



Bulletin

International Association for Landscape Ecology

LANDSCAPE ECOLOGY ON THE WEB

The following links show the wide spectrum of activities in our field and might be of interest to you. If you wish to suggest links for inclusion in the Bulletin, please send details to the Bulletin Editor (kienast@wsl.ch).

Sustainable Management of Natural Tropical Forests

The Manual on Criteria and Indicators for Sustainable Management of Natural Tropical Forests was prepared and published as part of the International Tropical Timber Organization's (ITTO) policy work, in the context of its broad mission of facilitating discussion, consultation and international co-operation on issues relating to the international trade and utilization of tropical timber and the sustainable management of its resource base.

<http://www.itto.or.jp/policy/pds9/contents.html>

Sustainable Tourism based on landscape-ecological research

The Centre for Scientific Tourism in Slovakia was established in 1998 as a non-profit organisation within the Slovak Academy of Sciences, Institute of Forest Ecology (www.savzv.sk), with the support of the British Know-How Fund (www.britemb.sk/khf). It collects information on valuable landscape elements and natural objects in a systematic way, evaluates and disseminates the results of its research. It prepares excursions for foreign and local universities, politicians and managers whose activities have impact on the environment.

Its prime objective is to establish and strengthen general understanding that human activity can only bring a permanent benefit to the society if it respects balance between all components of the environment.

<http://www.ecosystems.sk/index.html>

Understanding biodiversity

LANDECONET is the title of a European Commission funded research programme of the CONNECT group of Conservation Institutes. Its objectives are to develop an understanding of the biodiversity of semi-natural habitats in northern European farmland to the level where it can be applied to inform landscape and farm planning and management. In particular LANDECONET aims:

- to explain and illustrate the problem of habitat fragmentation in agricultural habitats and relate landscape pattern to the probability of survival of species populations
- to produce guidelines and standards for landscape planning
- to promote the conservation of biodiversity, develop GIS-based tools to aid the integration of ecological research with landscape planning and illustrate by example how these tools can be used
- to predict the impacts of landscape change and restoration on biodiversity and contribute to a list of indicator species which can be used to detect problems of fragmentation.

<http://www.nmw.ac.uk/ite/econet/index.html>

Protected Areas for Resource Conservation: the PARC concept in Vietnam.

The Protected Area for Resource Conservation (PARC) project aims to develop innovative methods for protecting Vietnam's highly threatened species and habitats. The principle focus being upon integrating conservation with development in order to align the welfare aspiration and development strategies of local communities in the project sites with conservation goals. The project will build upon ICDP's in the region and field test new conservation strategies and methods.

<http://www.undp.org.vn/projects/vie95g31/>

Land reclamation in a participatory way – a challenge for landscape ecology.

An example of a successful participatory approach is documented in the UK based Changing places program. Changing Places was designed to meet the needs and aspirations of local people. Community involvement through consultation and active participation has been the central principle of this exciting initiative. Environmental regeneration only succeeds where improvements are both wanted and valued by local people. When communities play a leading role in shaping their neighbourhoods, they take 'ownership' of projects. The resources created are long lasting and treasured for many years to come. More infos on research performed within this initiative on:

<http://www.changingplaces.org.uk/about-cp/about-cp.htm>

List of Graduate Programs in Landscape Ecology

Graduate Programs in Landscape Ecology, Spatial Ecology, and Biogeography: This list of schools (mostly in the US) was assembled by Jeff W. Hollister during the course of his own research on grad schools and with some help from the ECOLOG and US-IALE discussion lists. Not all of these schools have specific programs in landscape ecology, spatial ecology or biogeography; however, all of them seem to have, at a minimum, the opportunity to study the spatial aspects of ecology. It would be great if the list could be updated with information around the globe. Please leave message at jeff@edc.uri.edu.
<http://www.edc.uri.edu/personal/jeff/legrad/>

Sustainable development of tropical forests

The tropical forests of the Congo Basin represent one of the world's great remnant blocks of closed canopy habitat. This forest is under increasing pressure from population growth, unsustainable resource use, poor management, and other problems related to poverty and political instability.

