

Supplementary Materials

Figures

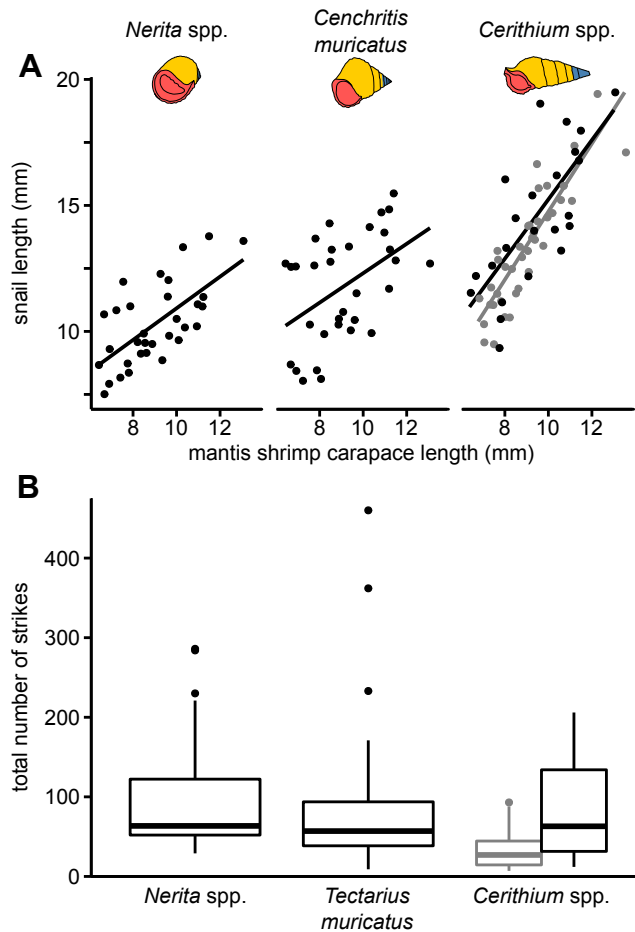


Figure S1. Mantis shrimp were fed size-matched snails. (A) We fed larger mantis shrimp with larger snails, according to different relationships for the three shell shapes. Size-matching of *Cerithium* spp. was consistent between mantis shrimp that were fed all three shell shapes (black) and mantis shrimp that were fed only *Cerithium* spp. (gray). (B) Mantis shrimp that were fed all three shell shapes (black) did not differ in the total number of strikes in strike sequences. Size-matching for mantis shrimp that were fed only *Cerithium* spp. (gray) was based on previously published mantis shrimp snail size preferences (Full et al., 1989). Sample sizes: *Nerita* spp.: 32 mantis shrimp; *Tectarius muricatus*: 32 mantis shrimp; *Cerithium* spp.: 39 mantis shrimp fed only *Cerithium* spp. and 23 mantis shrimp fed multiple snails shapes.

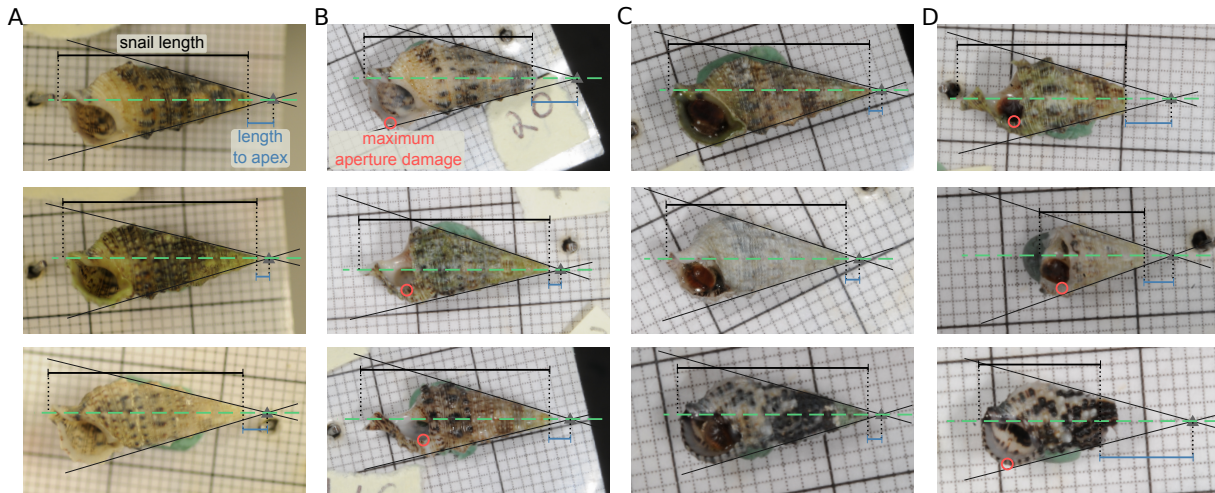


Figure S2. We developed a method to quantify damage to the aperture and apex of *Cerithium* spp., and we present here representative examples. (A) Shells were photographed and measured before experiments with Ninjabot and (B) compared with photographs of the same shell after Ninjabot had struck the shell 20 times. The same shell is presented in each row of (A) and (B). (C) Similarly, shells were measured before being fed to mantis shrimp and (D) compared to photographs taken after the mantis shrimp had started eating. Measurements are described in more detail in Figure 2. Snails are photographed on 1 mm square grids.