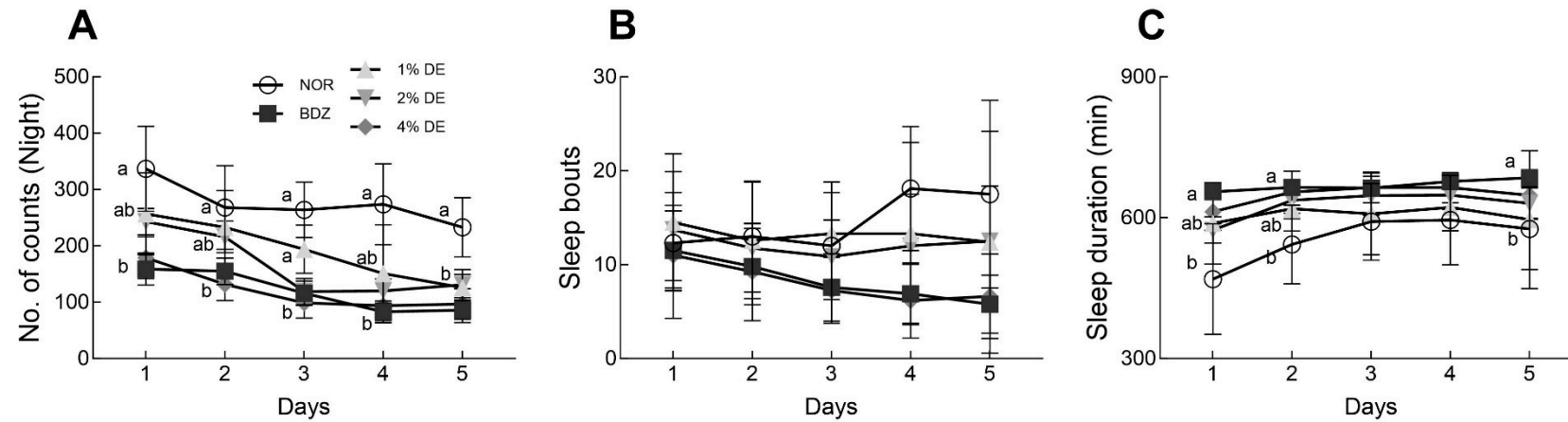
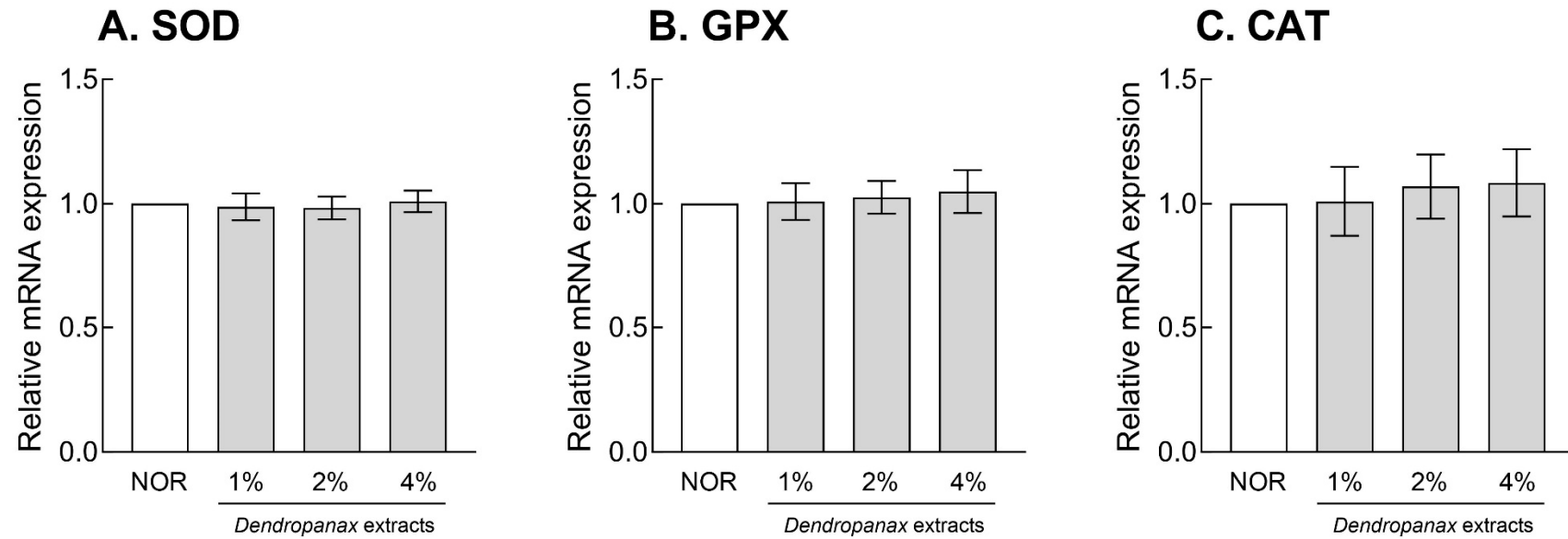


**Figure S1.** Chromatograms of polyphenols standard and sample using HPLC analysis. A: polyphenols standard, B: gallic acid, 3,4-dihydroxybenzoic acid, and rutin were measured at 260 nm, C: chlorogenic acid, *p*-coumaric acid, caffeic acid, trans-ferulic acid, and apigenin were measured at 310 nm, D: quercetin and kaempferol were measured at 365 nm.



**Figure S2.** Effects of *Dendropanax morbiferus* extract (DE) on the trend change of sleep activity in *Drosophila melanogaster* over 5 consecutive days. Behavioral analysis was performed after an adaptation period under the light for 1 day and then turning off the light for 5 days. (A) subjective nighttime activity, (B) number of sleep episodes, and (C) subjective nighttime sleep duration in the DAM. Data are presented as the mean  $\pm$  the standard error of the mean (SEM) for each group. Different letters indicate significant differences at  $p < 0.05$  by Tukey's mul-tiple comparison test. NOR, normal group; BDZ, positive control group.



**Figure S3.** Effects of *Dendropanax morbiferus* extract (DE) on mRNA expression associated with antioxidant activity of *Drosophila melanogaster*. (A) SOD, (B) GPX, and (C) CAT. Values are the means  $\pm$  standard error of the mean (SEM) for each group. NOR, normal group; BDZ, positive control group; SOD, su-peroxide dismutase; GPX, glutathione peroxidase; CAT, catalase.