CARPE is a long-term initiative by USAID to address the issues of deforestation and biodiversity loss in the Congo Basin forest zone, in the middle of the African continent. One of the least developed regions of the world, the Congo Basin, holds massive expanses of closed canopy tropical forest, second only to the Amazon Basin in area.

<http://carpe.umd.edu/>

The European Landscape Convention

In Europe and elsewhere wide ranges of habitats and species populations are becoming increasingly fragmented into isolated "islands" which are too small to be ecologically viable in the long term, especially with the growing environmental pressures from human activities. These developments inspired the European Landscape Convention. More infos:

<http://www.nature.coe.int/english/main/landscape/conv.htm>

<http://www.nature.coe.int/english/cadres/biodiv.htm>

World history archives

<http://www.hartford-hwp.com/archives/>

"Mapping Biodiversity" for kids and elementary school teachers:

Travel around the world with this on-line version of "Mapping Biodiversity." This activity is adapted from WWF's "Biodiversity Basics" - a new teaching module for middle school educators focused on biodiversity. "Mapping Biodiversity" highlights the amazing diversity of life around the world and how scientists survey and map ecoregions.

<http://www.worldwildlife.org/windows/wow/mapping/cgihtml/download.html>

For kids!

Welcome to the Fantastic Forest! Here you'll encounter a variety of habitats - places perfectly suited for particular plants and animals. These are important parts of the forest - and our environment. Think of them as pieces of a global jigsaw puzzle.

<http://www.nationalgeographic.com/forest/html/forest.html>

Japanese gardens – a long tradition in creating cultural landscapes

Japan has many landscape gardens and a 1,300-year history of gardening. It is a worthwhile experience for Landscape Ecologists to get acquainted with these highly sculptured landscapes with a rich historical tradition!

<http://jin.jcic.or.jp/nipponia/nipponia8/special.html>

<http://academic.bowdoin.edu/zen/>

Historic gardens of Kyoto, world cultural heritage:

http://www.pref.kyoto.jp/intro/trad/isan/isan_e.html

The Kyoto botanical garden:

<http://www.pref.kyoto.jp/kgb.html>

Environmental History of Latin America

The Online Bibliography for Environmental History of Latin America has now over 400 references, thanks to the invaluable suggestions of many scientists all over the field. The authors are still checking references and updating the bibliography. Suggestions are welcome.

<http://www.stanford.edu/group/LAEH/>

The IALE Bulletin is distributed six times a year to the members of the IALE. The IALE - International Association for Landscape Ecology - was founded in 1982 to promote communication between scientists, planners and interdisciplinary scientific research. IALE Executive Committee: **President:** Richard J. Hobbs (CSIRO Wildlife and Ecology, Private Bag, P.O., Wembley WA 6014, Australia), tel +61 8 9333 6442 fax +61 8 9333 6444 email Richard.Hobbs@per.dwe.csiro.au; **Past President:** John A. Wiens (USA), email jaws@lamar.colostate.edu; **Vice Presidents:** Duning Xiao (China), email Indscp@iae.syb.ac.cn; Kathryn Freemark (Canada), email kathryn.freemark@ec.gc.ca; Margareta Ihse (Sweden), email ihse@natgeo.su.se; Francoise Burel (France), email francoise.burel@univ-rennes1.fr; **Secretary General:** Michael Moss (Faculty of Environmental Sciences, University of Guelph, Guelph, Ontario, N1G 2W1 Canada), tel +1 519 824-4120 ext.4800 fax +1 519 763-4686 email mmoss@uoguelph.ca; **Bulletin Editor and Deputy Secretary General:** Felix Kienast (Swiss Federal Institute of Forest, Snow and Landscape Research WSL, CH-8903 Birmensdorf, Switzerland), tel +41 1 739 23 66 fax +41 1 737 40 80 email felix.kienast@wsl.ch; **Treasurer:** Rob Jongman (WAU, Department of Physical Planning and Rural Development), Gen. Foulkesweg 13, 6703 BJ Wageningen, The Netherlands, tel +31 317 483 713 fax +31 317 482 166 email R.H.G.Jongman@Alterra.wag-ur.nl

