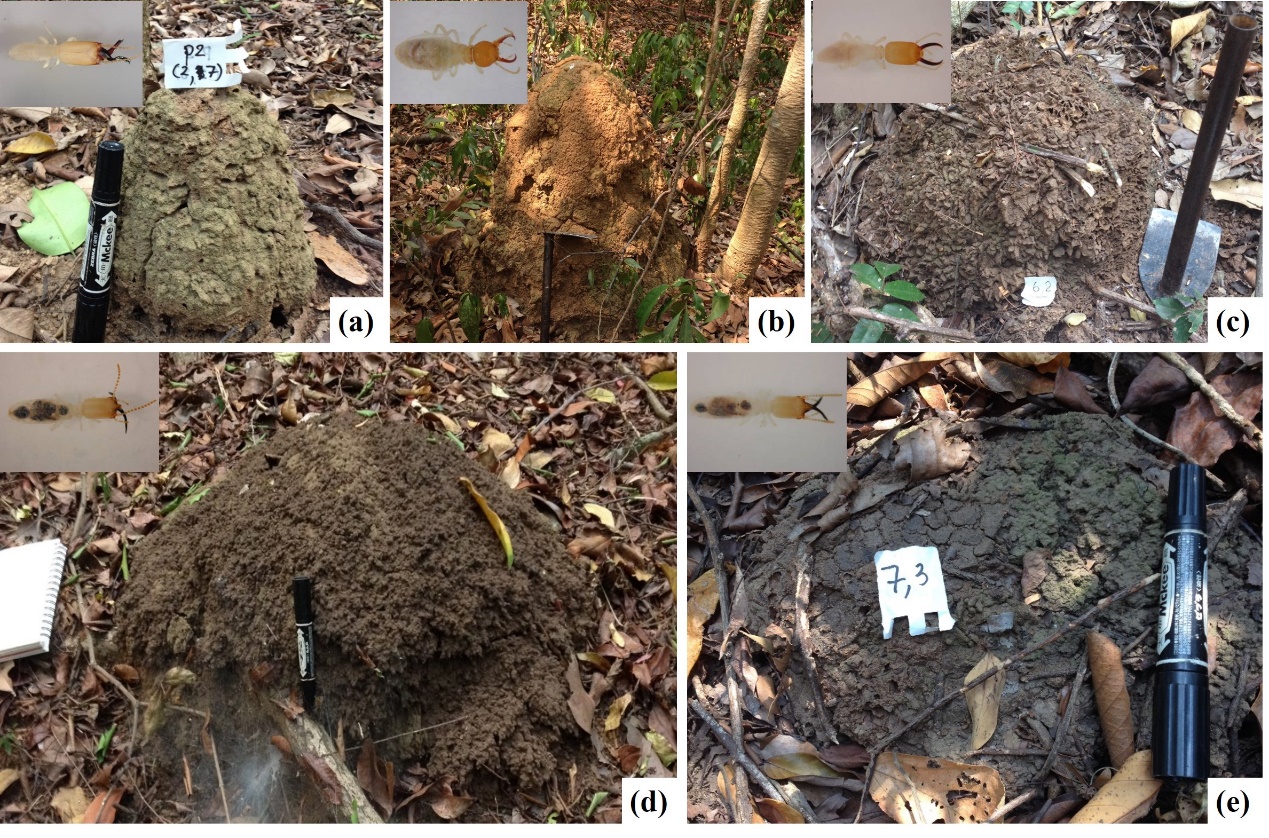
