

ABSTRACT

M. Sc. Thesis

**TAXONOMIC STATUS OF *Rana macrocnemis* (ANURA:AMPHIBIA)
AROUND BOZDAĞ (ÖDEMiŞ) AND AKDAĞ (TAVAS)**

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This study was carried out with the aim of clarifying the mixed taxonomic status of current populations of *Rana macrocnemis* (Anura:Amphibia) species among Anatolian mountain frogs in Izmir, Ödemiş county, Bozdağ district and Denizli, Tavas county, Akdağ district. In July 29(5♂♂ + 24♀♀) mature sample from Çakıroluk district in Akdağ, and 15(6♂♂ + 9♀♀) mature samples from hotel area in 1528 m. Height of Bozdağ were collected. Also, 9(7♂♂ + 2♀♀) samples included in Adnan Menderes University, Department of Biology Collection, gathered from Bozdağ village neighborhood, Gündalan and Büyük Çavdar plateaus, were used. Dorsal and ventral photographs of each samples etherized in a covered container were taken, and then they were determined in %96 ethyl alcohol. Buy using literature information, Population samples were examined in terms of morphological features, body measurements by using compass, and rates belonging to these measurements, color and pattern characteristics and biotope features, and both populations were compared in the context of these features.

Besides, a comparison was made by taking into account the same features with the studies of Baran and Atatür (1986) who described Bozdağ population as nominat sub species *Rana macrocnemis macrocnemis* and Akdağ population as endemic sub species *Rana macrocnemis tavasensis*. Due to the fact that in Akdağ polpulation there is a vertebral string, the color of dorsolateral fold is highly light, and it has a darker back color, distinctive differences with Bozdağ population were detected. It is especially remarkable that the difference between the percentages of the presence of dorsolateral fold color and vertebral string in both populations is high. In addition to that, remarkable differences were found between the two populations when a comparison about hard patterns and body sizes was done.

As a result it was determined that, the amphibians belonging to these populations were different and this difference could be in the level of sub species.

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