

Elymus Sand Dunes in Iceland

By

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On the south coast of Iceland *Elymus arenarius* forms sand dunes over large areas. It has been noted that the topography of these dunes is constantly changing. As *Elymus arenarius* is one of the few plants that grows on Surtsey it is interesting to know how it starts forming the dunes, how large the dunes can get and in what way a dune wanders.

In order to start some preliminary measurements trips were made to Eyrarbakki and Thykkvibaer, which are villages near the south coast where a typical dune landscape exists with dunes of various sizes and shapes. At both places a medium sized dune was selected and measured. The two accompanying drawings show the measurements from Eyrarbakki and Thykkvibaer.

T% is the frequency and M average cover number according to the Hult-Sernander-Du Rietz method of vegetation measurements.

In addition to this study a trip was made to Óseyrartangi the sandspit west of the outlet of Ölfusá, there a precise topography of a 50x50 m quadrat was measured and its vegetation mapped (Fridriksson et al. 1970).

We hope that further investigation and measurements will help in understanding the processes at work in a psammosere which can be compared with that of the blowing sand on Surtsey.

ACKNOWLEDGEMENTS

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References:

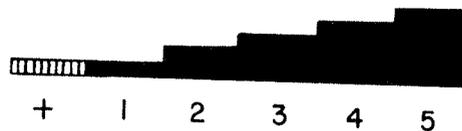
- Fridriksson, S., Richter, S. H., Bjarnason, Á. H. 1970: Preliminary Studies of the Vegetation of the Southern Coast of Iceland. Surtsey Reserach Progress Report V.
 Hylander, N. 1955: Förteckning över Nordens växter: Lund.

Frequency diagrams from dunes in Thykkvibaer and Eyrarbakki, Southern Iceland.

Legend:

according to Hult-Sernander-Du Rietz:

	Cover class (M)	Coverage	Average coverage
5	1/2	24/32	
4	1/2-1/4	12/32	
3	1/4-1/8	6/32	
2	1/8-1/16	3/32	
1	1/16	1/32	
+	1-2 plants		



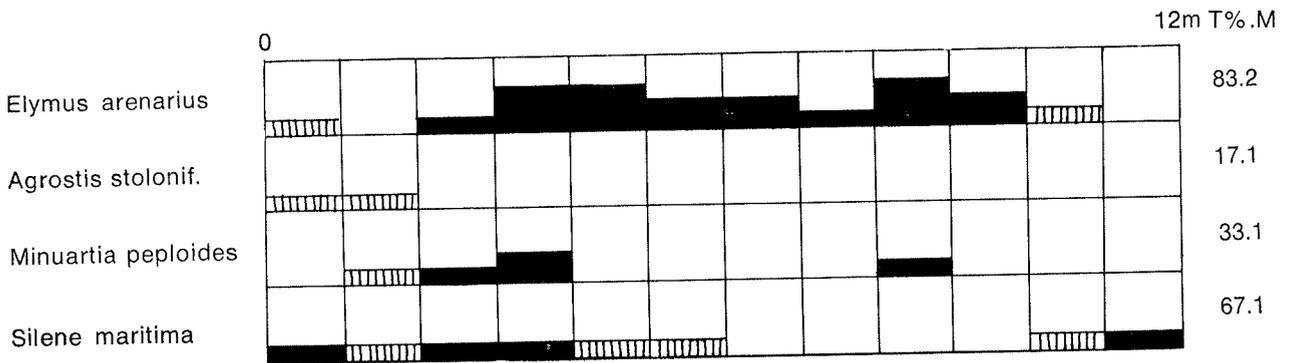
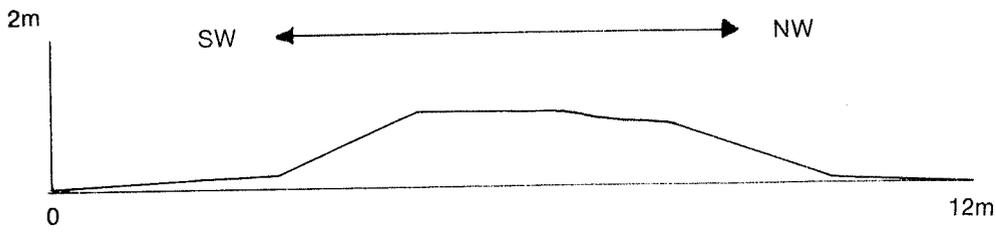
Nomenclature according to: Nils Hylander: Förteckning över Nordens växter; Lund 1955.

