

B103 **Vocal behaviours of inland Bush Warbler (*Cettia diphone borealis*)**

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Vocal behaviours of inland Bush Warbler were examined at an area of Cheongwon, Chungbuk. Bush Warbler used three kinds of vocal signal. One of the vocal signals is the song which functions territory announcement. The others are threat call and alarm call. The threat call is used when territorial male is intruded by other males of the same species. Territorial male that finds something likely be a predator vocalizes alarm call. To investigate the response of Bush Warbler visual stimulus, bird mounts were presented. When a mounted cuckoo, brood parasite was presented at near his nest, territorial male flew up and down around it and uttered an alarm call. Whereas territorial male saw a mounted male Bush Warbler specimens in his territory, the male approached with growl threat call and attacked at it. Also, a playback experiment was performed to clarify song type which was used for territorial defence in inland Bush Warbler. During and after playback, territorial male vocalized threat call and then began songs. In after-playback as compared with before-playback, we couldn't find transition of specific song types but found a few song variables that were significantly different.

B104 **Effects of Temperature on Oocyte growth in the Mediterranean Terebellid *Eupolymnia nebulosa* (Annelida: Polychaeta)**

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Eupolymnia nebulosa (Montagu) is a widely distributed terebellid polychaete that builds its tubes in the coastal shelf in areas with mixed soft and hard bottoms. From a long-term survey in the Bay of Banyuls, France (NW Mediterranean), we found an advancement of the timing of the spawning period coincident with a delayed of the breakdown of the thermocline. We postulate that a persistent high temperature can influence gamete development by stimulating oocyte growth, resulting in earlier spawning. During 1992 and 1993, we used a between-individuals experimental approach to assess the possible effect of temperature on oocyte growth based on: (1) determination of the growing fraction of the oocyte population (i.e. oocyte net growth); (2) the identification of differences in oocyte growth rate among females; (3) comparison of non-significantly different pairs of different size distributions of growing oocyte fraction (net oocyte size-distributions) at the beginning of the experiments with those at the end. No effect of temperature on oocyte growth was detectable at the population level, but a positive individual response to prolonged high temperature was evident. Thus, the lack of a significant response by the population to prolonged high temperature does not imply a lack of individuals response. We propose a model of oocyte growth dynamics based on temperature that incorporates previous observations of extend of oogenesis and oocyte growth.