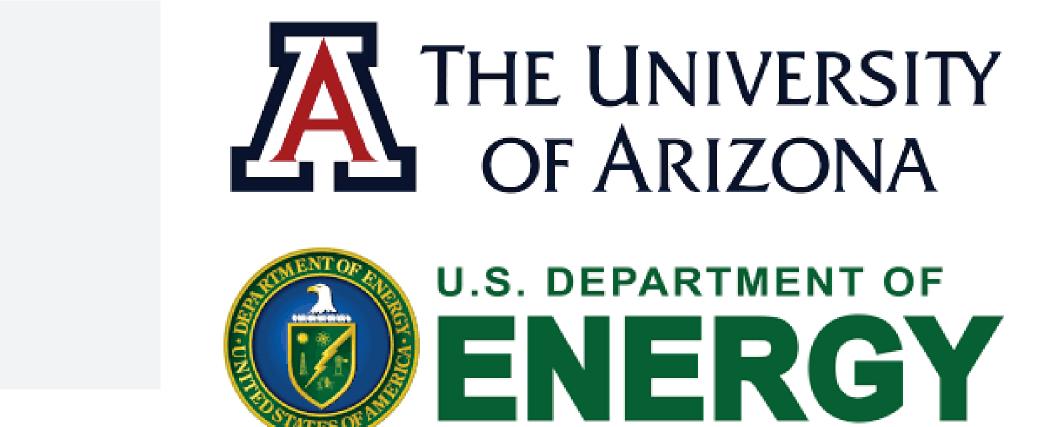


## Insights into the daily emissions and consumptions of methane and nitrous oxide from tropical tree stem surfaces



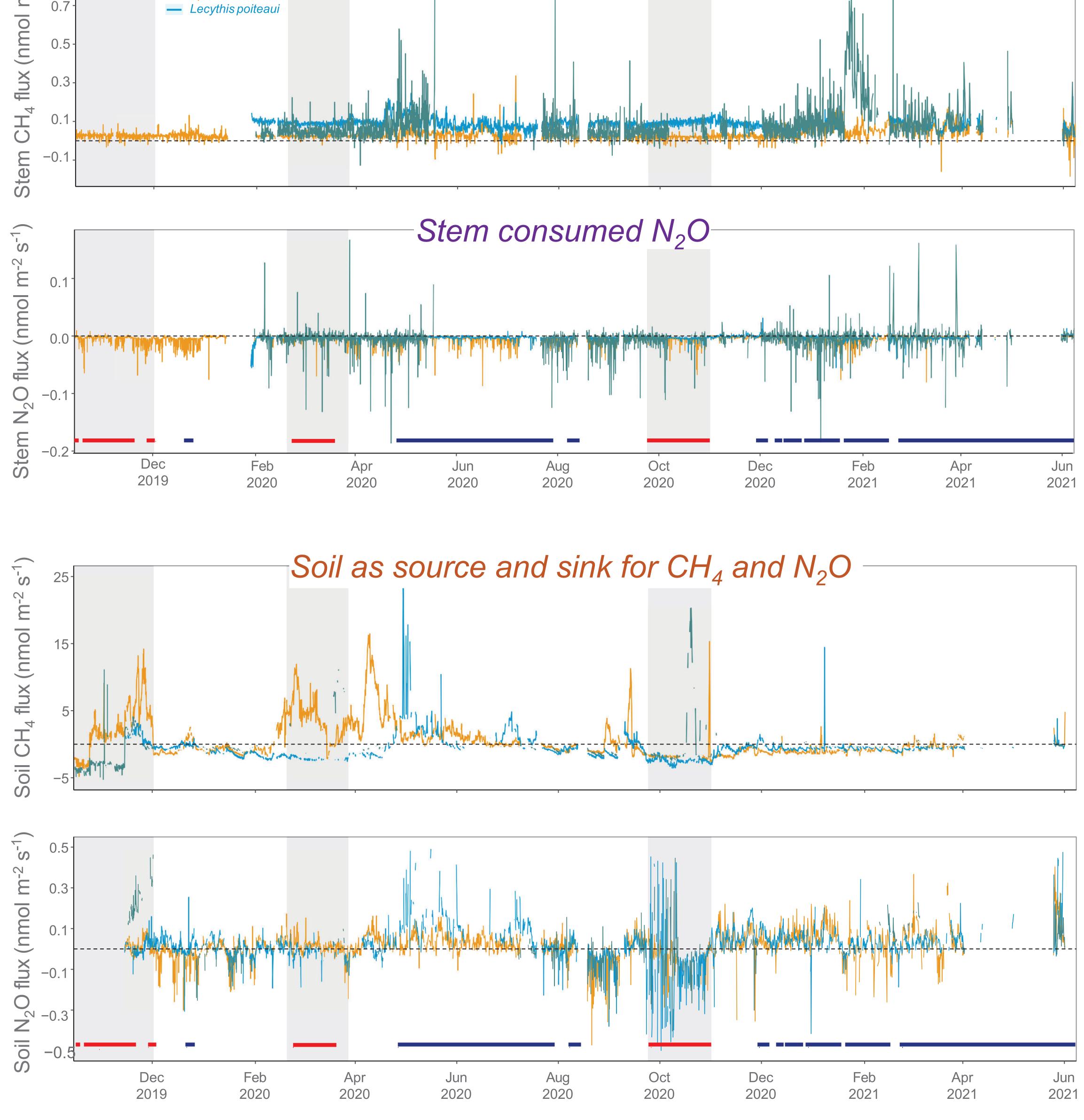
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## Supplementary

