We appreciate your comments on our manuscript.

English issue: The modified version of the manuscript is now read by a native english speaker and we have incorporated his suggestions carefully . We have also checked our manuscript text via professional grammarly software to avoid typographic errors. (Please refer acknowledgement)

In the following section, we have addressed your comments, and the required changes have been made in the revised version of the submitted manuscript.

Point 1: I had however extreme difficulties to follow the whole text which is too long and unfocused, and mostly only interesting to readership working on that specific species. The main results are not clearly stated and discussed, and the authors more or less structured their discussion on the reporting of the results from other studies. I would rather see clearly each significant result discussed one after the other, and this was only partially done at the beginning of the discussion:

the effect of volume on defoliation

the effect of defoliation on the growth

the difference in pathogen attack among provenances

growth performance of the different provenances taking into account or not needle cast

performance of coastal vs. inland subspecies: recommendations for Central Europe

comparison of same provenances with other stands

Response 1: Thanks for your advice. We have modified some parts in the discussion dealing with the research trials at Bulgaria (line 379-392). We found a strong negative correlation between defoliation and volume of the tree. We have now added more information about the origin of provenances in Table 2 and Figure 2.

Here are some key points incorporated in the revised version of the manuscript:

The defoliation of crown was significantly negatively correlated with volume (-0,6) as well as with thickness difference (-0,6).

The difference in pathogen attack among provenances was not evaluated, and hence it is not possible to mention which one is causing more damage and which provenances are more susceptible.

Inland provenances are more susceptible than coastal. Please refer Lines 437-438:

The inland provenances like 1010, 1021 are more susceptible than coastal ones, which corresponds well with our present findings.

Douglas fir stands have been planted in the past from commercial seeds without any precise information about their origin (often only state, e.g., Washington). For this reason, the results from the research trial is not compareable with the other existing Douglas fir stands planted in the past. However, high-resolution genetic markers (SSRs) are available (Slavov et al., 2004) to identify the origin of the older Douglas fir stands.

Specific comments:

Point 2: Figure 1: the map should be in a GIS program instead of google maps, the labels would be easier to read, especially if the reader does not use a color copy

Response 2: Now it’s edited in GIS – Figure 1.

Point 3: Figure 4 is difficult to understand

Response 3: Now it is modified for better understanding of the reader. Please refer Figure 4 and its legend.