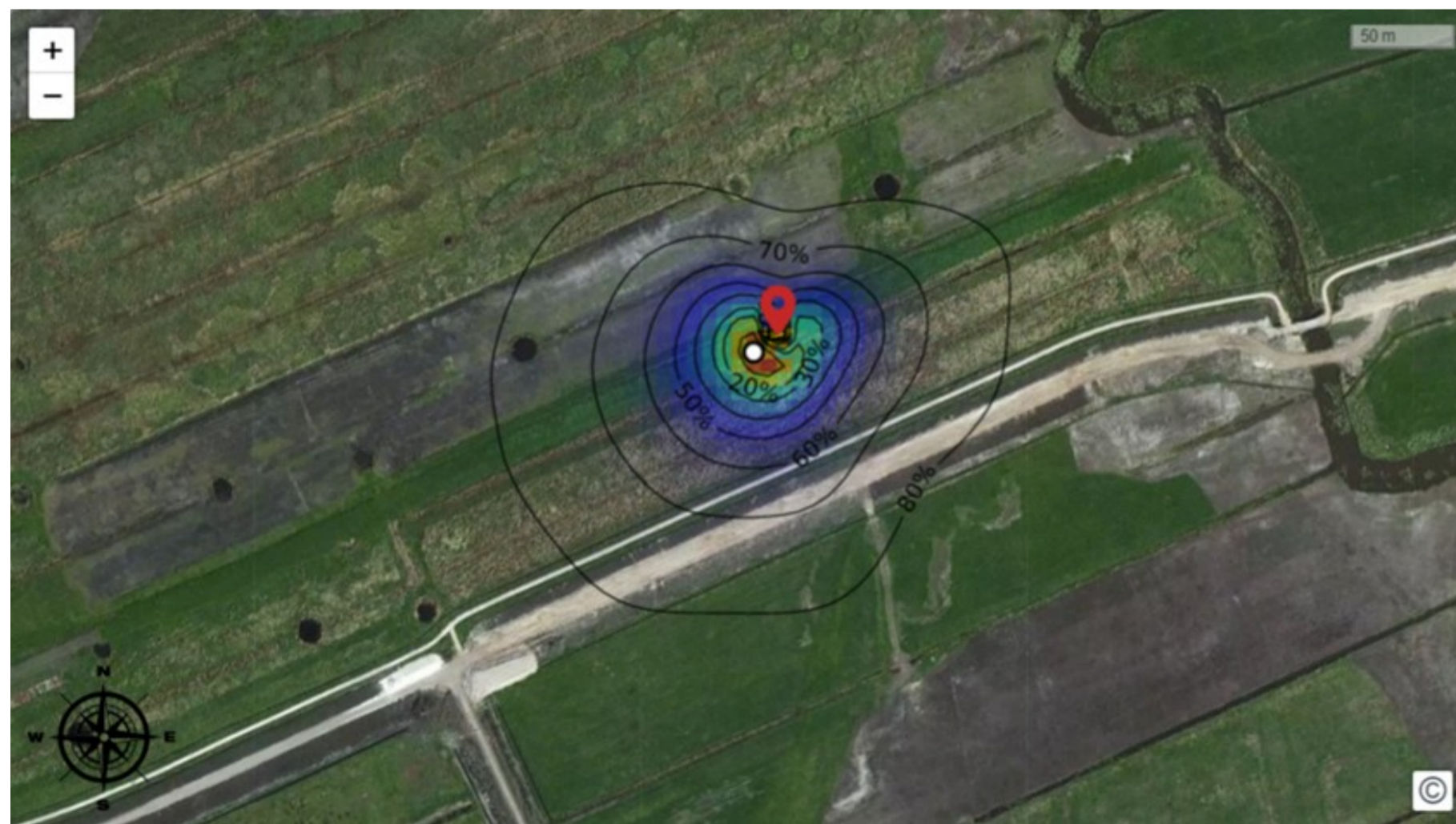


Greenhouse gas exchange of young rewetted swamps in northern Netherlands

Bart Kruijt, Jan Biermann, Hanne Berghuis, Wilma Jans, Wietse Franssen, Ronald Hutjes, Ed Nijhof, Ad Peltenburg, Cor Jacobs, Rien Lettink and Jeroen Veraart

