Tropical ecology – an introduction



Lectures:

1. What is special about the tropics

abiotic and biotic characteristics of tropical ecosystems in comparison with Europe

2. Biodiversity par excellence

where it comes from and how is it maintained

3. Ecological succession in tropical ecosystems

(one of the few ecological processes we sort of understand)

4. Ecosystems in tropical landscapes

field guide for travellers in exotic countries

5. Up to the steep mountains

a stroll along altitudinal gradients, the mother of all tropical gradients

6. Panta rhei

temporal change in tropical ecosystems

7. Wooden violets & co.

on the nature of tropical vegetation

8. Animals in the forest

moving through the upper strata of the forest food web

9. History of the forest

or what is new since the Cretaceous times

10. What happened and what is happening on tropical islands evolution and ecology in "natural laboratories"

11. Fig wasps and other curiosities

tropical specialities in inter-specific relationships

12. Freshwater ecosystems

great tropical lakes and rivers

13. Coral reefs

the hotspots of marine biodiversity

14. Will they survive the year 3000?

march of civilisation in the tropics and nature conservation



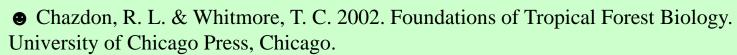
LITERATURE; core selection

- **●** Osborne, P. J. 2012. Tropical Ecosystems and Ecological Concepts. Cambridge University Press, 2nd Edition.
- Kricher, J. 2011. Tropical Ecology. Princeton University Press.
- Ghazoul, J. & Sheil, D. J. 2010. Tropical Rain Forest Ecology, Diversity, and Conservation. Oxford University Press.
- © Corlett, R. & Primack, R. 2011. Tropical Rain Forests: An Ecological and Biogeographical Comparison, Second Edition. Wiley-Blackwell Publishing.
- Chazdon, R. 2014. Second Growth. The Promise of Tropical Forest Regeneration in an Age of Deforestation. Chicago University Press.
- Ashton, P. 2014. On the Forests of Tropical Asia. Lest the memory fade. Kew Publishing
- Corlett, R 2014. The Ecology of Tropical East Asia. 2nd Ed. Oxford University Press.
- Whitmore, T. M. (1998): An Introduction to Tropical Rain Forests. 2nd edition, Oxford Univ. Press.
- Richards, P.W. 1998. The Tropical Rainforest. Cambridge University Press
- Leigh, E. G. 1999. Tropical Forest Ecology. A View from Barro Colorado Island. Oxford University Press.
- Morley, R. J. 2000. Origin and evolution of tropical rain forests. Wiley, New York





Literature: miscellaneous





• Gentry, A. H. 1990. Four Neotropical Rainforests.

Yale University Press, New Haven.



• Hubbell, S. P. 2001. The Unified Neutral Theory of Biodiversity and Biogeography. Princeton University Press, Princeton.



• Turner, I. M. 2001. The Ecology of Trees in the Tropical Rain Forest. Cambridge Univ. Press.



• Wallace, A. R. 1869. The Malay Archipelago. Macmillan, London.



• Bates, H. W. 1863. Naturalist on the River Amazons. Murray, London.



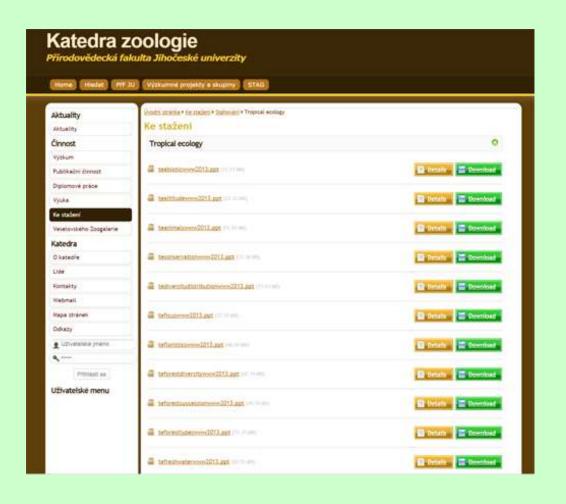
• Carson, W. and Schnitzer, S. 2008. Tropical Forest Community Ecology. Wiley-Blackwell.



● Novotny, V. 2009. Notebooks from New Guinea. Oxford University Press.

Presentations can be downloaded here:

http://zoo.prf.jcu.cz/index.php/stahovani/category/14-tropical-ecology.html



Current and past ecological research: source of inspiration (and bias!)



New Guinea Binatang Research Center

