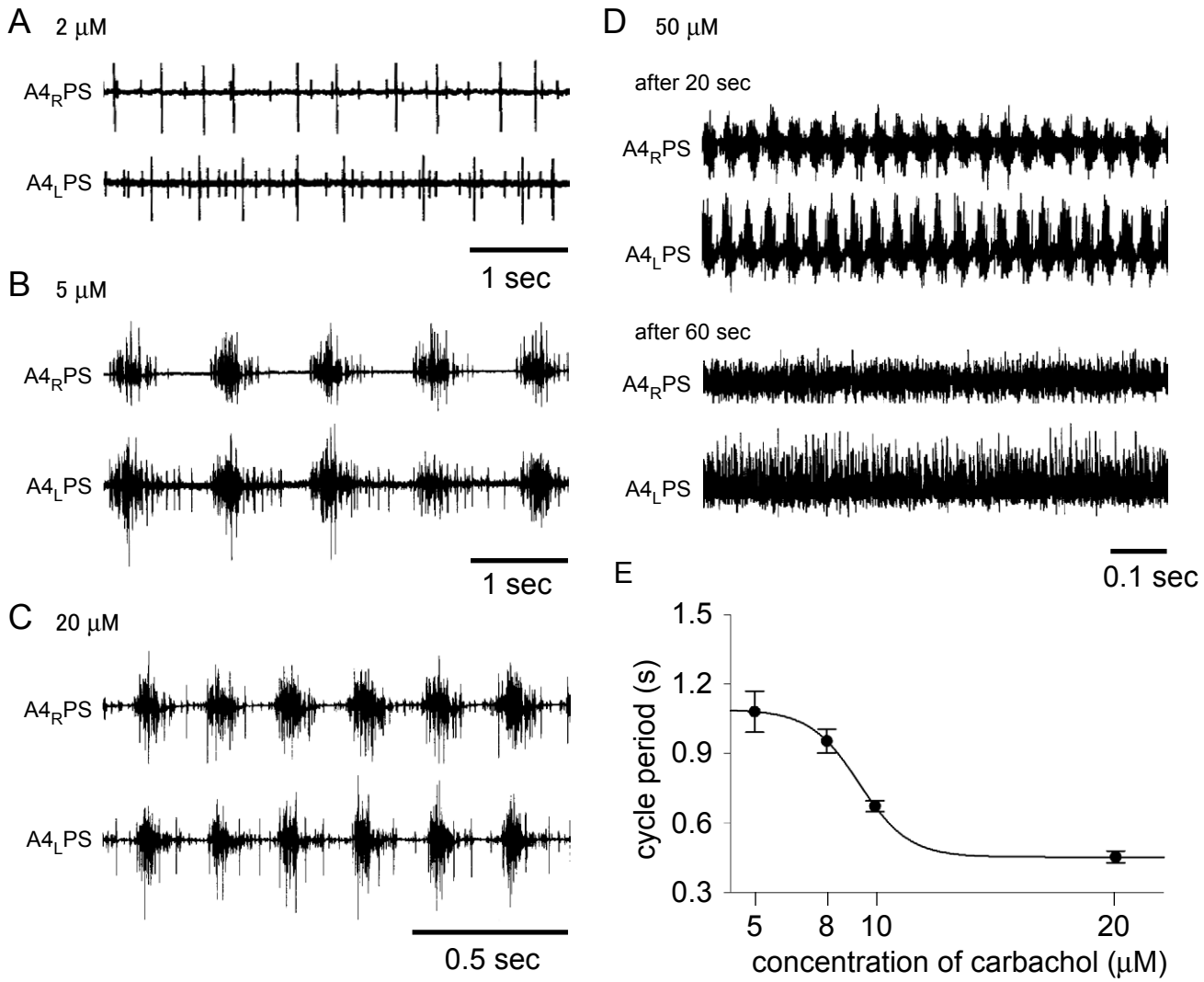

Fig. S1. Dose-dependent effect of carbachol upon rhythmic beating activity of the swimmeret motor neurones. (A) Application of 2 μM carbachol elicited spikes of right (upper trace) and left (lower trace) power-stroke (PS) motor neurones in the 4th abdominal ganglion from silent preparation with no rhythmic beating activity. (B) Application of 5 μM carbachol elicited synchronous rhythmic bursts of spikes in the motor neurones on both sides. (C) Burst frequency of both motor neurones was increased when 20 μM carbachol was applied. (D) Application of 50 μM carbachol elicited high frequency of rhythmic bursts of motor neurone spikes first (upper traces: after 20 s). Then, spike trains of the motor neurones showed continuous spiking activity without any rhythms (lower traces: after 60 s). (E) Semilogarithmic dose-response relationship between the concentration of applied carbachol and the cycle period of the power-stroke swimmeret motor neurones (mean ± s.e.m.). The cycle period was defined as a time from the first spike of the burst to the first spike of next burst.