IALE on the Internet: IALE International: <http://www.crle.uoguelph.ca/iale/>

MEETING REPORT

GIS and Remote Sensing workshop “New sensors - innovative approaches” July 3/4 2001, Salzburg, Austria:

The workshop with over 100 participants focused on recent developments in image processing triggered by new sensors and increasing image resolution. It is argued that ‘traditional’ image processing concepts developed in the 70s (per-pixel classification in a multi-dimensional feature space) do not make use of spatial concepts. Frequently, high-resolution images show strong spatial autocorrelation, i.e. it is very likely that neighbouring pixels belong to the same land cover class as the pixel under consideration. Instead of classifying individual pixels, experts propose classification of homogeneous groups of pixels reflecting the objects of interest. This strategy, however needs algorithms to delineate objects based on contextual information in an image on the basis of texture or fractal dimension.

A surprisingly dominant topic was the automated or semi-automated delineation of ‘meaningful’ objects of the environment or landscapes, respectively. At least two presenters used Forman’s (1995) metaphor of a person gradually descending with a spaceship or balloon. Human perception abruptly starts to discover patterns and mosaics. Many mosaics are quasi-stable or persistent for a while, separated by rapid changes that represent the “domains of scale”. Each domain exhibits certain spatial patterns, which in turn are generated by certain causal mechanisms or groups of processes. Obvious trends in image analysis and classification include the utilisation of texture, general context information and semantic rules based on external information, namely from GIS. Intensive discussions followed whether this new generation of image processing techniques, mainly multi-scale image segmentation and object-oriented image analysis, allows for a more human-like interpretation and discretisation of the real world. Many researchers from the remote sensing community felt the lack of an appropriate theoretical framework concerning scale issues.

If these trends can prove to be useful over the next years for the landscape ecology community, new options for landscape monitoring may arise, e.g. automated change detection procedures based on patches rather than on pixels. By incorporating semantic rules and existing GIS information we will be able to develop a differentiated approach for the identification, classification and monitoring of complex features including cultural landscape elements and consequently we might contribute to the management of cultural landscapes.

As a result of the workshop, selected English language articles were published in a special issue of ‘GIS - Zeit-

schrift fuer Geoinformationssysteme 6/2001 (Wichmann Verlag) and a book (with mainly German language articles) will appear in November (ISBN 3-87907-369-4).

Whilst the workshop in Salzburg focused mainly on technological issues of remote sensing, this year’s US-IALE meeting and the 2001 European IALE meeting showed considerable efforts to integrate new remote sensing techniques into a broader landscape ecological framework. It is hoped, that these current trends will be addressed explicitly within IALE. A methodological framework is needed and discussion could start from the Hierarchical Patch Dynamic Paradigm (HPD) and its operational utilisation in remote sensing as theoretically suggested by Wu (1999).

A simple message from the workshop to the landscape ecology community: the remote sensing industry worked hard over many years to constantly increase the spatial resolution of available data; now the users are facing problems with high-resolution data due to a lack of sound methodological frameworks, e.g. decomposition of complexity, or applying the hierarchy theory. It is hoped that IALE can initiate some innovative developments through the revitalisation of the GIS working group. More information: Dr. Thomas Blaschke, thomas.blaschke@sbg.ac.at

BOOKS



The IALE-UK branch produces an annual volume with contributions from their regional meetings. An order form for the Proceedings can be downloaded at <http://www.wsl.ch/land/iale/bulletin.htm> (attachment to the Bulletin No. 19.4, October 2001: ftp://ftp.wsl.ch/pub/kienast/iale/Book_Order_FormUK.pdf)

THE OFFICIAL IALE-JOURNAL

IALE is the official supporter of the Journal “Landscape Ecology”. YOU determine the topics of the Journal with YOUR submission of top-quality papers! David Mladenoff the chief editor and the members of the Editorial Board are ready to assist you in the submission process. (<http://www.wkap.nl/journalhome.htm/0921-2973>)

OUR SISTER ORGANIZATION

The International Union of Forest Research Organizations (IUFRO) has a working party (WP) “Landscape Ecology”. Recently the WP has announced a couple of new activities including a Webpage and a discussion forum. In May 2002 a meeting will be held in Sault Ste. Marie, Ontario, Canada. Information: information.ofri@mnr.gov.on.ca. The chair of the WP (Thomas R. Crow) can be reached at tcrow@fs.fed.us