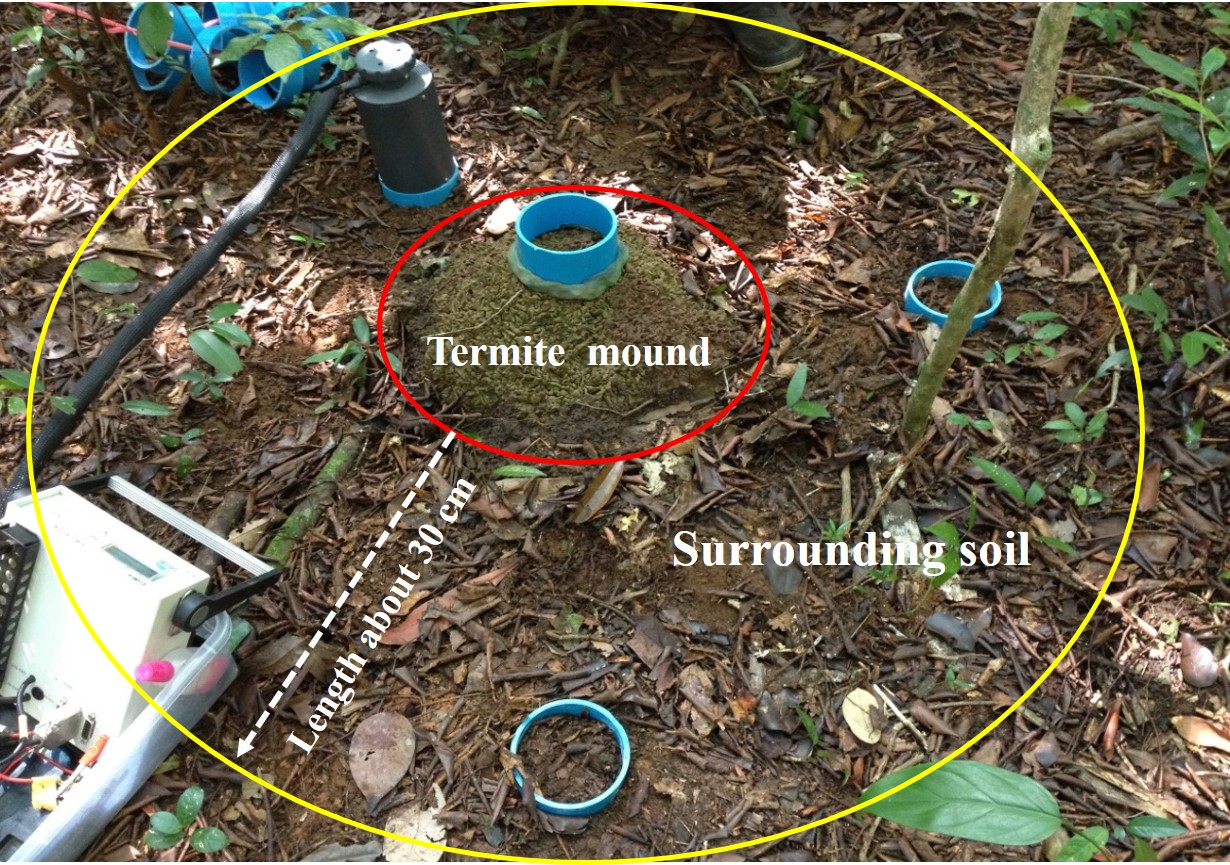


