (Wednesday)- First General Meeting of the GFBI and Banquet.....	4
Thursday 7 September.....	5
Sep 7 (Thursday)- 8:30 - 10:00 Plenary Session II.....	5
Sep 7 (Thursday)- 10:00-10:20 Coffee break	5
Sep 7 (Thursday)- 10:20 - 12:00 Parallel Sessions III.....	5
Sep 7 (Thursday)- 12:00-14:00 Lunch.....	5
Sep 7 (Thursday)- 14:00 - 15:40 Parallel Sessions IV	6
Sep 7 (Thursday)- 15:40-16:00 Coffee break	6
Sep 7 (Thursday)- 16:00 - 17:40 Parallel Sessions V	7
Sep 7 (Thursday)- 18:00 Closing Session and Banquet.....	7
Friday 8 September Excursion I- Great Wall.....	8
Saturday 9 September Excursion II- Forbidden City	8
List of Participants and Presentations	9

Sunday 3- Tuesday 5, September

Pre-conference trip for GFBI Steering Committee and Invited Guests

Wednesday 6 September

Sep 6 (Wednesday)- 8:30-9:30

Opening Session

Moderator- Sun Jianxin

- **Welcoming Address by the Host** (University President Song Weiming)
- **Welcome to "Forest Ecosystems"** (Zhao Xiuhai & K. v. Gadow)
- **Sustainable Forest Resources Management in China** (Wushe Cui, State Forestry Administration of China)

Sep 6 (Wednesday)- 9:30-10:00 Group photo and coffee

Sep 6 (Wednesday)- 10:00 - 12:00 Plenary Session I

Moderator- Gert-Jan Nabuurs

- **GFBI Overview and Outlook** (Liang Jingjing, Tom Crowther, and Gert-Jan Nabuurs)
- **The emerging trends for big data in big journals** (Patrick Goymer)

Sep 6 (Wednesday)- 11:30-1:30 Lunch

Sep 6 (Wednesday)- 13:30 - 15:10 Parallel Sessions I

1. In situ measured data versus remotely sensed: challenges Moderator: Susan Wiser	2. Big data and forest research Moderator: Thomas Crowther	3. Specific challenges for the tropics Moderator: Bruno Herault
Avitabile Valerio - Improving forest biomass mapping in Europe	Douglas Sheil - How trees water our planet: forests, rain and the future	Mukul Sharif Ahmed - High resilience of tropical forest diversity and structure after anthropogenic disturbance in southeast Asian rainforests
Heinz Gallaun & Matthias Schardt - Assessment of forest degradation and deforestation rates by combining high resolution satellite time series and plot based forest inventory data	Bussotti Filippo - Linking forest diversity and tree health in Europe: insights from large-scale surveys in Italy	Corral-Rivas José Javier - A Mexican network of permanent sample plots for monitoring forest growth and change
de Miguel Sergio - LiDAR as a bigdata source to improve the assessment of forest resources and land-use changes in national forest inventories	Finkbeiner Felix - The Trillion Tree Campaign	Neldner Victor J - Ecological factors determining species diversity in the subtropical and tropical forests of Queensland, Australia
Nanda Appaji - Leaf phenology of a tropical dry forest: Long-term observations from Bhadra Wildlife Sanctuary, Karnataka, south India	Fayle, T.M. - Changes in tree community structure account for global patterns of canopy arthropod diversity, but only for highly specific arthropod groups	Gonmadje Christelle - Patterns and determinants of tree species assemblage in Atlantic Central African forests

