

Prevalence of lice infestation in village chicken reared in the Vavuniya veterinary range

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Lice infestation causes production losses in village chicken reared in many tropical countries. Despite this fact, information on lice infestation in village chicken in Sri Lanka is scant. Therefore, this cross sectional study was performed to estimate the prevalence of lice infestation in village chicken in the Vavuniya veterinary range.

A total of 335 village chickens from 105 households were carefully examined for lice infestation using a hand lens. Representative samples of lice were collected from each positive bird and fixed in 70% ethanol containing 10% glycerol and identified by morphological features. At the time of sampling, the sex, age, colour (dark or light), body weight and phenotype (feathered neck or naked neck) of each sampled bird was also recorded. A Chi-square test was used to analyse the data and a *P* value less than 0.05 was considered statistically significant.

Of the 335 birds examined, 201 (60%) were positive for one or more species of lice. Six species of lice were identified based on light microscopic morphology, namely *Lipeurus caponis* (40.9%), *Lipeurus tropicalis* (34.9%), *Menopon gallinae* (28.7%), *Goniodes dissimilis* (17.9%), *Goniocotes gallinae* (10.8%) and *Menacanthus pallidulus* (1.2%). The prevalence of lice infestation was significantly higher ($\chi^2=28.308$, $P < 0.0001$) in birds over 12 months of age (65.9%) compared to those less than 12 months of age (26%). Similarly, birds with a body weight greater than 1.5 kg had higher prevalence (63.6%) compared to birds less than 1.5 kg body weight (51%; $\chi^2=4.499$, $P = 0.034$). There were no statistical differences in the prevalence of lice between male (60%) and female birds (64%; $\chi^2=0.441$, $P = 0.507$); chicken with naked neck (60.7%) and feathered neck (59.9%; $\chi^2=0.013$, $P = 0.908$); and dark (61.3%) and light coloured birds (56.8%; $\chi^2=0.551$, $P = 0.458$). This study indicates that lice infestation is widespread in village chicken reared in the Vavuniya veterinary range and further work is necessary to determine the economic significance of this condition in the study area.