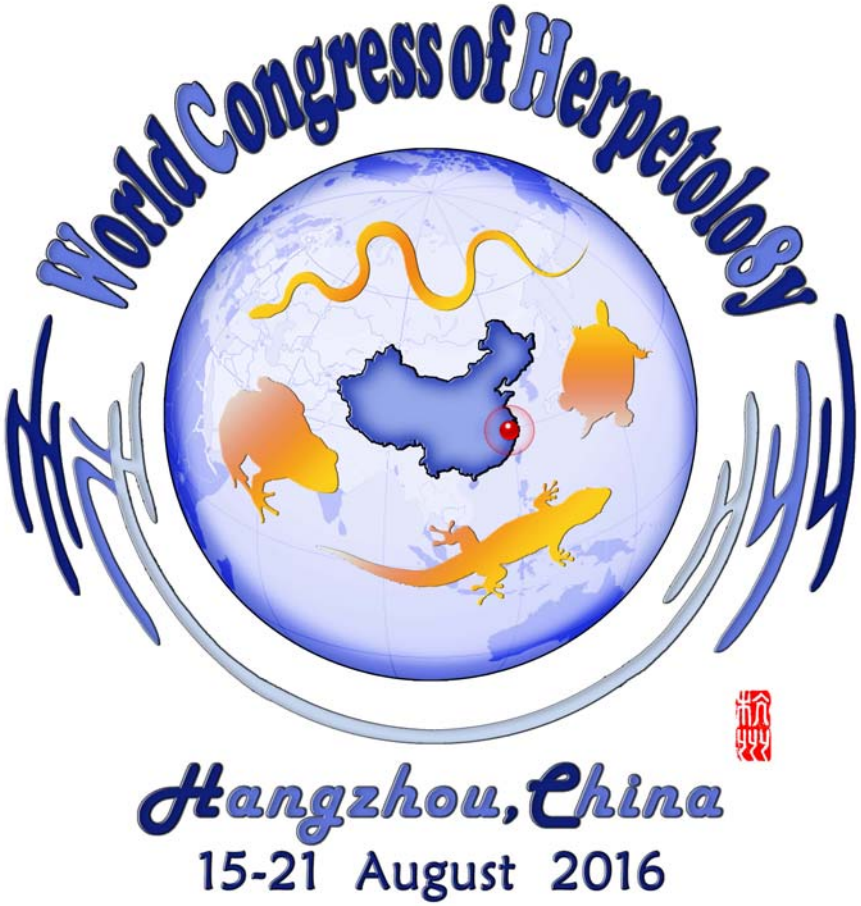
The 8th World Congress of Herpetology

第八届世界两栖爬行动物学大会



Abstracts

15-21 August 2016
New Century Grand Hotel Hangzhou
Hanzhou, China
www.wch2016hangzhou.com

ID037

Signal repertoire and contest outcome in the Jacky dragon

Marco D. Barquero[1,2*], Martin J. Whiting[2]

1. Sede del Caribe, Universidad de Costa Rica, Montes de Oca, San José, Costa Rica, 2060.
2. Department of Biological Sciences, Macquarie University, Sydney, New South Wales, 2109, Australia.

[*]Presenting author's e-mail: marco.barquero_a@ucr.ac.cr, marcobarq@gmail.com

Establishing dominance is an important mechanism for determining access to resources such as mates or territories. However, levels of aggression and dominance may vary among populations based on history and variation in individual traits. Here, we use an agamid lizard from Australia, the Jacky dragon (*Amphibolurus muricatus*), to quantify variation in traits predicting contest outcome among males of different populations. We measured morphology, maximal physiological performance capacity (sprint speed, endurance, bite force) and visual displays during staged encounters. We found that: 1) morphology, performance capacity and the structure of visual displays used during agonistic interactions varied significantly across populations; 2) one population was dominant over the others based on behavioural attributes; and 3) different rules among populations seem to govern the outcome of contests and hence the potential of individuals to become dominant. We discuss these results based on the potential consequences for dispersing animals contacting new populations with differences in signal form and function.

Keywords: *Amphibolurus muricatus*, Australia, contest predictors, dominance, populations, signaling behavior