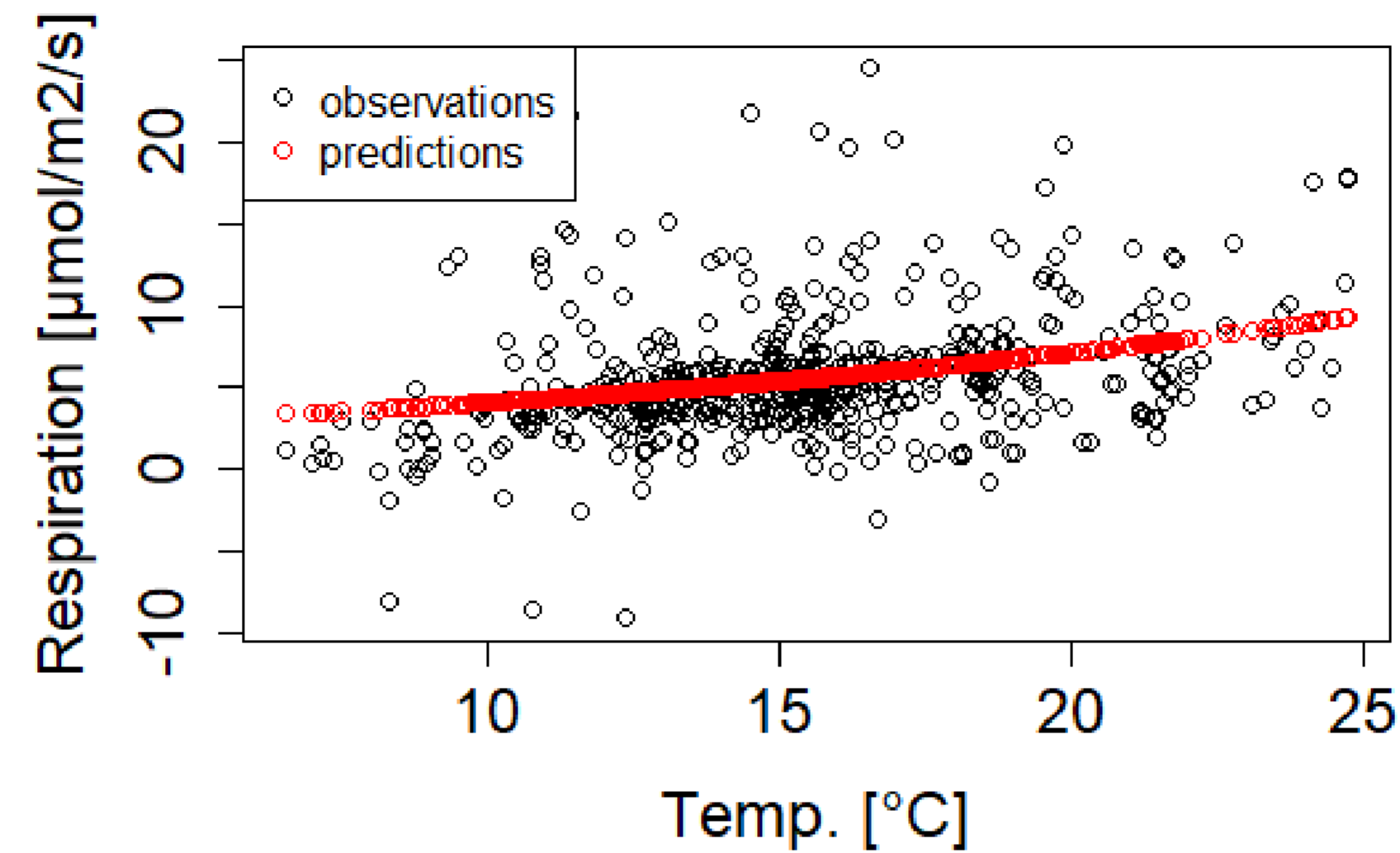
Quantification of annual CO₂ & CH₄ budgets in two Dutch rewetted swamps

