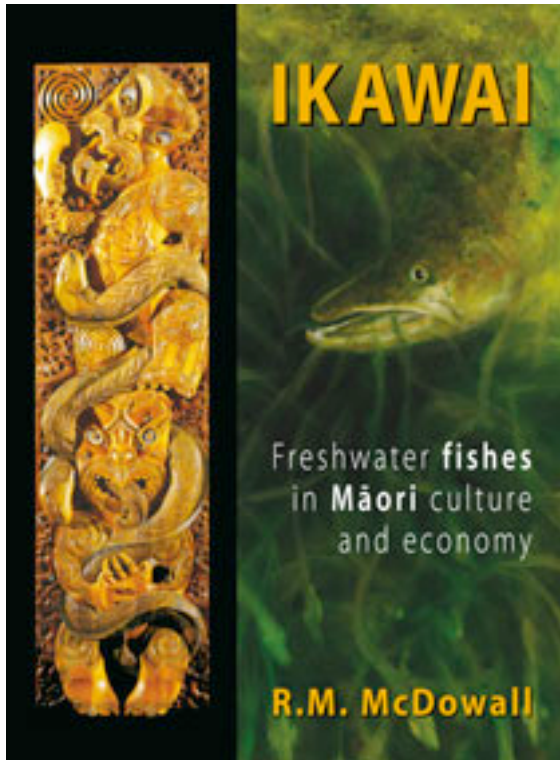


Ikawai: Freshwater fishes in Māori culture and economy (2011)
 by R.M. McDowall, Christchurch: Canterbury UP. \$(NZ)130

AS Bob McDowall was working his way through the last pulls for this 832-page epic (40 pages of biography and index) he told his publisher, Rachel Scott, ‘Rachel, this will be the most important book you ever publish.’



My belief is that every writer needs a similar sense of their work’s worth, if only to sustain them until that moment when—still living in hope—the reviews arrive. Other self-deceptions may then need to be marshalled. But McDowall was by then at the end of his life (he died just before publication). He had blazed a well-lit pathway of field work and scholarship, taking us from a time when New Zealanders had almost no idea what their coveted ‘whitebait’ harvests constituted or what the whitebait life cycles were. It is in part due to McDowall and his colleagues, for the past 25 years working in the National Institute for Water and Air, that we now know that New Zealand whitebait are the fry of five native species of fish, some of them endangered, but predominantly (90 percent) *inanga* (the Māori term for at least three species—see

how complicated it all is—*Galaxias maculatus*, *G. Brevipidinnis* and *Retropinna retropinna*). And that we have 38 freshwater fishes known in our lakes and rivers. We have also learnt that regulation of this haphazard fishery has fallen well behind what modern science has been able to inform us about the precarious state of many of these species.

But the primary purpose of this book was more holistic, more cultural than scientific, than anything McDowall had ever attempted. It represents an attempt to resurrect comprehensively in book form the evolving wisdom (*matauranga Māori*) of *tangata whenua* (‘the people of the land’) of freshwater customary use and practice from the widest range of sources. One senses that the sources have been accumulated through his working life. Over that time the author has read, travelled and gathered widely, paying attention too to the great (and often-ignored) knowledge harvest that thirty years of Waitangi Tribunal hearings has produced.

Broadly this is a work of two halves. The first is largely concerned with laying out identification, nomenclature and ecology of our native fish, but always with cultural

associations in mind. Most species get a chapter. The second half seeks an understanding of tribal interest and practices, including methods, technology, ritual and observances in their capture and use. In recognition of tribal and regional differences, many of these chapters cover the issues in what have become the nation's most infamous waterways. Sadly, strong Māori associations and marked ecological decline seem often to have gone hand-in-hand. The Rotorua Lakes and Taupo, the Whanganui River, Te Waihora (Lake Ellesmere), are therefore all now the subject of expensive restoration efforts, each dealt with in separate chapters. So too is 'the top of the South Island', but as the author explains, in part because no other region had been so extensively surveyed for cultural *ikawai* (freshwater fish) knowledge—and this by Treaty researchers. Other water bodies of notorious long-standing abuse and contention include Lake Horowhenua, which though yet to be heard before the Watangi Tribunal, also receives due attention.

Wherever possible, the author elaborates the customary practices, uses, harvest, processing and consumption, including *tikanga* (right practice) and *manakitanga* (hospitality). Māori names, often differing by region and description of fish developmental phases, are thoroughly canvassed. It is really only in the past twenty-five years that science has developed a definitive taxonomy (some species having been identified only this century), with many popular, as well as academic misapprehensions and assumptions finally being put to rest. Where possible, Māori names and the scientific ones are aligned, reconciled or explained—no small task. It is thanks largely to the work of McDowall and his scientific associates that New Zealanders now (should) know that their beloved delicacy, whitebait is fry derived from five species of galaxiids. Improved knowledge and generally downward catch trends have yet to affect a strengthening of the regulation of either private effort or commercial harvest. After almost three decades of near-exponential dairy expansion, often into regions where soils and water become fit for purpose only when forced, New Zealand generally is still prepared to discount the ecological for the economic.

