



Ministero della Salute

**Regional Capacity-Building Workshop on Biodiversity and Health for the Europe Region
Secretariat of the Convention on Biological Diversity and the World Health Organization (WHO) from 23 to 25 October 2017, Helsinki, Finland.**



Nature is good for kids' health
The “*Roots of the Future*”:
a pilot project from Italy.

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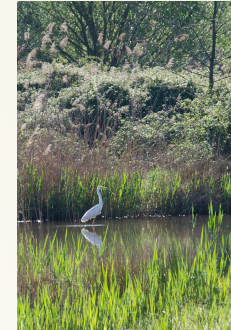
The Roots of the Future

**is a project based on the
Strategic Plan for Biodiversity 2011-2020
and the Aichi targets**

***“Living in Harmony with Nature”*, aiming at
Target 1: *“CEPA-Communication, Education,
Public Awareness.***

**It recalls the COP 13 Documents and the
Decisions XIII/6 on *“Biodiversity and human
health”* and XIII/23 on
*Capacity-building (Education).***

After a two years test, new development is being planned



- Achieving effective and permanent changes in behavior, attitudes and policies will need a **holistic approach**, involving all interested parties. These range from politicians and policymakers at the top, through teachers, health practitioners, journalists and conservationists in the center, to families, parents and children at the point of delivery.
- **Developing intersectoral policies**, which require (and reflect) the integration of education with urban planning and transport policies, to create more supportive and safer environments for children to be more active physically in all settings of daily life.
- A specific pledge to **increase outdoor learning**, by offering practical support to schools.

- Creating **better neighborhood access to nature**, both locally and in the wider countryside, in order to allow children (and adults) to experience its benefits. Offering a recognition that we need to **exploit “nature’s health service”**, in particular relating to children’s physical and mental health.
- Engaging towards the **“zoopolis”**, which is a society with no distance between urban and natural elements, where children are encouraged to become actors of ecosystems conservation through knowing and taking advantages from them.
- Involving **academic world and health practitioners in applied researches** concerning the close relationship between nature, outdoor life, well being.
- Implementing a new **cooperation** between pediatricians, schoolteachers, policy makers, families, in order to consider Nature and Outdoor life an effective medicine...



➤ **A PROJECT FOCUSED
ON CHILDREN, NATURE
& HEALTH**

- and on the disconnection of communities from open spaces, with negative implications for physical and mental well being and on the loss of “sense of place”.

The awareness of environmental values and respect for other species have been associated with reduced propensity towards anti-social behavior in children and young adults. *

** Cohab Initiative BDV and global health 1. Oct.2010*



When nature is far away from children's lives...

Without nature, life is harder...

Today many reasons take children away from Nature:

- Screen addiction. More than 35 hours for week are spent by children (UK, Italy...) in front of computer, TV, smartphone, tablets, videogames.
- Hyper protective attitudes that keep ("arrest") kids inside by parents, because of:
 - Dangerous traffic
 - Fear of strangers
- Feeling of insecurity from the outdoor playing, walking and cycling by children.
- Attitudes to risk: parents think that home is safer than the natural environment, but statistics show the opposite.
- Figures of authority are eroding children's freedom (e.g. the "criminalization" of nature play).





It's still



Our daily poisons



Each day we enter gastrointestinal and respiratory tract from high 10^{17} to 10^{19} tecnogenic molecules, largely out of vital processes

The metaphor for noise and the alteration of homeostasis



The noise disturbs the intelligibility of messages: beyond a certain critical physiological limit becomes a source of error

"Steps Towards Life: A Perspective on Evolution" - Manfred Eigen - 1992

The "psychological model" of William James: an old but new concept, recognizes two types of attention



convergent thinking

intentional fascination

many hours spent before the computer, mobile phones, television or video games:
hyper stimulation of the senses
excess concentration
detachment and escape behavior



divergent thinking

involuntary fascination

strolling in nature without purpose and free, fosters

The “Nature deficit disorder” ...an underestimate threat

Physical problems:

- Obesity (consequent type 2 diabetes)
- Vitamin D deficiency, which causes rickets
- asthma, allergic phenomena, respiratory infections for atmospheric pollution in urban area
- Chemical risk
- Reduction ability tasks, generation of weaking, decline cardiorespiratory fitness

The Nature Deficit Disorder

neologism describes the human costs of alienation from nature. Among them: diminished use of the senses, attention difficulties and higher rates of physical and emotional illness.

(Richard Louv, Last child in the woods 2005).

