



# COST Action E39

"Forests, Trees and Human Health and Well-being"

May 2004 - November 2008

23 countries - approx. 160 researchers

Chairman: Kjell Nilsson, Forest & Landscape Denmark

Vice-chair: Marcus Sangster, Forestry Commission, UK





# Background

Society today is faced with increasing incidences of poor health, related to modern lifestyles, that cannot be addressed by medicine alone.

Contributing factors:

- increasing sedentary population
- increasing levels of mental stress
- hazardous environments e.g. air pollution

Natural spaces and natural elements such as forests and trees have been seen as providing opportunities to ameliorate such trends.

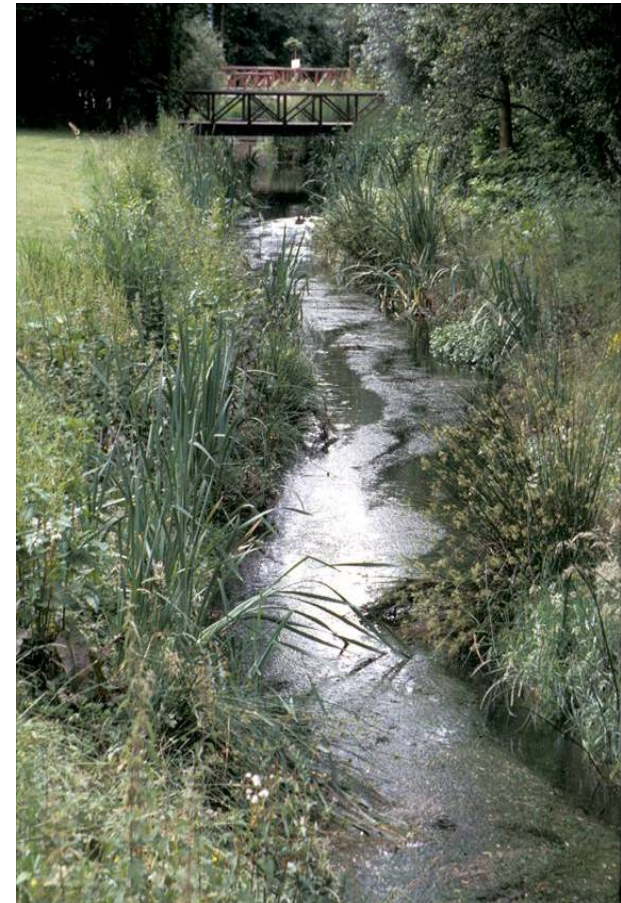




# Main objective of COST E39

To increase the knowledge about the contribution that forests, trees and natural places make, and might make, to the health and wellbeing of people in Europe.

The benefit will be a better understanding and improved description and evaluation of processes and pathways linking forests to human health and well-being





# Developing Crosscutting Approaches

Health and the environment each have their own professions and stakeholders that have distinctive research cultures.

Therefore, an important part of the Action was to explore opportunities and barriers to cross-disciplinary working.





# Impact of the Action

The national experts have prepared state-of-the-art reports

National health policies and priorities within European countries have been described

A comprehensive European textbook on Forests, Trees and Human Health and Wellbeing has been outlined and drafted, including the latest results of research and examples of good practice

International cooperation has been enhanced with researchers from the USA, Australia and Asia through joint arrangements with organisations like IUFRO (new Task Force) and ASEM

To enhance further networking and join efforts to set up innovative, international research and development projects within this field a Strategic Workshop was held in 2007 together with COST 866 and DC BMBS



# E39 Working Group 1

- Physical and mental health and well-being  
(WG leader: Terry Hartig, University of Uppsala, Sweden)





## Means of reactions to threatening scenarios in nature by men and women

	Men	Women	<i>F</i>
Fear/fascination	3.78	1.97	14.35**
Positive emotions	3.07	2.82	2.18
Negative emotions	2.60	3.18	15.29**
Approach in future	2.64	2.07	7.80**
Avoid in future	3.19	3.74	7.10*

\*  $p < .05$ ; \*\*  $p < .01$

Adapted from Table 5 in Van den Berg AE, Ter Heijne M (2005). Fear versus fascination: An exploration of emotional responses to natural threats. *Journal of Environmental Psychology*, 25, 261-272.



# E39 Working Group 2

- Forest products, forest environment and health  
(WG leader: Christos Gallis, Forest Research Institute, Thessaloniki, Greece)







# Prof. Bjarne Holmbom, Abo Academy, Finland

His research for lignans at Univ. of Turku & Åbo Akademi shows that lignans from spruce knots:

- Inhibits the growth of breast cancer (lab. tests on rats)
- Precursor to the active metabolite enterolactone (ENL)
- Strong antioxidant

TO THE MARKET!

