



**Figure S1.** Species distribution in all samples when kept *Wolbachia* in analysis. Abbreviations: SP, Spain; XJ, Xinjiang; YN, Yunnan. (A) Relative abundance of the top 10 bacteria at the phylum level in *T. absoluta* from three geographical populations. (B) Relative abundance of the top 10 bacteria at the family level. (C) Relative abundance of the top 10 bacteria at the genus level.