### **Response Referee 1**

#### Line 80: ORCHIDEE model. Please provide reference.

Done.

Lines 80-81 and 846-848: Kinner et al., (2005)

# Line 195: "(particular for each variable, depending on the maximum and minimum value of it)." This continues to sound weird. I suggest you check with a native English speaker to fix it. I don't understand what you mean.

Done.

Lines 193-194: First, the factors were scaled between 1 and 100 through a linear function per biome.

#### Line 261: Pereira et al. (2020) is missing from the list of references.

Done.

Line 260 and 895: Pereira, H. M., Rosa, I. M. D., Martins, I. S., & Al., E. (2020). Supplementary Materials for Global trends in biodiversity and ecosystem services from 1900 to 2050. Science, 1, 1–5.

### Line 282: After "Firstly..." please clarify who performed the grouping reported: yourselves, or Shlisky et al. (2007)?

Done.

Line 281: Firstly, in this database,...

### Line 284: Are you specifically talking about forests, or are you using the expression "forest fire" to mean the broader concept of "vegetation fire"?

Done.

Line 283: management tool (deleted forest)

### Line 286: The misunderstanding I pointed out earlier remains uncorrected here: a fireindependent fire regime is a contradiction in terms. It's ecoregions that can be fireindependent, not fire regimes. Without fire, there is no fire regime.

Done.

Lines 285-286: The first grouping includes fire-dependent, sensitive and independent ecoregions, while the second classifies ecoregions according to intact, altered and highly altered respect the first classification.

#### Line 338: please correct "on-at-a-time", it's "one-at-a-time".

Done.

Line 337: One-at-a-time

Line 388: "the most resilient areas of the planet (very high or high Adaptation to Fire values and low or moderate Potential Soil Erosion) are in the temperate broadleaf and mixed forests of northern Europe...". Fire a uncommon event in these forests. Please justify these scores in ecosystems with very limited evolutionary exposure to fire.

Done.

Line 388: are in the temperate broadleaf and mixed forests of the northern Europe (deleted). Line 588-592: Another example would be that the most resilient areas on the planet (very high or high Fire Adaptation values and low or moderate Potential Soil Erosion) are found in the temperate broadleaf and mixed forests of northern Europe when fire is a rare event in these ecoregions and thus lack a history of fire-attuned evolution.

## Line 471: Punctuation: "High, (insert comma here) reaching higher numbers of ecoregions (+95) and Low, (insert comma here) decreasing its...".

Done.

Line 570: High, reaching higher numbers of ecoregions (+95) and Low, decreasing its number of ecoregions considerably to 14 (-65).

Line 583-4: The issue described here is a flaw of the method, which should be acknowledged as such. Please mention that it will be corrected in future revisions of this work. This is the type of bias that may affect the formulation of public policies, not to mention that it may discredit the work in the eyes of fire ecologists from these ecoregions.

Done.

Line 597: Despite this, these uncertainties will be explored for future versions.