Sep 6 (Wednesday)- 15:10-15:30 Coffee break

Sep 6 (Wednesday)- 15:30 - 17:10 Parallel Sessions II

4. In situ measured data versus remotely sensed: challenges	5. Big data and forest climate research	6. Specific challenges for the tropics
Moderator: Thomas Crowther	Moderator: Sergio de Miguel	Moderator: Susan Wiser
Shchepashchenko Dmitry - Forest-observation-system.net – a global in-situ biomass data repository	Pierre L. Ibisch - Roadless forests	Pfeifer Marion - Measuring and upscaling forest functions in tropical landscapes
Sterenczak Krzysztof - Forest monitoring – landscape scale at the single tree level	Tikhonova Elena – Tree diversity patterns across the latitudinal gradient in the Northwestern Russia	Cazzolla Gatti Roberto - A coupled DEs model for localized disturbances in tropical forests
Tommaso Jucker - Topography drives fine-scale variation in aboveground carbon density and tree species diversity across tropical forest landscapes	Radomir Bařazy - Big Data in a forest practice	Cao Min - Distribution of adult trees and seedlings along a tropical elevational transect in Xishuangbanna, southwest China
Kumar Amit - Estimating Aboveground Biomass in Higher Altitude Eastern Himalayan Forests of India using Microwave Remote Sensing	Searle Eric - Climate change impacts are dependent on species' life-history traits and local site conditions	Herault Bruno - Drivers of biomass recovery in the Paracou long-term disturbance experiment
Zeller Laura - Influence of forest stand structure on productivity in comparison to the effect of species identity. A study based on global forest inventory data		Dayanandan Selvadurai Daya - Functional traits independent of phylogenetic turnover determine the community assembly of deciduous and evergreen tree species in the Western Ghats biodiversity hotspot in India

Sep 6 (Wednesday)- First General Meeting of the GFBI and Banquet

17:30 First General Meeting of the GFBI:

Outline of vision, protocols and implementation

18.30 Banquet

Thursday 7 September

Sep 7 (Thursday)- 8:30 - 10:00 Plenary Session II

Moderator- Tom Crowther

- **How large are negative emissions of carbon in intact versus managed forests?**
(Richard Houghton)
- **The global land use open data- a baseline for global land monitoring**
(JeanFrancois Bastin)
- **A GFBI Data Center at the University of Lleida: From data to knowledge**
(Sorribas Albert)

Sep 7 (Thursday)- 10:00-10:20 Coffee break

Sep 7 (Thursday)- 10:20 - 12:00 Parallel Sessions III

7. Will the big data era help in biodiversity conservation	8. Specific challenges for boreal and temperate zone	9. Accuracy and harmonisation issues of big data and data access, IPR
Moderator: Susan Wiser	Moderator: Giorgio Alberti	Moderator: Jingjing Liang
Khan Mohammed Latif - Plant diversity patterns and conservation status of Eastern Himalayan forests in Arunachal Pradesh, Northeast India	Pan Yude - Forest biodiversity, structure complexity and resilience	Nabuurs Gert-Jan - Role of big data in European forest resource analysis
Garcia-Perez (Gamarra) Javier - The use of global biodiversity databases to increase taxonomic quality in forest inventories	Chhin Sophan - Dendroclimatic analysis of white pine (<i>Pinus strobus</i>) provenance trials across eastern North America including the United States and Canada	Costanza Jennifer - Alternatives for classifying forest inventory data into species assemblages: tradeoffs among supervised and unsupervised approaches
Hartmann Henrik - Crossing scales and disciplines to identify global trends in tree mortality as indicator of forest health	Lei Xiangdong - Age-dependent effects of climate change on the growth and productivity of larch plantations using process-based model and NFI data	Serra-Diaz Josep M. and Svenning Jens C. - Quality and coverage of accessible big data on tree species distributions
Susan Wiser - Using classification assignment rules to assess land use change impacts on national and regional forest biodiversity	Crim Philip - Tree species identity governs foliar nutrition regardless of historic acid deposition and soil chemistry in high-elevation red spruce (<i>Picea rubens</i> Sarg.) forests	Schulze Ernst Detlef - Management breaks the natural Productivity-Biodiversity Relationship in Forests and Grassland

