Youth Conference

Environmental Studies in Baltic Region

6-8th November, 1998, Kaunas

THE PROGRAM OF YOUTH CONFERENCE "ENVIRONMENTAL STUDIES IN BALTIC REGION"

6th November, Friday

9.00 –10.30 Registration

10.30 – 10.40 Welcome speech
Aidas Gudaitis, Aplinkos Studijų Klubas

10.40 – 10.50 Opening ceremony
prof. Romualdas Juknys, Vytautas Magnus University, Head of Senate and Department of Environmental Sciences

10.50 – 11.20 Lecture
Mika Sulkinaja, UN Development Program in Lithuania

11.20 – 11.40 Coffee break

11.40 – 13.20 Session I, Environmental Issues
11.40 – 12.00 Edita Sliažaitė "Environmental Issues in Lithuanian Army" (Lithuania)
12.00 – 12.20 Remo Merijs-Meri "Some Aspects of Polyethylene Terephthalate" (Latvia)
12.20 – 12.40 Dmitrij Žarkov "The Phases of Environmental History of a City" (Lithuania)
12.40 – 13.00 Laura Levonaitė, Violeta Vitkevičiūtė "The Analysis of Small Water Cleaning Units and Efficiency Calculation" (Lithuania)
13.00 – 13.20 Volodomyr Melnyk "Greening Lifestyle for Greening Economy" (Ukraine)
13.20 – 13.40 Ingrida Bagužaitė "Tobacco Control in Lithuania" (Lithuania)

13.30 – 15.00 Lunch

15.00 – 16.30 Session II, Environmental Values
15.00 – 15.20 Žaneta Vaitukaitytė, Žaneta Narkūnaitė "Open your mind to a new lifestyle" (Lithuania)
15.20 – 15.40 Tomas Tamulis "The Concept of Lifestyle and Sustainable Mobility Policy in the Baltics" (Lithuania)
15.40 – 16.00 Irina Fedorenko "Popularising the Interdisciplinary Approach: Case of Shaping the Principles of Sustainability" (Ukraine)
16.00 – 16.20 Ieva Balode "Ecofeminism and the Process of Globalization" (Latvia)
16.20 – 16.40 Angelika Vune "Think Environmentally, Act Regionally Shaping "Life-Beneficent Complex" (Ukraine)

16.40 – 17.00 Coffee break

17.00 – 19.00 Workshops

20.00 Official dinner

7th November, Saturday

9.30 – 11.40 Session III, Environmental Education
9.30 – 9.50 Nataliya Vakulishina "Sustainable Education: Ukrainian Aspects" (Ukraine)
9.50 – 10.10 Julius Vyšniauskas "Education System" (Lithuania)
10.10 – 10.30 Vineta Griekere "Environmental Education in Latvia and its Situation Comapring to other Countries" (Latvia)
10.30 – 10.50 Saulius Faidušas "The Strategy of Ecological Education in Secondary Schools" (Lithuania)
10.50 – 11.10 Anastasija Koldajeva, Dalia Pociūtė "The Noncommercial Advertising by Means of Mass Media and its Role to the "Green Learning" Program" (Lithuania)
11.10 – 11.30 Marika Blumberga "What Surrounds us in Latvian Cities" (Latvia)

11.30 – 12.00 Coffee break

12.00 – 13.30 Session IV, Nature and Environment
12.00 – 12.20 Ieva Leone "Presentation of Nature Studies and Environmental Education Centre DIVIC" (Latvia)
12.20 – 12.40 Maiga Cacka "Report on ILGAS" (Latvia)
12.40 – 13.00 Vitas Adomas "Dendrochronological Investigation of Forest Ecosystem" (Lithuania)
13.00 – 13.20 Piotr Kierzkowski "Human Influence on Bird Environment" (Poland)
13.20 – 13.40 Solvita Kiegele, Rita Kass "Building of Būtingė Terminal" (Latvia)

13.40 – 15.00 Lunch

15.00 – 17.00 Workshops

17.00 – 17.30 Coffee break

17.30 – 18.30 Poster session

20.00 Party!!!

8th November, Sunday

9.00 – 13.00 Excursion

13.30 – 15.00 Lunch

15.00 – 16.00 Presentation of Workshops Reports I

16.00 – 16.15 Coffee break

16.15 – 17.15 Presentation of Workshops Reports II

17.15 – 17.30 Farewell Speech
Audrone Lenceviciute, President of AEGEE-Kaunas

(14)

DENDROCHRONOLOGICAL INVESTIGATION OF FOREST ECOSYSTEM OF LITHUANIA

Adomas Vitas, Vytautas Magnus University, Kaunas Botanical Garden, Dendroclimatochronological laboratory, Laisvės al. 53, LT-3000 Kaunas, Lithuania

The annual radial increment of tree is one of the main indicators of the ecological state of the forest. Forests are the main resistance to the anthropogenetic inputs, so they play a main role in the stability of all ecosystem. Trees are the main component of the forest (evaluating accumulated phytomass). Every annual ring of a tree accumulates, through the different widths and density of late, early and annual increment, ecological conditions in which a tree grew.

Dendrochronology - a science, based on the investigations of the information in the structure of tree rings and could be used evaluating the state of a tree, stability of a stand and forest ecosystem, during the all period of a tree growing. It could also be used in reconstruction of past ecological conditions. Dendrochronology is a young science, especially developed in the middle of the 20th century and is virtually based on mathematical statistics, plant (tree) physiology, history, archaeology, forestry, climatology, astronomy, meteorology and other nature sciences. The science has been divided into some fields: dendrochronology (in the broader sence) and dendroecology (dendroclimatology, dendroglaciology, dendrohydrology) etc. The first works on dendrochronology and dendroclimatology belongs to scientists in German and USA: Bruno Huber and Andrew Elicott Douglass in the beginning and the middle of the 20th century. The first research works in Lithuania were carried out only in 1953.

Flora of Lithuania belongs to a zone of mixed conifer-broad-leaved forests. Conifers covers about 61.6% of forests area of Lithuania.. Only two species of conifers naturally grows in Lithuania and covers the biggest area: Scots pine *Pinus silvestris* L.) - 37.6 % and Norway spruce (*Picea abies* (L.) Karsten) - 24%. Conifers and Norway spruce in particular are the most sensitive trees to estimating changes of the environment. Due to it and the dominance of conifers in Lithuania, dendroclimatoecological research from 1995 has been conducted on conifers of Lithuania on 52 experimental plots on different forest types on mature stands (more than 80 years old). In every experimental plot, stems of the thirty trees has been researched by inserting an increment borer. The research enabled to evaluate increment dynamics of main tree species of Lithuania during the last three centuries (Spruce from 1814 till 1997 and Pine- 1710-1997), also with the possibilities of the reconstruction of the past ecological conditions.

Counting correlation coefficients the impact of a climate (air temperature and precipitation) on the dynamics of the radial increment was evaluated. Using the pointer year analysis, the impact of extreme ecoclimatic conditions on the tree ring widths and the stability of the ecosystem also was evaluated. Besides were researched and evaluated impact of drainage, water (lake) level fluctuations, impact of pollutants to parks and green-plantations of Kaunas city.

Other endogenous ecological factors, e.g., impact of a tree age on tree increment dynamics and others, which come across the dendrochronological research were evaluated and eliminated.