Sadly, it has ever been this way. Inevitably, McDowall's efforts to capture Māori traditions in relation to fish are, inevitably, filtered through the impacts of European colonisation on the fishery. Being culturally presumptuous and ecologically blind, these actions have seemed overwhelming in their often still on-going effects. The miracle is that just one species, the once-teeming panaroro or grayling (*protroctes oxyrhynchus*) is extinct, although many others risk a similar fate. The official description of *tuna* (eel) as 'vermin', which meant that in many places this once-again highly regarded food was the subject of wholesale extermination, did not help. Even today, despite the obvious pressure on the long fin eel (*anguilla reinhardtii* Steindachner), the government continues to resist reducing quota. Indeed, perhaps since the book was published, for this is not mentioned, it is Māori, once again making the sacrifice, who in some instances have forgone their quota voluntarily in the interests of sustainability. Another greatly impacted species is the koaro (*Galaxias brevipinnis*), widespread, and abundantly so in the central North Island, where its numbers—a vital source of protein for inland tribes—were spectacularly and abruptly reduced by the Tongariro Hydro Development that occurred 1960s-1980s.

It is against this backdrop of oversight and neglect that this book is predicated. The author has collected useful information on all kinds of cultural references and practices, such as *taniwha* (guardian spirits) and *rahui*. *Rahui* (the formal, authoritative proclamation of a prohibition to a waterway or closed season on fishing) has one of the better sets of references on this practice to be published. The reasons for *rahui* can be pragmatic management of a resource or the Polynesian observance of, say, a drowning. *Rahui* were displayed by an *ariki* or *tohunga* by a twining of vegetation at site, or in colonial times by a cloth tied to an upright musket or similar fixed object. They were often enforced on pain of death.

Of the thirty-eight fishes native to our rivers and lakes, half of which are galaxiids, some species are shared with the south-eastern waterways of Australia. Eel, of which we share the short-fin (*Anguilla australis*) variety with Australia, figure largely in Māori lore and within the book. While the equator rarely allows higher latitude fish to pass through it, Polynesian transgression of that zone means that Hawaiian *o'opu* and New Zealand *kokopu* are etymological, though not genetic, relations. Half of our native fishes are anadromous, while there are a number of strains of the far more 'home-body' mudfish. Among other species are the panoko or torrent fish (*Cheimarrichthys fosteri*), the *koura* or freshwater crayfish and the little-understood freshwater mussel (*kakahi*), all well-known and consumed in Māori traditions.

McDowall's approach is to interrogate all sources available in fields both in and outside his discipline that illuminate his task so as to test the difference between assumption, assertion and allowable observation. He does this with both open-mindedness and a healthy intolerance of the doctrinaire, special pleading or the illogical.

He challenges fisheries scientist George Habib's assertion that 'all of the native fisheries have fallen prey to the trout in all of the country's waterways.' While McDowall is committed deeply to the conservation cause, in another section criticising the head of Fish and Game New Zealand for his partisan refusal to countenance Māori appointments to local acclimatisation committees, he rejects the Habib claim, made in support of Māori: 'This is an exaggeration, since trout are not present in all the waterways, and there has been no evidence for, or allegations of, impacts on many of the country's 40-odd species of indigenous freshwater fish, a good many of which were not of interest to Māori anyway.'

Given its ubiquity and predominance in almost all of our freshwater, the narratives around tuna (eel) become his longest chapter (100 pp). In the absence of much evidence in middens, largely because their bones are few and soft, their part in Māori culture is nevertheless impossible to underestimate. One 19th century commentator likened them, 'as valuable to the ancient Māoris as gold mines are to the Europeans.' Māori tradition and circumstances still support this idea. In some districts, for example, a tribe can have as many as fifty names for eel. McDowall also provides coverage of the eel technology – *pa tuna* (eel weirs), beautiful, fine-woven *hinaki* (nets) and *korotiti* (corfs for living storage), which are museum's largely silent witness to a sumptuous, but vanished past.

The cultural subtleties of attention to moon, water movement, tides and harvesting, together with protocols, are also discussed.

In addition to such great names as Julius von Haast, Peter Buck, T.W. Downes, Herries Beattie, William Carkeek, G.M. Thomson, A. Harper, Leslie Adkin, and many more, he also draws upon more contemporary sources. Newspapers, archaeological reports, oral history references, and, painstakingly, the vast trove of evidence produced by the Waitangi Tribunal hearings.

The book is richly illustrated with photographs and drawings, many of which could have benefitted from fuller use of captions to locate and better explain the pictures. Another criticism, a small one, is that the dogged science that lies behind this work sometimes results in a certain literal quality where on occasions, a little more generality and synthesis might have better served the reader. McDowall also lacks his usual acuity in attempting at the end to bring Pākehā and Māori spirituality together over freshwater. His scientific ‘naivety’ occasionally leads to the odd misleading notation—for example, Maori scholar Charles Royal might be amused to find himself described as a ‘Maori chef’. One is also reminded in this book at how quickly life moves on. Since it was produced, the central North island reports have been produced by the Waitangi Tribunal and the long-running Whanganui grievance has been set up for resolution by creating a legal entity for the river.

But notwithstanding these small points, this beautifully produced work will be a crucial reference for many generations of not only fisheries scientists but, I suspect, for so many of us amateurs who work with awe and respect in the realm of freshwater.

David Young

David Young is a New Zealand writer, and previously Reviews Editor for *AJE*. His work includes *Rivers: New Zealand's shared legacy* (2013); *Coast* (2011); *Woven by Water: Histories from the Whanganui River*; *Faces of the River*; *Our Islands Our Selves*; *A history of conservation in New Zealand* (2004); *Whio*, and *Saving the endangered blue duck*. His latest publication is ‘Cloud Nine on the Manawatu: Treachery and Ecology’ *Overland* 219 (2015) Aotearoa Online www.overland.org.au