

Jan Evangelista Purkyně University in Ústí nad Labem

Faculty of Environment

Study material

EFFECT OF CLIMATIC EXTREMES ON THE STABILITY OF
DISTURBED CULTURAL LANDSCAPE

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Aims

Introducing the students the influence of extreme weather on the landscape and ecosystems, human interference enhancing, or diminishing the resilience of human-altered landscape, and possibilities of recultivation. Influence of selected indicators of climate change (extreme weather) on the recultivation of landscape managed by heavy industry and return to the natural productive functions. Understanding of carbon fluxes between ecosystems and atmosphere and the interlink with global cycle, with an emphasis on future scenarios. Introducing the basic principles of inventarisation methods of carbon (stocks) in various ecosystems/localities.

Study topics

1. basic (socio-economic) scenarios of climate by the end of the Century,
2. impacts on the characteristics/dynamics/statistics of extreme weather,
3. enhancing/diminishing feedbacks,
4. global carbon cycle,
5. ecosystem resilience and regeneration,
6. basics of ecology and applied ecology,
7. human relationship towards nature.

Study literature

Mandatory literature

MÍČHAL, I. (1994). Ekologická stabilita. 2., rozš. vyd. Brno: Veronica. ISBN 80-85368-22-6.

Recommended literature

Vrábliková J. a kol. (2008) REVITALIZACE ANTROPOGENNĚ POSTIŽENÉ KRAJINY V PODKRUŠNOHOŘÍ, 2. část, Ústí nad Labem. ISBN: 978-80-7414-085-3.

Učebnice Krajinná ekologie: http://www.uake.cz/vyukove_materialy/frvs1269/index.html.

KOVÁŘ, P. (2014) Ekosystémová a krajinná ekologie, Karolinum, Praha, ISBN: 9788024627885 .

HOUGHTON, J (1998): Globální oteplování, Academia, Praha, ISBN: 80-200-0636-2.

BARNOSKY, AD., HADLY E (2016): Tipping Point for Planet Earth: How Close Are We to the Edge?
William Collins, Velká Británie.