PART I: NORMAL COLOUR PATTERN OF THE FISH

Introduction
Materials and methods
Observations and results
Discussion

PART II-A: EFFECTS OF PROLONGED BACKGROUND ADAPTATION
ON THE INTEGUMENTARY MELANOPHORE POPULATION
OF THE FISH WITHOUT AND WITH ADMINISTRATION
OF PITUITARY EXTRACT

Introduction
Materials and methods
Observations and results
Discussion

PART II-B: EFFECTS OF PROLONGED BACKGROUND
ADAPTATION ON THE PARIS INTERMEDIA CELLS
OF THE PITUITARY GLAND OF THE FISH

Introduction
Materials and methods
Observations and results
Discussion

PART III-A: TRANSITORY COLOUR-CHANGE MECHANISM 1
METHODS USED FOR THE MEASUREMENT OF
MELANOPHORE RESPONSES

Page
1 - 5
5 - 6
6 - 9
10 - 11
12 - 14
15 - 18
18 - 60
60 - 69
70 - 73
73 - 75
75 - 85
85 - 95
96 - 107
PART III-B: STUDIES ON THE RATE OF COLOUR-CHANGE MECHANISM AS A RESULT OF BACKGROUND RESPONSE

Introduction 108 - 110
Materials and methods 110 - 114
Observations and results 114 - 121
Discussion 121 - 129

PART III-C: EFFECTS OF PITUITARY EXTRACT ON MELANOPHORES - 'IN VIVO'

Introduction 130 - 133
Materials and methods 133 - 136
Observations and results 136 - 153
Discussion 153 - 160

PART III-D: EFFECTS OF SPINAL-SECTION ON THE COLOUR-CHANGE PHYSIOLOGY OF THE FISH

Introduction 161 - 170
Materials and methods 170 - 174
Observations and results 175 - 183
Discussion 183 - 190

PART - IV: EFFECT OF PHARMACOLOGICAL DRUGS - 'IN VIVO'

EFFECTS ON THE MELANOPHORES OF THE FISH

Introduction 191 - 195
Materials and methods 195 - 199
Observations and results 199 - 271
Discussion 271 - 285
PART - V

TRANSITORY COLOUR-CHANGE MECHANISM IN THE
FISH IN DIFFERENT REGIMENS OF THE DAY.

Introduction 286 - 290
Materials and methods 290 - 295
Observations and results 296 - 324
Discussion 324 - 330

GENERAL SUMMARY 331 - 339

REFERENCES 340 - 363