A Manuscript Microscope 'Sentence Audit' of:

Disentangling effects of climate and land use on biodiversity and ecosystem services – a multi-scale experimental design

What is the Manuscript Microscope Sentence Audit?

The Manuscript Microscope Sentence Audit is a research paper introspection system that parses the text of your manuscript into minimal sentence components for faster, more accurate, enhanced proofreading.

Why use a Sentence Audit to proofread your manuscript?

- Accelerated Proofreading: Examine long technical texts in a fraction of the usual time.
- Superior Proofreading: Detect subtle errors that are invisible to traditional methods.
- Focused Proofreading: Inspect each individual sentence component in isolation.
- Reliable Proofreading: Ensure every single word of your manuscript is correct.
- Easier Proofreading: Take the hardship out of crafting academic papers.

Bonus 1: Improved Productivity: Rapidly refine rough drafts to polished papers.
Bonus 2: Improved Authorship: Cultivate a clear, concise, consistent, writing style.
Bonus 3: Improved Reputation: Become known for rigorously precise publications.

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Features of the Sentence Audit:

The Sentence Audit combines two complementary proofreading approaches:

1. Each sentence of your text is parsed and displayed in isolation for focused inspection.
2. Each individual sentence is further parsed into Minimal Sentence Components for a deeper review of the clarity, composition and consistency of the language you used.

The Minimal Sentence Components shown are the smallest coherent elements of each sentence of your text as derived from it's conjunctions, prepositions and selected punctuation symbols (i.e. commas, semicolons, round and square brackets).

The combined approaches ensure easier, faster, more effective proofreading.

Comments and Caveats:

• The sentence parsing is achieved using a prototype natural language processing pipeline written in Python and may include occasional errors in sentence segmentation.

• Depending on the source of the input text, the Sentence Audit may contain occasional html artefacts that are parsed as sentences (E.g. "Download figure. Open in new tab").

• Always consult the original research paper as the true reference source for the text.

Contact Information:

To get a Manuscript Microscope Sentence Audit of any other research paper, simply forward any copy of the text to John.James@OxfordResearchServices.com.

All queries, feedback or suggestions are also very welcome.

Research Paper Sections:

The sections of the research paper input text parsed in this audit.

Section No.	Headings	Sentences
Section: 1	Summary	15
Section: 2	Introduction	12
N/A	--- --- --- --- --- --- ---	0
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The Sentence Audit Of The Research Paper

Title **Disentangling effects of climate and land use on biodiversity and ecosystem services – a multi-scale experimental design**

S1 [001] Summary

S1 [002] Climate and land-use change are key drivers of environmental degradation in the Anthropocene, but too little is known about their interactive effects on biodiversity and ecosystem services.

Climate ...
... and land-use change are key drivers ...
... of environmental degradation ...
... in the Anthropocene, ...
... but too little is known ...
... about their interactive effects ...
... on biodiversity ...
... and ecosystem services.

S1 [003] Long-term data on biodiversity trends are currently lacking.

Long-term data ...
... on biodiversity trends are currently lacking.

S1 [004] Furthermore, previous ecological studies have rarely considered climate and land use in a joint design, did not achieve variable independence or lost statistical power by not covering the full range of environmental gradients.

Furthermore, ...
... previous ecological studies have rarely considered climate ...
... and land use ...
... in a joint design, ...
... did not achieve variable independence ...
... or lost statistical power ...
... by not covering the full range ...
... of environmental gradients.

S1 [005] Here, we introduce a multi-scale space-for-time study design to disentangle effects of climate and land use on biodiversity and ecosystem services.

Here, ...
... we introduce a multi-scale space-for-time study design ...
... to disentangle effects ...
... of climate ...
... and land use ...
... on biodiversity ...
... and ecosystem services.

S1 [006] The site selection approach coupled extensive GIS-based exploration and correlation heatmaps with a crossed and nested design covering regional, landscape and local scales.

The site selection approach coupled extensive GIS-based exploration ...
... and correlation heatmaps ...
... with a crossed ...
... and nested design covering regional, ...
... landscape ...
... and local scales.

S1 [007] Its implementation in Bavaria (Germany) resulted in a set of study plots that maximizes the potential range and independence of environmental variables at different spatial scales.

Its implementation ...
... in Bavaria ...
... (Germany) ...
... resulted ...
... in a set ...
... of study plots ...
... that maximizes the potential range ...
... and independence ...
... of environmental variables ...
... at different spatial scales.

