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PROGRAM & ABSTRACTS



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**SEXUAL SIZE DIMORPHISM AND ECOMORPHOLOGY OF THE
BERTHOLD'S BUSH ANOLE (*Polychrus guttuerosus*) IN COSTA RICA:
PRELIMINARY DATA**

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Sexual size dimorphism (SSD) is the result of sexual or natural selection operating differently on the body sizes of females and males. Males of most lizard species are larger than females, suggesting intrasexual selection on male's body size to be more aggressive or territorial. However, some species exhibit female-biased SSD, suggesting that selection operates on female fecundity. A third explanation for SSD concerns with differences among sexes to reduce intersexual competition through a differential resource use. The Berthold's bush anole is a rare arboreal and diurnal lizard, for which there is little information about its ecology and behavior. Our aim is to determine whether morphological and ecological measures differ across sexes and relate potential differences with hypotheses explaining SSD. We studied one population of the Berthold's bush anole in Costa Rica. We collected data on eight morphological measurements, skin temperature and sleeping perch height. We captured and pit tagged 35 wild individuals, 18 males and 17 females. We found that females are on average 23,1 mm larger than males, but relative tail length, head length and head height are male-biased. We found no differences in the sleeping perch height among sexes and did find a negative correlation between sleeping perch height and nocturnal skin temperature for females but not for males. These preliminary results demonstrate that female-biased SSD is present in the Berthold's bush anole, but only in SVL. They also seem to indicate that either a fecundity or ecological hypothesis might explain such SSD, although further research is underway to explore these options.