MEETINGS

July 13-17, 2003



First Announcement and Call for Symposia, IALE World Congress

Crossing frontiers – Landscape ecology down under: Building bridges between cultures, disciplines and approaches. Darwin, Northern Territory, Australia,

The IALE World Congress will be held in Darwin in July 2003. This promises to be a memorable event and a landmark in IALE history, since it will be the first time the world congress has been held in the southern hemisphere, and the first time it has been in the tropics.

The theme of the conference reflects the dual goals of the congress, which are to highlight the frontiers of the science of landscape ecology and to develop the integrative nature of the science. We aim to bring together participants from the range of disciplines included under the landscape ecology umbrella, candidly discuss the synergies and differences between different approaches, and explore the possibilities for increased communication and understanding between different cultures.

The venue is ideal for this purpose. Australia has developed its own, very pragmatic form of landscape ecology, taking the best from both the European and North American traditions, and is also increasingly trying to mesh traditional indigenous knowledge with more recent scientific approaches.

Darwin has a tropical climate, which in July is pleasantly warm and dry. The congress venues and program will allow for maximising interaction and participation, both within the formal sessions and in the social activities. In addition, a range of field trip options will be offered, ranging from one-day trips in the Darwin area to more adventurous trips to other parts of Australia and beyond.

We will aim to have a varied and representative scientific program, and to this end are seeking expressions of interest from people interested in organising symposia during the congress. Symposia may either be half-day or full day, and topics can relate to particular subject areas or particular geographic regions. All should relate in some way to the dual themes of frontiers in landscape ecology and of building bridges. Symposium organisers will be responsible for the development of their symposium, including selecting and inviting participants and arranging any publication that may arise. We are aiming for a standard presentation format, with all talks (except invited plenaries) allocated 20 minute timeslots

Expressions of interest should be directed to me in the first instance (preferably by email). This should include a

symposium title, and a list of potential speakers (this need not be finalised at this stage). The Scientific Program Committee will then consider all proposals, and further details of timing, content etc will be provided thereafter. More details on the congress will be available shortly – watch out for developments!

Richard Hobbs, for the Program Committee
rhobbs@essun1.murdoch.edu.au



September 10-13, 2002



11th Annual IALE-UK Conference. Avian Landscape Ecology: Pure and applied issues in the large-scale ecology of birds. University of East Anglia

Speakers to include: Dr. Rob Fuller (British Trust for Ornithology), Prof. Kevin Gaston (University of Sheffield), Dr. Shelley Hinsley (Centre for Ecology & Hydrology), Prof. Steve Ormerod (University of Wales, Cardiff), Dr. Rex Sallabanks (Sustainable Ecosystems Institute, Idaho), Prof. William Sutherland (University of East Anglia)

As for previous IALE conferences, talks and poster abstracts will be pre-published as conference proceedings. Further details available on the IALE-UK website: www.iale.org.uk/avian1.html

Contact Dan Chamberlain if interested in contributing a talk or poster at: British Trust for Ornithology, The Nunnery, Thetford IP24 2PU, UK; email: dan.chamberlain@bto.org

June 12-15, 2002

International Workshop, Protecting Nature on Private Land – from Conflicts to Agreements, organized by the European Forest Institute EFI, Lahti, Finland

Land use practices have changed, fragmented and threatened ecosystems, which has led to the need of nature protection. Conservation efforts have focused primarily on lands in the public domain. On private land, property rights have restricted conservation as well as other environmental policies. Traditional policy tools, such as juridical or administrative regulation have been criticised for their inefficiency and lack of flexibility. Core questions in improving the policy tools include

- better definitions of the policy objectives including assessment of the market and non-market values
- development of efficient site selection methods
- diversification of options for policy interventions.

We aim to bring together scientists from several disciplines to achieve an interdisciplinary view on reasons behind and consequences arising from collision of interests between nature conservation and land ownership.

Infos: http://www.efi.fi/events/2002/Protecting_Nature/