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Distribution of *Chalcides ocellatus* (Forskal, 1775) under Current Bioclimatic Conditions

Serkan GÜL[1], Kamil CANDAN[2], Çetin ILGAZ[2], Yusuf KUMLUTAŞ[2]
[1] Department of Biology, Faculty of Arts and Sciences, Recep Tayyip Erdoğan University, Rize, Turkey
[2] Department of Biology, Faculty of Science, Dokuz Eylül University, İzmir, Turkey
serkan.gul@erdogan.edu.tr

Aim of the study:*Chalcides ocellatus* that is a species of the genus Chalcides presents the wider geographic distribution, but it also is in the western Turkey. Therefore, we wonder whether distribution of *Chalcides ocellatus* will be limited by bioclimatic conditions or not. For this reason, we aim to determine which climatic conditions are preferred by *Chalcides ocellatus*.

Material and Methods: Occurrence data of *Chalcides ocellatus* were collected during fieldwork between 2000 and 2014 years, and a total of 60 samples were used for analysis. Bioclimatic data was downloaded from WorldClim a set of global climate layers (gridded climate data) with a spatial resolution of about 1 km^2. These data have the highest resolution (30 arc-seconds (~1 km)). Then, the data were masked for Turkey boarder using ArcGIS 10.2. For Ecological Niche Modelling, Maxent version 3.4 was run under 10 replicates. Regularization multiplier and maximum iterations of the optimization algorithm were choose as 1 and 500, respectively.

Results: The average test AUC for the replicate runs is 0.967, and the standard deviation is 0.025. The highest percent contribution of the environmental variables was found as bio-1 (%52.9) and bio-11 (%20.6), and other variables were under 10 %. However, the results of the jackknife test of variable importance showed that the environmental variable with highest gain when used in isolation is bio-11, and the environmental variable that decreases the gain the most when it is omitted is bio-4. Values shown are averages over replicate runs. According to model, distribution of *Chalcides ocellatus* is limited by temperature, and suitable habitats for *Chalcides ocellatus* emerge in the coastal parts of the Mediterranean.

Keywords: Ecological niche modelling, potential distribution, scincidae