- Elymus arenarius* L.
Agrostis stolonifera L.
Minuartia peploides (L.) Hiern
Silene maritima With.
Cakile maritima Scop. ssp. islandica Hyl.

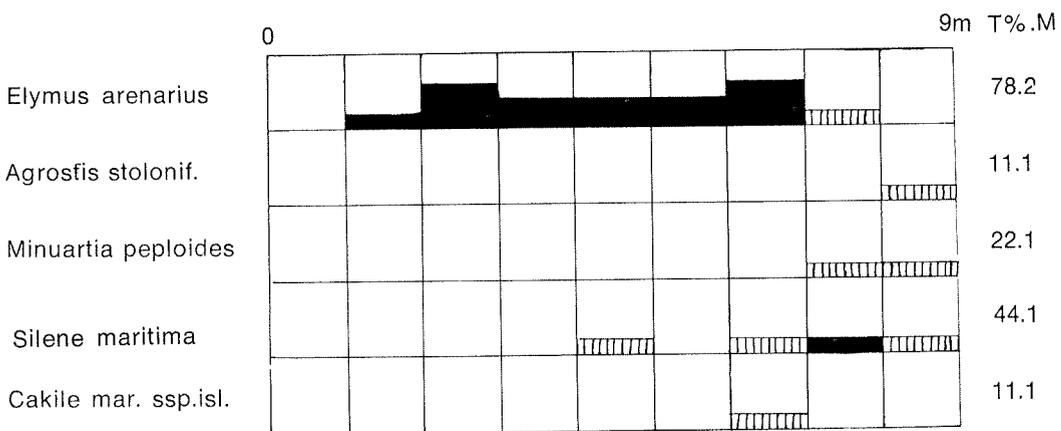
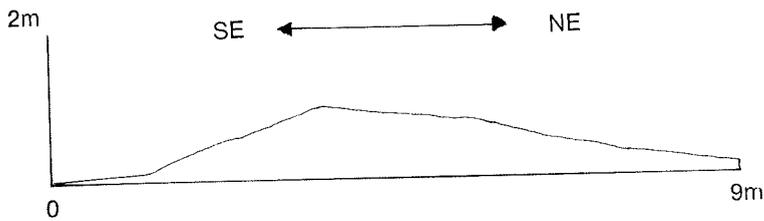
Following each column is the calculated frequency number in percentage occurrence (T%) and the cover number (M) which is the class of coverage obtained by dividing the sum of coverage number by the number of observations.

EYRARBAKKI

Longitudinal section:

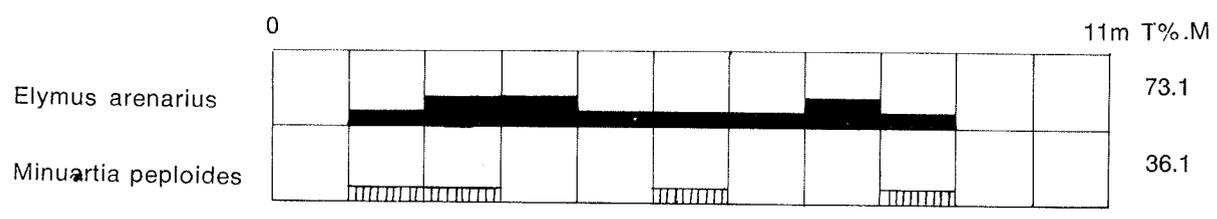
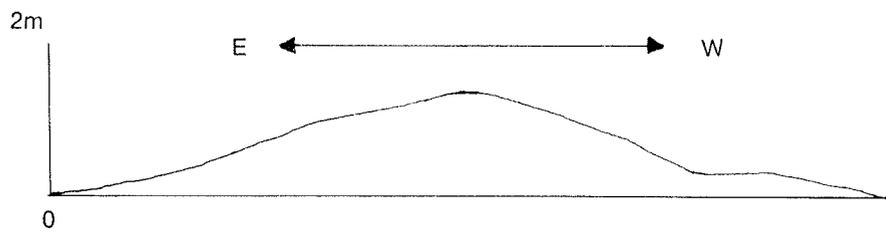


Transverse section:



THYKKVIBAER

Longitudinal section:



Transverse section:

