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# Zagros oak forests in Iran and the importance of their protection by big data

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Iran, with different climatic conditions from humid in the forests of southern Caspian Sea to arid in the desert areas of Lut plain is one of the main parts of endemism in the world. Deformation and folding of the southern and southwestern part of Iran due to the separation of Arabian land from Africa and its approach to Iranian plateau caused the organization of Zagros. Zagros habitat starts from northwest of the country, Piranshahr city in West Azarbaijan province and continues to Firouzabad city in Fars province. This area with 5 million hectares is the origin of valuable species of oak and plays a significant role in the ecological balance, soil and water conservation and socio-economic conditions of its inhabitants. The main types of soil in Zagros are forest brown. The amount of rainfall in Zagros oak forests decreases from north to south and from west to east. These oak forests are considered as under destruction due to overgrazing, agroforestry, traditional harvesting of wood and by-products of trees, land use change, invasion of tress by pests and diseases and fires. Oak trees of this area, with accompanying species, have created the diversity of mammals, birds, reptiles, amphibians and even aquatic animals. Today, the protection of Zagros and oak genus trees, due to extensive climate changes and human interventions, requires a comprehensive management with a protection and restoration approach, so that the ecological capacity of this habitat increases and the forest regains its natural structure.