Hormos Medical Inc.:

US-FDA approval as dietary supplement in May 2004

Linnea S.A., Locarno, world-wide production and marketing license



On the market  
in 2006



Recent research has shown that plant lignans have a positive influence on the development of breast, prostate and colon cancer which rely specifically on oestrogens in order to progress.

Lignans also help to maintain good cardiovascular health and to moderate other oestrogen-dependent health problems such as menopause symptoms and osteoporosis.

[www.hmrlignan.com](http://www.hmrlignan.com)



# E39 Working Group 3

- Therapeutic aspects including rehabilitation and outdoor education  
(WG leader: Klaus Seeland,  
Swiss Federal Institute of Technology)





# Chopwell Wood Health Project

## Methods:

Questionnaires to over 230 school pupils and staff pre and post woodland sessions, focus groups with teachers and with doctor referrals, on site survey of woodland users

## Results:

- 33 referrals to Chopwell – 91 % completed the 13 week programme
- A further 128 got involved in activities encouraged by project leader
- 229 children and a number of staff made 4 visits each to wood
- Significant increase in percentage of children regarding the wood as a “healthy place” post project from 74 % to 87 %
- Increase in number of visits to the wood by pupils and their families post project from 35 % to 42 %
- 99% of visitors in survey felt that visiting Chopwell Wood has a positive impact on their health and well-being





# E39 Working Group 4

- Evaluation in terms of best practice and economic contribution

(WG leader: Paul Mitchell-Banks, Møre Research / Fabio Salbitano, University of Florence)





# Best Practices: Ronald van Zon, translation and updating from [www.natuurengezondheid.nl/](http://www.natuurengezondheid.nl/)

**natuur en gezondheid**

ZOEK   Home   Nieuws   Uitgebreid zoeken   Contact

**Home**

**Welkom op de website Natuur en Gezondheid**

Bent u op zoek naar manieren om natuur voor gezondheid te benutten?  
 Zoekt u plekken voor uw patiënten om meer te bewegen in de natuur?  
 Bent u op zoek naar ideeën voor een natuurlijke speelplaats voor kinderen?  
 Zoekt u informatie over een zorgboerderij voor mensen met een burn-out?  
 Wilt u weten wat u voor ouderen kunt doen op het gebied van natuur?

**Dan bent u hier op het goede adres!**

Deze website geeft informatie over allerlei praktijkvoorbeelden op het gebied van natuur en gezondheid. Ook kunt u hier achtergrondinformatie over het thema Natuur en Gezondheid vinden, met name over onderzoek, het netwerk dat zich met het onderwerp bezig houdt en actuele ontwikkelingen.

De site is gemaakt voor iedereen die belangstelling heeft voor de positieve effecten van natuur op gezondheid en de mogelijkheden van praktische toepassingen. Enkele specifieke doelgroepen zijn: medewerkers van gemeenten, provincies en recreatieschappen, professionals uit de gezondheidszorg, onderzoekers, projectontwikkelaars, terreinbeheerders en zorgverzekeraars.

Op 8 oktober 2007 hebben de Raad voor Ruimtelijk, Milieu- en Natuuronderzoek (RMNO), de Raad voor Gezondheidsonderzoek (RGO) en de Raad voor het Landelijke Gebied (RLG) het adviespakket Natuur en Gezondheid gepresenteerd aan de betrokken bewindslieden. Lees verder in [nieuwsitem Sportontbijt](#).  
 Download hier het adviespakket Natuur en Gezondheid

[Beleidsadvies](#)  
[Handreikingen voor lokale bestuurders](#)  
[Kennisaagenda](#)  
[Hoofdlst inspirerende voorbeelden](#)  
[Nevenlijst inspirerende voorbeelden](#)  
[Samenvatting adviespakket Nederlands](#)  
[Samenvatting adviespakket Engels](#)  
[Fotoreportage Sportontbijt](#)

11 oktober 2007  
**Adviespakket Natuur en Gezondheid verschenen**

VROM

landbouw, natuur en voedselwettelt

Ministerie van Volksgezondheid, Welzijn en Sport

collaboration with the University of Florence, Italy



## E39 Working Group 5

- Physical activity, well-being, and prevention of illness  
(WG leader: Sjerp de Vries, Alterra, Wageningen UR, The Netherlands)





# Planning and design

Making efficient use of (expensive) urban space to create and maintain green areas and structures that stimulate people to become and stay physically active. Activity-friendly versus obesogenic environments.