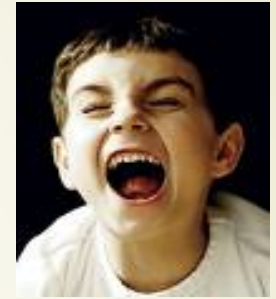


Mental problems:

- Mental disorder: Autism, ADHD (Attention Deficit Hyperactivity Disorder), Anxiety and Depression
- Declining of emotional resilience
- Declining of ability to assess risks
- Internet addiction disorder (IAD)

Children spend less time outdoors than the previous generations!

ADHD Attention Deficit Hyperactivity Disorder



- ▶ Cases of children diagnosed are significantly increasing.
- ▶ Also increasing cases of depression (66%); for the latter it is documented their relationship with the lack of movement.
- ▶ Disturbing spread of the psycho-drugs that are prescribed to children, both for depression and ADHD.



A call to action. Heard by many.



**PLANETARY
HEALTH
ALLIANCE**

HEALTHY BABIES
Nature exposure for mothers can promote:

- BETTER FETAL GROWTH¹
- HEALTHIER BIRTH WEIGHTS^{2,3,4}

HEALTHY EYES AND VITAMIN D LEVELS
Time spent in bright sunlight can:

- REDUCE NEARSIGHTEDNESS^{5,6,7}
- INCREASE VITAMIN D LEVELS⁸

NATURE CONTACT IS
especially beneficial for mothers of lower education and socio-economic levels^{9,10,11}

INCREASED PHYSICAL ACTIVITY
Access to parks and greenspace can foster:

- INCREASED PHYSICAL ACTIVITY^{12,13}
- REDUCED RISK OF OBESITY¹⁴

OUTDOOR PLAY
increases the likelihood that girls will remain active into adolescence¹⁵

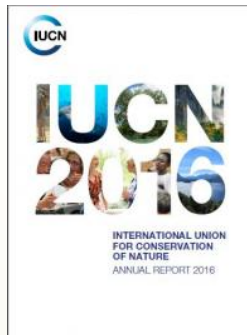
SOCIAL-EMOTIONAL WELLBEING
Learning in nature can support:

- IMPROVED RELATIONSHIP SKILLS^{16,17}
- REDUCED STRESS¹⁷, ANGER^{18,19} AND AGGRESSION^{18,19}

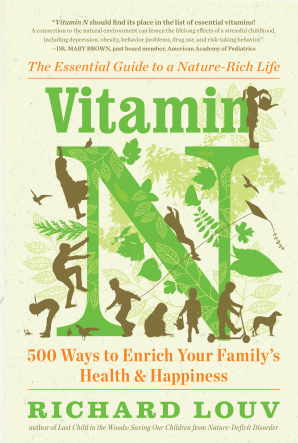
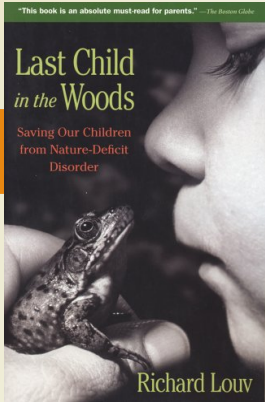
Children are better able to cope with stress when they live near trees and other greenery.^{20,21}



**#NATURE
FOR ALL**



WORLDWIDE CAMPAIGNS



leave no child inside
a chicago wilderness initiative



Every child should have the opportunity to:

- ☑ Discover California's Past
- ☑ Splash in the water
- ☑ Play in a safe place
- ☑ Camp under the stars
- ☑ Explore nature
- ☑ Learn to swim
- ☑ Play on a team
- ☑ Follow a trail
- ☑ Catch a fish
- ☑ Celebrate their heritage

Every Kid's Life List



Healthy Parks
Healthy People



Just a reminder: nature contact & benefits

- Understanding the ecosystem services that nature provides to mankind.
- Developing a sense of awareness towards the environmental threats.
- At young age, to develop the sense of taking care of and to promote commitment along the adult age

- Reduction of the epidemic of childhood obesity
- Intensification of physical exercise
- Reduction of mental health problems (ADHD, stress, depression, aggressive behaviors)
- Give a sense of self-worth
- Regenerate the attention



- More united group of people
- Reduction of illegal behaviors (e.g. incidence of crime)
- Development of "sense of belonging" to a place and attitude to take care of it
- Reduction of public expense for children's and teenagers' health care

- Improvement of formal and informal lifelong learning
- Increasing the interest in the subject through direct experience
- Enabling the connection between the outside and the interior world
- Scoring higher on concentration
- Improving the reasoning and observation skills
- Working better in teams

A PILOT PROJECT started in 2015: *LE RADICI DEL FUTURO – THE ROOTS OF THE FUTURE*

The specific aim is to serve the continuing education and the psycho-physical wellbeing, by encouraging children to get back to nature, using the park as an open classroom, promoting outdoor activities that can have a positive impact on their health.