Sep 7 (Thursday)- 12:00-14:00 Lunch

Sep 7 (Thursday)- 14:00 - 15:40 Parallel Sessions IV

10. Will the big data era help in biodiversity conservation	11. Specific challenges for forestry and conservation	12. The role of forest management and policies
Moderator: Thomas Crowther	Moderator: Gert-Jan Nabuurs	Moderator: Bruno Herault
Vibrans Alexander Christian - Nonparametric species-richness estimators enable accurate estimates of gamma-diversity in (sub) tropical forests?	Kim Hyun-Seok - Species-specific growth patterns of major tree species in Korea for last thirty years using national forest inventory data	Alberti Giorgio - Traditional forest management and biodiversity in a lowland wood remnant in North-East Italy
Niklaus Pascal - Biodiversity effects and underlying mechanisms in a large-scale field experiment in subtropical forest	Nanda Appaji - Leaf phenology of a tropical dry forest: Long-term observations from Bhadra Wildlife Sanctuary, Karnataka, south India	Piponiot Camille - Towards a new selective logging strategy for tropical forests?
Marshall Andrew - Prioritising sites for forest restoration through spatial upscaling of biomass from multiple vegetation plots in a biodiverse region	Khadka Tilak Jang - Preserving Forest Ecosystems in Nepal by Private Forest Initiatives	Ngugi Michael, Neldner Victor - Potential contribution of sustainably managed private native forests to bioenergy production in southeast Queensland, Australia
Bongers Frans - 2ndFOR: a network on secondary succession in Neotropical forests	Chen Han - local site condition mediates the responses of boreal forest to climate change	Saikia Purabi - Diversity and dominance of a Tropical Moist Deciduous Forests of Ranchi, Jharkhand, Eastern India

Sep 7 (Thursday)- 15:40-16:00 Coffee break

Sep 7 (Thursday)- 16:00 - 17:40 Parallel Sessions V

14. In situ measured data versus remotely sensed: challenges	15. Estimations of volume, biomass and carbon stock	16. The role of forest management and policies
Moderator: Gert-Jan Nabuurs	Moderator: Giorgio Alberti	Moderator: Jingjing Liang
Coomes David - Variation in the processes structuring forests globally, assessed by airborne laser scanning	Liu Caixia - Reducing the uncertainty in the forest volume-to-biomass relationship built from limited field plots	Pfautsch Sebastian - Challenges for sustainable forest management through urbanisation
Huang Huabing - Mapping finer resolution forest aboveground biomass in China by integrating multiple remote sensing data	Perianayagam Joseph Victor Raj - Temple Forests in Coromandel Coast	Morimoto Miho - Forest harvest management as a climate change mitigation to sustain biodiversity in Alaska boreal forest
Avitabile, Valerio - Using forest plot data for independent validation of a remotely-sensed global biomass map	Jagodziński, Andrzej M. - Tree stand features affect biomass expansion factors of <i>Pinus sylvestris</i> L. chronosequence	Gao Lushuang - The direct and indirect effect of fire on radial growth of <i>Pinus koraiensis</i> trees in a northern temperate forest of China
Tang Mengping - Analysis of Forest Spatial Structure Based on GIS	Duncanson Laura - Comparison of Empirical Modeling Approaches for estimation of aboveground forest biomass with NASA's GEDI Mission	Meng Jinghui - Quantitative management of plantations for different objectives in China using stand density management diagram

Sep 7 (Thursday)- 18:00 Closing Session and Banquet

Friday 8 September Excursion I- Great Wall

Mutianyu Great Wall

Note: A. Morning Depart: Lobby of Xijiao Hotel at 8:30 a.m.

B. Boxed Lunch

C. Afternoon Return at 3:00 p.m.

D. Buffet Dinner

Saturday 9 September Excursion II- Forbidden City

Note: A. Morning Depart: Lobby of Xijiao Hotel at 8:30 a.m.

