SYSTEMATIC STATUS OF THE CRAB SPIDER GENUS *PAGIDA* WITH A RE-DESCRIPTION OF THE TYPE *PAGIDA SALTICIFORMIS*

S.P. Benjamin, C.I. Clayton and N.P. Athukorala

Institute of Fundamental Studies, Hantane Road, Kandy, Sri Lanka Corresponding author: suresh.benjamin@gmail.com

Thomisidae (crab spiders) is the sixth largest family in the order Araneae, with 174 genera and 2153 species. Spider species of this family are small to medium sized, squat and exhibit sexual dimorphism. The crab spiders' method of catching prey has also made it a model organism in the study of signal strategies. In addition, previous studies have shown that crab spiders exhibit the behaviours of sociality, maternal care and mimicry, which rarely occur in Araneae. The genus Pagida Simon, 1895 is currently a member of the subfamily Thomisinae. The type species for Pagida, Pagida salticiformis is an immature female, collected in 1871 by G. H. K. Twaites. This specimen was subsequently described by Cambridge (1883). However, mature male specimens have been recently collected in Sri Lanka, eliciting the need to re-describe the genus. In addition, Lehtinen (2007) questioned the phylogenetic placement, suggesting that Pagida be upgraded to a family state. Thus, phylogenetic analysis based on morphology and behaviour was conducted. The character matrix used was adapted from Benjamin (2011), with 78 characters assessed across 33 taxa. The matrix was constructed using Mesquite and subsequently analysed using TNT. Character evolution was determined using WinClada and MacClade. Scanning electron pictures of specimen and drawings of the sexual organs were used to redescribe the species. The redescription includes that P. Salticiformis has a prominent paracymbium that surrounds the retrolateral tibial apophysis, with all legs being of similar length. In addition, the anterior eye region projects beyond the clypeus. The eye tubercles are joined together. Finally, P. salticiformis have spoon shaped claw tuft setae. The resulting phylogenetic tree hypothesises the placement of the genus Pagida within Thomisidea as sister to Stiphropus and Apyretina, thus negating its elevation to family level. The characters supporting this placement are the oval tegulum, the lack of leg spines, the fused metatarsus-tarsus joint and the tarsus being longer than the metatarsus.

This study was funded by the Institute of Fundamental Studies

Keywords: Endemics, Phylogenetic, Taxonomy, Thomisidae