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Studies on the Biology of the Red-finned Bully
Gobiomorphus huttoni (Ogilby)

II.—BREEDING AND LIFE HISTORY

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Abstract

Gobiomorphus huttoni (Ogilby) breeds at about two years of age, mainly in the spring. Breeding occurs in quiet water in rocky streams. The female places the eggs beneath a flat rock, in a crude nest which is guarded by the male. The breeding male is melanic. Present knowledge suggests that the larval fish are carried to sea, but confirmation of this is required. Return migration of juveniles into fresh-water takes place from December onwards.

INTRODUCTION

Gobiomorphus huttoni (Ogilby), popularly known as the red-finned bully, is a small, heavily built rocky-stream-dwelling fish belonging to the family Eleotridae (sub-order Gobioidae). It was illustrated and described and its systematics discussed in a recent paper (McDowall, 1962). In a later paper (McDowall, 1964), its habitat was described and its inter-relationships with other animals discussed. The present paper deals with various aspects of the breeding and life history of *G. huttoni*. The data were obtained during 1961-3, mainly in the Makara Stream near Wellington, but additional observations were made in the Waikawa, Waikanae, Waimeha and Hutt Rivers.*

Though many authors have made brief reference to the breeding of gobioid fishes, details of the life histories of these fishes are not well known. Several species in the family Gobiidae have been studied extensively—e.g., see Manacop (1938), Millar (1961), McErlean and Springer (1961) and Tavolga (1954, 56). The breeding of some of the Australian Eleotridae has been described; Gale (1914) and Blewett (1929) observed *Mogurnda striata* (Steindachner) breeding in captivity.

Stokell (1955) commented briefly on the breeding of the New Zealand species of Eleotridae. Other references to the breeding of these fishes are by Woodward (1948) and Harris (1948) who both stated that they had successfully bred bullies in captivity. Stokell is the only author to have referred specifically to the breeding of *G. huttoni*. He suggested that "spawning apparently takes place within or near the customary habitat as extremely small specimens are sometimes taken with the adults".

* This paper presents part of an M.Sc. degree thesis.