

## Selected Abstracts

### **Behavioural responses to human disturbance: a matter of choice?**

**Beale CM and Monaghan P** 2004 Behavioural responses to human disturbance: a matter of choice? *Animal Behaviour* 68: 1065-1069

The strength of an animal's behavioural response to human presence has often been used as an index of an animal's susceptibility to disturbance. However, if behavioural responsiveness is positively related to the animal's condition, this may be an inappropriate index, as individuals showing little or no response may in fact be those with most to lose from changing their behaviour. We tested the link between individual state and responsiveness by manipulating condition via the provision of supplementary food for turnstones, *Arenaria interpres*, on rocky shores. Birds at one site were fed 450 g of mealworms at low tide every day for 3 days while birds at another site acted as a control. On the fourth day, using a standardized disturbance protocol, we recorded flush distances, flight lengths and the amount of time between predator scans for birds in both flocks. After a break of 3 days, the treatments were then swapped between sites and the procedure repeated for a total of six trials. Birds whose condition had been enhanced showed greater responsiveness to standardized human disturbance, flying away at greater distances from the observer, scanning more frequently for predators and flying further when flushed. These findings suggest that our current management of the impact of human disturbance may be based on inaccurate assessments of vulnerability, and we discuss the implications of this for refuge provision.

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### **Attitudes towards animal use and belief in animal mind**

**Knight S, Vrij A, Cherryman J and Nunkoosing K** 2004 Attitudes towards animal use and belief in animal mind. *Anthrozoös* 17: 43-62

Animals are used by humans in many ways, yet science has paid little attention to the study of human-animal relationships (Melson 2002). In the present study, participants (n = 96) completed a questionnaire on attitudes towards animal use, and individual differences were examined to determine which characteristics might underlie these attitudes ("belief in animal mind," age, gender, experience of animals, vegetarianism, political stance, and living area). It emerged that participants held different views for different types of animal use, and that belief in animal mind (BAM) was a powerful and consistent predictor of these attitudes, with BAM together with

gender and vegetarianism predicting up to 37% of the variance in attitudes towards animal use. Thus, future research should acknowledge the importance of BAM as a major underlying factor of attitudes towards animal use, and should also distinguish between different types of animal use when measuring attitudes. We propose that the large effect of BAM might be due to increasing interest in animal mind over the past decade.

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### **Investigation of palpation as a method for determining the prevalence of keel and furculum damage in laying hens**

**Wilkins LJ, Brown SN, Zimmerman PH, Leeb C and Nicol CJ** 2004 Investigation of palpation as a method for determining the prevalence of keel and furculum damage in laying hens. *Veterinary Record* 155: 547-549

Old breaks of the keel and furculum were identified by palpation in 500 end-of-lay hens from 10 flocks housed in free-range and barn systems, and the results were compared with the results obtained by a full dissection and inspection. The method was considered to be sufficiently precise to be used as a diagnostic tool although people using it would need to be trained. The results obtained by dissection indicated that 50 to 78 per cent of the birds in the flocks had breaks of the furculum and keel, but no other breaks of bones were detected.

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### **Domestic goats, *Capra hircus*, follow gaze direction and use social cues in an object choice task**

**Kaminski J, Riedel J, Call J and Tomasello M** 2005 Domestic goats, *Capra hircus*, follow gaze direction and use social cues in an object choice task. *Animal Behaviour* 69: 11-18

Gaze following is a basic social cognitive skill with many potential benefits for animals that live in social groups. At least five primate species are known to follow the gaze of conspecifics, but there have been no studies on gaze following in other mammals. We investigated whether domestic goats can use the gaze direction of a conspecific as a cue to find food. They were able to do this, at a level comparable to that of primates. In a second experiment, we tested goats' ability to use gaze and other communicative cues given by a human in a so-called object choice situation. An experimenter hid food out of sight of the subject under one of two cups. After baiting the cup the experimenter indicated the location of the food to the subject by using different cues. The goats used communicative cues (touching and pointing) but not gaze by itself. Since domestic dogs are very skilled in this task, whereas wolves are not, one hypothesis is that the use of

communicative cues in the object choice task is a side-effect of domestication.

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### **Reintroduction increased vitamin E and condition in captive-bred yellow-footed rock wallabies *Petrogale xanthopus***

**Lapidge SJ** 2005 Reintroduction increased vitamin E and condition in captive-bred yellow-footed rock wallabies *Petrogale xanthopus*. *Oryx* 39: 56-64

Welfare implications of reintroduction are primarily unknown, although reportedly negative. Few studies have described physiological changes in captivebred animals post-release and consequently the impact of reintroduction on captive-bred animals is not well understood. Such information is crucial to understanding whether reintroduction constitutes ethical practice. For these reasons two physiological indices associated with animal health, plasma vitamin E concentration (PVEC) or  $\alpha$ -Tocopherol, and general condition scores, were monitored in reintroduced captive-bred yellowfooted rock wallabies *Petrogale xanthopus celeris* and *P. x. xanthopus* pre- and post-release. PVEC was chosen because deficiencies are common in captive animals compared to their wild counterparts, and have been linked to stress, myopathy, neuronal degeneration, low reproduction, anaemia and death. Changes in physical condition, within this study indicated principally by mass variation, coat condition, and reproductive status, but also parasite load, visible stress, lethargy and diarrhoea, have also not been reported for captive-bred animals reintroduced to the wild. Captive-bred yellowfooted rock wallabies reintroduced to areas of their former range in Queensland and South Australia showed a rapid and sustained increase in PVEC and physical condition, with post-release values significantly higher than pre-release captive levels. Post-release values for both parameters did not significantly differ from that of

wild counterparts. Hence I conclude that there was no welfare implications related to the observed parameters in these reintroductions, rather the opposite.

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### **Consistency of personality traits in dogs**

**Svartberg K, Tapper I, Temrin H, Radesäter T and Thorman S** 2005 Consistency of personality traits in dogs. *Animal Behaviour* 69: 283-291

We investigated the consistency of behaviour over repeated tests in dogs, *Canis familiaris*. Dogs were tested three times, with an average of 30 and 35 days between tests. The behavioural test used in the study included 10 subtests that exposed dogs to various situations, such as the appearance of an unfamiliar person, play, preylike objects, metallic noise and a suddenly appearing dummy. Studies using the same test with many dogs have revealed five specific personality traits, labelled Playfulness, Chase-proneness, Curiosity/Fearlessness, Sociability and Aggressiveness, and one higher-order, broader dimension, interpreted as a shyness–boldness continuum. We used these traits in the present study. We found significant correlations over the test series in all the specific traits as well as in the Boldness dimension. The magnitude of trait scores for Playfulness, Chase-proneness and Sociability, as well as for the Boldness dimension, was stable between tests. The scores for Aggressiveness and Curiosity/Fearlessness, however, differed between the first two tests: the intensity of behaviour related to fear and aggression decreased from test 1 to test 2, but the intensity of exploratory behaviour increased. This result indicates that these two traits in dogs are sensitive to novelty, although individual differences are also maintained in nonnovel situations. The results suggest that playful, social, exploratory, avoidant and aggressive behaviour in dogs is influenced by stable dispositions; i.e. personality traits, that seem to have been important during the evolution of the domestic dog.

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