**Fig 1.** Study site in dry evergreen forest (DEF) at Sakaerat Environmental Research Station (SERS), Thailand. (SERS map modified from Trisurat, 2010)

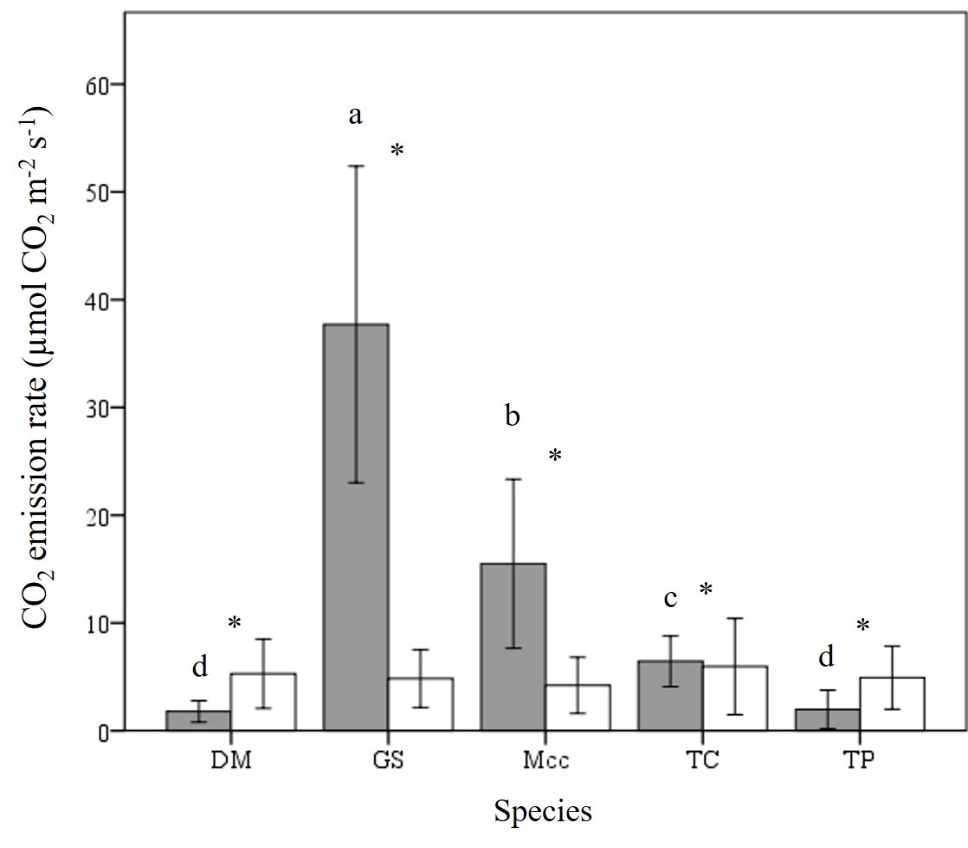
.



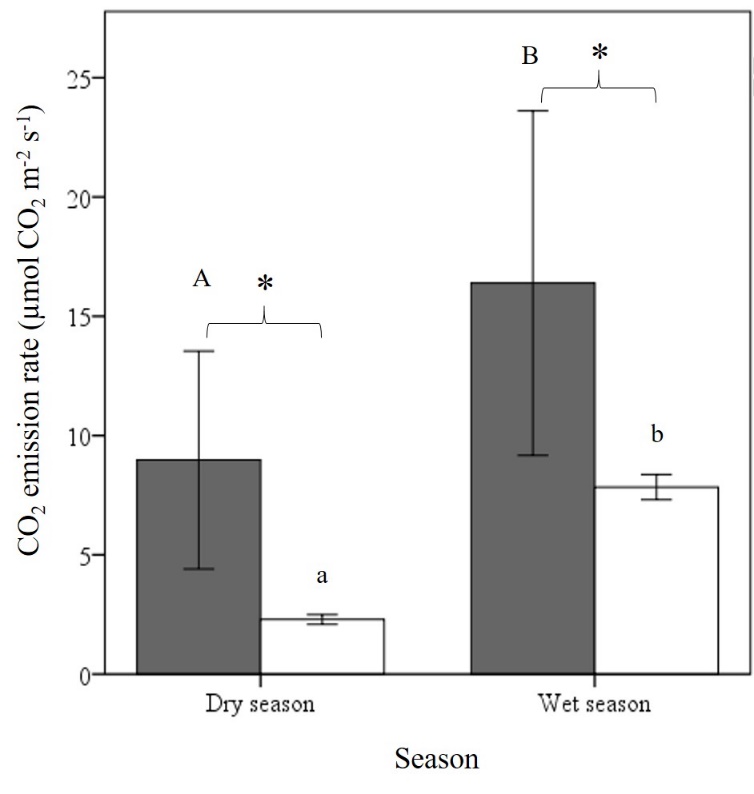
**Fig 2.** Appearance of the termite soldiers of non-fungus grower termite (photographed by A Yamada) and their active mounds. (a) *D. Makhamensis*; (b) *G. Sulphureus*; (c) *M. Crassus*; (d) *T. Comis*; (e) *T. propinquus*.



