

13 Looking ahead

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INTRODUCTION

For more than 150 years, our ecological and biological knowledge of freshwater fishes languished in the wake of alien introductions, environmental changes and unsympathetic management. In the last 50 years the gap has narrowed through new awareness, research and management, illustrated in the foregoing chapters. But fortunes have changed – now there are good prospects for ecologists, less so for many native fishes.

Conservation, management and ecology complement one another. They are overlapping endeavours separable only at their margins, where conservation and management are linked to cultural values and ecology is linked to other natural sciences. This interface is likely to change in the future as cultural and environmental challenges emerge, and preparedness surely will be a better strategy than prediction. Our science may need to become more adaptive than conservative, and more proactive than reactive.

In this final chapter, we touch lightly on these challenges. We begin by recounting briefly the emergence of scientific studies of native fishes and sketch some earlier visions of the future. We highlight some ideas that could have special portents for those who study fishes and manage their environment and pose some ideas for research, as ‘teasers’ for those contemplating

more study. Finally, we venture a scenario of issues for ecology and conservation in the next 50 years.

BACK TO THE FUTURE

Awareness

Some defining features of the 19th century, from a piscatorial viewpoint, include early encounters between Europeans and *Terra Australis Incognita*, the plunder of what (by European standards) were virgin fisheries (Ch. 9) and the rise of acclimatisation societies dedicated to importing animals and plants from other parts of the world (Ch. 11). In the vanguard of exploration, natural historians were few and often amateurish; their records were fragmentary (albeit now priceless) and most of their collections were despatched to European taxonomists with little knowledge of Australia (Chs 1, 2). Few of the colonists were sensitive to the culture and traditions of aboriginal Australians and fewer still were able to bridge the cultural divide, so that much indigenous wisdom was lost (Humphries 2007).

As early as the 1850s, there was alarm at the decline of native fisheries (Humphries and Winemiller 2009). These concerns are reflected in many historical recollections, newspapers and reports (Chs 9, 11); as an