In lieu of a cover letter, authors must answer the following questions during submission (max 50 words per answer):

1. What is the scientific question you are addressing?

What are the effects of increasing fire frequency, specifically short-interval reburning, on aboveground and soil carbon stocks in boreal black spruce stands in Interior Alaska, and how do cumulative severity, stand structure, and composition contribute to these effects?

1. What is/are the key finding(s) that answers this question?
2. Increasing fire frequency, particularly short-interval reburning, leads to a decline in total carbon stocks in reburned boreal black spruce stands in Interior Alaska.
3. Despite the increase in tree density due to the presence of faster-growing deciduous trees, additional fires result in reduced carbon stocks.
4. Cumulative severity of multiple fires has the most significant impact on both aboveground biomass and soil carbon stocks, particularly in upland stands.
5. The effects of continued reburning on carbon storage may vary across different topographic positions, indicating that the impacts differ depending on the specific site characteristics.
6. Why is this work important and timely?

This study investigates the impact of increasing fire frequency on carbon stocks in boreal ecosystems, focusing on Interior Alaska. The findings reveal that more frequent fires alter forest structure and composition, influencing carbon storage. While fast-growing broadleaf species may increase aboveground biomass in reburned areas, the cumulative severity of multiple fires can impact carbon-rich soil layers. The research enhances our understanding of carbon dynamics in boreal forests, particularly in the face of emerging reburning, and contributes to the broader knowledge on the effects of disturbances on carbon storage. This work is important and timely as it addresses the implications of changing fire regimes on carbon stocks, which have significant implications for climate change mitigation strategies and ecosystem management.

1. Does your paper fall within the scope of GCB; what biological AND global change aspects does it address?

The paper described in the abstract would be an excellent fit for the Global Change Biology journal due to its alignment with the journal's scope. The study addresses the interface between biological systems and environmental change, specifically focusing on the effects of changing fire regimes on carbon stocks in boreal ecosystems. The research investigates both biological responses and feedbacks to fire-induced environmental changes, contributing to our understanding of carbon dynamics in the context of global change. This paper's exploratory approach, coupled with its empirical findings, would make it a valuable addition to Global Change Biology's collection of primary research articles, providing insights into the implications of disturbances on carbon storage in the face of global change.

1. What are the three most recently published papers that are relevant to this question? This information will assist the Editors in selecting reviewers

Three recently published papers relevant to this question include:

1. Mack, M.C., Walker, X.J., Johnstone, J.F., Alexander, H.D., Melvin, A.M., Jean, M. and Miller, S.N., 2021. Carbon loss from boreal forest wildfires offset by increased dominance of deciduous trees. *Science*, *372*(6539), pp.280-283.
2. Pellegrini, A.F., Harden, J., Georgiou, K., Hemes, K.S., Malhotra, A., Nolan, C.J. and Jackson, R.B., 2022. Fire effects on the persistence of soil organic matter and long-term carbon storage. *Nature Geoscience*, *15*(1), pp.5-13.
3. Stevens-Rumann, C.S., Prichard, S.J., Whitman, E., Parisien, M.A. and Meddens, A.J., 2022. Considering regeneration failure in the context of changing climate and disturbance regimes in western North America. *Canadian Journal of Forest Research*, *52*(10), pp.1281-1302.