



Attitude of Higher Secondary Schools Students on Conservation Biology

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ABSTRACT

The scientific discipline of conservation biology is becoming more and more important in solving environmental problems. Fostering sustainability and environmental responsibility requires an understanding of students' perspectives towards conservation biology. This study uses the normative survey method to examine how higher secondary school students feel about conservation biology. A representative sample of 200 higher secondary school students were participated in this survey. The data was collected using an attitude scale on Conservation Biology. Statistical techniques used for the study is descriptive statistics and t-test. The results show how committed, interested, and aware students are with regard to conservation initiatives. The findings of the study showed that majority of students have a moderate level attitude towards conservation biology. Moreover, students from rural area expressed strong agreement with the importance of conserving biodiversity regardless of their optional subjects.

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Introduction

As a vital, practical, and goal-oriented scientific discipline, conservation biology is committed to protecting the planet's abundant biodiversity and maintaining natural ecosystems. The massive human impact on every aspect of our environment is being thoroughly studied and mitigated by this field. Understanding the worldwide distribution of life, recognising the numerous problems it faces, and coming up with workable solutions to lessen these threats while re-establishing ecological health are the core questions that drive conservation biologists. The discipline requires a diversified strategy that goes beyond conventional preservation to include determining the reasons behind degradation and creating plans for the restoration of the environment. Caughley, (1994) argued that conservation biology should not remain a purely theoretical or model-driven science. Instead, he emphasized the importance of field-based diagnostics to understand and reverse population declines. This marked a pivotal shift from predictive modeling alone (as seen in the small population paradigm) to a more hands-on, applied approach centered on identifying and mitigating real-world threats.

Need and Significance of the study

Environmental issues including pollution, biodiversity loss, and climate change are becoming more and more of a global concern. As a diverse science, conservation biology is essential to addressing these problems. Educational programs in conservation of biodiversity particularly for children are important and such programs could enhance personal knowledge and foster positive attitudes toward conservation efforts (Singh *et al.* 2022). Building a generation that values and actively engages in environmental stewardship requires that pupils have a favourable attitude towards conservation. Higher secondary pupils typically fall into early (ages 11-14) to middle (15–17) adolescence, which is a critical developmental stage that typically lasts from ages 11 to 21. Since people are so flexible regarding the influence of friends, parents, and teachers in forming their attitudes, this period is very important for personality development.

Previous studies of students' attitudes towards environmental and conservation concerns reveal consistent patterns and important challenges. Pupils frequently have positive opinions about the environment. Children in educator-guided programs showed significantly greater gains in conservation-related knowledge (Jensen, 2014). The persistent gap between these positive attitudes and consistent pro-environmental efforts, however, is a frequent and significant factor. This paradox suggests that a generally positive attitude is not a reliable indicator of consistent pro-environmental activity and that there is a significant gap between what students know or feel and what they do. This recurring finding indicates that



"attitude," as it is typically characterised, may often be a surface-level sentiment if it is not strongly rooted in specific behavioural aims or supported by a sense of self-efficacy. This gap may be because of several factors such as demographic factors, Educational Exposure and other. The demographic factors such as age, gender, Socioeconomic Profile, and place of residence play a major role in attitude towards conservation. The investigator selected one demographic factor such as Locale (place of residence) and one factor from education exposure such optional subjects of selected sample for the present study as it gives a clear understanding on attitude of students towards conservation biology.

Objectives of the Study

1. To find out the level of attitude towards conservation biology of Higher secondary school students.
2. To find out whether there is any significant difference in the mean scores of attitudes on conservation biology of higher secondary school students with respect to locale.
3. To find out whether there is any significant difference in the mean scores of attitudes on conservation biology of higher secondary school students with respect to optional subject.

Hypotheses of the Study

1. The level of attitude on conservation biology of Higher secondary school students is moderate
2. There exists a significant difference in mean scores of attitudes on conservation biology of Higher secondary school students with respect to locale and optional subjects.

Methodology

A normative survey method was adopted for the study. The population of the study comprises Higher Secondary school students across Kerala and a sample of 200 higher secondary school students from Thiruvananthapuram district was selected for the study. The Random sampling technique was used for the study.

Tools used for the study:

A standardized Attitude Scale on Conservation Biology Scale was developed by the researcher, consisting of 30 items covering cognitive, affective, and behavioural domains. The items were rated on a 3-point Likert scale (Agree, Undecided and, Disagree). The tool was validated by a panel of experts in education and environmental science. The reliability coefficient (Cronbach's alpha) was found to be **0.87**, indicating high internal consistency.

**Statistical Techniques Used for the study**

1. Descriptive Statistics
2. t-Test

Result and Discussion**Table 1**

Level of Attitude of Higher Secondary School Students on Conservation Biology

Level	N	Percentage
High	49	24.5
Moderate	114	57
Low	37	18.5

From the table out 24.5% of higher secondary school students have a high level of attitude on conservation biology, 57% of higher secondary school students have moderate level of attitude on conservation biology and 18.5% of higher secondary school students have a low level of attitude on conservation biology. From these it is clear that out of 200 sample majority of higher secondary school students' attitude on conservation biology is moderate.

Table 2

Test of Significant difference between the Mean Scores of Locale wise Attitude on Conservation Biology of Higher Secondary School Students

Variable	Locale	N	Mean	SD	t-vale	Level of Significance
Attitude on Conservation Biology	Rural	103	78.30	5.70	3.32	0.01
	Urban	97	75.10	7.80		



From Table 2 it is clear that there is a significant difference in the attitude on conservation biology of rural and urban higher secondary school students at 0.01 level ($t= 3.32$). The mean score of rural students is higher than that of urban students shows that rural students have comparatively higher attitude on conservation biology than urban students.

Table 3

Test of Significant difference between the Mean Scores of Optional Subject wise Attitude on Conservation Biology of Higher Secondary School Students

Variable	Optional Subject	N	Mean	SD	t-vale	Level of Significance
Attitude on Conservation Biology	Science	103	77.18	6.50	0.17	Not Significant
	Non-Science	97	77.01	7.32		

From Table 3 it is clear that, there is no significant difference in the attitude on conservation biology of science and non-science background higher secondary school students($t=0.17$). The mean score of both group is almost same which shows that optional subjects have no role in deciding the attitude on conservation biology.

Findings of the Study

1. The level of attitude on Conservation Biology of Higher Secondary School Students are moderate.
2. Rural students have high attitude on Conservation Biology than Urban Higher Secondary School Students
3. Science and non-science background students do not differ in their attitude on Conservation Biology.

Educational Implications

1. Conservation education needs to be strengthened in all optional streams.
2. It is necessary to improve conservation education in all locales such as rural and urban area
3. Field trips, biodiversity projects, and eco-clubs are examples of experiential learning that should be incorporated into schools.
4. Interdisciplinary conservation biology modules must be integrated into curriculum planners' designs.



Conclusion

The study highlights a generally positive attitude towards conservation biology among higher secondary students, especially those from the science stream. Enhancing conservation-related education and engagement across all academic streams and student demographics can contribute significantly to developing environmentally responsible citizens. In order to promote greater commitment and conscientious environmental behaviour among young people, the study findings highlight the necessity of enhancing conservation imparting knowledge in schools, especially through context-based and interactive learning approaches. Furthermore, students from rural areas exhibited a greater appreciation for the value of biodiversity conservation, indicating that proximity to natural settings and everyday events can have an impact on conservation awareness.

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