- Movable Meteorological station
- Movable Eddy Covariance measurement station alternating between two sites
- Practical feasibility
- Gap filling

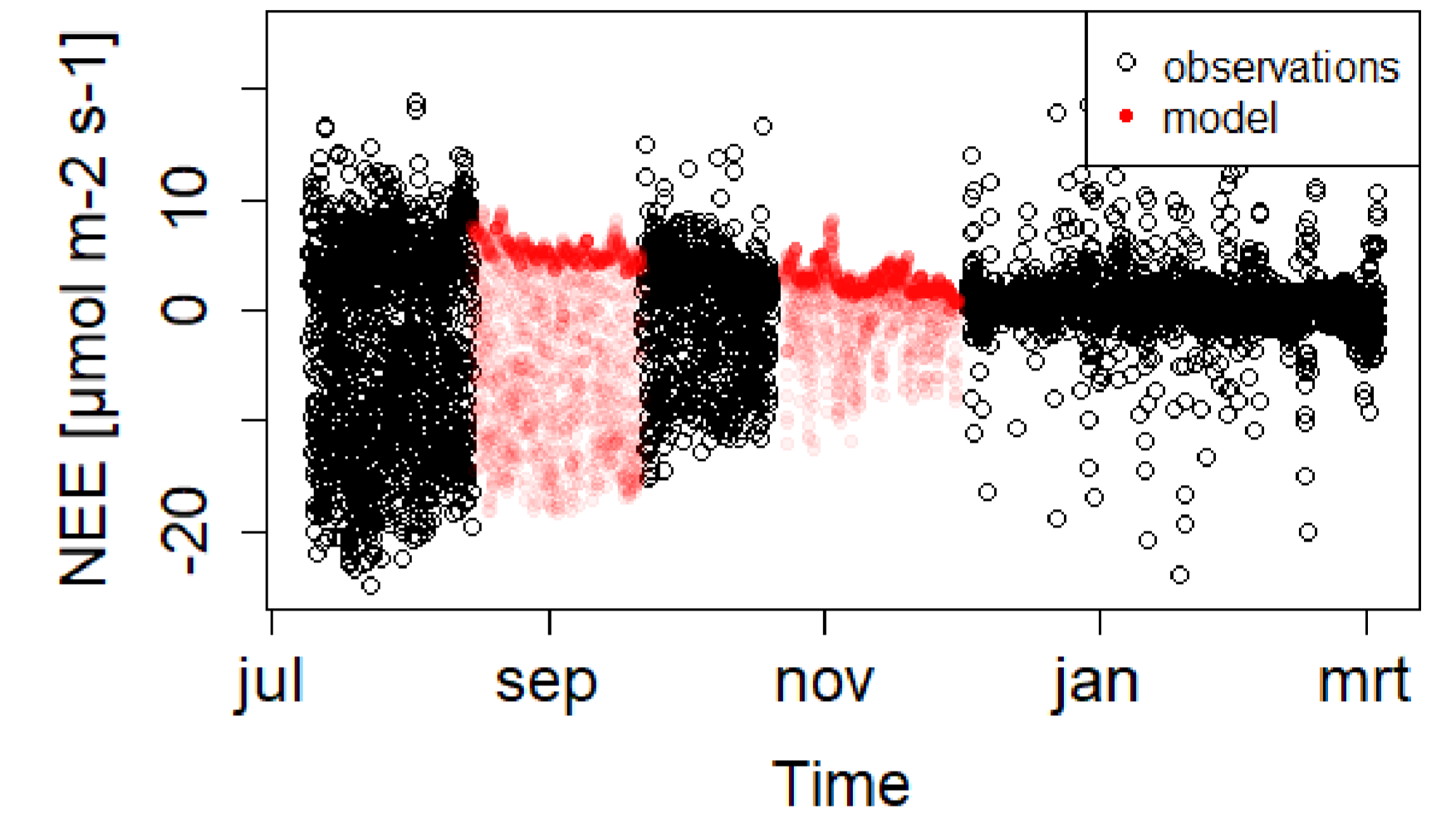


