

CONTENTS

Preface	v
FISHERIES	1
1 The flyingfish fishery of Barbados	3
2 The flyingfish fishery of Dominica	9
3 The flyingfish fishery of Grenada	13
4 The flyingfish fishery of Martinique	17
5 The flyingfish fishery of St. Lucia	23
6 The flyingfish fishery of St. Vincent and the Grenadines	29
7 The flyingfish fishery of Trinidad and Tobago	33
8 Summary of the importance of flyingfish fisheries in the eastern Caribbean	47
BIOLOGY	49
9 Synopsis of biological characteristics of the flyingfish, <i>Hirundichthys affinis</i> , relevant to assessment and management	51
10 Seasonal abundance and reproduction of the fourwing flyingfish, <i>Hirundichthys affinis</i> , off Barbados	55
11 Larval fishes off Barbados with particular reference to flyingfishes and their spawning substrata	75
12 Juvenile fishes off Barbados with particular reference to flyingfishes	95
13 Distribution and relative abundance of flyingfish (Exocoetidae) in the eastern Caribbean. I. Adults	107
14 Distribution and relative abundance of flyingfish (Exocoetidae) in the eastern Caribbean. II. Spawning substrata, eggs and larvae	121
15 Distribution and relative abundance of flyingfish (Exocoetidae) in the eastern Caribbean. III. Juveniles	135
16 Movements of flyingfish (<i>Hirundichthys affinis</i>) in the eastern Caribbean	145
17 Preliminary observations of flyingfish, <i>Hirundichthys affinis</i> , spawning behaviour	161
18 Otolith age validation and growth-rate variation in flyingfish (<i>Hirundichthys affinis</i>) from the eastern Caribbean	167
19 Mitochondrial DNA D-loop variation and implications for stock structure of the four-wing flyingfish, <i>Hirundichthys affinis</i> , in the central western Atlantic	177
20 The application of RAPD markers in stock discrimination of the four-wing flyingfish, <i>Hirundichthys affinis</i> , in the central western Atlantic	195

MANAGEMENT	207
21 Selectivity of experimental gillnets for fourwing flyingfish, <i>Hirundichthys affinis</i> , off Barbados	209
22 Sources of variability in catch per trip for the flyingfish, <i>Hirundichthys affinis</i> , fishery in Barbados	215
23 Developing a management strategy for the flyingfish fishery of the eastern Caribbean	237
24 Summary of stock assessment of <i>Hirundichthys affinis</i>	253
25 Overview of options for management of eastern Caribbean flyingfish fisheries	259
26 Reflections and future directions	265