Eye Colour, Aging, and Decoy Trap Bias in Lesser Scaup, *Aythya affinis*

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Researchers routinely assume that samples of trapped or captured animals are representative of the overall population, though these assumptions are not always evaluated. We used decoy-trapped Lesser Scaup (*Aythya affinis*) to assess the reliability of classifying females as yearlings or adults from a distance, based on documented age-related eye-colour changes, and also to evaluate the presence of sex, condition and age biases in decoy trapping. We compared eye colour of trapped females to photographs of known-age females following a published procedure while females were (1) in traps (by using spotting scopes or binoculars) and (2) in-hand. Assuming in-hand age assessments were correct, we found that adults aged from a distance were frequently misclassified as yearlings, but yearlings were never misclassified as adults. Distance between observer and female, overall observation quality, and cloud cover did not influence age assignment success. A larger proportion of males was captured than observed during a survey of the local breeding population. We also found that decoy-trapped females had lower body mass and were more likely to be yearlings compared to pass- and jump-shot females from the same area. We conclude that female Lesser Scaup cannot be accurately aged from a distance using eye colour and concur with other researchers that possible sex, age and condition biases should be evaluated when using decoy traps.

Key Words: Lesser Scaup, *Aythya affinis*, age bias, aging techniques, body condition bias, decoy trap, sex bias, trap bias, Saskatchewan, Northwest Territories.