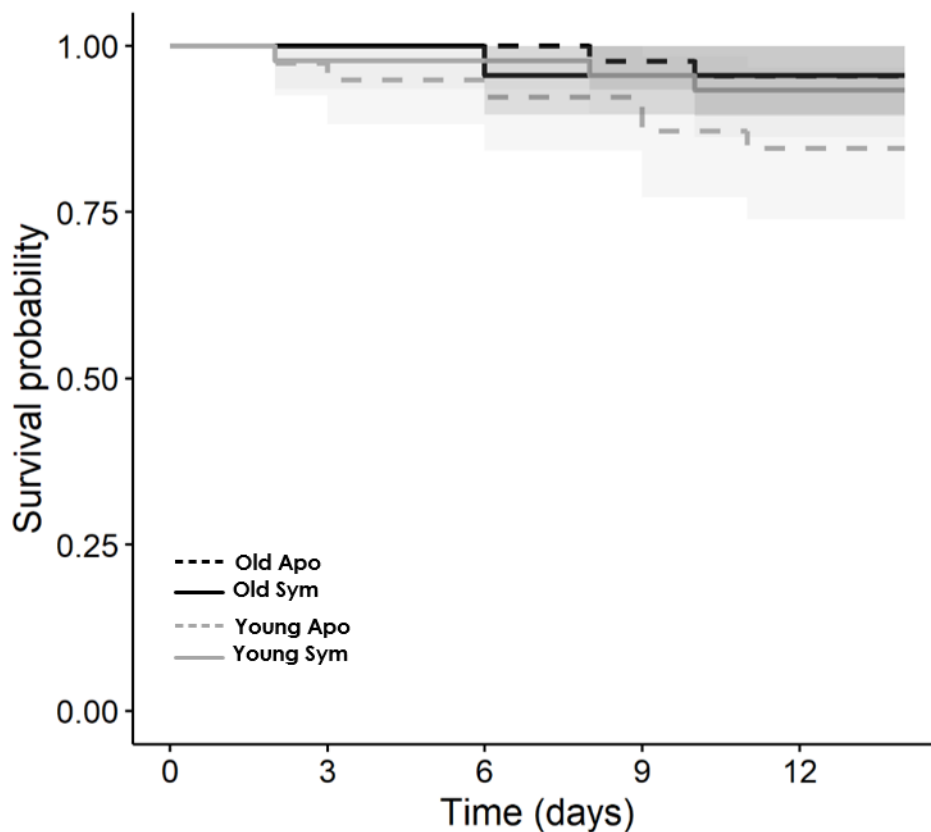


**Fig. S1.** The time taken in minutes (latency) for a starving spider to attack aposymbiotic (Apo,  $n_{apo}= 62$ ) and symbiotic (Sym,  $n_{sym}= 64$ ) beetles once introduced into the arena. Latency did not differ significantly between the treatments (GLMER:  $t = 0.722$ ,  $p = 0.4704$ )



**Fig. S2.** Melanisation progression in symbiotic and aposymbiotic beetles from day 1 to 7 post-eclosion. Representative images of aposymbiotic (upper row) and symbiotic beetles (lower row).



**Fig. S3. Survival probability of young (<24hours post-eclosion) and old (14 days post-eclosion) symbiotic and aposymbiotic beetles without exposure to *B. bassiana* (controls).** Mortality was not significantly influenced by either symbiont status or age (Cox mixed-effects model,  $p=0.1073$ ;  $p=0.2837$ , respectively,  $n_{apo}= 45$ ,  $n_{sym}= 45$ ).

**Table S1. Impact of *Oryzaephilus surinamensis*' symbiont status and age on defence against the entomopathogenic fungus *B. bassiana*.** Results of pairwise multiple comparisons following COX- mixed effects models. (Sym= symbiotic, Apo= Aposymbiotic)

Controls		Old Sym	Young Sym
	Old Apo	P = 0.980	P = 0.790
	Young Apo	P = 0.280	P = 0.400
Treatment		Old Sym	Young Sym
	Old Apo	0.720	P < 0.001
	Young Apo	P < 0.001	P < 0.001