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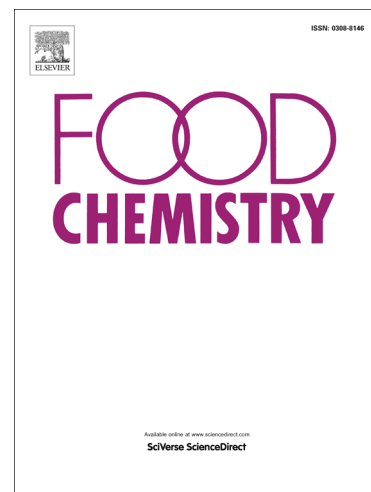
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Profile and distribution of fatty acids in edible parts of commonly consumed marine fishes in Chile

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ABSTRACT

Fatty acid profiles and distribution among lipid classes in the edible parts of seven commonly consumed marine fishes in Chile were investigated. Peruvian morwong, Chilean jack mackerel and Pacific sandperch were found to be the richest sources of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) with 440.2, 343.7 and 313.9 mg EPA+DHA/100 g raw fillet respectively among the studied fishes. DHA was mainly found in the phospholipid fraction in all cases, following EPA the same trend except for Pacific sandperch, Chilean hake (most EPA in triacylglycerols) and Peruvian morwong (most EPA as free fatty acid). A very favorable n-3/n-6 PUFA ratio was found in all studied species, and PUFA/SFA ratios ranged between 0.94 and 1.72, which is desirable to keep a healthy cardiovascular status. This is the first study reporting fatty acid profiles and distribution of commonly consumed marine fishes in Chile.

Keywords: Eicosapentaenoic acid, docosahexaenoic acid, Chilean fishes, phospholipids, fatty acid distribution.

Chemical compounds studied in this paper: eicosapentaenoic acid (PubChem CID: 446284); docosahexaenoic acid (PubChem CID: 445580); omega 3 fatty acids (PubChem CID: 56842239).

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