Differential undertaking response of a lower termite to congeneric and conspecific corpses

Qian Sun, Kenneth F. Haynes, Xuguo Zhou*

Department of Entomology, University of Kentucky, Lexington, KY 40546-0091, USA

*Corresponding Author:

Dr. Xuguo "Joe" Zhou

Department of Entomology

University of Kentucky

S-225 Agricultural Science Centre North

Lexington, KY 40546-0091

Phone: 859-257-3125

Fax: 859-323-1120

Email: xuguozhou@uky.edu

Short title:

Undertaking in Reticulitermes flavipes

SUPPLEMENTARY INFORMATION

Video S1. Time lapse video stream showing corpse removal process by *Reticulitermes flavipes* toward dead nestmates. The digital recording starts at the beginning of corpse introduction. Ten corpses are carried into the holding chamber by workers within 3.5 min. Video is played at 5 times normal speed.

Video S2. Video clip showing aggression and alarm behaviour by *Reticulitermes flavipes* toward *R. virginicus* corpses. The clip is taken at 3 min and 40 s after corpse introduction. A soldier shown on the right displays abrupt forward movements biting the corpses several times. Alarm behaviour is shown as longitudinal vibration of bodies by workers near the entrance. Video at normal speed, 20 s clip.

Video S3. Time lapse video stream showing burial process by *Reticulitermes flavipes*toward *R. virginicus* corpses. Video shows the first 30 min after corpse introduction.Note recruitment of many workers and soldiers over time, and the initiation of corpse burial.Video is played at 25 times normal speed.