

## Fish fauna in inland waters of the Pilbara (Indian Ocean) Drainage Division of Western Australia — evidence for three subprovinces

DAVID L. MORGAN & HOWARD S. GILL

Centre for Fish and Fisheries Research, Murdoch University, South St, Murdoch, Western Australia 6150;  
d.morgan@murdoch.edu.au, hgill@murdoch.edu.au

### Abstract

This paper describes the distribution of fishes in inland waters of the Pilbara (Indian Ocean) Drainage Division of Western Australia. 48 842 fish representing 29 species (including one undescribed plotosid catfish) were recorded from 148 of the 171 sites sampled in 21 river systems throughout the Pilbara Drainage Division, i.e. from the Irwin River in the south to the DeGrey River in the north. Of these, 26 844 were from 13 native freshwater species (this total includes the catadromous Indian short-finned eel *Anguilla bicolor* McClelland 1844 and an undescribed plotosid catfish), 3 099 were from 12 marine/estuarine species and a further 18 899 were from four introduced species. In addition, the Pilbara Drainage Division contains two endemic cave fishes in the North West Cape (Humphreys & Adams 1991; Allen *et al.* 2002). The results of this study suggest that the Pilbara Drainage Division can be divided into three subprovinces, one for the westwards flowing rivers, i.e. from the Greenough to Lyndon (Southern Pilbara Subprovince), another for the northwards flowing rivers, i.e. from the Yannarie to the DeGrey (Northern Pilbara Subprovince), and a third for the subterranean waters of North West Cape (North West Cape Subprovince).

**Key words:** Pilbara Drainage Division, Western Australia, fish fauna

### Introduction

The freshwater fish fauna of Australia is depauperate but highly endemic and lacks many families found elsewhere in the world (e.g. Whitley 1947; Lake 1971; Allen 1989; Unmack 2001). Based on the prevailing freshwater fish (and molluscan) fauna (Iredale & Whitley 1938) and hydrological data (Lake 1971) of the different regions, Australia has, with only minor modifications, long been categorised into a number of biogeographical zones, bioregions or provinces (see for example, Whitley 1947; Merrick & Schmida 1984;