

Nutrient composition of four species of winged termites consumed in western Kenya

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Date: 2013-03-28

Abstract

The objective of this study was to gain knowledge on the nutrient composition of *Macrotermes subhyalinus*, *Pseudacanthotermes militaris*, *Macrotermes bellicosus* and *Pseudacanthotermes spiniger* termite species consumed in Western Kenya. Proximate, iron, zinc, calcium and fatty acid composition were analyzed in order to ascertain their potential in food-based strategies to improve nutritional health. The fat content was 44.82–47.31 g/100 g, protein 33.51–39.74 g/100 g, available carbohydrate 0.72–8.73 g/100 g, iron 53.33–115.97 mg/100 g and zinc 7.10–12.86 mg/100 g. The level of unsaturated fatty acids was 50.54–67.83%, while n-6:n-3 ratio ranged between 5.80:1.00 to 57.70:1.00 signifying potential nutritional and public health significance. The termites may be exploited in provision of high quality diets especially in the developing countries which have been plagued by iron and zinc deficiencies as well as poor supply of dietary polyunsaturated fatty acid sources.