



Title of Abstract

The investigation of vegetation of Marl areas for biological controlling of water erosion in arid land
study: Semnan Province, Iran)

Naser Mashhadi, Farshad Amiraslani

Affiliation(s) and Contact

International Research Center for living with Desert- University of Tehran, Iran
(nmashhad@ut.ac.ir / Phone: +98 21 2274 0690)

Text of Abstract

The vast areas of Central Iran has been covered by sediments of Tertiary (Neogen) era. The lithology areas is categorized as Marl. The Marl is kind of rocks which has proportional clay and salts content. Specifications of these rocks are low infiltration and poor vegetation. So, they have high erodability potential. In this case, we proposed a project to recognize vegetation of three land features including salty Marl, Gypsum Marl and Calcic Marl of these areas in Semnan Province, Iran. Studies were based on geological, geomorphological and physiographical maps and aerial photos and field surveys.

The results show that distribution of vegetation in these three features depends on the physiographic situation. As such, vegetation of hill foot and hill slope is different from each other according to the plant species density. The predominant plant species in Gypsum hills were *Ephedra sp.*, *Cornulaca momacantha*, *Atriplex setifera*, in salty were *Seidlitzia rosmarinus*, *Salsola arbuscula* and in calcic hills were *Artemissia hermannii*, *Atraphaxis spinosa*, *Stachis inflata*.

These plant species can be utilized in biological control of water erosion in other similar areas.

Key words: Water erosion, Marl, Iran, biological control