Case studies, e.g.  
Park of the Nations  
(Lisbon)



Photo: Alberto Solanas





# Conclusions (1)

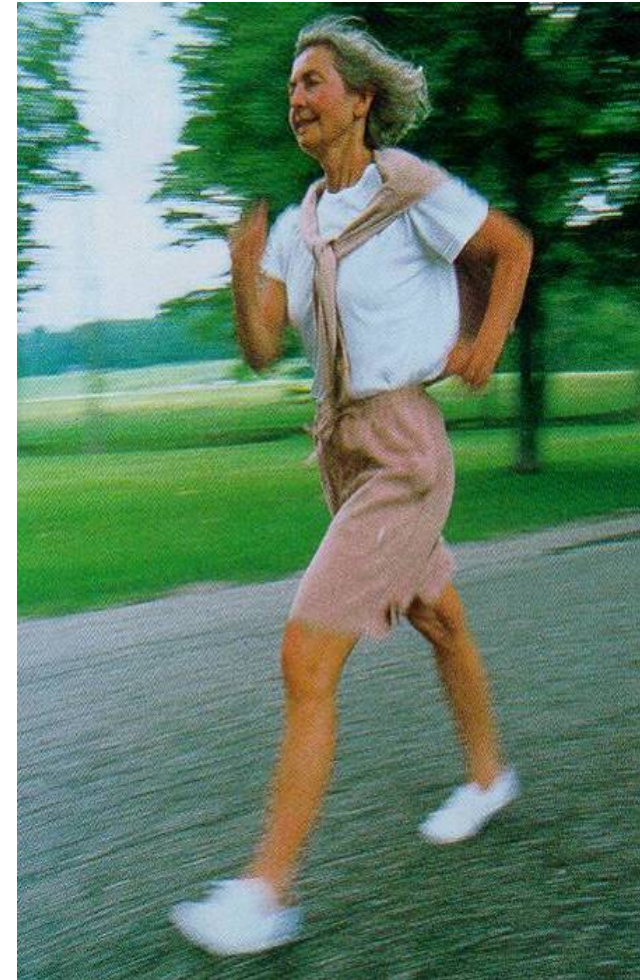
1. There are indications that substantial economic benefits are involved
2. Access to nature should be considered in public health policy in Europe
3. There are strong recognized links between social and environmental deprivation and poor health
4. There are highly positive benefits for less mobile groups from policies that promote local greenspace and woodlands





## Conclusions (2)

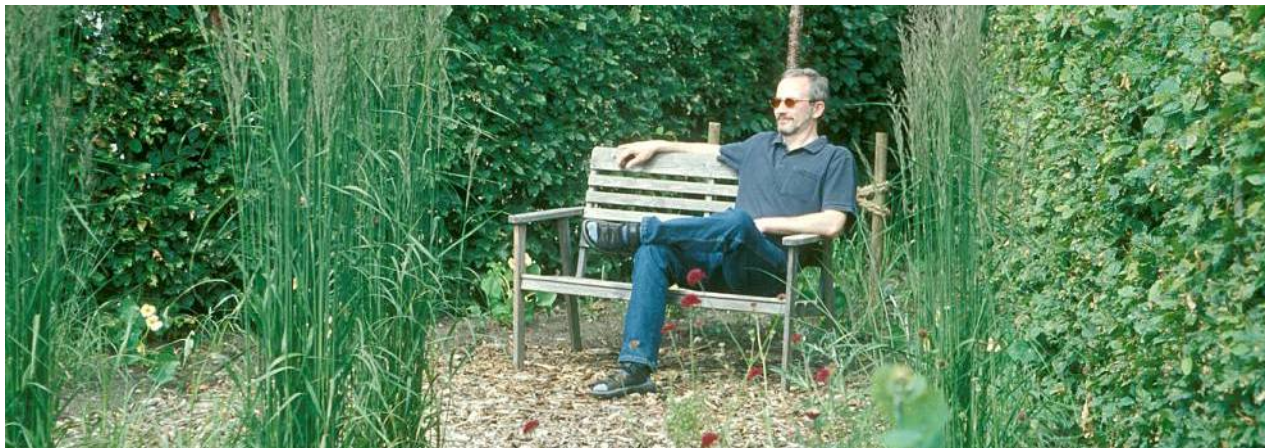
5. Current policies on health and the environment over-emphasizes environmental hazards and neglects the potential for natural environments
6. Access to nature can be a central theme in contemporary life-style based approaches
7. A more persuasive evidence base is needed on the links between natural outdoors and human health
8. Questions about health deriving from contact with nature should be incorporated in national health surveys





## Conclusions (3)

9. Health should be a central theme in urban and land-use planning
10. New research should be based on a more comprehensive catalogue of existing studies
11. Future research requires common theoretical frameworks and more robust technologies
12. More knowledge is needed about health-related products and commodities from nature





## Conclusions (4)

13. Cross-sectoral, multi-disciplinary research is needed
14. As research on the health effects of the natural outdoors is still dispersed, international networking and collaboration should be strengthened. COST and EU FP7 are suitable platforms for this endeavour
15. European research on nature and health is increasing rapidly but its multi-disciplinary nature reduces its visibility and impact





# Dissemination

