

## ***Interactive comment on “Australian vegetation phenology: new insights from satellite remote sensing and digital repeat photography” by Caitlin E. Moore et al.***

**Anonymous Referee #1**

Received and published: 12 May 2016

Dear authors,

Authors well summarised the plant phenology in Australia by analysing the satellite- and in situ-observed remote-sensing data. They also focused on the PhenoCam activities in Australia. I was excited to read and inspired many ideas. From the plant climatological view point, the long-term continuous phenological observations by using time-lapse cameras and satellite remote-sensing are pretty important. I expect further studies such as the evaluation the relationship between spatio-temporal variability of plant phenology and climate change in Australia. Please conduct further studies based on the current study in near future. The manuscript was written well. So, I'd like to recommend to accept this manuscript after the following minor revisions.

C1

1: I think it's not so easy for readers who have no background of climatology and ecology in Australia. Please show the map of annual mean air temperature, annual precipitation, Coppen climate classification, and land cover classification.

2: page 7, line 25: Please explain "NSW".

3: page 8, line 21: Please explain "QA/QC".

4: page 8, line 32: Please explain "RCC and BCC".

5: page 9, line 15: In Malaysia, the general flowering was occurred after severe dryness events. Please see the following paper.

Sakai, S., Harrison, R.D., Momose, K., Kuraji, K., Nagamasu, H., Yasunari, T., Chong, L., Nakashizuka, T., 2006. Irregular droughts trigger mass flowering in aseasonal tropical forests in Asia. *American J. Botany* 93(8), 1134–1139.

In addition, the following paper analysed Gcc in a tropical rainforest in Malaysia.

Nagai S, Ichie T, Yoneyama A, Kobayashi H, Inoue T, Ishii R, Suzuki R, Itoaka T (2016) Usability of time-lapse digital camera images to detect characteristics of tree phenology in a tropical rainforest. *Ecological Informatics*, 32:91–106.

6: Page 9, lines 29-36 (Fig. 2): Can you explain the reason of characteristics of tree phenology in each species?

7: page 15, line 7: Garbling? 1988–2008

8: page 24: Please explain "WA".

9: Figs 2-6: Please show the Coppen climate classification, the location of each site on Fig. 1, the site ID shown in Fig. 1 (number).

10: Figs 2, 5, and 6: Please show the typical phenology images throughout a year.

11: Figs 4-6: Please explain "(L)" and "(R)".

C2

12: Fig 5: wingscapes; Camera name?

13: Fig 5: GCC\_Win, Gcc\_Rpi -> Understory Gcc, Overstory Gcc

Best wishes,

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