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Habitat suitability and distribution models of brown bear (*Ursus arctos*) in two protected areas (Sefid kouh and Oshtran kooh, Lorestan, Iran)

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Brown bear is the largest carnivore in Iran, has a very large variety and several subspecies in the world. The brown bear as an umbrella and flagship species has a great importance in mountainous ecosystems. Brown bears in Iran have three diverging populations: (1) Hyrcanian forests on the northern slopes of the Alborz Mountains and the southern shores of the Caspian Sea, (2) mountains of the Caucasus in the northwest of the country and (3) Central Zagros mountains in the west. Human activities such as agriculture, forestry, highways and human settlements that result in the degradation or fragmentation of habitats are major threats to Brown bear populations. Part of the brown bear distribution areas in Iran is the Zagros Mountains, which Sefid kouh and Oshtar kooh protected areas are considered as important brown bear habitats in there. In this study, we used the GPS to record presence species points, as well as maximum entropy method (MAXENT) and ArcGIS 10.3 software to evaluate the habitat suitability and distribution of brown bear in two mentioned hotspots of brown bear. Results showed that roads, seasonal temperature, topography and cities are the most important drivers affected distribution of brown bears in the study area. These factors, by interacting with each other, ultimately reduce the habitat suitability and isolate the brown bear population of the protected area of Sefidi kouh and Oshtran kooh in Lorestan province.

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