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Quantitative analysis on different degeneration stage of meadow steppe in Hulunbeier ,Inner Mongolia

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Key words : systematic cluster ; range site ; degeneration stage ; threshold

Introduction Range condition in North America have been using for half a century ,this method as well as some grassland monitoring methods manual are mainly based on the changes in plant species composition of succession to stage or stages of degradation ,it can reflect years interference (eg grazing) the results ,but certain methods are important as an indicator species , and neglected the role of other plant species ,it can only choose the neglect of other important species of plant species were discussed this issue .

Materials and methods Use the same range site ,to settlements for the Centre to set up three line and each line every 50 m based on a sample point ,three line of a total of 240 samples ,Each sample around random set five of the $20 \times 50\text{cm}^2$ quadrat ,a total of 1 200 quadrat ,the quadrat of all plant species within the projector coverage ,and many of the biomass (dry weight) .The calculation dominance of all plant species ,will be the corresponding quadrat the average get an average of 80 data and the use of fuzzy systems SAS8 .0 cluster analysis method .

Results According Demirmen (1972) indicated that the principle of Class identified ,found two adjacent points of the close coefficient big jumps ,the average coefficient two adjacent points is a threshold value ,with the actual situation of the grassland ,grassland can be of Class three (fig1 2 : I 、II 、III ,and i 、ii 、iii) .

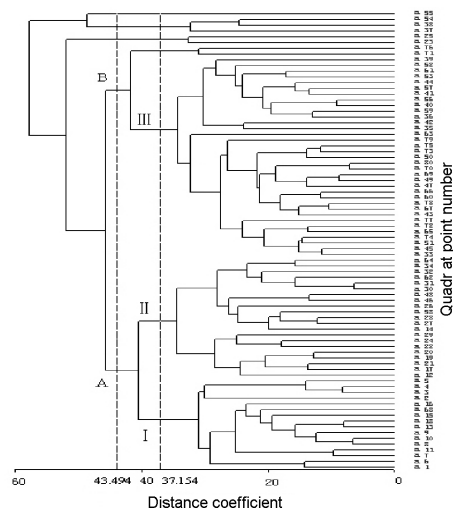


Figure 1 The dendrogram of cluster analysis by summed dominance ratio of seven main species .

(A ,B , I , II , III , A ' ,B ' , i , ii , iii indicated the mark of different distance coefficient)

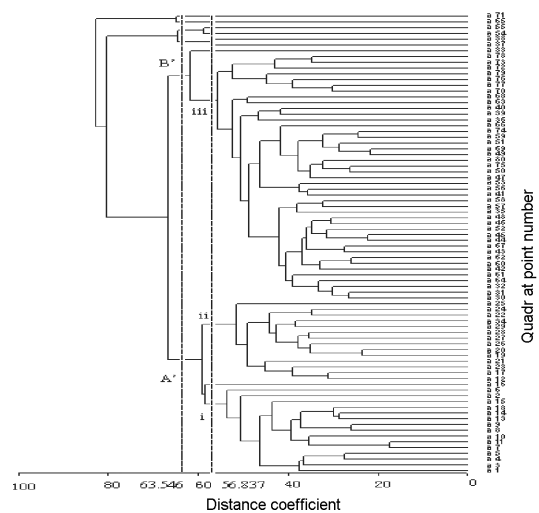


Figure 2 The dendrogram of cluster analysis by summed dominance ratio of all species .

Conclusion Although indicators different ,but the results of the same cluster .Use of all plant species cluster ,the threshold value of 56 .837 for the three class ,threshold coefficient span the distance smaller ,larger than 37 .154 of threshold value at the same time use the main plant species cluster ,these showed that the use of all Clustering of plant species than the main species to the effect of clustering poor ,but the amount of information to include the whole ,the mosaic kind of small points ,sample points of the relationship more clear .This may be other non- dominant species added to the trend of the degradation of the dominant plant species and occupation .

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