

# Behavior 2011 ABSTRACTS

Joint meeting of the  
**Animal Behavior Society &  
International Ethological Conference**

Plenary and Symposium Lectures, Contributed Talks and Posters

*In alphabetical order by presenting author*

## **P174 Contributed Poster: SEXUAL SELECTION 1** (Poster Session A: Weds. eve)

### BACKGROUND CONTRAST AND SEXUAL ORNAMENTS INFLUENCE DETECTION OF MALE WOLF SPIDERS BY A PREDATOR

**David Clark**, Corinna Kizer, Andrew Roberts, George Uetz

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Male wolf spiders (*Schizocosa ocreata*) actively search for females during the breeding season and run a high risk of exposure to potential predators. We used video playback to examine the ability of a predator, the American toad (*Bufo americanus*) to detect courting males as a function of distance, background (i.e. sunny vs. shady), and presence/absence of a visual component of male courtship display (foreleg tufts). We found no differences at a distance of 10 cm, but at 30 cm and greater, the percentage of toads detecting a courting male was significantly higher against sunny backgrounds than shady backgrounds. Likewise, beyond 30 cm the latency to orient was significantly less against the sunny background. In a choice test, toads oriented toward courting males with leg tufts more often than those without tufts. Results suggest that courting male wolf spiders are at risk of predation by toads, and that distance, contrast with the background, and the presence of foreleg tufts influences probability of detection. These findings suggest a possible tradeoff between reproductive success based on female preferences for decorations vs. costs of predator detection.

## **76 Contributed Talk: COGNITION AND LEARNING I** (Tuesday AM)

### BEHAVIOURAL AND BRAIN RESPONSES TO FLAVOURED-MEALS PAIRED WITH VISCERAL STIMULATIONS IN PIGS

**Caroline Clouard**, Mélanie Jouhannau, Marie-Christine Meunier-Salaün, Charles-Henri Malbert, David Val-Laillet

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Behavioural and brain responses towards conditioned flavours with different hedonic values were studied in twelve 30-kg pigs. During four 30-min conditioning sessions per flavour, the animals received a flavoured-meal paired with intraduodenal infusions of 15% glucose (FG), lithium chloride (FL), or saline (FS). Two-choice feeding tests were performed 1 and 5 weeks later, and in between, anaesthetised pigs were subjected to three PET brain imaging with exposure to the flavours. During conditioning, pigs spent more time inactive, explored and played less after FL than FS or FG meal. During the two-choice tests, the FS and FG flavours were significantly preferred over the FL flavour. FS was preferred over FG during the first test only. Exposure to flavours with different hedonic values induced metabolism differences in neural circuits involved in preference and aversion learning, feeding motivation, reward expectation and/or the characterisation of food palatability. In conclusion, post-ingestive visceral stimuli can modulate the flavour/food hedonicity and further feeding choices. Unconscious brain mechanisms are involved in flavour discrimination and expectation of food reward.

## **P164 Contributed Poster: RECOGNITION** (Poster Session A: Weds. eve)

### A NEW THEORY OF ANIMAL PHOBIA ACQUISITION

**Geoff Cole**, Arnold Wilkins

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Two classical accounts of animal phobia acquisition argue that aversion to the critical stimuli is due to either a learned response or an innate phobic predisposition. The latter approach suggests that humans are innately predisposed to fear animals that pose a potential threat (e.g., snakes), whilst the former suggests that phobias occur via classical conditioning. There exists, however, many animal phobias that are difficult to explain with these two accounts such as the fear of fish (ichthyophobia). We assessed whether animal phobias are partly due to the phobic-inducing stimuli possessing a particular visual property known to induce stress in some observers. A spectral analysis was performed on 460 images of all the 23 animals that are associated with a recognised phobia (e.g., snakes & spiders). We compared their power spectra with control images of animals not associated with phobia. Results showed that the phobic-inducing animals possess relatively high luminance contrast energy