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Population Size and Threats of Endemic Beyşehir Frog (*Pelophylax caralitanus*) In Two Distinct Locations

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Aim of the study: Amphibians are known to be sensitive to the ecological changes. Increasing environmental changes in their habitats are one of the most important threat for amphibians and conservation of the amphibian populations and individuals is not adequate enough to protect them. For enhanced conservation, their habitats should be protected and threatening environmental factors should be decreased. In this study, we calculated the population size of the *P. caralitanus* and determined main threats to their population in Gölcük Lake, Isparta and Kuşluca location of Beyşehir Lake, Konya.

Material and Methods: *P. caralitanus* individuals were captured by a dip net or hand after sun set using flash light on each sampling occasions with two or three persons. All individuals were tagged by using digital photography technique. They were kept in a plastic container until they were photographed. Photographs were taken in the field using Nikon D5000 digital cameras. Sex, dates and image numbers were recorded as codes for all individuals. To recognize each individual, dorsal maculation (dot or spot pattern) was used. Afterwards, they were released to the same habitats. All images were transferred to a computer and classified in different folders as date and site. Images of all individuals in folders were matched visually and the images of the same individuals from different folders were recorded using Microsoft Office Picture Manager. To minimize the probability of misidentification, by way addition to photo quality, all images were matched by minimum two different persons, and complete dorsal maculation of the individuals were used for recognizing same individuals. We used the Program Mark for population size estimation.

Results: The capture histories generated from the field surveys. During our CMR study, we captured a total of 1356 individuals from Gölcük Lake and 352 individuals from Kuşluca location of Beyşehir Lake. According to captured female:male ratio were calculated as 1.38:1 for Gölcük Lake and 1.32:1 for Kuşluca location of Beyşehir Lake. Population sizes estimated as 5295±2280 (95% Confidence interval= 2640-12455) individuals for Gölcük Lake and 735±79.9 (95% Confidence interval= 605-921) individuals for Kuşluca location of Beyşehir Lake. Annual capture probabilities were estimated on average 0.22 and 0.16 respectively. This result was indicated that in most cases, we had recaptured about less than one quarter of the breeding individuals for both locations. During the field studies we determined the main threats and classified under four categories.

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Keywords: Beyşehir Frog, Endemic, Population Size, Conservation