

REPORT ON THE 1ST JYVÄSKYLÄ WINTER SCHOOL OF ECOLOGY

INTRODUCTION

The Jyväskylä Winter School of Ecology was organized for the first time by the University of Jyväskylä, Department of Biological and Environmental Science and the Faculty of Mathematics and Science, in co-operation with the University of Helsinki and other partners. The Winter School took place 11th – 29th February 2008.

COURSES

Three courses, namely “Boreal Winter Ecology”, “Wildlife Ecology and Game Research” and “Winter Limnology” were organized as part of the Winter School of Ecology, the first two were held at Konnevesi research station (University of Jyväskylä) and the last one at Lammi biological station (University of Helsinki) in Lammi municipality. All three courses lasted for one week.

The descriptions of the Winter School courses can be found below:

Boreal Winter Ecology, 2 ECTS

Dates: 11.-15.2.2008

Location: Konnevesi Research Station

Description: Monday- Friday: Introductory lectures, Terrestrial ecology, vertebrates and soil ecology, evolution, environmental science, field work, setting monitoring device and starting small experiments. Excursion to Pyhähäkki National Park.

Lecturers: Hannu Ylönen (University of Jyväskylä), Jari Haimi (University of Jyväskylä), Heikki Setälä (University of Helsinki), Timo Marjomäki (University of Jyväskylä), Marko Haapakoski, Sirpa Rasmus (University of Helsinki), Tapio Keskinen (University of Jyväskylä)

Course themes:

1. Characteristics of Northern winter
2. Adaptations to cold
3. Terrestrial vertebrates in winter
4. Soil organisms and soil functioning
5. Fish and fisheries under ice
6. Snowmodeling
7. Excursions, field work, lectures, seminars

Coordinator of the course: Hannu Ylönen (University of Jyväskylä)

Wildlife Ecology and Game Research, 2 ECTS

Dates: 18.-22.2.2008

Location: Konnevesi Research Station

Description: Monday - Friday: Lectures, seminars and exercises

Lecturers: Mikko Mönkkönen (University of Jyväskylä), Pekka Helle (FGFRI), Osmo Rätti (Arctic University), Esa Ranta (University of Helsinki), Hannu Ylönen (University of Jyväskylä)

Main themes:

1. Counting wildlife and estimating population size
2. Population structures and dynamics
3. Predation and harvesting in theory and practice
4. Sustainable use and management of wildlife populations
5. Parasites and diseases
6. Wildlife population genetics
7. Wildlife-habitat associations

Coordinator of the course: Mikko Mönkkönen (University of Jyväskylä)

Winter Limnology, 2 ECTS

Dates: 25.-29.2.2008

Location: Lammi Biological Station

Description: Monday – Friday: lectures and demonstrations, Pääjärvi project, boreal lake limnology, fish biology and fisheries

Lecturers: Lauri Arvola (University of Helsinki) and Mari Ruuska (University of Jyväskylä)

Course content: Fieldwork is carried out on different lakes in order to understand the variation in conditions and the community structures of organisms in lake systems. Half of the course consists of fieldwork and the other half is laboratory work. Results are presented in seminar at the end of the course. Goal of the course is to learn about conditions that prevail in lakes during the winter and to further develop field work and laboratory skills acquired earlier.

Coordinators of the course: Kalevi Salonen (University of Jyväskylä) and Lauri Arvola (University of Helsinki)

APPLICATION AND ADVERTIZING

The preannouncement of the School included mailing of posters and advertising via e-mail and internet. The Winter School had its own web pages on the website of the Jyväskylä Summer School. The program for the Winter School was available online and

in the University's course management system, Korppi, from the beginning of October 2007. Deadline for applications was December 21st 2007. After the deadline, the course coordinators selected the students to courses.

STUDENTS

Students of the University of Jyväskylä and students from other universities applied to the Winter School of Ecology courses via electronic application form posted on the Winter School website. The School received 37 applications; 17 from the University of Jyväskylä students and 20 from other universities. In total, there were applications from eight different countries. From the applicants 36 were accepted to the School, and in the end, total of 25 students attended the School representing five different nationalities.

SOCIAL EVENTS

Visit to the city of Jyväskylä and the Department of Biological and Environmental Science, University of Jyväskylä, was organized during the first Saturday (February 16th) of the Winter School. Banquette dinner was organized during the second week of the School, on February 21st.

EVALUATION AND FEEDBACK

In order to develop the Winter School of Ecology, the students were asked to fill in a feedback form anonymously. Regarding the organization of the School, the feedback from respondents was generally quite positive. The practical arrangements were evaluated on average from "well enough" to "very well". Insufficient information distributed to the student before the courses received most critique from the students; the descriptions and timetables of courses should have been more precise. The respondents' comments on organization can be seen in Appendix I.

