



Movie 1. Typical praying mantis feeding strike in the ghost praying mantis (*Phyllocrania paradoxa*) during the last juvenile instar. This video corresponds to the images and kinematics displayed in Fig. 1. Feeding strikes were recorded at 1000 Hz, and this video is played back at 10 Hz. Furthermore, the video demonstrates how kinematic variables are obtained, once we have the videos, seven points are digitized throughout the strike as listed in Fig. 1, those points can then be used to create computer models. From the seven points we obtain a suite of kinematic variables that describe the feeding strike, including angles and angular velocities of the foreleg joints (coxa which is green in the animation, trochanter-femur which is blue and tibia which is purple). The gray dashed line in the computer animation represents the prey capture zone (a hypothetical line between the tip of the tibia and the trochanter-femur joint), once the prey crosses into the prey capture zone it is considered captured as the tibia and femur will close, ensnaring the prey in the femoral and tibial spines.



Movie 2. Another example of typical praying mantis strike in the ghost praying mantis (*Phyllocrania paradoxa*) during the last juvenile instar. The feeding strike was filmed at 1000 Hz and is played back at 10 Hz.