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RESEARCH ARTICLE

A STUDY ON B. Ed STUDENTS' PERCEPTION TOWARDS BIODIVERSITY HOTSPOTS

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Abstract

A study was conducted to elicit the level of perception of B. Ed students towards Biodiversity Hotspots. A sample of 492 B.Ed. students from six different colleges of education in Puducherry region was used for the survey. A five point rating scale with 69 test items was used to assess the level of perception towards biodiversity hotspot. The collected data was statistically analyzed using Statistical Package for Social Studies, Version. - 16. The results revealed that the sample had an average level of perception towards biodiversity hotspot. Significant impact was evident with locality, optional subject chosen, elective subject chosen, Parental educational qualification and hobbies of the sample towards perception of biodiversity hotspot. Hence it was concluded that the level of perception towards biodiversity hotspot ought to be enhanced by giving various innovative curricular and co-curricular approaches to satisfy the domains of behavior in par with real life situation.

Introduction

Hotspots are regions that harbour a great diversity of endemic species as concentrations of unique biodiversity. They support a variety of threatened species and ecosystems and each deserves conservation attention. Plant diversity is the biological basis for hotspot designation; to qualify as a hotspot, a region must support 1,500 endemic plant species, 0.5 percent of the global total. Plants have been used as qualifiers because they are the basis for diversity in other taxonomic groups and are well known to researchers. The recorded 25 biodiversity hotspots contain 44 percent of all plant species and 35 percent of all terrestrial vertebrate species. Indian is one of the 12 mega biodiversity countries of the world. About 70% of the original vegetation of the hotspots was already extinct. The evolution of new species requires isolation over long periods of geologic time. Islands, by their nature, harbour the most endemic assemblages of species. Benign environments, such as tropical and Mediterranean regions with topographically diverse landscapes, like mountain ranges have the ingredients for a great assortment of endemic species, in addition to islands, peninsulas, lands located between mountain and sea form as other hotspots thus it is called as house the greatest diversity of species. Hot spots are areas that are extremely rich in species, have high endemism, and are under constant threat. Among the 34 hotspots of the world, two are found in India extending into the neighboring countries- the Western Ghats/ Sri Lanka and the Indo- Burma region (covering the eastern Himalayas). These areas are particularly rich in floral wealth and endemism, not only in flowering plants but also in reptiles, amphibians, swallow-tailed butterflies, and some mammals.

Hotspots are the places at the greatest risk of destruction. Human activities have significant adverse impact upon biodiversity hotspots. During the last five hundred years; many species were harvested by hunt- gatherers, agriculturalists and herdsmen. Today, the fast growing human populations in the hotspots contribute to their deterioration by the introduction of exotic species, the illegal trade in endangered species, industrial logging, slash and burn agricultural practices, mining, and the construction of highways, dams, and oil wells. Eleven hotspots have lost at least 90 percent of their original natural vegetation. A variety of conservation approaches are needed to protect biodiversity in the hotspots. It includes implementation of innovative

economic alternatives Such as ecotourism and conservation concessions. Hotspots conservation also requires influencing the behaviour of people through education, policy work and awareness campaigns.

SIGNIFICANCE OF THE STUDY

Biodiversity hotspots are evident for diverse biological community/ biome regions of the world, this diversity help the natural systems adapt, evolve, and thrive. These hotspots act as alternate and new sources of food, medicine, agriculture, aquaculture, animal husbandry, forestry and other human requirements. Nowadays it becomes inevitable for the new industrial development. At present these biodiversity hotspots were destructed rapidly due to human interest and utility.

Ethically All Individuals in this universe must have fundamental right to live and exhibit appropriate behaviour towards fellow living being. This could happen when we are aware of its values. A balance between the use of resources and technology, reconciling economic development and the need to maintain biodiversity in our country should be maintained to pay way for sustainability development. Inculcating these ethical and moral values regarding the eco-friendly attitude such as hotspot-biodiversity conservation in the younger generation is a paramount right so as to safeguard the natural resources and in turn help to augment the quality of our living environment. Hence it is the right time to check the level of perception of B. Ed students, who are going to become a teachers and guiding future generation. The information of saving the biodiversity parameters perpetuates from teacher to students help to create ecological equilibrium.

MATERIALS AND METHODS

OBJECTIVE OF THE STUDY

- To find the perception towards biodiversity hotspots among B. Ed students'.
- To find significant difference in the perception towards biodiversity hotspots among B.Ed. students' with respect to different demographic variables (Gender, Locality, Optional group chosen, Elective subject chosen, parental educational qualification, Hobbies)

HYPOTHESES OF THE STUDY

- The level of perception towards biodiversity hotspots among B. Ed students' is high.
- There is no significant difference in the perception towards biodiversity hotspots among B. Ed students' with respect to the following sub variables

a) Gender (Men/Women)
b) Locality (Rural/Urban)
c) Optional group chosen (Arts/Science)
d) Elective subject chosen (Environmental education/Others)
e) Parental educational qualification (High school/ Higher Secondary/ Higher education)
f) Hobbies (Natural pursuit/ Recreation pursuit/ Leisure Time Pursuit)

TOOL USED

The Normative survey method was used for the present investigation. Rating scale was used as the tool for collecting data. The tool consists of 69 test items (41 positive items, 28 negative items) in five point scale (Viz., Strongly agree, Agree, Undecided, Disagree and Strongly Disagree). The test item encompasses areas of biodiversity hotspots such as general awareness about hotspots, significance of hotspot, endangered, extinct and endemic species both in flora and fauna, factors affecting hotspot zone and conservative strategies adopted to promote hotspot in India. The investigators administered the tool to the sample after getting prior permission from the concerned head of the institutions. The student teachers were requested to give their free and honest response towards the test items.