Students were also asked to evaluate how well the courses' contents corresponded with their expectations. All three courses corresponded "well enough" or "well" with the expectations. All three courses were also evaluated as "quite useful" for the students' career and studies. Please refer to Appendix I for the students' commentary on courses.

The most common way in which the students found out about the Winter School of Ecology was via e-mail advertisement. Other sources of information were e.g. the website, Korppi system, the Winter School poster as well as supervisors and friends.

FUNDING

The 1st Jyväskylä Winter School of Ecology was funded by the Faculty of Mathematics and Science, University of Jyväskylä, and by the Department of Biological and Environmental Science, University of Jyväskylä (Table 1.). The teaching by the staff of the Department of Biological and Environmental Science was considered as part of the teaching duty and was not budgeted, thus the contribution of the department is underestimated in Table 1. The cost estimate of the Winter School is 10 056, 83€.

Table 1. Funding and cost estimate of the 1st Jyväskylä Winter School of Ecology

Funding	€
Faculty of Mathematics and Science, University of Jyväskylä	9883,88
Dept. Biological and Environmental Science, University of Jyväskylä*	172,95
Total	10056,83

*The teaching by the staff of the University of Jyväskylä was considered as part of their teaching duty, thus it was not budgeted

Expenses	€
Accommodation and meals for visiting lecturers	665,50
Travel expenses of the visiting lecturers	516,50
Printed work	374,34
Food and drinks during the courses and for the course dinner	1228,04
Course material	17,87
Transportation	324,08
Daily allowances†	149,00
Secretarial costs	6781,50
Total	10056,83

†Daily allowances paid to visiting lecturers and Konnevesi research station staff

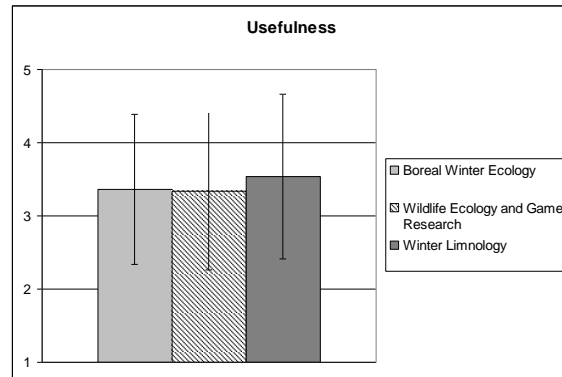
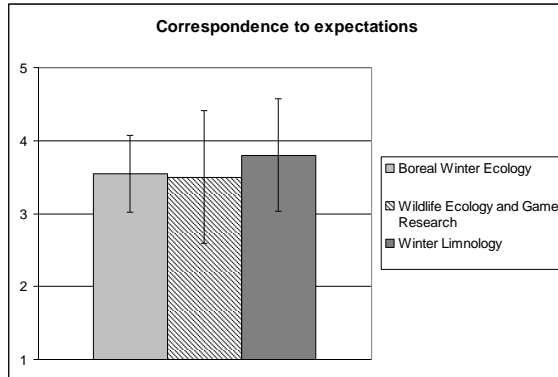
CONCLUSION

During the previous years field courses in ecology and limnology have only been offered to the students of the University of Jyväskylä, and also the University of Helsinki has organized similar courses for its own students. This was the first time that field courses handling particularly ecology and conditions prevailing during Nordic winter were offered nationally to students of other universities in Finland and also to international biology students. The Winter School offered an opportunity for students from e.g. Central Europe to learn about the very different conditions in which organisms overwinter in the North compared to more temperate climate, and with relatively low costs since all the courses were free of charge.

The Jyväskylä Winter School of Ecology was launched in 2008, and according to feedback gathered from the participants, it will be of great interest to keep organizing similar winter schools during the years to come. It will also be beneficiary if Finnish universities develop their co-operation by organizing courses together. The University of Jyväskylä and the Department of Biological and Environmental Science can especially benefit from offering high level ecology courses for international students - this is a great way of marketing its expertise throughout the world. In addition, international winter school offers a channel through which gifted degree or doctorate students can be recruited into the University of Jyväskylä.