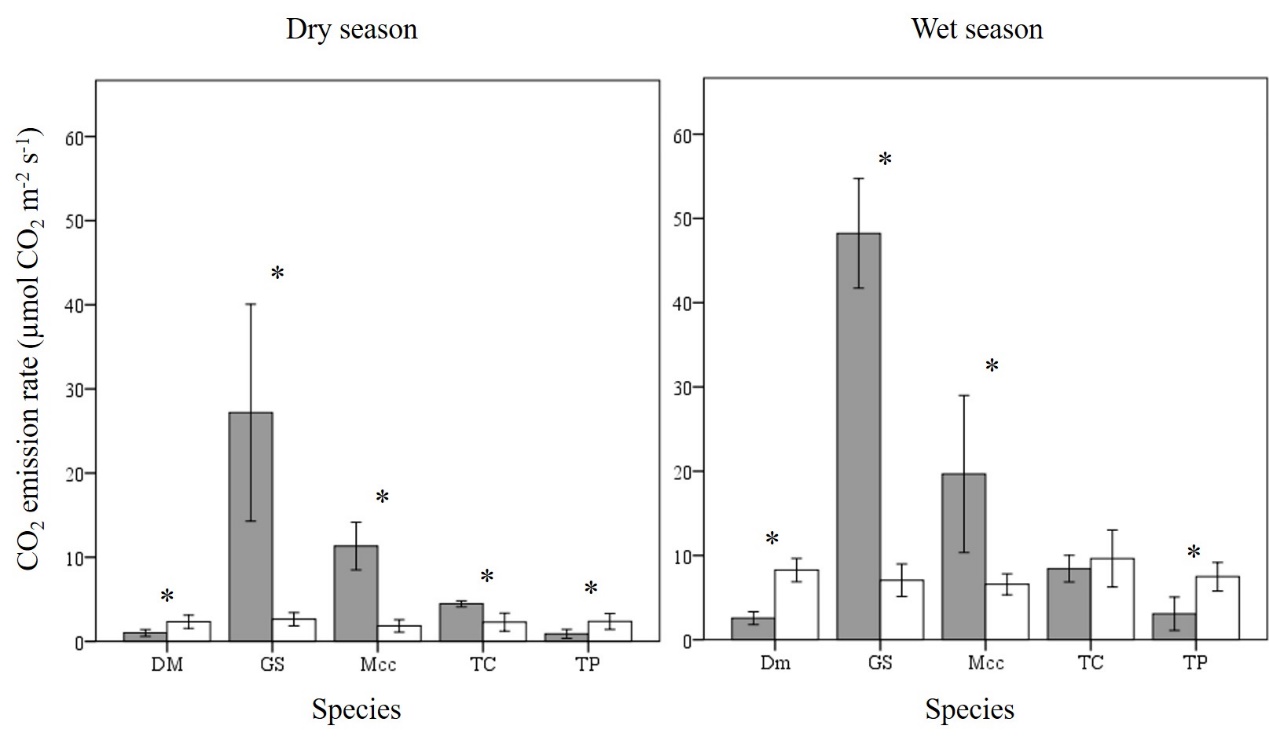
**Fig 3.** An example of the experimental design to determine CO2 emission and the environmental factors from the mounds of non-fungus growing termite and surrounding soils.



**Fig 4.** CO2 emission rates from the mounds of non-fungus growing termites (gray bars) and their surrounding soils (white bars) with the error bars of standard error. Asterisk indicates significant difference between the nest and surrounding soil from each species by pairwise comparison (*P*< 0.001). Different letters indicate significant differences of mound CO2 emissions between the termite species by Tukey’s HSD post hoc test (*P*< 0.001); DM: *D. makhamensis*, GS: *G. sulphureus*, Mcc: *M. crassus*, TC: *T. comis*, and TP: *T. propinquus*.

