



Reintroduction Biology

Integrating Science and Management

Edited by John G. Ewen, Doug P. Armstrong,
Kevin A. Parker and Philip J. Seddon

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**John G. Ewen, Doug P. Armstrong, Kevin A. Parker
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Memorium of Don Merton

Donald Vincent Merton (1939-2011), a reintroduction pioneer

Don Merton died on 10 April 2011, and although many of us had known for a while that he was fighting terminal cancer the news of his passing still came as a blow, since Don, or 'Mertie' to his friends and colleagues, had been an important figure in bird restoration for nearly fifty years and he had been a mentor to many of us. Don was a consummate field man and many of the techniques in bird management that he pioneered have now become accepted practice. The conservation programmes he developed and drove in New Zealand and on Indian Ocean islands have become iconic case studies of what can be achieved.

Don played a leading role in saving many New Zealand species and is best known for his work with the North Island saddleback *Philesturnus rufusater*, South Island saddleback *P. carunculatus*, Chatham Island black robin *Petroica traversi* and the kakapo *Strigops habroptilus*, but he also helped, advised and inspired work with a range of other species. Elsewhere he worked with the noisy scrub bird *Atrichornis clamosus* in Western Australia, the echo parakeet *Psittacula eques* in Mauritius and the Seychelles magpie robin *Copsychus sechellarum*.

The first significant bird conservation work that Don was involved with was the translocation of saddlebacks in the 1960s and this continued in subsequent decades. The North Island saddleback had been reduced to just one population on Hen Island due to predation by rats, cats and stoats. Don headed up a translocation programme for this species and

successfully established new populations on predator-free islands. This work became a prelude to work on the South Island saddleback, which had become doomed following the invasion of its last island home, Big South Cape Island, by rats. Translocations to other islands were largely successful and set the scene for further translocations of this, and other species, to predator-free islands. The North Island saddleback has a population of about 6000 birds on at least 14 predator-free islands and the South Island saddleback has a population of about 2000 on 17 islands (Ballance & Merton, 2007).

This work demonstrated the value of translocating species on to predator-free islands and Don was eager to communicate the results. He gave an important paper at the 1972 conference on 'Breeding Endangered Species in Captivity' and put over the idea, novel at the time, that instead of having to breed highly threatened species in captivity they could be marooned on islands where they may be able to establish viable populations (Merton, 1975).

As a result of attending this conference Don became aware that there were many techniques being developed in Europe and North America that could be applied to managing bird populations and he wanted to discover how these could be applied to the threatened birds of New Zealand. In 1973 he spent three months in Hawaii, mainland USA and Europe visiting conservation programmes. Among these he visited the Endangered Wildlife Unit of the United States Bureau of Sports Fisheries and Wildlife at Patuxent in Maryland, the Peregrine Fund at Cornell University, the Wildfowl and Wetland Trust in Slimbridge and the Durrell Wildlife Conservation Trust in Jersey. He was able to see first hand the work being conducted on endangered species such as the Hawaiian goose *Branta sandvicensis*, whooping crane *Grus americana* and peregrine falcon *Falco peregrinus*. It was on this trip that Don realized the great contribution

aviculture techniques could play; techniques that bird breeders used to encourage their birds to breed could be applied to free living birds. As a result of his trip Don was able to take back to New Zealand much important information on bird management. This included ideas on the use of captive breeding and the value of using related species as 'analogues' on which to develop skills. He was able to compile information on more sophisticated techniques for trapping, handling and transporting wild birds. Don also learned about captive diets, soft-release protocols and the new technology of radio telemetry. Perhaps most usefully Don was able to gather information on avian paediatrics such as egg harvesting and incubation, double clutching, the fostering and cross-fostering of eggs and young, and hand-rearing techniques. These techniques Don would use repeatedly in his work on the Chatham Island black robin, kakapo and other species.

In 1980 Don started the recovery of the Chatham Island black robin. The species had declined to five individuals and extinction seemed imminent. The black robin was restored by using a range of intensive management techniques including clutch and brood manipulations, close guarding and supplemental feeding (see Jones & Merton, this volume, Chapter 2). This is the species for which Don is most famous and the story has been well documented (Morris & Smith, 1988; Butler & Merton, 1992; Ballance & Merton, 2007). There were about 200 black robins by 2011.