APPENDIX 1. STUDENT FEEDBACK ON THE 1ST JYVÄSKYLÄ WINTER SCHOOL OF ECOLOGY

Feedback on courses:



5 – Very well

4 – Well

3 – Well enough (satisfactory)

2 – Poorly

1 – Not at all

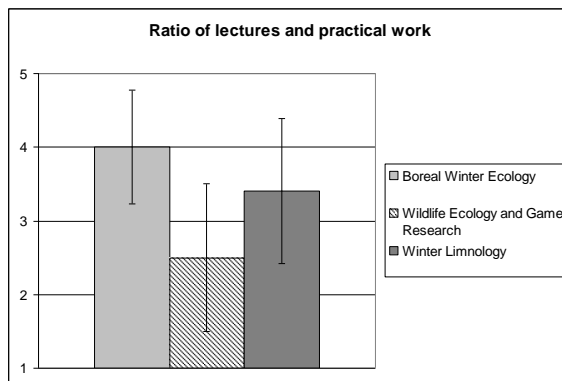
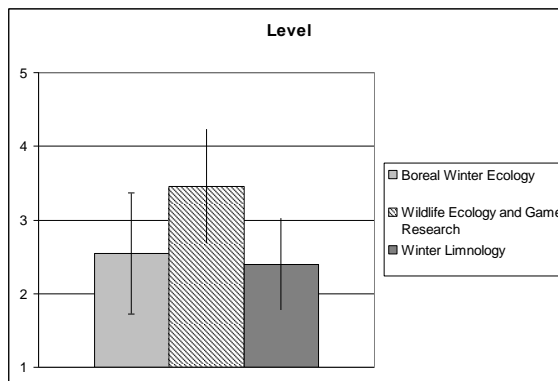
5 – Very useful

4 – Useful

3 – Quite useful

2 – Somewhat useful

1 – Not useful at all



5 – Very demanding

4 – Demanding

3 – Not easy nor demanding

2 – Easy

1 – Extremely easy

5 – Very good

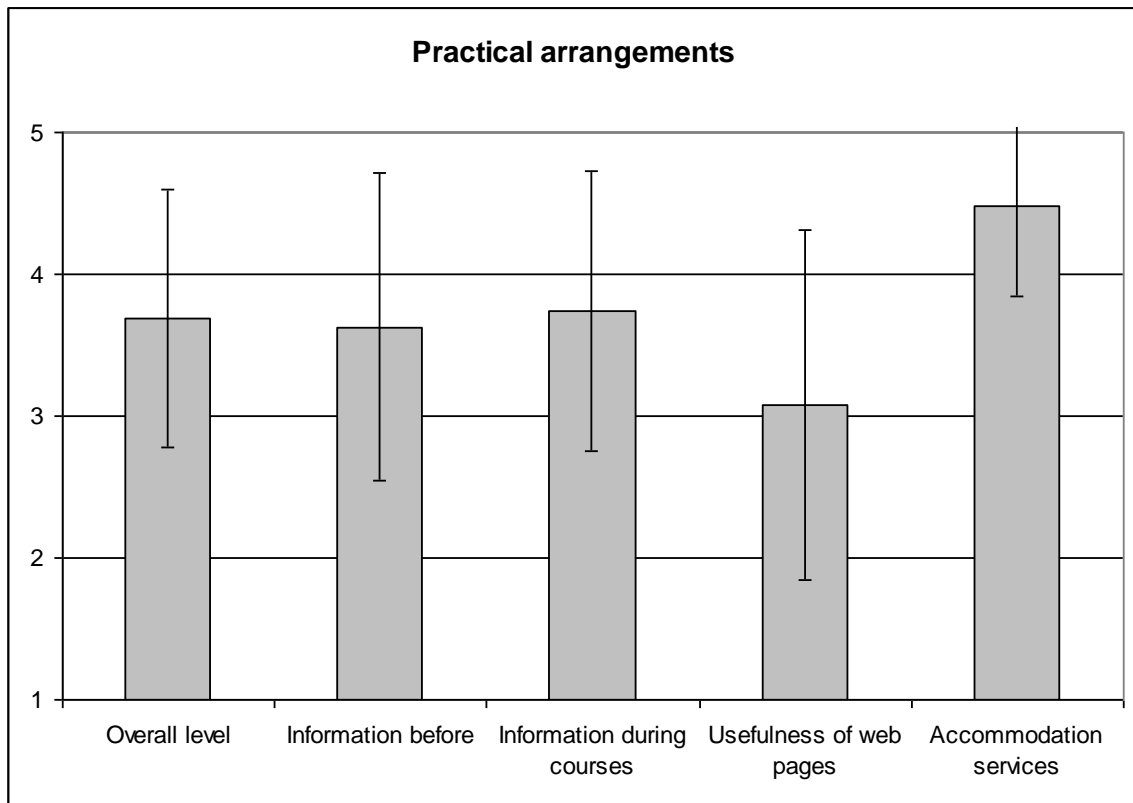
4 – Good

3 – Good enough

2 – Poor

1 – Very poor

Feedback on practical arrangements:



Overall level, Information before, Information during courses and Accommodation services – scale used:

- 5 – Very well
- 4 – Well
- 3 – Well enough
- 2 – Poorly
- 1 – Very poorly

Usefulness of web pages – scale used:

- 5 – Very useful
- 4 – Useful
- 3 – Quite useful
- 2 – Somewhat useful
- 1 – Not useful at all

Free commentary on **Boreal Winter Ecology course:**

- Mukava, että on luentokurssien lomassa tällaisia enemmän käytäntöäkin sisältäviä kursseja.
- Odotin, että kurssilla olisi ollut myös kasvien (puut, etc.) talvehtimisesta, kaikki esitelmät olisivat voineet käsitellä kurssiin liittyvää talviekologiaa (ei ollut oikein antoisaa kuunnella ihmisten kandiesitelmiä), kalaosuus oli hyvä
- At the beginning I expected more general things about winter ecology. Something like Jenna and Ulla should have in their presentation. The snow thing was very good, it was really shame that it was not proper winter this year.
- Snow lectures were really good, presentations should better fit into the overall topic of the week
- Kiva kurssi. Myyrä jutut oli kivoja ja oli mukavaa tehdä asioita käytännössä. Opiskelijoiden esitelmät olivat mielenkiintoisia, mutta kaikki eivät käsitelleet talveen liittyviä asioita.
- Nice course in general, but the contents of the lectures was a bit too much focused in winter ecology of mammals - it would have been nice to learn also something about eg. birds and plants. Practical work was interesting.
- International students and speaking English was "the best part", but the voles as well.
- To make more consistent, messy a little bit. Some stuff really interesting.
- Maybe the lecturers could have been more theoretical and more information in the lectures.

Free commentary on **Wildlife Ecology and Game Research course:**

- Liian teeri- ja metsopainottunut, ei juuri käytäntöä, vaikka Konnevedellä järjestetyillä kursseilla luulisi olevan, to ja pe ei ollut tarpeeksi osaavaa henkilökuntaa, jotta olisi saanut ohjausta "R" -ohjelman käytössä.
- Olisin odottanut laaja-alaisempaa riistatietoutta (metsäkanalinnut tuli varsin selväksi! Ehkä liiankin), suurpedot, hirvi- ja peurakannat olisi kiinnostaneet enemmän, metsästyksestä tuli hyvin tietoutta ja riistakantojen hoidosta jäi olo, että oppi uutta tietoa, R oli todella hyödyllinen, vaikkakin suunnattoman haastava (hehheh) :)
- There was too much things about grouses. Should be more general about population dynamics and genetics and population structure. Discussion was very interesting. Statistical analysis was really wonderful.
- Pekka Helle & Osmo Rätti => great, relaxed but valuable teachers, population modeling + R => interesting and useful
- It was too much about black grouse & Caipescailles! It would be better, if more variation in the examples would be presented. If you want to show examples to mentioned facts than is one graph (or two) enough -> sometimes it was too much information to one fact from different perspectives. If possible, more field work would be nice. Discussion idea was very good. Good structured lecture.
- Jotkut asiat oli tuttuja jo aikaisemmilta kursseilta mutta oli kiva kun ne esitettiin uusien esimerkkien avulla. Jatkossa esimerkkejä voisi olla esillä myös muutkin

lajit kuin teeri ja metso :). R oli liian vaikea käyttää kun ei oo ikinä sitä ennen käyttäny. En ymmärtänyt mitään!!

- The lecturers were good although the focus was quite intensively on grouses.
- More practical work would have been nice.
- Plenty of black grouse themes, splendid! Pekka & Osmo were cool and wonderful lecturers!
- Odotin enemmän asiaa riistaeläimistä, riistan ja niiden elinympäristöjen hoidosta yms. Opetuksen taso hyvää ja ilmapiiri mukavan lupsakka
- Really nice part of the course.
- The modelling session was a bit too full of information, because beside the modelling we had to learn to use a totally new program so the usefulness of the modelling business wasn't so rewarding.

