

Higher Education Environmental Performance Improvement (HEEPI)
Biodiversity on Campus
 Creating Ecological, Community and Learning Benefits
 27th August 2016
 University of Northumbria
 A joint EAUC and HEEPI workshop

Biodiversity, Curriculum and Community

Peter Vujakovic
 Geographical and Life Sciences
 Canterbury Christ Church University (CCCU)

Biodiversity on campus

Types of biodiversity

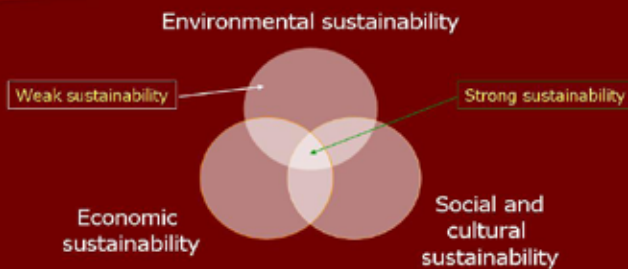
- Species diversity
- Genetic diversity
- Habitat/ecosystem diversity
- Cultural diversity?

Opportunities for curriculum and community developments?



Canterbury Christ Church University, Canterbury campus

Biodiversity and sustainability



Effective biodiversity strategy must include all three modes

Biodiversity and values/assets

Community Orchard

Direct use value
Crop and wood

Indirect use value
Carbon sink

Option value
Future use of land

Ecological value
Habitat for flora and fauna



Amenity value
Contact with nature
Scenic beauty

Social value
Access

Bequest value
protected for future generations

Historic conservation value
Rare varieties

Symbolic value
Sense of place/locality

Bio-cultural diversity on campus

- 'Green field' campus sites (Univ. of Kent – woodland, ponds, grassland, hedgerows)
- Urban sites and 'pocket' habitats (St. Gregory's churchyard (CCCU))
- Historic sites (Cambridge Backs, CCCU and UNESCO World Heritage Site)
- Country parks (Bath Spa, Salomons Center (CCCU))



William Burt - Canterbury Christ Church University

Opportunities for access and community involvement

Nature versus culture?

Contesting the primacy of 'native' species and 'natural' habitats

Human intervention and valued habitats

Is more biodiversity always better than less?

(see Petters, E., L. S. Mearns, G. (2007) Biodiversity, ecological values and priorities for conservation. National Geographic)

Cultural importance of naturalised and exotic species

Go native?

Ecological value - "Give preference to native species of local provenance"

Biodiversity on Campus (EAUC) p.25

Cultural value of naturalised and exotic plants

Oliver Rackham (1986) *The History of the Countryside*

Peter Marren (1999) *Britain's Rare Flowers*

Richard Mabey (1996) *Flora Britannica* (Concise ed. 1998)

NHM Postcode plants database <http://www.nhm.ac.uk/natureworldwide/plants/flora/postcode-plants/>

Invasive non-native species

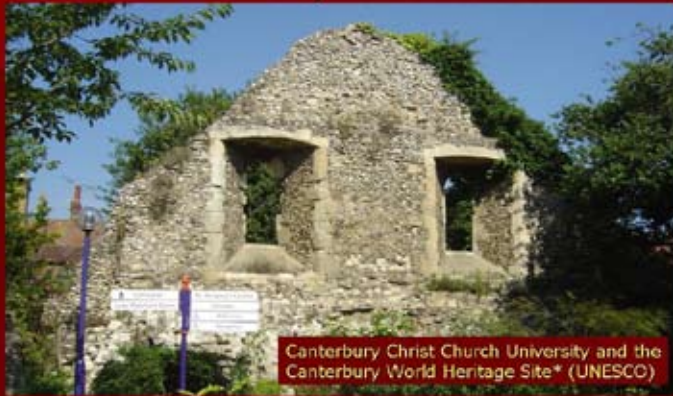
public understanding and community involvement

Harlequin ladybird Survey
 (Cambridge University/Anglia Ruskin/CEH)

Eco-racism?: the case of the grey-squirrel

Harlequin Ladybird Survey <http://www.kent.ac.uk/survey/uk/>
 The Harlequin Ladybird Society Website <http://130.253.106.114/AP/962006/bv1/AF/website/index.asp>

Biodiversity and culture



Canterbury Christ Church University and the Canterbury World Heritage Site* (UNESCO)

*Canterbury Christchurch Cathedral and Precinct; St Augustine's Abbey and St Martin's Church.

Mural ecology...

- Urban ecology* and biogeography
- Wider curriculum (e.g. maths/measurement)
- History, architecture and 'sense of place'
- Art and photography



Ivy-leaved Toadflax (*Cymbalaria muralis*)

Canterbury Christ Church University & St Augustine's Abbey walls (UNESCO World Heritage Site)

Accessible and (relatively!) safe...

*See also Urban Plant Ecology in the City of Plymouth <http://www.geopol.plymouth.ac.uk/research/levonovimurban.htm>



Substrate/building materials



Historical context



Aspect/microclimate



Community assoc./succession



Great Mullein (*Verbascum thapsus*)



Red Valerian (*Centranthus ruber*)

Pocket reserves and social value: St Gregory's and St. Martin's churchyards and Priory Gardens

- Safe environments for life-long learning and widening participation
- Local community involvement in survey and management
- History/locality studies



Living Churchyards (Yorkshire Wildlife Trust) <http://www.yorkshire-wildlife-trust.org.uk/livingchurchyards.htm#volunteers>

Economic and cultural sustainability

- Local produce and diversity
- Orchards and Biodiversity
- Rare varieties
- 'Apple days'



Apple: fruit near Ravensham in Kent is home to the National Fruit Collection, the largest collection of varieties of fruit trees in the world. Over 2,800 different varieties of apple, 200 of pear, 200 of cherry, 200 varieties of bush fruit & 1300 different varieties of...

The Rare Breeds Survival Trust <http://www.rare.org.uk/health-research.php>

Orchards and 'sense of place' Canterbury World Heritage Site



St Martin's Priory Gardens



St Augustine's Abbey

Access for all: biodiversity and social sustainability

Working with vulnerable user groups

- Young people
- Creating safe environments
- Disability access

