Sensitivity of different BVOC emission schemes in WRF-Chem (v3.6) to vegetation distributions and its impacts over East China

Abstract (Line – comment)
41 - ... the version of WRF-Chem updated... ⇒ You should use the acronym since it is the first time you mentioned WRF-Chem.

1. Introduction (Line – comment)
115 - ... and therefore is mainly used in previous studies (e.g., (Guenther et al., 1996.... ⇒ I think the double parenthesis is a typo...
132 - production over East China (e.g., (Han et al., 2005; Wei et al., 2007; ⇒ as line 115

General comment on abstract and introduction
The abstract and introduction have a well-defined and clear structure, but for few mistakes along the way, they look fine.

2. Methodology (Line – comment)
171-182 – I think you could use a table to summarize the configuration of WRF-Chem.
191 – Since you introduced the update made in MEGAN v2.1 by Zhao et al. 2016, I think you can move the lines 224-230 (from Zhao et al to Zhao et al...) here.
259-260 – the sentence “(referred to as VEG-USGS hereafter)” is a repetition, you could delete it
262 – The acronym of MODIS is missing
285-295 – A map of the simulation domain could be clarifying the visualization of it to the readers.
296-313 – As the WRF-Chem configuration you can use a table summarizing the chemical mechanism and emissions used, maybe you could use one table for the whole WRF-Chem setup.
313 – Typo in the citation Zhao et al.

General comment on the methodology
The methodology paragraph is well-structured as the introduction, but I think you should go through the paragraphs and represent more efficiently the simulation domain and (physic and chemistry) parametrization by a table and/or map.

3. Results (Line – comment)
357 – I think the reference should be to Fig. 3 instead of Fig. 4
386 - The word “unban” is a typo.
Fig. 5 – If you write on the caption the number of PFT for needle-leaf evergreen tree, broadleaf evergreen tree and broadleaf deciduous tree, it could be clearer to the readers.
Fig. 6 – It could be better to explain the ration in the caption, as you did in the Fig. 7 (i.e., “...between simulations in July and that in April...”)
Fig. 8 – The plot misses of the axis values.
463-472 – I think you should introduce here the Guenther et al., 2006 citation.
4. Summary and conclusion (Line – comment)
No comments

General Comment on results and conclusion
1) I very appreciated as you presented the results and I believe it is a very useful study since you clarified some of the main changes between the different version of MEGAN models.
2) The study lacks an exhaustive comparison with the observed data of BVOC, I appreciate your commitment in reporting data from the literature to get a general idea of the comparison, but I think that this aspect should be deepened, perhaps with the next study.