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NUTRITIONAL CHARACTERIZATION OF *COLUMBA LIVIA DOMESTICA* (DOMESTIC PIGEON) AND *COLUMBA GUINEA* (SPECKLED PIGEON) MUSCLE TISSUE MEAL AS POTENTIAL ANIMAL PROTEIN INGREDIENT IN AQUACULTURE

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ABSTRACT
The study was conducted to examine the Nutritional characterization of *columba livia domestica* (domestic pigeon) and *columba guinea* (speckled pigeon) muscle tissue meal as potential animal protein ingredient in aquaculture. The proximate composition, some mineral contents and amino acids profile were determined in *Columba liviadomestica* (domestic pigeon) and *Columba guinea* (speckled pigeon) found in Zaria, Kaduna State. The result showed significant difference in the whole weight between speckled pigeon (282.42 ±4.54) and domestic pigeon (272.66 ±8.71), gutted weight two avian species showed no significant difference (*P*> 0.05), domestic pigeon (201.50±4.10) had a higher gutted weight than speckled pigeon (180.68±6.34). There was significant difference in crude protein (66.70±0.70) content compared to speckled pigeon crude protein (62.18±0.32) contents. The ash content (4.51±0.14), crude fibre (0.82±0.17) and nitrogen free extract (9.82.±0.18) of speckled pigeon was lower than that of domestic pigeon with ash content (4.78±0.22), crude fibre (1.11±0.06) and nitrogen free extract (10.47±0.32). The study further disclosed significant difference in Mg, Na and K composition between the two columbid species; however; amino acid of both species did not differ significantly (P>0.05). In conclusion, speckled and domestic pigeon muscle tissues were rich in crude protein, mineral and amino acids and, therefore, recommended for use as a valuable inclusive component as animal protein sources in aquaculture feed industries.

Keywords: Aquaculture, *Columba guinea*, *Columba liviadomestica*, Fish nutrition, Nutritional Characterization.