



Supplementary Figure S4. *Alloniscus* (A, B, C) and *Notostrachea* (D, E, F) shoulder abduction/adduction (A, D), pronation/supination (B, E), long axis rotation (C, F) plots. Muscles: SC, supracoxotrochanteral; SCA, supracoxotrochanteral anterior; scapularis anterior; SDC, subtrochanteral. Negative angles and moment arms represent adduction (ADA), retraction (PR), and internal rotation (LAR) while positive angles and moment arms represent abduction (A), D) and (B, E) and protraction (C, F). Crossing point reflects a change in function (Ratcliffe et al., 2003).