

#### 41 A three-dimensional nanofibrous scaffold for cartilage tissue engineering

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Cartilage defects resulting from aging, joint injury, and developmental disorders cause joint pain and loss of mobility. A tissue engineering approach provides a cell based therapy to repair articular cartilage defects, and has been suggested as a promising means to restore joint functions. In cartilage tissue engineering, chondrocytes and mesenchymal stem cells (MSCs) are commonly used for cartilage regeneration. MSCs are multi-potential cells that can differentiate into bone, cartilage, fat, muscle and other tissue types. Biomaterial scaffolds have several attractive qualities for serving as a carrier for MSCs, such as providing a three dimensional environment and mechanical properties. In this study, we fabricated a nanofibrous scaffold (NFS) made of a synthetic biodegradable polymer, this scaffold is poly (ε-caprolactone) (PCL), and examined its ability to in vitro chondrogenesis of MSCs. Rabbit bone marrow derived MSCs were isolated from the femore of rabbit. Scaffold/MSC cultured in chondrogenic induction medium. After culture for 7 and 14 and 21 days, chondrogenic differentiation ability was tested using Alcian blue staining, RT-PCR analysis, measurement of glycosaminoglycan (GAG) levels, and SEM imaging. GAGs level increased after 7 and 14 days incubation. Alcian blue staining revealed MSCs could differentiate to chondrocyte on the PCL scaffold. RT-PCR showed mRNA expression of collagen type II (Col-II), SOX9, and aggrecan. SEM revealed growth of chondrocyte-like cells on PCL scaffold. According to result, it is suggested that MSCs incubated on PCL could be differentiated into chondrocyte lineages, may represent a useful strategy for the regeneration of cartilage defects.

### Animal Systematics & Ecology

#### 42 Lizards of wild life refuge of Miandasht of Jajarm in the northern Khorasan province

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Wild life refuge of Miandasht with 84435 Hectares is located in the southwest of Bojnourd and about 10 km east of Jajarm and Joghtai part of the northern Khorasan province. It was accepted a project in Department of Environment of northern Khorasan province, and then carried out field studies 5 times in 2007. It was searched the area night and daily times and were collected some lizard specimens. It was prepared many photos on lizard species and their habitats. All specimens were identified with available keys. This study revealed that there are at least 13 lizard species in this area. It was collected and identified 3 species of Agamidae (*Laudakia caucasia*, *Phrynocephalus scutellatus*, *Trapelus agilis*), 3 species of Gekkonidae (*Bunopus tuberculatus*, *Cyrtopodion caspium*, *Teratoscincus bedriagai*), 6 species of Lacertidae (*Eremias intermedia*, *Eremias lineolata*, *Eremias persica*, *Eremias velox*, *Mesalina watsonana*, *Ophisops elegans*), and one species of Varanidae (*Varanus griseus caspius*). It is clear that family Lacertidae with 6 and Lacerta with 4 species have the most species and the family Varanidae with one species have the lowest species in this area.

#### 43 New Reports from Rodentia in Turkaman Sahra

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In order to gather information about the Rodentia of Torkaman Sahra, some specimens have been investigated from autumn 86 to spring 87. The specimens have been taken in the villages of Dashli broon region using traps. The captured specimens have been investigated in three fields of Morphometric, Morphologic and karyologic. The Karyotype of alive specimens has been obtained using the washing of bone marrow method. The captured specimens belong to *Allactaga elater*, 2N=48 and *Pygeretmus pumilio* from family Dipodidae, *Mus musculus*, 2N=40 from subfamily Murinae, *Meriones libycus*, 2N= 44 and *Rhombomys opimus*, 2N= 40 from subfamily Gerbillinae that both belong to family Muridae, also *Cricetulus migratorius* from subfamily Cricetinae and family Cricetidae. It should be mentioned that the investigation is still in progress.

#### 44 Stock and catch status of Caspian kutum ( *Rutilus rutilus* ) in Iranian coastal water of the Caspian Sea

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