# Article information:

Forest phenology and a warmer climate – growing season extension in relation to climatic provenance - Gunderson - 2012 - Global Change Biology - Wiley Online Library  
<http://onlinelibrary-wiley-com-s.vpn.imu.edu.cn:8118/doi/10.1111/j.1365-2486.2011.02632.x>

# Article summary:

1. A 4-year field experiment exposed four deciduous forest species from contrasting climates to air temperatures 2 and 4°C above ambient controls.

2. Results showed that leaves emerged earlier in all species by an average of 4–9 days at +2 °C and 6–14 days at +4 °C, with the least impact in Quercus.

3. Growing seasons in the warmer atmospheres averaged 5–18 days (E2) and 6–28 days (E4) longer, according to species, with the least impact in Quercus.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides a detailed description of the experiment conducted, its results, and their implications for predicting forest responses to warming climates. The authors provide evidence for their claims by citing relevant literature and providing data from their own experiment. The article also acknowledges potential biases such as variation in other environmental factors that may affect stand-level impacts of warming temperatures.

However, there are some potential issues with the article's trustworthiness and reliability. For example, the authors do not explore any counterarguments or present both sides equally when discussing the implications of their findings for predicting forest responses to warming climates. Additionally, they do not discuss any possible risks associated with their findings or acknowledge any limitations of their study design or results. Finally, while they cite relevant literature throughout the article, they do not provide any evidence for some of their claims which could be seen as unsupported or incompletely supported by evidence.

# Topics for further research:

* Forest responses to climate change
* Impacts of warming temperatures on forests
* Risks associated with climate change
* Limitations of experimental design
* Counterarguments to climate change predictions
* Evidence for climate change predictions

# Report location:

<https://www.fullpicture.app/item/a4d0f30ee21dcf1fb5f54d0f4e3cd6ac>