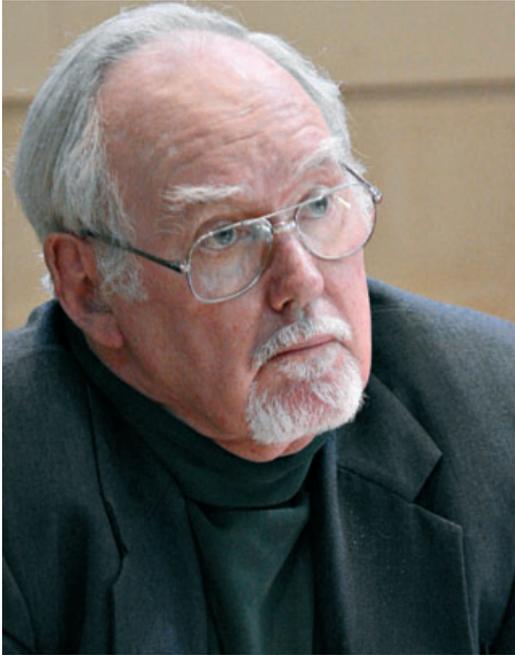


## John Leslie Munro (1938–2009) – a pioneer of tropical fisheries science



John Munro was born on 4 February 1938 in Johannesburg, South Africa and had an interesting life as a youth, which included several years as a racing car driver, and graduation from the University of Witwatersrand, in 1959. A Commonwealth scholarship enabled him to leave South Africa in 1961, where he had become disgusted with the apartheid regime. In 1964, he acquired a PhD from the University College of Rhodesia and Nyasaland in Salisbury (now Harare), with a thesis on the limnology of and the trophic relationships within nearby Lake Mchlini (Munro 1967). Rhodesia, as Zimbabwe was then known, was a part of the Central African Federation, of which John became a citizen after shedding his South African nationality.

Shortly after completing his doctoral degree, John became an Assistant Professor at the Institute of Marine Science of the University of Miami, and studied the ecology of larval shrimps (Munro *et al.* 1968). It was during this time that he became stateless when the Central African Federation broke up into its constituent parts (Rhodesia, Zambia and Malawi).

In 1966, John sought and found refuge in Jamaica, at the University of the West Indies. It was there that his energy and creativity were unleashed, particularly after he secured a grant from the UK to set up a 'Fisheries Ecology Research Project' in 1969. The project was based at Port Royal Marine Laboratory, University of the West Indies, in

Kingston, Jamaica, and it operated a robust, ferro-cement hulled boat, the *R.V. Caranx* (and yes, it floated).

What then followed was a succession of innovative reports that strongly shaped tropical fisheries science, although they were published, in 18 installments, in the greyest of grey literature, the *Research Reports from the Department of Zoology, University of the West Indies*. As he was studying the Jamaican coral reef fishery, a typical, data-poor fishery, based on fish, which – in contrast with temperate fish – could not be aged using annual rings on their bones, John could not apply the standard methods of fisheries research. Also, coral reef fishes were often studied at the time in terms of their behaviour and evolution, and John had little time for this esoteric work by those he called the 'damselish people'. If he was going to be successful, John had to modify and adapt existing methods of fisheries science or invent new ones – and he did just that.

In the process, he became one of the pioneers of tropical fisheries science. The concepts and methods he developed were numerous:

1. A version of the surplus-production model that substituted space for time, a theme later explored by various authors (Munro and Thompson 1973);
2. The identification of Jamaican reefs as a fish recruitment 'sink', and the tentative identification of the source(s) of this recruitment, an early contribution to the analysis of metapopulation (Munro *et al.* 1973);
3. The development of a theory accounting for the saturation and change in catchability of baited traps (Munro 1974);
4. An estimation of natural mortality for several species based on application of a little used equation of Beverton and Holt to length-frequency data of fish from un(der)exploited areas (see contributions in Munro 1983);
5. A method for fitting the von Bertalanffy growth equation to growth increment data derived from length-frequency analysis (Munro 1982a);
6. A multispecies version of yield-per-recruit analysis, allowing for the determination of an optimum mesh size and fishing effort level in the Jamaican trap fishery (Munro 1975, 1982b, 1983).

At the conclusion of his project, in 1974, John spent a few months at Lowestoft, at the time the Mecca of classical fishery science, but his English colleagues showed little interest in his work on multispecies fisheries – which, in fact, presaged the ecosystem approaches that are now current. Apparently, they were too engrossed in the fashionable (single-species) virtual population analysis and cohort anal-

ysis. And it did not help that John was a 'colonial' (though he had by the time identified a British ancestor, who posthumously enabled him to claim a British passport), and that there is a long tradition for scientists in Britain to downplay the work of their colonial counterparts (or at least this is how John felt).

I knew John rather well. I contacted him for the first time in 1978 to obtain one of his reports, then known only among tropical fisheries cognoscenti. I was particularly interested in the relationship between growth and mortality in fish; his estimation of natural mortality in several tropical fish species neatly extended the range of values that were then available.

John was very helpful to people who wrote to him out of the blue, and the pattern repeated itself when I showed up in 1979 in Port Moresby, Papua New Guinea, where he had become a professor of fisheries after leaving the UK. Indeed, when I arrived, I had for some reason run out of money, and he lent me enough to pay my hotel bill and to return to Manila, where I had begun, a few months earlier, a post-doc with the International Center for Living Aquatic Resources Management (ICLARM, now the WorldFish Centre, based in Penang, Malaysia).

By the time I left Port Moresby, I had convinced him to publish his masterly series of grey reports in ICLARM's *Studies and Reviews* series (Munro 1983), which later became one of his most widely cited publications. I also convinced him to apply to become my boss at ICLARM, which he did – joining in 1982 as Director of the Resource Development and Management Program.

Shortly after joining ICLARM, John launched the 'Network of Tropical Fisheries Scientists' and its newsletter *Fishbyte*, two very successful ventures that put our young organization (ICLARM was founded in 1977) at the very heart of the tropical fishery research community. In fact, some of the brief articles we co-wrote in *Fishbyte*, notably Munro and Pauly (1983), became quite heavily cited, although they were published in the greyest of literature (The revenge of the colonials...).

However, in 1984, John, who did not appreciate the peculiar charm of Manila, moved to Australia and then the Solomon Islands, where he built an ICLARM laboratory tasked with developing forms of mariculture compatible with coral reefs, notably the mariculture of giant clams of the genus *Tridacna* (Munro 1988).

In the early 1990s, John's peripatetic life brought him back to Manila, then onward to a property near Perpignan in southern France, from which he ran another project in Jamaica and the Caribbean, but the fisheries were much degraded and not much came out of it. John eventually retired near Brisbane, Australia, where he died on 13 December 2009.

I admired John Munro not only because of his work and his early stand about apartheid, but also for the consistency of his positions. He differed from most expatriates or other colleagues I met during my equally peripatetic life in that he could see beyond the skin hues and other superficial differences between people, concentrating instead on their

character, and on whether they worked hard or were simply 'useless'.

His death is a loss to fisheries science, not least because his work illustrated the notion that you do what you have to do, rather than elaborate on why it cannot be done. John is survived by his wife Pat and three children.

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