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Review on the Iranian species of *Darevskia* (Sauria: Lacertidae)

So far, seven species of the genus *Darevskia* Arribas, 1997 have been documented from Iran: *Darevskia chlorogaster* (Boulenger, 1909), *Darevskia defilippii* (Camerano, 1877), *Darevskia mostoufii* (Baloutch, 1976), *Darevskia praticola* (Eversmann, 1834), *Darevskia steineri* (Eiselt, 1995), *Darevskia valentini* (Boettger, 1892) and *Darevskia raddei* (Boettger, 1892). Based on extensive and long-lasting field work in various regions of the Iranian Plateau, taxonomy and distribution of the lacertid lizards of the genus *Darevskia* Arribas, 1997 are discussed. Some new records and a new taxonomic entity within this genus are reported. The distribution maps of all the studied species are given and a key to the Iranian species of *Darevskia* is provided.

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Linking the evolution of habitat choice to ecosystem functioning: direct and indirect effects of pond-breeding fire salamanders on the aquatic-terrestrial coupling

Shifts in the life history traits and behaviour of species can alter ecosystem functioning. In fish-free habitats, the larva of the Firesalamander (*Salamandra salamandra terrestris*) are considered the only vertebrate top-predators influencing biodiversity and the flux of biomass. Here we estimate the effects of pool-breeding fire salamanders on pool food webs and on the animal-mediated flux of matter between pools and the adjacent terrestrial habitats. Typically Fire Salamanders breed in first order streams and the pool-breeding ecotype is considered a recently evolved local adaptation. Our estimates are based on biomass data of the fauna of different vernal pools as well as data on the stomach content, growth rate and population dynamics of the salamander larvae in these habitats. Due to high mortality rates during larval phase and relatively small metamorphosis size of the pool breeding salamanders (in contrast to stream-breeders of the same species), the biomass export of metamorphosed salamanders in late summer usually falls below the biomass import. This net-import of matter and energy into the aquatic habitat is further accelerated as the salamanders consume both organisms of terrestrial origin trapped on the water surface (supporting import) and aquatic insect larvae with terrestrial adults (preventing export). All together, the adaptation of fire salamanders to breed in pools leads to strong net increases of animal-mediated import of terrestrial matter into the aquatic habitats and the community structure of macroinvertebrate food organisms. In the light of global decline and ongoing habitat destruction and fragmentation understanding on how single species can influence habitat functioning becomes of special importance, especially for amphibian species.