The species that he had the longest and most continuous involvement with was the kakapo, the 'big budgie' as he affectionately called it. He had been involved with this species for five decades and played a huge role in developing this programme and providing the vision for the species recovery, and saw it increase from 51 individuals in 1996 to 100 in 2009. The honour of naming the hundredth bird was given to Don, and he named it Te Atapo, meaning

‘the dawn after the night’, because of its significance to the recovery effort, and he went on to point out ‘the 100th bird symbolizes a very significant milestone in the ongoing struggle spanning more than a century of literally blood, sweat and tears by countless dedicated individuals to save one of New Zealand’s—and the world’s—most remarkable and iconic birds’.

All the kakapo now exist on predator-free islands outside their natural range since their historic habitats are now badly degraded and inhabited by exotic mammalian predators, making them largely unsuitable. Don worked with others to develop the techniques for clearing islands of exotic predators and then restoring them so they would be suitable for endangered birds like the kakapo (Butler, 1989; Ballance & Merton, 2007; Ballance, 2010).

The use of predator-free islands is a recurring theme in New Zealand conservation and has become important because of the appreciation of the damage that exotic mammals can cause. Don had witnessed the devastating impact black rats *Rattus rattus* had on Big South Cape Island in 1964–1965 when they caused the extinction of the Stewart Island snipe *Coenocorypha iredalei*, Stead’s bush wren *Xenicus longipes variabilis* and the greater short-tailed bat *Mystacina robusta*. This story is told in Don’s (auto)biography (Ballance & Merton, 2007) and in the book *Wild South* (Morris & Smith, 1988). The experience of seeing the collapse of the bird and other communities on the island had a profound influence on Don, and he often talked about it. He was incredulous that some scientists were myopic regarding the negative impact that rats (and other exotic mammals) were having on endemic island faunas (Merton, 1977). Together with Ian Atkinson and Brian Bell they were the first to realize just how destructive rats were to bird populations, and all three became major campaigners for the eradication of exotic rats from islands. Don led rat

eradication projects on Mauritius and Seychelles as well as contributing to a range of exotic mammal eradications in New Zealand and elsewhere. On Mauritius he and a small team of helpers eradicated rabbits off Round Island, which was at the time the largest island from which rabbits had been eradicated (Merton, 1987). Later Don went on to develop the management plan for the island (Merton *et al.*, 1989), and this plan has been successfully implemented.

A field trip with Don was an education. He planned it with meticulous attention to detail, building in contingencies for problems that may occur. For days before the trip he would work through long lists of items that were required. All provisions were carefully quarantined and packed and sealed in labelled boxes. The field camps that Don set up on Round Island and in the forest, when working on echo parakeets, were more organized than any that I or my fellow British and Mauritian biologists had experienced. So fastidious was Don in running field camps that his fellow 'kiwis' gave him the soubriquet of 'auntie'. Don was indeed a joy to share a camp site with and when we would remark that he ran a good camp he would reply that 'anybody can rough it in the field but effective field work is a product of being organized and comfortable'.

Don always had focus and stamina; he would be up earlier than everyone else and by the time the rest of the team had arisen Don would have breakfast ready, the day planned and be raring to go. In the field he had more energy than many half his age and I have memories of trying (unsuccessfully) to keep up with him. Don was, however, no paragon and could be stubborn and introspective, but these were traits that made the man determined and focused. Often when faced with a seemingly unsolvable problem he would become quiet and withdrawn while he weighed up the situation and thought through a strategy to find a solution. It was remarkable how often Don found the answer; he was

very intuitive and could also draw upon his considerable experiences to solve problems big and small.

Most field conservationists spend the early part of their careers in the field and then when they reach middle age take on more and more management and office-based responsibilities. This was not Don. He spent virtually his entire career doing field-based work and resisted promotion that would take him away from hands-on conservation, for this was where he felt most comfortable and was most effective. In all he spent more than ten years of his career living in tents or field huts, usually in remote locations. In addition to this he spent several years working on the Indian Ocean islands of Christmas, Seychelles and Mauritius.

Don was never happier than when he was tinkering with birds. He used to enjoy just being with them, watching and soaking up all types of information about how they behaved and reacted. He was empathetic and had a deep understanding that arose from years of intimate contact. I remember when I showed him some recently fledged hand-reared Mauritius fodies *Foudia rubra*; the birds were very tame and readily landed on him and climbed and fluttered up and down his arms and on to his head, inspecting his glasses and probing his ears. To most biologists they are small brown passerines but to Don they were special; 'Jeez, what beauts!' he exclaimed, 'what wonderful little birds.'

