

**PRELIMINARY RESULTS ON SEXUAL DIMORPHISM IN THE
MEDITERRANEAN CHAMELEON (*CHAMAELEO CHAMAELEON*)
(LAURENTI, 1768) ON SAMOS ISLAND, EAST AEGEAN**

Enara Otaegi Veslin¹, Cristina Acasuso-Rivero^{1,2}, Victoria Holt^{1,3},
Madeleine Close¹ & Anastasia Miliou¹

¹Archipelagos, Institute of Marine Conservation, P.O. Box 229, Ormos, Marathokampos, GR-831 02, Samos, Greece. Email: a.miliou@archipelago.gr

²Paris Descartes (V) University, Centre of Interdisciplinary Research (CRI), 24, rue du Faubourg Saint Jacques, 75014 Paris, France. Email : cristina.acasuso@etu.parisdescartes.fr

³Plymouth University, Geography and Ocean Sciences, Drake Circus, Plymouth PL4 8AA, United Kingdom. Email: Victoria.holt@students.plymouth.ac.uk

Chamaeleo chamaeleon is a chameleon distributed in Africa and Europe. Samos in the eastern Aegean Sea is one of the last island refuges of the species in the Mediterranean. Morphometric reports in African populations have proved sexual dimorphism; males have larger tails than females. This study reports measurements from 194 individuals with average sizes (cm \pm SD): Snout-Vent Length (SVL)=9.1 \pm 3.7; Body Width (BW)=3.4 \pm 1.5; Head Height (HH)=2.8 \pm 1.2; Head Length (HL)=3.1 \pm 1.2; Crest Width (CW)=1.2 \pm 0.4; Crest Height (CH)=1.5 \pm 0.7; Mouth Length (ML)=2.1 \pm 0.8; Eye Length (EL)=0.8 \pm 0.3; Frontal Leg Length (FLL)=3.5 \pm 1.5; Hind Leg Length (HLL)=3.6 \pm 1.5; Frontal Foot Length (FFL)=1.7 \pm 0.7; Hind Foot Length (HFL)=1.7 \pm 0.7. The population did not show any gender bias (Mean Adult-Sex Ratio [ASR] = 49% males). Within both genders all morphometrics have a positive correlation with seasons, growing as temperature increases. We suggest there is sexual dimorphism within this population, as females have larger HL ($p=0.019$), CW ($p=0.046$), EL ($p=0.037$) and FFL ($p=0.031$) than males. In a Pearson's correlation matrix, all character sizes were directly linked to SVL except HFL and BW in both, males and females. Correlation between male's CH and all the other characters proved to be statistically significant; this is not true for females (SVL, ML, EL, HLL, FLL and HFL did not correlate). These preliminary results suggest that in Samos' *C. chamaeleon* population males have a smaller head which is directly related to other morphological characters. In contrast, females head is larger and not statistically related to most of the measured characters; therefore, there is potential sexual dimorphism within this subpopulation.