MUSCLE STRUCTURE DIFFERENCES BETWEEN SPECIES OF SWEET WATER FISH

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Background: Fish consumption on land is significant, mainly from fish living in ocean saltwater. However, in countries without the sea, as in Hungary, the richness of freshwater fish has developed a wide range of cooking techniques for fish with different nutrition. In this context, we suspect a different meat structure difference, which has not been investigated yet. The difference in fatty acid composition of African catfish and Siberian sturgeon is known, but no morphological studies have been performed on their muscle structure. *Methods:* The aim of this study was to compare the structure differences between freshwater fish with different lifestyles. The organization of muscle structure was monitored in meat by means of cytochemistry with scanning electron microscopic studies on tissues of two different species. The filleted muscles of African catfish ***(Clarias gariepinus)*** and Siberian sturgeon (*Acipenser baerii*) were compared after fresh and rapid freezing. *Results:* The associated complex structure of muscle in both species appearances different. One is a tightly closed muscle mass, while the other is a soft structure, which shows a different degree of softness of the meat after baking. *Discussion:* In both species, the right muscle structure is beneficial under extreme environmental conditions. The different skeletal structure in fish processing means altered processing, which we wish to continue with further testing to prepare tasty food for consumers.
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