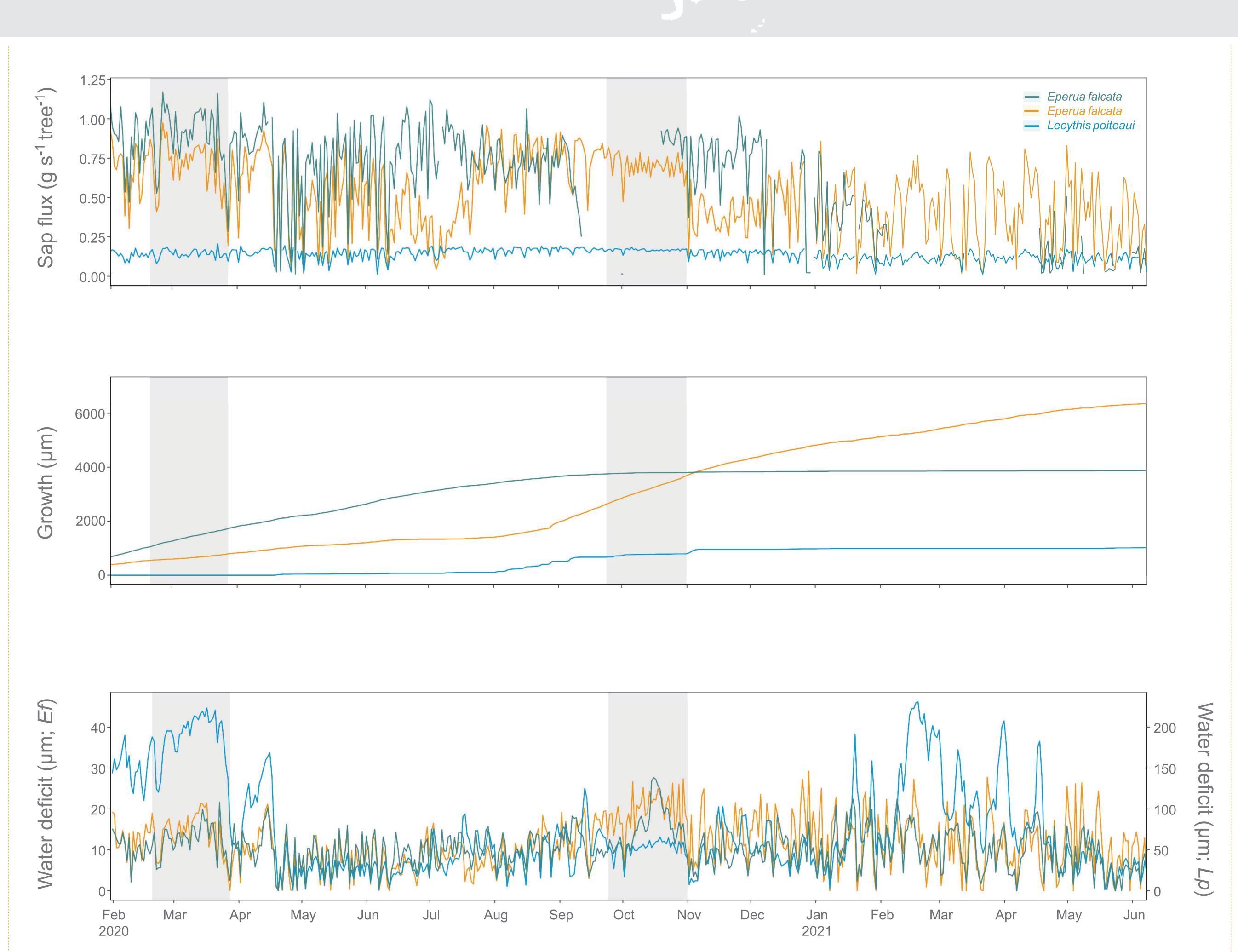
Eperua falcata

Eperua falcata

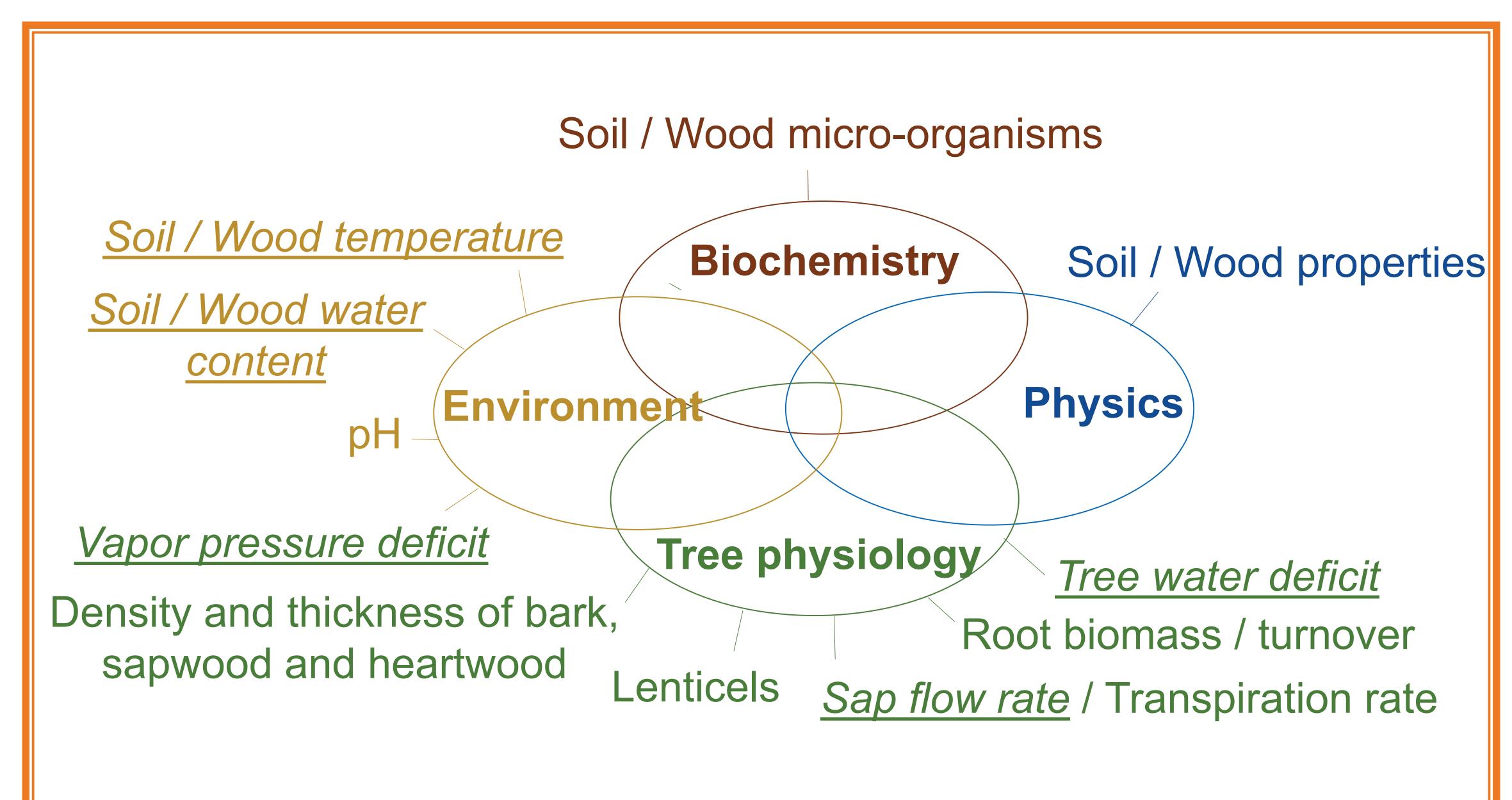


-Stem emitted CH<sub>⊿</sub>-

**Fig. S1** Seasonal course from 15/10/2019 to 08/06/2021 of raw fluxes of methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) from stem surfaces of three instrumented trees, two *Eperua falcata* and one *Lecythis poiteaui* (two first rows) and surrounding soils (two last rows) in the Paracou forest, French Guiana. Regular dry seasons are illustrated by shaded areas and the "driest" and "wettest" periods by red and blue dots, respectively.



**Fig. S2** Seasonal course from 01/02/2020 to 08/06/2021 of daily mean stem sap flux (top), irreversible growth (middle), and water deficit (bottom) for the three instrumented trees, two *Eperua falcata* and one *Lecythis poiteaui*, in the Paracou forest, French Guiana. Regular dry seasons are illustrated by shaded areas.



**Fig. S3** Schematic representation of the complex interactions between biogeochemical (in brown), physical (in blue), tree physiological (in green) and environmental (in yellow) variables conditioning biotic production and consumption pathways, in soils and tree woody tissues, of CH<sub>4</sub> and N<sub>2</sub>O. Studied variables are indicated by italic underline type



## eference