

15<sup>th</sup> Global Experts Meeting on

## PATHOLOGY AND LABORATORY MEDICINE

July 02-03, 2018 Bangkok, Thailand

**Comparative hematology of apparently healthy free-living wild birds from the orders Apodiformes and Passeriformes in Zaria Kaduna State, Nigeria****Samson James Enam**  
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The research established baseline hematological parameters of five species comprising 20 each of *Ploceus luteolus* (Little Weaver), *Apus caffer* (White-Rumped Swift), *Quelea quelea* (Red-Billed Quelea), *Euodice cantans* (African Silver-Billed) and *Euplectes frascisca* (Northern Red Bishop) of apparently healthy free-living wild birds in Zaria, Nigeria. *Apus caffer* obtained highest mean hematocrit (46.25±1.43%), hemoglobin concentration (15.87±0.58 g/dl) and *E. cantans* had highest mean erythrocyte count (5.24±0.32x10<sup>12</sup>/l), while *P. luteolus* recorded lowest mean hematocrit (34.45±1.73%), hemoglobin concentration (12.15±0.59 g/dl) and erythrocyte count (3.71±0.15x10<sup>12</sup>/l), respectively. *Apus caffer* again had highest mean corpuscular volume while the mean corpuscular hemoglobin concentration was highest for *P. luteolus* (35.41±0.51 g/l). The mean leukocyte count was highest for *A. caffer*, 2.62±0.31x10<sup>9</sup>/l, and lowest for *E. cantans*, 0.63±0.08x10<sup>9</sup>/l. *Apus caffer* also had highest mean values for heterophils (2.62±0.31x10<sup>9</sup>/l) and lymphocytes (2.01±0.23x10<sup>9</sup>/l). *Euodice cantans* obtained lowest mean counts for heterophils (0.04±0.02x10<sup>9</sup>/l) and lymphocytes (0.54±0.08x10<sup>9</sup>/l). Heterophil/lymphocyte ratio, an important indicator for prolonged stress was highest for *E. cantans* (1.95±1.90) and lowest for *E. frascisca* (0.12±0.02). In conclusion, there were significant interspecies differences (p<0.05) for these hematological parameters and this could, among other factors be associated with differences in disease response and increased energy demand as exemplified by *A. caffer* (Apodiformes) which had highest mean values for almost all the parameters; owing to the fact that *A. caffer* flies higher and more rapidly and spends much time in the air than the Passeriformes studied, hence the physiological increased need for adequate gaseous exchange.

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