Free commentary on **Winter Limnology** course:

- Kurssi oli ajatukselta mielenkiintoinen, muttei antanut periaatteessa mitään uutta. Sopii hyvin aloitteleville akvaattisten tieteiden opiskelijoille. Ainoa hyöty oli tieto jäästä, mutta sekin jäi lyhyeksi.
- I liked the course as it was nicely balanced between different forms of action: lectures, field trips, lab work. The supervisors were great and helped the students in need :)
- Should be more organized and authorized. More field works or teaching about the subject. Guest lectures would be nice too. Anyway nice course.
- Olisin toivonut enemmän luentoja ja tietenkin kurssia hankaloitti se että oli myös ulkomaalaisia mukana. Olisi ollut mukavampaa että luennot olisi pidetty suomeksi (tai oikeastaan englannin kielinen henkilö olisi pitänyt ne), sillä kaikkea ei tietenkään voi selittää niin paljon kun tietoa on koska sanavarasto ei riitä. Olisi myös hyvä jos heti kurssin alusta lähtien kaikilla olisi tiedossa mitä tehdään ja seminaareista tulisi myös paremmat jos ryhmät ja työtehtävät jaettaisiin heti kurssin alussa. Nyt oli vähän sellaista tuntua ettei kurssia oltaisi suunniteltu kunnolla etukäteen ja jokainen teki vähän mitä sattui. Mutta ehdottomasti hyödyllinen kurssi lähtökohdiltaan!
- Kenttäpäivät järvillä olivat oikein mukavia! Jäin kaipaamaan alkuperäisessä aikataulussa ollutta "jokiretkä".
- Mielenkiintoinen
- Mielenkiintoinen ja hauska kurssi. On hienoa, että myös talvella järjestetään kenttäkursseja, koska olosuhteet ovat silloin niin erilaiset kuin kesällä.
- Good organized but a little bit more "leader" (in sampling and all methods that were used).

Free commentary on the **practical arrangements:**

- Etukäteisinfo, esim. kustannuksista, kurssiohjelmasta ja aikatauluista oli puuttellista! Kuljetus Konnevedelle yliopistolta olisi voitu järjestää ilmaiseksi (oon ollut kurssilla, missä ohjaaja/joku on hakenut opiskelijat yliopiston pakulla.
- Everything was changing and we weren't informed properly. Should be clear from beginning what and when and how are we going to do. If there are any changes, these should be explained properly.
- Web pages - at the beginning it was difficult to find a page at all. Maybe more organizations for weekend programs. Trip to the National Park was really good. Vole trapping was a good introduction & a good way to get contact with the other students.
- Ruokakustannuksista, kurssiohjelmasta jne. olisi voinut ilmoitella vähän selkeämmin etukäteen. Onneksi tästä päästiin kuitenkin sopuun :)
- Everything well arranged, BUT it would have been nice to have some information of timetables beforehand. Thanks Milaja! Transporter was cool.
- Kurssin sisällöstä olisi ollut kiva tietää etukäteen. Kurssin aikana homma toimi ihan hyvin, mutta ennen kurssia ei oikein tiennyt mitä on odotettavissa.
- Maybe some organization arrangements should be more clear.
- Maybe the information we got before the course could have been more better and more of it concerning meals, timetables etc.
- Very nice topic and very good practical work
- The location (Lammi station) was good - just in the middle of nature, and the facilities in the station were also good - there was enough to do also during afternoons.
- Tuurilla satuin kuulemaan kurssista (Lammin kurssi). Tiedotus oli siten heikohkoa. Esim. sähköpostin otsikoita kannattaa miettiä. Moni tuntemani kalabiologian opiskelija ei ollut kuullut mitään tästä kurssista vaikka ilmoittautuminen oli jo päättynyt.
- Kiitos siitä, että myös Jyväskylältä oli järjestetty kuljetus Lammille.

Suggestions for improving the Winter School:

- Parempi tiedotus etukäteen (myös 2nd week lecturers olivat hämmentyneitä ja epätietoisia kurssin aikatauluista, esim. opiskelijoiden saapumis- ja poistumisajoista ja ruokailutauoista)
- Put some more general informations and then explain them on examples. There should be more examples than only grouses and bank vole. The practical things were good. I would keep them.
- Do not enlarge the group size!
- Be more precise about the contents of the winter school before the school starts -> Better informed students (would have more time to inform themselves)
- Just read feedback. And be ready for next year. THANKS.
- Better pre-course information and a bit more stuff on the lectures for the first week.

- Sometimes it would be good to force Finnish students more to speak English. A script of common species would be good (Lammi course)
- Working on smaller groups would be more efficient than just one big group (Lammi course).
- I know it was 1st of this kind, so I hope that not the last one - keep on organizing more in the coming years.
- Ks. kurssipalaute, voisi suunnitella enemmän ennen kurssille tuloa.
- Veden liikkeitä jään alla olisi voitu myös käsitellä (Lammi course).