S1 [008] Stratifying the state of Bavaria into five climate zones and three prevailing land-use types, i.e. near-natural, agriculture and urban, resulted in 60 study regions covering a mean annual temperature gradient of 5.6–9.8 °C and a spatial extent of 380×360 km.

Stratifying the state ...
... of Bavaria ...
... into five climate zones ...
... and three prevailing land-use types, ...
... i.e. near-natural, ...
... agriculture ...
... and urban, ...
... resulted ...
... in 60 study regions covering a mean annual temperature gradient ...
... of 5.6–9.8 °C ...
... and a spatial extent ...
... of 380×360 km.

S1 [009] Within these regions, we nested 180 study plots located in contrasting local land-use types, i.e. forests, grasslands, arable land or settlement (local climate gradient 4.5–10 °C).

Within these regions, ...
... we nested 180 study plots located ...
... in contrasting local land-use types, ...
... i.e. forests, ...
... grasslands, ...
... arable land ...
... or settlement ...
... (local climate gradient 4.5–10 °C).

S1 [010] This approach achieved low correlations between climate and land-use (proportional cover) at the regional and landscape scale with $|r \leq 0.33|$ and $|r \leq 0.29|$, respectively.

This approach achieved low correlations ...
... between climate ...
... and land-use ...
... (proportional cover) ...
... at the regional ...
... and landscape scale ...
... with $|r \leq 0.33|$ ...
... and $|r \leq 0.29|$, ...
... respectively.

S1 [011] Furthermore, using correlation heatmaps for local plot selection reduced potentially confounding relationships between landscape composition and configuration for plots located in forests, arable land and settlements.

Furthermore, ...
... using correlation heatmaps ...
... for local plot selection reduced potentially confounding relationships ...
... between landscape composition ...
... and configuration ...
... for plots located ...
... in forests, ...
... arable land ...
... and settlements.

S1 [012] The suggested design expands upon previous research in covering a significant range of environmental gradients and including a diversity of dominant land-use types at different scales within different climatic contexts.

The suggested design expands ...
... upon previous research ...
... in covering a significant range ...
... of environmental gradients ...
... and including a diversity ...
... of dominant land-use types ...
... at different scales ...
... within different climatic contexts.

S1 [013] It allows independent assessment of the relative contribution of multi-scale climate and land use on biodiversity and ecosystem services.

It allows independent assessment ...
... of the relative contribution ...
... of multi-scale climate ...
... and land use ...
... on biodiversity ...
... and ecosystem services.

S1 [014] Understanding potential interdependencies among global change drivers is essential to develop effective restoration and mitigation strategies against biodiversity decline, especially in expectation of future climatic changes.

Understanding potential interdependencies ...
... among global change drivers is essential ...
... to develop effective restoration ...
... and mitigation strategies ...
... against biodiversity decline, ...
... especially ...
... in expectation ...
... of future climatic changes.

S1 [015] Importantly, this study also provides a baseline for long-term ecological monitoring programs.

Importantly, ...
... this study also provides a baseline ...
... for long-term ecological monitoring programs.

S2 [016] Introduction

S2 [017] Human actions are threatening the interdependent yet fragile balance of the biosphere, with far-reaching consequences for the diversity of plants (Brummitt et al., 2015) and animals (Dirzo et al., 2014).

Human actions are threatening the interdependent ...
... yet fragile balance ...
... of the biosphere, ...
... with far-reaching consequences ...
... for the diversity ...
... of plants ...
... (Brummitt et al., 2015) ...
... and animals ...
... (Dirzo et al., 2014).

S2 [018] As biodiversity contributes a wealth of ecological services, cascading effects and reassembly of communities jeopardize human well-being and biosphere's resilience against current and future disturbance (Chaplin-Kramer et al., 2019; Mori et al., 2018).

As biodiversity contributes a wealth ...
... of ecological services, ...
... cascading effects ...
... and reassembly ...
... of communities jeopardize human well-being ...
... and biosphere's resilience ...
... against current ...
... and future disturbance ...
... (Chaplin-Kramer et al., 2019; ...
... Mori et al., 2018).

S2 [019] Many of the services, such as food provisioning, decomposition or maintenance of soil fertility, rely on biotic interactions potentially sensitive to global change.

End of Sample Audit

This is a truncated Manuscript Microscope Sample Audit.

To get the full audit of this text (or any other research paper),
forward a copy of the research paper to John James at
John.James@OxfordResearchServices.com
