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Mongolian O-Boo culture and biodiversity conservation in Arbas Mountain , Ordos Plateau

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Introduction Biodiversity is one of the global environmental problems to which international society pays attention (Wilson & Francis , 1988) . Traditional culture and production activities of a minority group play a positive role in conservation and utilization of biodiversity (Desmann , 1990) . Ordos Plateau became main desert center in China after unreasonable exploitation and utilization for thousands of years , threatened biodiversity .

Materials and methods The biggest O-Boo is Wu-ren-dus O-Boo in Ordos Plateau , it was built on a square-flat mountaintop of Arbas Mountain in the Genghis khan era . We adopted methods of ethnoecology , cultural anthropology , sampling investigation to analyze information of culture diversity and sample data , and appraise and summarize interaction between culture diversity and biodiversity .

Results Ordos Mongolian O-Boo culture conserves plant species diversity , also conserves and continually utilizes community diversity (Table 1 ; Table 2) .

Table 1 Species diversity in Arbas Mountain .

Main plant species	Main animal species
<i>Juniperus rigida</i> , <i>Acer ginnala</i> , <i>Xanthoceras sorbifolia</i>	<i>Uncia uncial</i> , <i>Panthera tigris</i> , <i>Pseudois neyowr</i> , <i>Canis lupus</i> , <i>Gazella subgutturosa</i> , <i>Ovis ammon</i>

(Zhao , 1982 ; Arbinbair & Narson , 2004)

Table 2 Plant community diversity in Arbas Mountain .

Diversity of communities	Constructive species	Dominant species	Concomitant species
Form . <i>Helianthemum soongoricum</i>	<i>Helianthemum soongoricum</i>	<i>Convolvulus tragan-canthoides</i> , <i>Reaumuria trigyna</i>	<i>Stipa breviflora</i> , <i>Caragana roborovskiyi</i> , <i>Kengia soongorica</i> , <i>Ptilagrostis mongholica</i> , <i>Enneapogon borealis</i>
Form . <i>Potaninia mongolica</i>	<i>Potaninia mongolica</i>	<i>Allium mongolicum</i>	<i>Aristida adscensionis</i> , <i>Zygophyllum xanthoxylon</i> , <i>Setaria viridis</i> , <i>Calligonum mongolicum</i> , <i>A griophyllum pungens</i>
Form . <i>Tetraena mongolica</i>	<i>Tetraena mongolica</i>	<i>Salsola passerina</i> , <i>Reaumuria soonga-rica</i>	<i>Stipa breviflora</i> , <i>Achnatherum splendens</i> , <i>Allium mongolicum</i> , <i>Pennisetum centrasiaticum</i> , <i>Astragalus scaberrimus</i>

Conclusions Mongolian O-Boo is a remnant , original and natural old-line Nature Reserve , which functions in biodiversity conservation . Arbas Mountain is a representative original Nature Reserve in western Ordos Plateau . Ordos Mongolian O-Boo culture is on the basis of conserving stabilization and sustainable development of grassland environment , conserves ecosystem , community diversity and species diversity .

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