CONTENTS

Chapte No.	r	Title		Page	
1.	INTRODUCTION			1-24	
	A)	Control of undesirable fishes by synthetic chemicals, piscides and antibiotics.	•••	1	
	B)	Alternative way for control of undesirable fishes.	•••	4	
	C)	A brief survey of piscicidal plants and their use in controlling undesirable fishes.	•••	6	
	D)	A brief survey of the work done on piscicidal plants.	•••	8	
	E)	A survey of natural piscicides of plant origin.	•••	9	
	F)	A brief survey of fish species employed in resea work on indigenous piscicidal plants.	rch	12	
	G)	A survey of the impact of plant toxins on fishes.	•••	13	
		1) Behavioural responses.	•••	13	
		2) Anatomical and Histopathological changes.	•••	14	
		3) Biochemical and physiological changes.	•••	14	
	H)	Analysis of the problem and of present work.	•••	17	
II.	MATERIAL AND METHODS			25-40	
	1) MATERIAL				
	A)	Choice and site of the collection of plant.	•••	25	
	B)	Classification of the plant.	•••	26	
	C)	Morphology of the plant.	•••	26	
	D)	Selection of the fish	•••	27	
	E)	Classification of the fish.	•••	27	

•••••

Chapter	No.	Title		Page
	2)	METHODS		
	A)	Solvent extraction method.	•••	28
	B)	Phytochemical analytical methods.	•••	29
	C)	Water quality analysing methods.	•••	30
	D)	Physiological Response Analysing Methods	•••	32
III	OBSERVATIONS			41 to 72
	A)	Observations on solvent extraction of fruits of A. concinna.	•••	41
	В)	Observations on the phytochemical analysis.	•••	42
	C)	Observations on the impact of plant toxin from A. concinna on water quality.	•••	45
	D)	Observations on the physiological responses to phytotoxin of A. concinna.	***	46
		1. Mortality effect LC ₀ ,LC ₅₀ and LC ₁₀₀	•••	46
		2) Behavioural changes.	•••	48
		3) Histopathological and histochemical observations.	•••	50
		i) Buccal mass	•••	50
		ii) Gills	•••	56
		iii) Liver	•••	62
		iv) Kidney	•••	65
		v) Intestine	•••	69
IV	DISC	CUSSION	•••	73-100
	A)	Discussion on solvent extraction and chemical composition.	•••	75
	B)	Discussion on phytochemical analysis.	•••	76
	C)	Discussion on water quality analysis	•••	80
	D)	Discussion on physiological responses	•••	85
V	<u>GEN</u>	101-112		
	1)	General summary	•••	101
	2)	Concluding remarks	•••	110
	BIB	LIOGRAPHY	•••	113-126