- Footprint at location Onlanden ~ 80% of observations within 100m

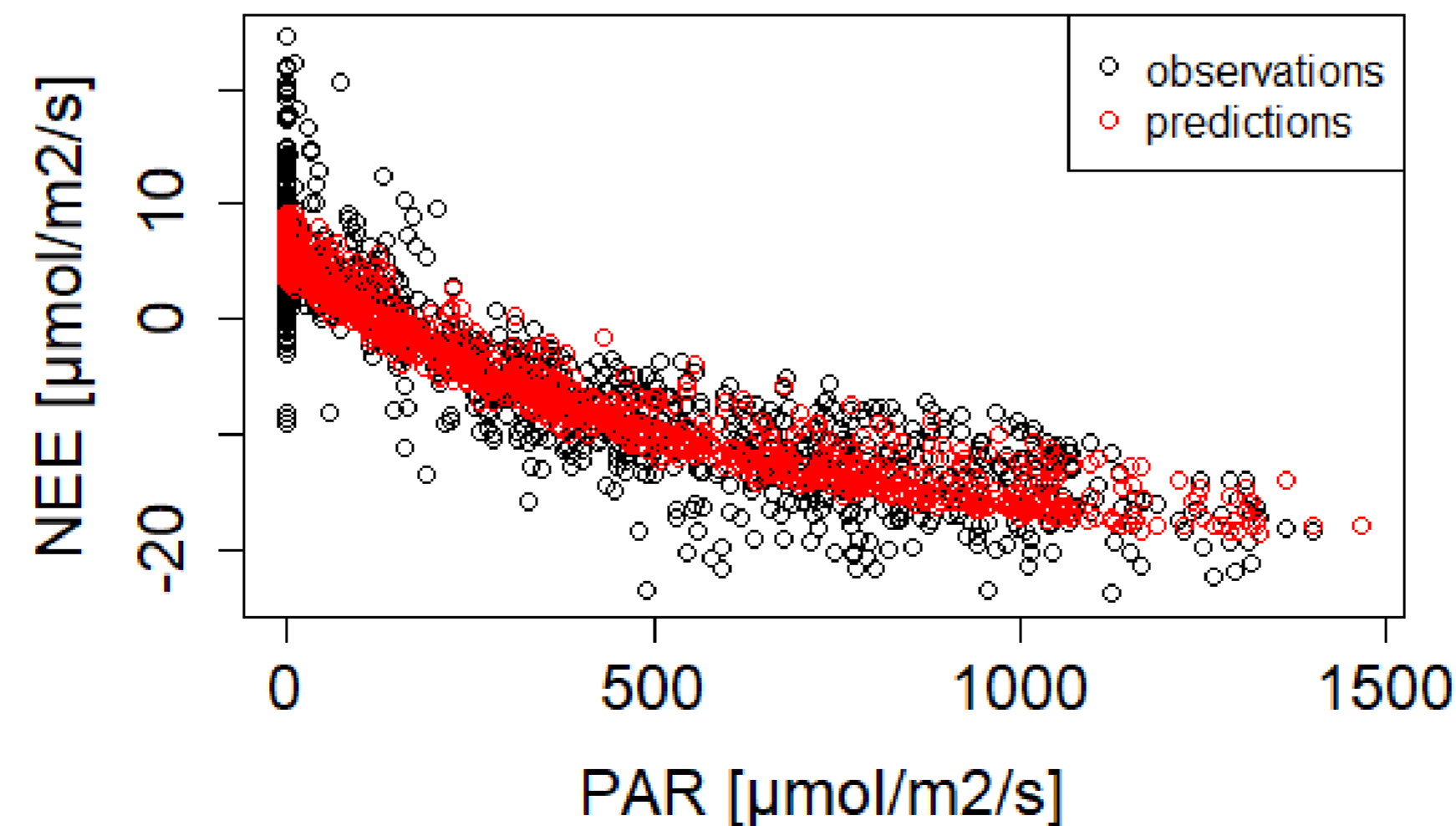
CO₂ Temperature response curve



Gap filled CO₂ Flux Onlanden



CO₂ Light response curve



Gap interpolation (Elbers et al. 2011)

