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Fatty acids composition and food habits of spiny icefish (*Chaenodraco wilsoni*) in the Antarctic Peninsula during summer to autumn

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The spiny icefish (*Chaenodraco wilsoni*) is one of the abundant species in Scotia Sea and has a more important trophic role in the Southern Ocean ecosystem. The fatty acid composition in muscle from 61 *C. wilsoni* individuals collected in the Antarctic Peninsula during austral summer to autumn were analyzed to understand the trophodynamics of this species. The dominant fatty acids found in *C. wilsoni* were C16:0, C16:1n7, C18:0, C18:1n9, C18:2n6t, C20:4n6, C20:5n3 (EPA) and C22:6n3 (DHA), the average content of DHA was significantly higher than that of EPA ($P < 0.05$). There were significant correlations between fatty acids and body size of *C. wilsoni*, and significant negative correlations between size and 14 fatty acids of *C. wilsoni*, such as saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids, and between size and ratio of DHA/EPA. The present study indicated *C. wilsoni* presented carnivory habits and mainly fed on dinoflagellates and macroscopic algae during summer to autumn.