SCORING PROCEDURE

A score of 5, 4, 3, 2 and 1 was given to the right response viz., Strongly agree, Agree, Undecided, Disagree and Strongly Disagree respectively for all the 41 positive items, and the scoring was reversed for all the 28 negative items.

RELIABILITY AND VALIDITY

The reliability coefficient of the tool used for the present investigation was found to be 0.83 by Split- half method. The high reliability value ensures high face and content Validity.

SAMPLE

The simple random sampling method was used by the investigators for the present study. The population of the study consists of B.Ed. Student teachers studying in different college of educations located in Puducherry. 492 B.Ed. student teachers (both gender included) from six B.Ed. colleges were used as the sample.

Result and Discussion

The data collected from the sample are statistically analyzed by using SPSS Ver. 16 package. The results are presented in the following tables 1, 2 and 3.

Table: 1. Shows Level of Perception of total sample towards biodiversity hot spot.

N	Mean	Median	Mode	Standard Deviation
492	223.01	227.00	224	38.163

The mean value for the total sample is 223.01 and the standard deviation is 38.163 which represent average level of perception of the total sample in biodiversity hotspots. Hence the null hypothesis framed is rejected.

Table: 2 Shows perception level of biodiversity hot spot with respect to demographic variables

VARIABLES	SUB VARIABLES	N	MEAN	S.D.	T RATIO	LEVEL OF SIGNIFICANCE AT 0.05
Gender	Male	46	222.91	39.255	0.017	NS
	Female	446	223.02	38.094		
Locality	Rural	351	227.58	36.632	4.125	S
	urban	141	211.62	39.624		
Optional Group Chosen	Arts	302	220.27	38.891	2.037	S
	Science	190	227.35	36.658		
Elective subject chosen	Environmental Education	89	242.61	24.692	7.324	S
	Other Electives	403	218.68	39.262		

The analyzed data collected from the sub-sample reveals that significant difference exists in the level of perception in biodiversity hotspots with respect to locality, optional group chosen and elective subject chosen. On the other hand there is no significant difference in level of perception in biodiversity hotspots of the sample with respect to gender.

Table: 3 Shows perception level of biodiversity hot spot with respect to parental educational qualification and hobbies

VARIABLES	GROUPS	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	LEVEL OF SIGNIFICANCE AT 0.05 LEVEL
Parental Educational Qualification	Between Groups	2	14183.961	7091.980	4.948	S
	Within Groups	489	700909.021	1433.352		
Hobbies	Between Groups	2	28576.553	14288.277	10.177	S
	Within Groups	489	686516.429	1403.919		

The analyzed data collected from the sub-sample parental educational qualification and hobbies reveals that significant difference exists in the level of perception in biodiversity hotspots. Thus the null hypothesis is rejected.

MAJOR FINDINGS

- The level of perception of the total sample in biodiversity hotspots is average.
- Male and female do not differ in their level of perception towards biodiversity hotspots.
- Rural B. Ed student teachers have high level of perception towards biodiversity hotspots than that of urban student teachers.
- B. Ed student teachers from Science group have high level of perception towards biodiversity hotspots than student teachers from arts group.
- B. Ed Student teachers who choose environmental education as elective subject have high level of perception in biodiversity hotspots than the student teachers who choose other elective subject.
- B. Ed student teachers having natural pursuit (Mean: 231.60) as hobbies have high level of perception in biodiversity hotspots followed by leisure pursuit (Mean: 219.84) and recreational pursuit (Mean: 218.44).
- The B. Ed student teachers whose parents

possess degree (Mean: 230.41) as educational qualification have high level of perception in biodiversity hotspots compared to that of parents having high school (Mean: 222.90) and higher secondary (Mean: 211.06) education as educational qualification.

EDUCATIONAL IMPLICATIONS

- These findings suggest several course of action for the student teachers has to be given like compulsory field trip visit to the nearby biodiversity significant regions to develop the aesthetic attitude towards the conservation and protection of those regions.
- There are a number of important changes which need to be made by including the basic issues of biodiversity hotspot and its sustainable development in the main curriculum.
- An implication of these findings is that orientation programmes and workshops to be organized by eminent research scholars on biodiversity hotspot and the loss of endemic species in the Indian hotspot region in the B.Ed. Colleges.
- More broadly, research has to be motivated to estimate the perception towards hotspot for teacher educators and other professional degree holders.

CONCLUSION

Hotspot biodiversity should be preserved as the universal heritage of all humans. The other conservation measures like legal approach, in situ and ex situ strategy, documentation of indigenous knowledge and the application of science and technology has to be strengthen along with propagation of significant usage of hotspot to B.Ed. students which has to be insisted especially in their curricular and co curricular activities. It is through these future teachers, the information regarding the perception towards hotspot reach the whole community and there is a transformation of eco-friendly knowledgeable society.

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