When working with birds, whether setting up a supplemental feeding station or placing a nest-box, he would pay careful attention to every little detail to make it attractive to the birds. Don's attention to detail influenced all he did, and was particularly evident in his approach to trapping. I remember clearly how, on Mauritius in 1992, we had a problem feral cat that was killing pink pigeons *Nesoenas mayeri* in our last wild population; at the time we had less than twenty birds left and the cat was making a significant dent in the numbers. We unsuccessfully tried all

sorts of traps to catch it. Don visited Mauritius and I asked him if he could help us. He spent a day in the field studying the situation. When he had a good idea how the cat would be using the landscape and where it would be likely to travel, he carefully set a series of traps that were well camouflaged and baited with fish. Next morning Don got up early to go and check his traps and later greeted us at breakfast, beaming with delight and holding up the dead cat he had caught!

Don was not a trained scientist but he was nevertheless a careful and systematic worker. He realized that science was the most powerful tool that could provide knowledge to inform conservation management. Although he did not see publications as an end goal he did publish important findings and techniques, including the description of lekking in the kakapo, the only parrot that is known to do so (Merton *et al.*, 1984).

Don was a modest man who never bragged about his achievements but was, however, always eager to talk and share his knowledge with anyone who was interested. He wanted to know what others had to contribute, and travelled widely visiting bird conservation projects and attended and spoke at many international conferences. Without intending to, he was the greatest ambassador of conservation that New Zealand has ever had. A very generous man by nature he readily gave his time and helped projects outside New Zealand, including projects in Western Australia, Christmas Island, Mauritius, Seychelles and Fiji. Don did much work abroad, often at his own expense, and would usually do it during his annual leave or he would take leave without pay. On Mauritius he helped develop the echo parakeet restoration project and for over 25 years he provided advice and guidance. He was a wonderful correspondent and would always be happy to respond to any queries and kept in close touch with projects he had helped.

Don was an optimist and believed that most critically endangered species are restorable and that in the future we would be restoring whole communities and rebuilding ecosystems. He showed us the way forward and the species conservation programmes he was involved with have matured into projects restoring suites of species and their island habitats.

During his more contemplative periods he would lament on just how short our human life span was compared to how long it was going to take to restore species with long generation times, like the kakapo, and to restore whole island systems. He would urge that we had to do what we could to develop the next generation of conservation leaders to continue the work. These were not just words since Don put these views into action and on his various trips to Mauritius and Seychelles he took along young conservationists at the beginning of their careers to give them the opportunity for broader conservation experience. Subsequently, in Mauritius we have had a whole stream of 'kiwi' conservationists who have been sent by Don, helping with the work while at the same time adding to their experiences and skills.

Don of course did not do his conservation work alone, and he would have been unable to develop the ideas of bird management, predator eradication and ecosystem reconstruction were it not for the intellectual and practical input of his colleagues. Notable among these have been Ian Atkinson, Brian Bell, Dick Veitch and others who together have made New Zealand the most progressive country for endangered species management. Don openly acknowledged the support of his wife Margaret and son David who often accompanied him on field trips.

Looking back at Don's achievements, he was the person who developed the techniques of intensively managing critically endangered wild birds. Don showed us that most

species are saveable, and that species work drives the rebuilding of ecosystems. He was able to take the ideas of aviculturists and field conservationists, craft and combine them, and apply them to wild populations. In the coming decades more and more species are going to have to be managed in the long term if they are to survive and we can thank Don for showing us how to do this.

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Foreword

Reintroductions have come far and fast over the last thirty years. Starting with large vertebrates, often charismatic and with obvious sources of decline, the IUCN Reintroduction Specialist Group database is now witness to a host of species, plant and animal, vertebrate and invertebrate, being returned to the wild around the world. As well as the quantitative increase, the quality of well-designed and planned releases with subsequent monitoring and fine-tuning is also striking. Given that any reintroduction is a step into the unknown, and involves practical issues of the selection, handling, welfare and management of the released individuals, each effort must be a marriage between science and responsible management. As these are often poor bedfellows, this book is a timely corrective that demonstrates how each can inform the other in the interests of successful reintroductions.

Through my own experiences I have witnessed the changing face of reintroductions. Planning in the late 1970s for the return of the Arabian oryx into the deserts of Oman after an extinction of only twenty years, we virtually assumed the arid grasslands were there and adequate for a grazer with only six species of grass to choose from. Disease considerations were limited to ensuring the oryx imported from California brought no blue tongue with them. However, the lesson in this instance was that while ecological conditions were adequate for initial success, human social factors in the form of envy-based capture for sale reversed the situation.

Fast-forwarding many years, I have been fortunate to be involved, only in an oversight role, with the magnificent population restorations on Mauritius and its islets. Chapter 2 covers the dramatic events there, involving habitat