B. Boxed Lunch

C. Afternoon Return at 2:00 p.m.

D. Buffet Dinner

List of Participants and Presentations

Presentation Title (in alphabetic order of the presenter's name)	Session #
1. Alberti, Giorgio - Traditional forest management and biodiversity in a lowland wood remnant in North-East Italy	12
2. Asner, Gregory - Forest conservation based on mapped biomass and biodiversity	Plenary I
3. Avitabile, Valerio - Improving forest biomass mapping in Europe	1
4. Avitabile, Valerio - Using forest plot data for independent validation of a remotely-sensed global biomass map	14
5. Balazy, Radomir - Big Data in a forest practice	5
6. Bastin, Jean-Francois & Mollicone, Danilo - The global land use open data- a baseline for global land monitoring	Plenary II
7. Bongers, Frans - 2ndFOR: a network on secondary succession in Neotropical forests	10
8. Bussotti, Filippo - Linking forest diversity and tree health in Europe: insights from large-scale surveys in Italy	2
9. Cao Min - Distribution of adult trees and seedlings along a tropical elevational transect in Xishuangbanna, southwest China	6
10. Cazzolla Gatti, Roberto - A coupled DEs model for localized disturbances in tropical forests	6
11. Chen, Han - Local site condition mediates the responses of boreal forest to climate change	11
12. Chhin, Sophan - Dendroclimatic analysis of white pine (<i>Pinus strobus</i>) provenance trials across eastern North America including the United States and Canada	8
13. Coomes, David - Variation in the processes structuring forests globally, assessed by airborne laser scanning	14
14. Corral-Rivas, José Javier - A Mexican network of permanent sample plots for monitoring forest growth and change	3
15. Costanza, Jennifer - Alternatives for classifying forest inventory data into species assemblages: tradeoffs among supervised and unsupervised approaches	9
16. Crim, Philip - Tree species identity governs foliar nutrition regardless of historic acid deposition and soil chemistry in high-elevation red spruce (<i>Picea rubens</i> Sarg.) forests	8
17. Cui, Wushe- Sustainable Forest Resources Management in China	Plenary I
18. Dayanandan, Selvadurai Daya - Functional traits independent of phylogenetic turnover determine the community assembly of deciduous and evergreen tree species in the Western Ghats biodiversity hotspot in India	6
19. de Miguel, Sergio - LiDAR as a bigdata source to improve the assessment of forest resources and land-use changes in national forest inventories	1
20. Duncanson, Laura - Comparison of empirical modeling approaches for	15

estimation of aboveground forest biomass with NASA's GEDI Mission	
21. Fayle, T.M. - Changes in tree community structure account for global patterns of canopy arthropod diversity, but only for highly specific arthropod groups	2
22. Finkbeiner Felix - The Trillion Tree Campaign	2
23. Gallaun, Heinz & Matthias Schardt - Assessment of forest degradation and deforestation rates by combining high resolution satellite time series and plot based forest inventory data	1
24. Gao Lushuang - The direct and indirect effect of fire on radial growth of <i>Pinus koraiensis</i> trees in a northern temperate forest of China	16
25. Gonmadje, Christelle - Patterns and determinants of tree species assemblage in Atlantic Central African forests	3
26. Goymer, Patrick - The emerging trends for big data in big journals	Plenary I
27. Hartmann Henrik - Crossing scales and disciplines to identify global trends in tree mortality as indicator of forest health	7
28. Herault, Bruno - Drivers of biomass recovery in the Paracou long-term disturbance experiment	6
29. Houghton, Richard - Potential negative emissions from land management	Plenary II
30. Huang, Huabing - Mapping finer resolution forest aboveground biomass in China by integrating multiple remote sensing data	14
31. Ibisch, Pierre L. - Roadless forests	5
32. Jagodziński, Andrzej M. - Tree stand features affect biomass expansion factors of <i>Pinus sylvestris</i> L. chronosequence	15
33. Javier, Garcia-Perez (Gamarra) - The use of global biodiversity databases to increase taxonomic quality in forest inventories	7
34. Jucker, Tommaso - Topography drives fine-scale variation in aboveground carbon density and tree species diversity across tropical forest landscapes	4
35. Khadka Tilak Jang - Preserving Forest Ecosystems in Nepal by Private Forest Initiatives	11
36. Khan, Mohammed Latif - Plant diversity patterns and conservation status of Eastern Himalayan forests in Arunachal Pradesh, Northeast India	7
37. Kim Hyun-Seok - Species-specific growth patterns of major tree species in Korea for last thirty years using national forest inventory data	11
38. Kumar, Amit - Estimating aboveground biomass in higher altitude Eastern Himalayan Forests of India using Microwave Remote Sensing	4
39. Lei Xiangdong - Age-dependent effects of climate change on the growth and productivity of larch plantations using process-based model and NFI data	8
40. Liu, Caixia - Reducing the uncertainty in the forest volume-to-biomass relationship built from limited field plots	15
41. Marshall, Andrew - Prioritising sites for forest restoration through spatial upscaling of biomass from multiple vegetation plots in a biodiverse region	10
42. Meng Jinghui - Quantitative management of plantations for different objectives in China using stand density management diagram	16

