

**Table 1S** The effects of exogenous organic matter input, temperature, aggregate size class, and their interactions on cumulative respiration ( $p < 0.05$ )

ANOVA	Sig.
Aggregate (A)	***
Temperature (T)	***
Exogenous organic matter (EOM)	***
A*T	***
A*EOM	***
T*EOM	***
A*T*EOM	***

**Table 2S** The effects of exogenous organic matter input, aggregate size class, and their interactions on temperature sensitivity ( $p < 0.05$ ).

ANOVA	Sig.
Aggregate (A)	**
Exogenous organic matter (EOM)	**
A*EOM	ns

**Table 3S** Effects of exogenous organic matter input, temperature, aggregate size class, and their interactions on microbial carbon use efficiency ( $p < 0.05$ ).

ANOVA	Sig.		
	15 d	60 d	180 d
Aggregate (A)	***	***	***
Temperature (T)	***	***	***
Exogenous organic matter (EOM)	***	***	***
A*T	***	**	***
A*EOM	***	***	***
T*EOM	***	***	***
A*T*EOM	**	***	***