Forests for Human Health - Challenges and Opportunities

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A new topic for the forest sector?

...more and more:

- articles, reports, journals
- congresses, conferences
- books
- ....
... or just old wine in new wineskins ??

- **Bavarian Forst Law 1974:**
  - Article 1, Paragraph 1: „The forest is of particular importance for the protection of climate, water, air and soil, animals and plants, the landscape and .... The has to fulfill cultural, economic, ecological, social and human-health-related tasks.
  - Article 1, Paragraph 2: This law is intended to serve in particular: (1 ... 8); No.5: ... to facilitate the recovery of the people in the forests and to improve opportunities of recreation.
  - Article 12, Paragraph 1: Forests with extraordinary importance for the recovery of citizens can be declared as “Recreational Forest” by regulation.

- **Bavarian State Forest Enterprise; Forest planning guidelines 1982:**
  - To Promote the attractiveness of forests with recreational functions through silvicultural measures like: higher harvest-ages; no sudden changes of the forest appearance; mixed forest; Insights and outlooks; no fences; preserve historical signs and traces, ....
Best practice examples

- Therapy- or Healing Forests
  - for example Heringsdorf, Island Usedom; study, page 108
- Education of Forest-Health-Guides and Foresttherapists
  - for example Kneipp-Ärztebund, Bad Wörrishofen, Bavaria
- Support and Integration of people with special needs
  - for example Weißer Rabe München; study, page 126
- Recreational or sports offers: tree-top walks; rope-courses
  - study, page 150
- Touristic offers
  - for example “Waldness”, study, page 152
Forestpedagogy is following as well **knowledge-related** as **pedagogical/competence-orientated** objectives.

Meeting places with forest-therapy-offers especially within the **ped./comp.-orientation**.

Forestpedagogy-practice is offering since > 25 years experience- and event orientated activities focusing on relaxation and well-being of people.

The positive effects of forests on human health and well-being is an important education-topic for forestpedagogys.
Main Objectives of Forestpedagogy in Bavaria (since 1992 task of forest-administration):

- To create a desire to get to know the forest.
- To pass on knowledge about forests, forest ecology and further awareness about the multifunctional forest offers.
- To communicate the need of sustainable forestry and to learn from forests as best model for sustainable development.
- To generate happiness, create desire to know the forest and to raise interest and admiration for the forest.
- To broaden consciousness and awareness about life.
- To encourage relationships – find new friends for the forest.
- To promote behavioral changes and to reflect on values.
The topic "Forests and human health" in forestpedagogy-offers in Bavaria – “Doctor Forest 2018“

- Proposals for activities, games, ... communicating about human health and ...
  - ... physical activity
  - ... forest functions
  - ... food & medicine from forests
  - ... sensory experiences
  - ... meditative experiences
  - ... creatively doing

What does research say about the effects of outdoor learning on education? (Forest schools, outdoor learning programs)?

- Outdoor learning decreases the “Child Deficit Disorder” (Louv, 2006).
- Natural environments at schools improve mental health and reduce behavioural disturbances (Flom et al. 2011).
- Children behave more harmonious (Blizard & Schuster, 2004)
- Lower levels of stress hormones (Söderström et al. 2013, Dettweiler et al. 2017)
- Better motoric function (Boldemann et al. 2006),
- Better self confidence and self esteem (Chawla et al. 2014)
- Improved writing and maths skills (Quibell et al. 2017)
- Better cognitive and linguistic skills (Yildirim/Akamca 2017, Eaton 2000),
- More motivation and concentration (O’Brien and Murray, 2007)
What does research say about the effects of outdoor learning on education? (here: Forest Kindergarten, Waldkindergarten):

- Children acting more creative (KIENER, 2003 und LETTIERI 2004)
- Creativity is stimulated (FJØRTOFT and SAGEIE, 2000; FJØRTOFT, 2004)
- The binding and relationship between children and adults is higher. This has positive effects on education and improves feeling of security (TAYLOR et al. (1998)
- Significant increase of creativity, fantasy, and motorical skills (KIENER, 2003; KIENER and STUCKI 2001; GRAHN et al., 1997; FJØRTOFT and SAGEIE, 2000; FJØRTOFT 2004)
- More intensive relationship to nature, self-confidence increases (Griffiths et al., 2010; Kiener and Stucki, 2003; Gebauer et al., 2005)
- Social competences increase (KIENER and STUCKI, 2003).
- Less illnesses, chronical diseases and allergies (GRAHN et al., 1997; KIENER and STUCKI, 2003)