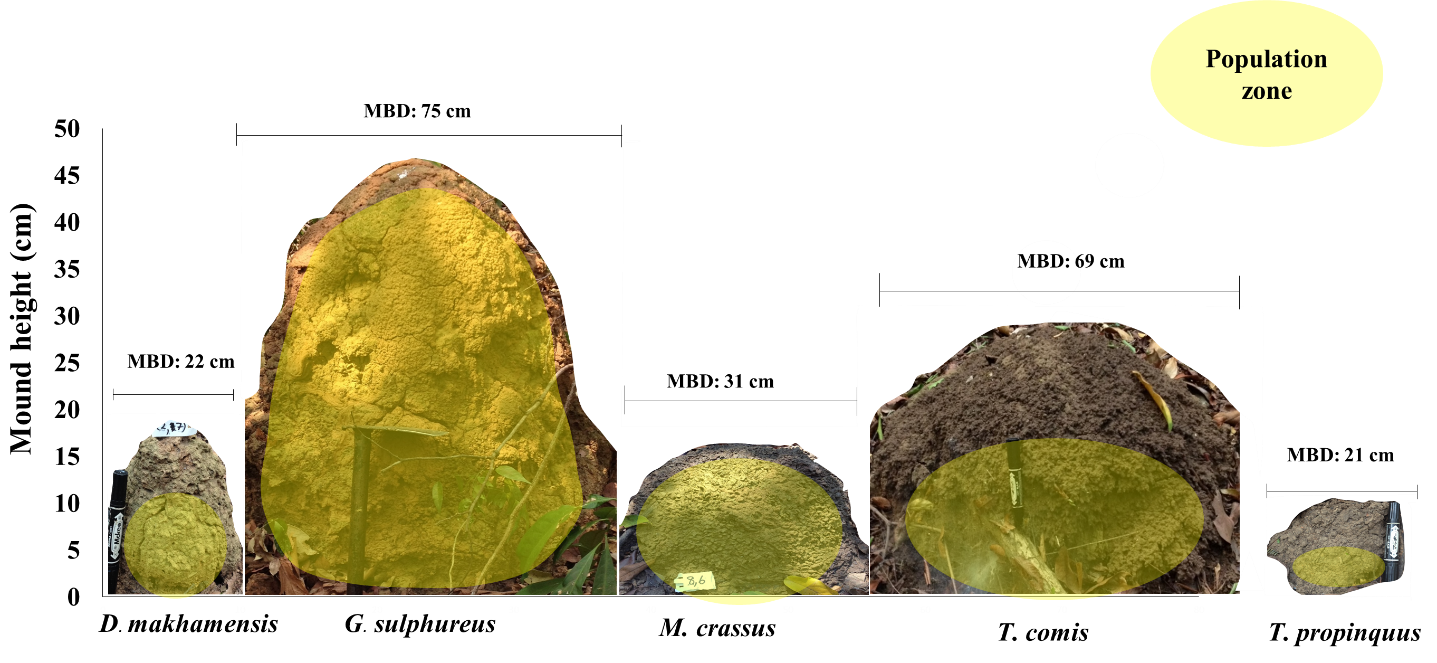


**Fig 5.** CO2 emission from termite mounds (gray bar) and the surrounding soils (white bars) in the dry and wet season with the error bars of standard error. Asterisk indicates significant difference between the mound and surrounding soil (*P*< 0.001). Different letters indicate significant difference among the mounds (capital letter) and among the surrounding soils (small letter) between dry and wet seasons (*P*< 0.001).



**Fig 6.** Comparison of CO2 emission between termite mounds (gray bars) and surrounding soils (white bars) in dry and wet seasons with the error bars of standard error. Asterisk indicates significant difference between the nest and surrounding soil from each species by pairwise comparison (*P*< 0.001); DM: *D. makhamensis*, GS: *G. sulphureus*, Mcc: *M. crassus*, TC: *T. comis*, and TP: *T. propinquus*.

**Fig 7.** Changes in soil CO2 emissions with soil moisture contents.



**Fig 8.** Mound characteristic and population zone (yellow circle) of the non-fungus growing termites with the average of mound height and mound base diameter (MBD) in the DEF at Sakaerat Environmental Research Station.