- Ecosystem Respiration

$$R = R_0 * e^{C_0 T_{air}}$$

- Net Ecosystem Exchange

$$NEE = \frac{PAR * GPP_{max}}{PAR + GPP_{max}} + R$$

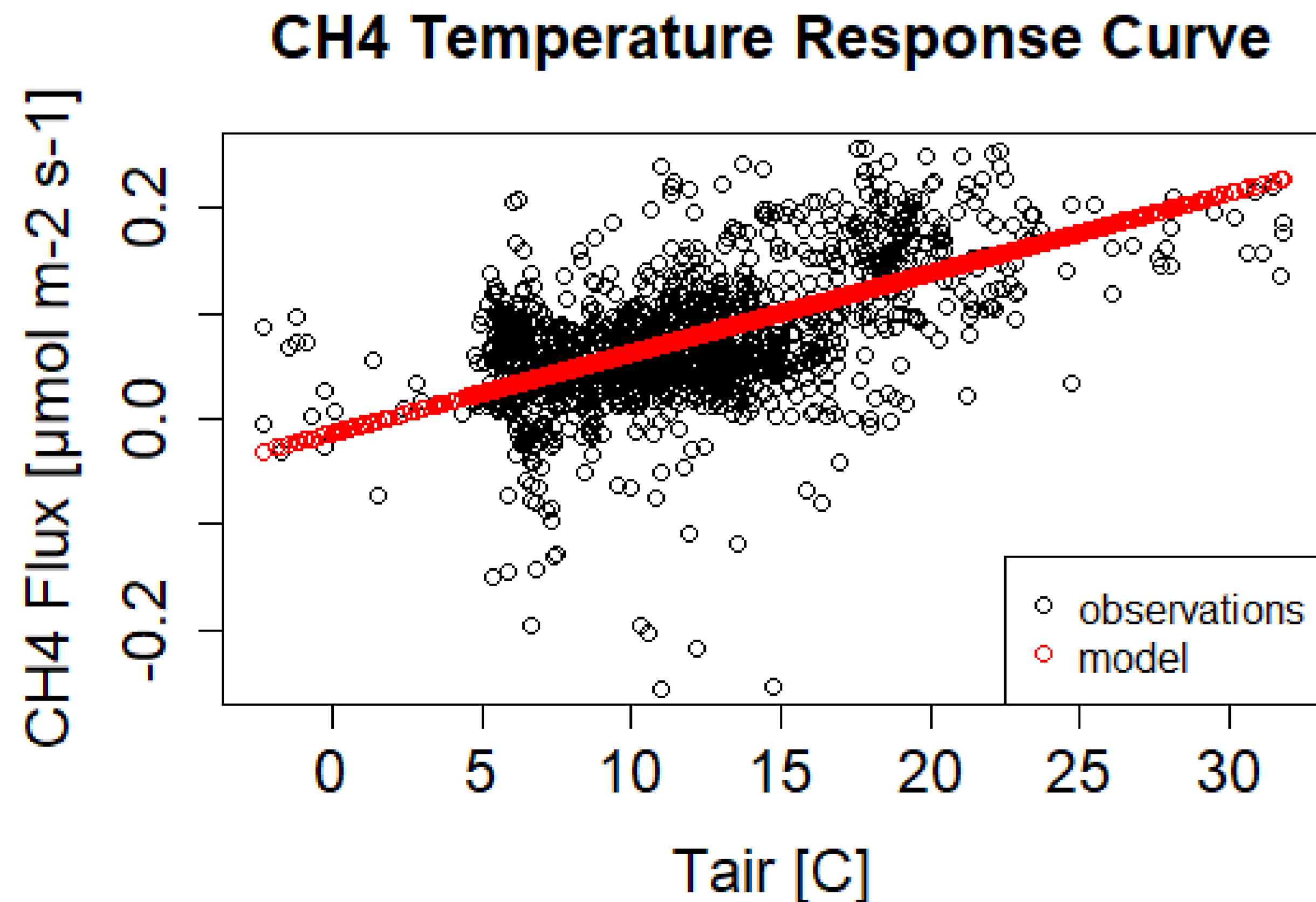
LUE

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CH₄ Gap interpolation

Temperature response curve:
Linear model



Gap filled CH₄ flux Onlanden