43. Mollicone, Danilo & Jean-Francois Bastin - The global land use open data- a baseline for global land monitoring	Plenary II
44. Morimoto, Miho - Forest harvest management as a climate change mitigation to sustain biodiversity in Alaska boreal forest	16
45. Mukul, Sharif Ahmed - High resilience of tropical forest diversity and structure after anthropogenic disturbance in southeast Asian rainforests	3
46. Nabuurs, Gert-Jan -Role of big data in European forest resource analysis	9
47. Nanda Appaji - Leaf phenology of a tropical dry forest: Long-term observations from Bhadra Wildlife Sanctuary, Karnataka, south India	1
48. Neldner, Victor J - Ecological factors determining species diversity in the subtropical and tropical forests of Queensland, Australia	3
49. Ngugi, Michael, Neldner Victor - Potential contribution of sustainably managed private native forests to bioenergy production in southeast Queensland, Australia	12
50. Niklaus, Pascal - Biodiversity effects and underlying mechanisms in a large-scale field experiment in subtropical forest	10
51. Pan, Yude - Forest biodiversity, structure complexity and resilience	8
52. Perianayagam Joseph Victor Raj - Temple Forests in Coromandel Coast	15
53. Pfautsch, Sebastian - Challenges for sustainable forest management through urbanisation	16
54. Pfeifer, Marion - Measuring and upscaling forest functions in tropical landscapes	6
55. Piponiot, Camille - Towards a new selective logging strategy for tropical forests?	12
56. Rozendaal, Danae - Using forest plot data for independent validation of a remotely-sensed global biomass map	14
57. Saikia, Purabi - Diversity and dominance of a tropical moist deciduous forests of Ranchi, Jharkhand, Eastern India	12
58. Schepashchenko, Dmitry - Forest-observation-system.net – a global in-situ biomass data repository	4
59. Schulze, Ernst Detlef - Management breaks the natural productivity-biodiversity relationship in forests and grassland	9
60. Searle, Eric - Climate change impacts are dependent on species' life-history traits and local site conditions	5
61. Serra-Diaz Josep M. and Svenning Jens C. - Quality and coverage of accessible big data on tree species distributions	9
62. Sheil, Douglas - How trees water our planet: forests, rain and the future	2
63. Sorribas Albert- A GFBI Data Center at the University of Lleida: From data to knowledge	Plenary II
64. Sterenczak, Krzysztof - Forest monitoring – landscape scale at the single tree level	4
65. Tang Mengping - Analysis of Forest Spatial Structure Based on GIS Tang Mengping - Analysis of Forest Spatial Structure Based on GIS	14

66. Tikhonova, Elena – Tree diversity patterns across the latitudinal gradient in the Northwestern Russia	5
67. Vibrans, Alexander Christian - Nonparametric species-richness estimators enable accurate estimates of gamma-diversity in (sub) tropical forests?	10
68. Wisser, Susan - Using classification assignment rules to assess land use change impacts on national and regional forest biodiversity	7
69. Zeller, Laura - Influence of forest stand structure on productivity in comparison to the effect of species identity. A study based on global forest inventory data	4