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Chemical composition of some common seaweed species from the Kenya coast

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The proximate composition of 34 seaweed species from the Kenya coast was investigated to evaluate their nutritional value as food ingredients in fish feed. The proximate constituents (crude protein, nitrogen free extract (NFE), crude fat, crude fibre and ash levels) of the seaweeds were determined according to the standard AOAC methods of analysis. The NFE was the most abundant chemical component (42.09 ± 0.83% dry wt) for all the seaweed species whereas the crude fat (1.81 ± 0.04% dry wt) was the least obtained ($p < 0.05$). The mean percentage (dry wt basis) of crude protein, crude fibre, and ash were 10.09 ± 0.26, 14.08 ± 0.26, and 31.94 ± 0.78, respectively. The chemical constituents of the seaweeds varied significantly among algal divisions, months and sites ($p < 0.05$). The relationships between the nutritive components are also presented. The findings obtained from this study demonstrated that some seaweed species could be potential good sources of protein, fat and fibre for human and animal nutrition.