ASAB Easter Conference 2016

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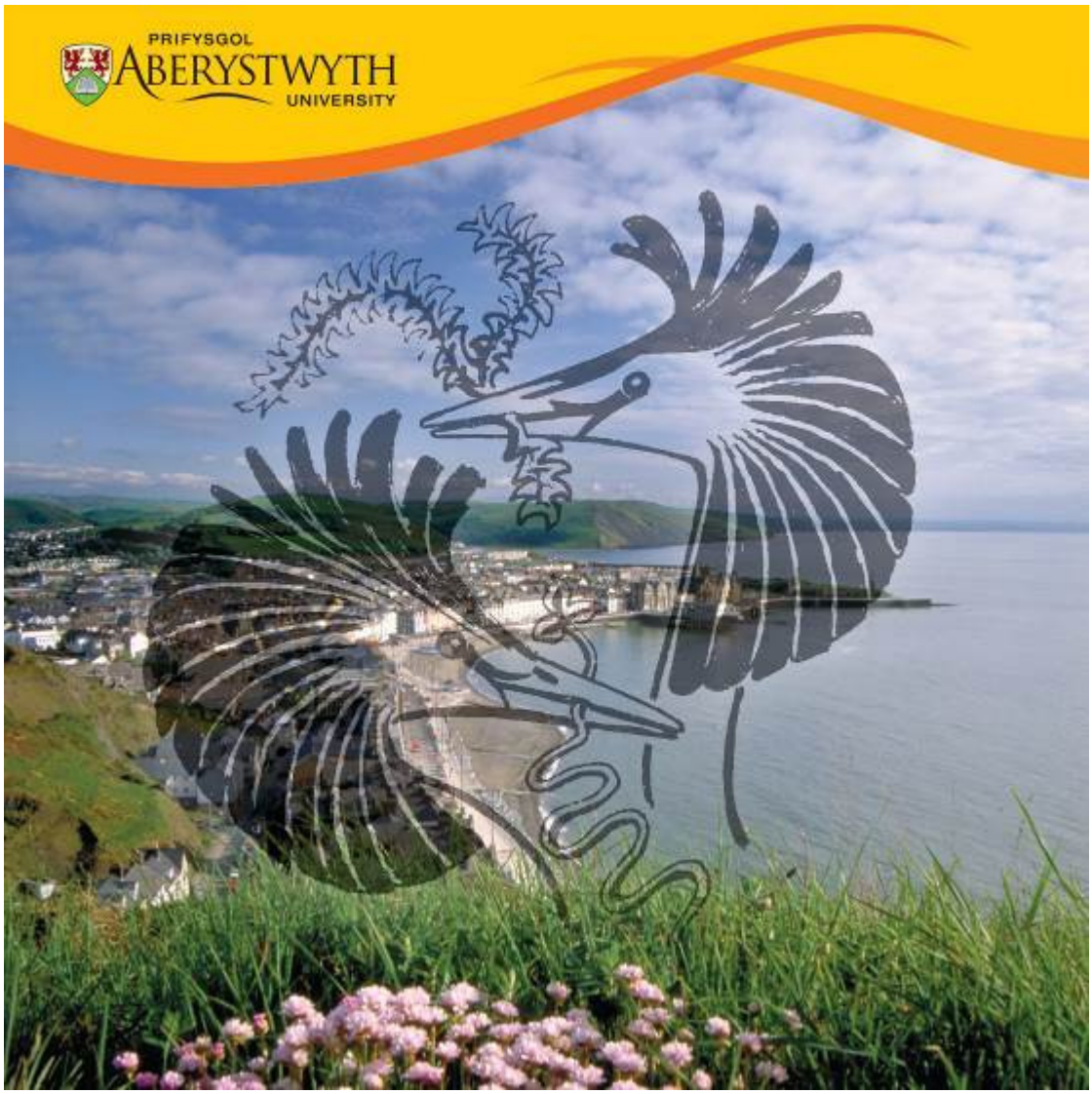
Aberystwyth University

ABSTRACTS



Association for the Study of Animal Behaviour

7 **Massimo De Agro**, L. Regolin, E. Moretto Padova University

Shape discrimination in the jumping spider *Phidippus regius* 18

In recent years a growing number of studies in animal cognition has focused on minute brains' abilities, especially those of species phylogenetically more distant from primates or even vertebrates. Arthropos species were shown able to navigate complex environments, of a variety of forms of learning, they can communicate, and deven d o some rudimental counting. We are studying perception and cognition in an darachnid species, the jumping spider Phidippus regius. This family distinguishes itself d among spiders, and from the other Arthropoda as well, due to its sophisticated visual d system, composed of 4 pairs of simple (single lens) eyes. Receptor size and density in d the anterior median eyes in particular allow for an extraordinary visual acuity, though d the small visual view of these eyes makes it very probably necessary to scan and then d stitch together (in some form of inner representation) multiple images. In spite of d extensive investigation of the anatomy and physiology of jumping spiders' visual d system, shape perception and discrimination has to our knowledge never been d assessed experimentally. We have been trying to work in this direction and will discuss d the experimental paradigm and the preliminary data so far obtained.

Katie Dunkley, J. Cable, S. Perkins Cardiff University
Sharing is caring: multi-species cleaning stations influence cleaner-client interactions in the Caribbean.

Cleaner fish can have an important influence on the ecology of coral reefs, but the role of multiple cleaner species sharing the same resource is not well understood. In the Caribbean, the predominant cleaner species the sharknose goby (*Elacatinus evelynae*), may share cleaning stations with juvenile French angelfish (*Pomacanthus paru*), a facultative cleaner. Mutualistic cleaner-client interactions are ubiquitous on coral reefs, where the cleaners remove parasites, dead skin and mucus from the bodies of visiting reef fish species (clients), influencing their health and behaviour. However, the
8 cleaning behaviour of the juvenile French angelfish and the impact of this multi-species mutualism, in terms of creating variation in cleaner-client interactions, is largely unknown. Between 2010 and 2015 we monitored client-cleaner interactions on Booby Reef in Tobago. The presence of a French angelfish at a cleaning station influenced both the diversity of visiting clients and the duration of cleaning events by sharknose gobies. However, juvenile French angelfish were not present at cleaning stations every year, and the abundance of sharknose gobies was also highly variable. This represents a major strength of this long-term dataset in that it allows us to assess both temporal and spatial variation in cleaner-client interactions.

Kym Griffin, S. Redgate, K. Yarnell, C. Hall Nottingham Trent University Sleep d eprivation and its association with performance, safety and welfare in horses

Within marine systems, phylogenetically-based comparative analysis has been used to address key questions on everything from speciation rates and body-size evolution in fishes, to the evolutionary origins and ancestral state reconstruction of cephalopods. Here we adopt this approach to investigate the evolution of a long-standing paradox in jellyfish ecology; namely, how gelatinous species that are often portrayed as negative stressors of fish communities can serve as habitat providers during their early life history. Specifically, we explore the evolutionary history of fish-jellyfish

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