

## ***Interactive comment on “The impact of land-use change on floristic diversity at regional scale in southern Sweden 600 BC–AD 2008” by D. Fredh et al.***

### **Anonymous Referee #1**

Received and published: 25 January 2013

This paper reports the results of an attempt to explore the relationship between land-use and floristic diversity using fossil pollen assemblages and quantitative methods of reconstruction of vegetation cover. This is an interesting and useful contribution to the field and should have broad appeal amongst ecologists, conservationists and palaeoecologists. The paper is well written and well presented with appropriate figures and tables, and I recommend that it be accepted for publication subject to the following minor revisions, mainly for the purposes of clarification.

P.19087, line 14: what do you mean by ‘traditional’ agriculture? You say that modern agriculture is based more on crop cultivation and forestry, but a description of the more

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traditional farming methods might be helpful here.

P.19089, line 21: expansion and regression of what? Settlement? Human land-use?

P.19089, line 23 and p.19090, line 2: I would recommend that the dates for the Iron Age and medieval expansion periods are enclosed in brackets, rather than separated by commas – I think this would make the sentences read more easily.

P.19090, lines 4-6: “The uplands have been subject to slash-and-burn agriculture...” – the meaning of this sentence is unclear and it needs to be rephrased. Also, change ‘temporal’ to ‘temporary’.

P.19091, line 5: Table 1 – do you mean Table 2?

p.19091, line 24 and p.19097, line 11: Appelby = Appleby

p.19092, line 9 and p.19097, line 14: Brännvall et al. 2001 does not appear in the reference list.

P.19094, line 21: Table 2 – do you mean Table 1? All references to tables need checking thoroughly.

P.19095, line 19 and p.19105, line 3: Change ‘we are aware of that’ to ‘we are aware that’.

P.19096, line 5: proportions, not proportion.

P.19098, line 22: Why assume that *Corylus* and *Juniperus* grew mainly on open land – is it because this is where they are found today?

P.19099, line 29: recorded, not recoded.

P. 19100, line 25: This sentence is a little confusing – perhaps change to ‘the quantification of coverage of taxa related to human impact...’ rather than ‘the quantification of taxa coverage related to human impact...’

P. 19101, line 2: “some land-use occurred” – anthropogenic land-use?

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P.19091, line 8 and p.19103, line 7: agriculture, not agricultural.

P.19102, line 3: This sentence is repetitive (land-use regression) – could it perhaps be rephrased to avoid this?

P.19102, line 8: I would hesitate to refer to the Migration period as a period of 'general decline' – 'societal change' will probably do.

P.19102, line 23: REVEALS-based evenness.

P.19103, lines 7-8: This sentence is unclear and needs rephrasing. 'probably due to' instead of 'probably by the'?

p.19104, line 15: "Fagus has both significantly higher and lower coverage during this time". How can this be?

P. 19105, line 3: agricultural, not agriculture.

P. 19105, lines 25-16: This final sentence rather 'hangs' – perhaps an explanation of why it is important to provide an estimate of reaction time would be useful here.

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Interactive comment on Biogeosciences Discuss., 9, 19085, 2012.