



Fig. S1. Transmission electron micrographs of red muscle fibers and liver. (A) Shortfin mako shark red muscle fiber (mitochondrial density 44.2%); (B) blue shark red muscle fibers (25.9%); (C) leopard shark red muscle fiber (38.5%); (D) shortfin mako shark liver (20.0%); (E) blue shark liver (25.0%); (F) leopard shark liver (14.6%). Abbreviations: l, lipid, n, nucleus. Mitochondria are the small, darker structures within the cytoplasm. In the red muscle fibers, almost all of the intracellular volume is occupied by mitochondria (darker structures) and myofibrils. Shark liver contains large volumes of lipid. Scale bars for red muscle and liver images represent 10  $\mu\text{m}$ .