

---

Archive of SID

---

// : // :

Braun-Blanquet-Kuchler -<sup>٦</sup>  
Floristic-physiognomic -<sup>٧</sup>

:

.( )

Archive of SID

o ' " o ' "  
o ' " o ' "

( )

<sup>1</sup> - Minimal area  
<sup>2</sup> - Releve  
<sup>3</sup> - Life form

( )

\_\_\_\_\_

/

:

( )

( )

( )

/)

/)

(

(

( ) ( )

( )

(.)

<b>M-m</b>	<b>(a)</b>	<b>(I)</b>	<b>(M)</b>	<b>(M)</b>	<b>(M)</b>	<b>(P)</b>	
/	/	/	/	/	/	/	
/	/	/	/		/	/	
/	/	/	/	/	/	/	

( )

( )

Archive of SID

- 
- \ - *Compositae*
  - r - *Graminea*
  - r - *Papilionacoae*

---

# Archive of SID

*Archive of SID*

Archive of SID

		%				
	S	>				
	W S	>				
	W S	>				
	W S	>				
	N-S-E					
	N-E-W					
	N-W	>				
	S	>				
	N-S	>				
	N-S-W	>				

		%						
	N-S-E-W N-S S-E-W N-E-W							
	N-S-E-W W							
	P					-		
	P		( )					



---

# Archive of SID

Archive of SID

---

# Archive of SID

Archive of SID

---

- )  
(

Archive of SID

Archive of SID

---

*Astragalus*

*susianus*

( )

( )

)

(

)

(

( )

( )

( )

( )

( )

( )

( *Acer monspessulanum*)

(*Daphne mucronata*)

S.A.R		Ca+ Mg	(%)	(%)	PH	Ece					
/	/	/	/	/	/	/					<i>Juniperus excelsa</i> <i>Acer monspessulanum</i>
/	/	/	/	/	/	/					<i>Quercus branti</i> <i>Astragalus susianus</i>
/	/	/	/	/	/	/					<i>Amygdalus scoparia</i> <i>Ferula ovina</i>
/	/	/	/	/	/	/					<i>Acer monspessulanum</i> <i>Phlomis elliptica</i>
/	/	/	/	/	/	/					<i>Amygdalus scoparia</i> <i>Amygdalus haussknechtii</i>
/	/	/	/	/	/	/					<i>Amygdalus scoparia</i> <i>Ebenus stellata</i>
/	/	/	/	/	/	/					<i>Amygdalus lycioides</i> <i>Crataegus pontilus</i>
/	/	/	/	/	/	/					<i>Daphne mucronata</i> <i>Crataegus pontilus</i>
/	/	/	/	/	/	/					<i>Daphne mucronata</i> <i>Astragalus susianus</i>
/	/	/	/	/	/	/					<i>Daphne mucronata</i> <i>Bromus tectorum</i>
/	/	/	/	/	/	/					<i>Convolvulus</i> <i>acanthocladus</i> <i>Astragalus glaucacanthus</i>
/	/	/	/	/	/	/					<i>Convolvulus</i> <i>acanthocladus</i> <i>Evenus stellata</i>
/	/	/	/	/	/	/					<i>Astragalus cephalanthus</i> <i>Gundelia tournefortii</i>
/	/	/	/	/	/	/					<i>Acantholimon</i> <i>festucaceum</i>



---

Archive of SID

- 5- Cole, M.M., B.J. Huntley & B.H. Walker, 1982. The influencing of soils, geomorphology and geology on the distribution of plant communities in savanna ecosystems, *Ecology of Tropical Savannas*, Vol. 8: 145-174.
- 6-Kuchler, A. W., & I.S. Zonneveld, 1988. Vegetation mapping, (*Hand book of Vegetation Science*), Vol. 10. Kluwer Academic Pub. Dordrecht.
- 7- Muller-Dombois, D. & H. Ellenberge, 1974. *Aims and methods of vegetation ecology*, John wiley and sons, NewYork.
- 8- Saxena, S.K., & V.Shankar, 1978. Vegetaton survey of Nagaur district, CAZRI Annual Report: 16-23.

# An Investigation on Ecological Characteristics of Plant Communities in Relation to Geomorphological Units

Case Study: Chenar Rahdar Region of Fars Province

H. Ahmadi<sup>1</sup> K.Javanshir<sup>2</sup> Gh.A. Ghanbarian<sup>3</sup> S.H.Habibian<sup>4</sup>

## Abstract

This study was carried out to investigate the effect of ecological and geomorphological factors on establishment of plant communities in Chenar Rahdar region of Fars province, with an area of 31,790 hectares. The studies of physiography, climatology, geology, lithology, geomorphology, and phytosociology were conducted. Using aerial photographs as well as slope, aspect, altitude, lithology, and geomorphology maps, uniform work units were determined. Considering Braun-Blanquet-Kuchler method (Floristic-physiognomic method), separation and classification of plant communities were done in each uniform work unit. According to some vegetative characteristics such as storey, density, and life form and then using color patterns and numbers each plant unit was shown on the vegetation map with its physiognomic formula being defined. Results showed that the plant communities established in the mountain unit, were mainly affected by climate while in hills and high grounds, soil was the effective factor. In those parts of the study region where degradation was lower, there was a close relation between the geomorphological faces and plant communities. On the homogenous geologic formations, the variety of plant communities depended on the elevation while population was influenced by slope and aspect. Among different soil characteristics, texture, depth of horizons, sand hardpan, and the amount of gypsum and lime played the most important role in determining the plant communities.

**Keywords:** Plant ecology, Plant community, Floristic-physiognomic method, Geomorphologic unit, Vegetation map, Physiography

<sup>1</sup> - Professor, Natural Resources Faculty, Tehran University

<sup>2</sup> - Former Professor, Natural Resources Faculty, Tehran University

<sup>3</sup> - Senior Expert in Range Management, Natural Resources and Animal Affairs Research Center, Fars Province

<sup>4</sup> - Staff Member, Natural Resources and Animal Affairs Research Center, Fars Province