- Pantanello (Swamplet) Nature Park, neighboring the celebrated Garden of Ninfa.
- 100 hectares wide, natural and cultural landscapes reclaimed, 70 km south of Rome. The first, and the only, Italian park dedicated to children's wellbeing.



The challenge of the project is to shift the children's role from guests to owners and advocates of the park, empowering them to manage its future "healthy" development, in order to guarantee to the children of the communities the benefits of accessible experiences, outdoors.



Have you ever seen these expressions on a child's face?

Happiness



Exploring with senses

Fascination



Observing the details of symmetry

Be lost in a piece of wood



Many questions to ask

Be surprised by the view



Flying with fantasy

Curiosity



Playing and socializing with fun

Concentrated



Learning on the field and reaching the goal

A successful experiment

Involved actors:

- 2000 students (and their families)
- 80 teachers
- 8 schools
- 20 guides and educators
- 8 municipalities
- 50 people, among personnel of State Forestry Corps and Park Rangers





concluding.....

an epistemological
exercise

Environment and / or nature?

It was Galileo Galilei in 1623 who adopted the term "environment" with which he wanted to indicate "the space within which a person or object is located"

Placed within a scientific paradigm, this attribute has found great success in many fields, including educational, social, and economic.

Today, however, a culture that is referring to the values □□ of life should more properly use the term "biosphere"

Or use the word "nature" that in ancient times was identified with concepts of fertility, maternity, and providence.

To remind

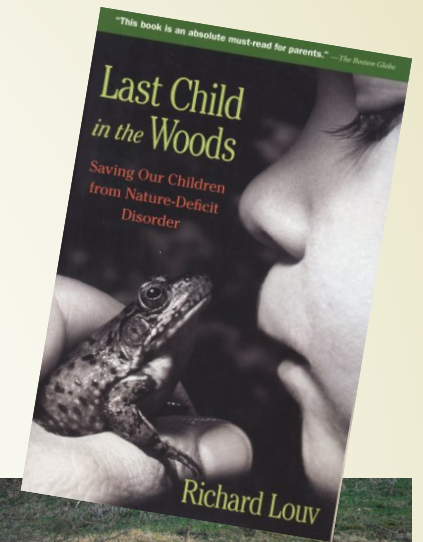


The last child of the woods



In Western culture nature is always elsewhere, an idealized dimension extraneous to the history of peoples

The animals are anthropomorphic figures, metaphors of our vices and virtues

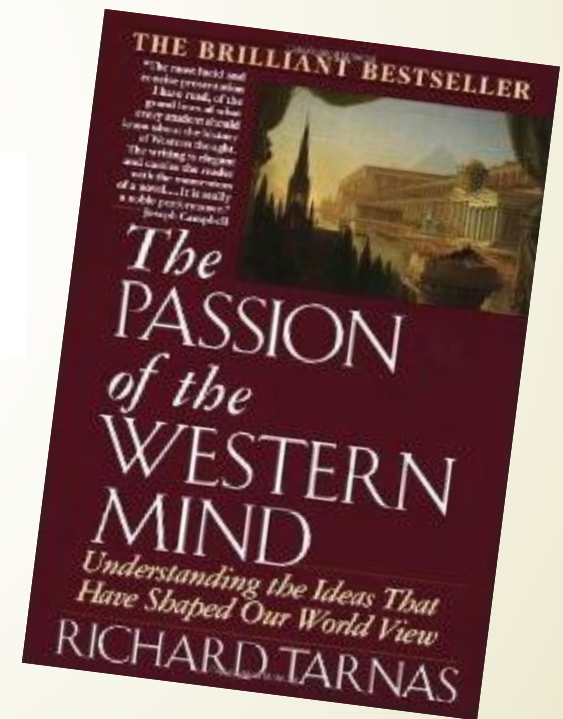


The passion of the western mind

"Considering ourselves extraneous to nature and to our historical-cultural evolution, according to Nobel Ylia Prigogine, we have a duality that is alien to the adventure of science and literary artistic culture, as well as to that passion for the intelligence that is proper to occidental world "

"That passion that is to find your own unity with the roots of your being"

R. Tarnas – "The passion of the western mind"



**...the value of the parks is life
in itself and our
participation in life itself**



Our priority: to get back more nature to children's life (and more children to nature).



**"Nature itself
is the best physician."**

-Hippocrates.

rawforbeauty.com



Children who learn outdoors know more, understand more, feel better, behave better, work more cooperatively and are physically healthier.

Thank you for your attention!