

© 2022 Universities Federation for Animal Welfare  
The Old School, Brewhouse Hill, Wheathampstead,  
Hertfordshire AL4 8AN, UK  
www.ufaw.org.uk

Animal Welfare 2022, 31: 163-173  
ISSN 0962-7286  
doi: 10.7120/09627286.31.2.001

## Validating owner-reporting of feather condition of pet Psittaciformes using photographs

EL Mellor<sup>\*†‡</sup>, M Mendl<sup>†</sup>, G Mason<sup>§</sup>, C Davison<sup>†</sup>, Y van Zeeland<sup>#</sup> and IC Cuthill<sup>#</sup>

<sup>†</sup> Bristol Veterinary School, University of Bristol, Langford House, Langford, Bristol BS40 5DU, UK

<sup>‡</sup> School of Biological Sciences, University of Bristol, Bristol Life Sciences Building, 24 Tyndall Avenue, Bristol BS8 1TQ, UK

<sup>§</sup> College of Biological Science, University of Guelph, 50 Stone Road East, Guelph, Ontario N1G 2W1, Canada

<sup>#</sup> Department of Clinical Sciences of Companion Animals, Faculty of Veterinary Medicine, Utrecht University, Yalelaan 108, 3584 CM Utrecht, The Netherlands

\* Contact for correspondence: emma.mellor@bristol.ac.uk

### Abstract

Reporting of outcome variables by caregivers in welfare studies is commonplace but is open to subjective bias and so requires validation. Biases can occur in either direction: familiarity with an animal allows a deeper insight into welfare problems, but also can lead to reticence in admitting that an animal in one's care is experiencing problems. Here, we aim to validate owner-reporting of plumage condition of pet parrots, including those with self-inflicted feather-damaging behaviour (FDB), by comparing owners' scores of feather condition with those of two independent raters, blind to the owners' and each other's assessments. We surveyed pet parrot owners to collect data on basic demographics and feather condition, and requested four standardised photographs of birds. We received 259 responses (17% of the 1,521 people contacted); 78 sets of images of appropriate quality for assessment by raters were provided. Mean percentage agreement between owners' and raters' scores was mostly fair to substantial using Cohen's kappa; however, raters scored a greater proportion of feather damage than did owners. Overall, our results indicate owner-reporting of feather condition, including FDB, to be generally reliable and consistent with independent assessment of photographs. As the use of photographs can be limited by image quality, a failure to represent the long-term state of a parrot, and the potential for incorrect recording if assessed without relevant information (eg on moulting), this evidence that owner-reports can be reliable opens the door for larger-scale surveys of the extent of welfare-relevant problems.

**Keywords:** animal welfare, feather-damaging behaviour, feather picking, feather plucking, plumage, psittacine