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## CERTIFICATE

This is to certify that the adjudicators' reports on the Ph.D. thesis of Ms. Ranjini S. entitled **“STUDIES ON THE TAXONOMY OF AQUATIC HETEROPTERAN BUGS (ORDER: HEMIPTERA) FROM SELECTED HABITATS OF KERALA AND THEIR EFFICACY AS BIOCONTROL AGENTS ON MOSQUITO LARVAE OF *CULEX QUINQUEFASCIATUS* SAY”** do not suggest any corrections to be incorporated in to the thesis. It is also certified that the contents in the hard copy and soft copy are one and same.

Thrissur

09/05/2023



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Certified that the thesis entitled "Studies on the taxonomy of aquatic heteropteran bugs (Order: Hemiptera) from selected habitats of Kerala and their efficacy as biocontrol agents on mosquito larvae of *Culex quinquefasciatus* Say" submitted by **Ms. Ranjini S.**, to the University of Calicut for the award of degree of Doctor of Philosophy in Zoology, is a bonafide record of research work done by her in this Department under my guidance and supervision. This work has not previously formed the basis for any award of degree or diploma.

Ms. Ranjini S. successfully completed the preliminary qualifying examination prescribed by the University of Calicut.

Thrissur  
09/12/2022

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## DECLARATION

I do hereby declare that the thesis entitled “Studies on the taxonomy of aquatic heteropteran bugs (Order: Hemiptera) from selected habitats of Kerala and their efficacy as biocontrol agents on mosquito larvae of *Culex quinquefasciatus* Say” submitted to the University of Calicut for the award of the degree of Doctor of Philosophy in Zoology has not been submitted for the award of any other degree or diploma and represents the original work done by me.

Thrissur

09/12/2022



**RANJINI S.**

**UNIVERSITY OF CALICUT  
CERTIFICATE ON PLAGIARISM CHECK**

1.	Name of the research scholar	<b>RANJINI S.</b>		
2.	Title of thesis/dissertation	"Studies on the taxonomy of aquatic heteropteran bugs (Order: Hemiptera) from selected habitats of Kerala and their efficacy as biocontrol agents on mosquito larvae of <i>Culex quinquefasciatus</i> Say"		
3.	Name of the supervisor	Dr. Francy K. Kakkassery (Guide) & Dr. Joyce Jose (Co-guide)		
4.	Department/Institution	Research and Postgraduate Department of Zoology, St. Thomas' College (Autonomous), Thrissur.		
5.		<b>Introduction/ Review of literature</b>	<b>Materials and Methods</b>	<b>Result/ Discussion/Summary/ Conclusion</b>
	Similar content (%) identified	<b>0%</b>	<b>0%</b>	<b>0%</b>
	Acceptable maximum limit (%)	25 /35	25	10
6.	Software used	Ouriginal		
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The Doctoral Committee\* has verified the report on plagiarism check with the contents of the thesis, as summarized above and appropriate measures have been taken to ensure originality of the Research accomplished herein.

Name & Signature of the HoD/HoI (Chairperson of the Doctoral Committee)

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