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***Fiber-type composition of bearded seal (*Erignathus barbatus*) locomotor muscle***

Bearded seals (*Erignathus barbatus*) are ice-associated pinnipeds (seals, sea lions, and walruses) that forage benthically. These animals are vulnerable to sea ice loss caused by global climate change. As such, understanding more about the unique physiology of this seal compared to other pinnipeds is important. One approach is to examine the construction of their swimming muscles. In this study, we examine and report the fiber-type profile of one of the bearded seals' locomotor muscles, the longissimus dorsi (LD). Sections of seven bearded seal LDs were cut using a cryostat and stained for their myosin ATPase activity after basic pre-incubation, as well as for their reaction to myosin heavy chain antibodies (A4.951 - slow myosin; SC-71 - fast IIa myosin). The stained sections were imaged, and the fibers on the ATPase images were placed into three categories: dark, intermediate, and light. The numbers of fibers in each category were counted, and these abundance data were used to calculate the average fiber-type profile of the bearded seal LD. Additionally, the diameters of fibers in each of the three categories were measured using ImageJ. These properties of bearded seal swimming muscles will be evaluated in the context of complementary physiological data now available for this species. Furthermore, their fiber-type profile and fiber diameters will be compared to those of the locomotor muscles of other seals, to enable an improved understanding of the species-specific characteristics of bearded seal muscle.