THE AUSTRALIAN

The wide green land

The Simpson Desert near Ethabuka, from the air. Picture: Aaron Francis Source: The Australian

The Simpson Desert near Ethabuka, in Western Australia. Picture: Aaron Francis Source: The Australian

WAIST-deep in the muddy waters of a 6km-long waterhole in southwest Queensland, Adam Kerezsy wades to shore hauling behind him a fishing net he set up in the shallows the previous night.

Ecologist and fish expert Adam Kerezsy shows two varieties of fish from the Mulligan River on Ethabuka Reserve. Picture: Aaron Francis Source: The Australian

As he drags it up the bank, the net yields its catch - scores of glossy silver bream and perch flash in the morning light, some as big as Kerezsy's foot, while deeper in the net's folds lie small, translucent shrimp, infant catfish and baby grunters less than a week old. "Look at that!" Kerezsy exclaims, disentangling one tiny, iridescent shape from the net. Dangling from his fingertip, open-mouthed and gasping, is a silver fish that looks like a small sardine. "A 55mm glassfish! He's a beauty ... " Kerezsy looks up, sensing that his prize catch is not generating quite the hubbub he expects. "You guys don't give a shit, do you? At least pretend, for my sake."

Forgive the man his excitement - he is, after all, a fish scientist, and we're standing on the edge of the Simpson Desert, an enormous arid zone not normally associated with aquatic research. Surrounding us is a red-earthed landscape which, at its most scorching, can melt the glue in your shoes. The desert begins 2km to the west, its striated rows of ochre dunes and shadowed gullies stretching more than 400km into the Northern Territory. In all other directions we're surrounded by an expanse of flat, scrubby terrain that extends out of sight under a vast blue sky. The next permanent waterhole is 120km away; the nearest human settlement of any significance is Mt Isa, 640km north.

Yet the Pulchera Waterhole is teeming with life thanks to five years of rain, the like of which has not been seen for decades. Many of the fish in Kerezsy's net have worked their way upstream from the rivers of the Lake Eyre basin, borne by floodwaters that swept through in 2010-11 and transformed the landscape. Acacias are flowering across the scrublands, their pungent, sweet-sour scent wafting on the breeze. Cane-grass and spinifex reach skywards and red tendrils of portulaca are splayed out on the claypans. You wouldn't call it lush, but to the cormorants and spoonbills swooping low over the waterhole, it's a feast of plenty.

For the scientists who regularly visit this landscape, it's also a once-in-a-lifetime research opportunity. Accompanying Kerezsy today is Max Tischler, a mammal expert who has been a regular visitor since he was a Sydney University biology student in the late 1990s. "We're seeing this land in conditions that haven't been observed for more than a generation," says Tischler as he surveys our surrounds. "We're seeing plants that have not been recorded in Queensland for 50 or 60 years, birds very rarely seen in this kind of arid zone, and mammals that had disappeared for years."

This raffish-looking pair are clearly not your standard-issue scientific boffins; with his greying goatee, buccaneering grin and off-colour wisecracks, 44-year-old Kerezsy could pass for a mine worker from Isa; Tischler, who is eight years his junior, looks like a handsome, bearded bush-hippie with his long, matted locks and ragged jeans, and it's almost no surprise to hear that he moonlights as a rock'n'roll tour manager when he's not studying mammalian ecosystems. Their unconventional appearance is the first clue that what's going on here is something different in conservation research - a "grand historical experiment", to quote one excited account. The two men are employed by Bush Heritage Australia, a non-profit conservation organisation which owns the 215,000 hectares on which we're standing, a former cattle station called Ethabuka. The same organisation owns an even larger nearby property, Cravens Peak, giving it a combined landholding in southwestern Queensland that's more than twice the size of Sydney and its suburbs.

Ethabuka and Cravens Peak were working pastoral stations until Bush Heritage bought them in 2004 and 2005 respectively. To raise the roughly $4.5 million needed, it mustered more than $2 million from its own reserves and from other non-profit bodies, then won $2.3 million in matching funds from the Howard government. With the cattle removed, the properties are now among the nation's largest privately

owned nature reserves. But their transformation is by no means an isolated event - a new breed of conservation organisation is creating dozens of such reserves across Australia, a privately owned adjunct to the nation's government-run national parks and reserves. Most recently, the Tasmanian Land Conservancy bought more than 27,000ha of forest and bushland for $23 million, financed largely by Jan Cameron, multi-millionaire founder of the Kathmandu outdoor chain, along with internet entrepreneur Graeme Wood, and businessman Rob Purves and his sister, Sandy.

In the past decade more than five million hectares of land have been acquired by such private conservation bodies. For scientists such as Kerezsy and Tischler it offers a chance to work outside the bureaucratic strictures of government and academia. For governments it's a way of expanding the nation's stock of nature reserves while offloading the running costs. One ecologist is so excited by this environmental model that he has advocated the handover of some national parks to private conservancy groups.

But maintaining sprawling nature reserves is not without its challenges, as even a brief visit to Ethabuka attests. A few kilometres from the Pulchera Waterhole the old homestead stands unoccupied, as it has since the original Bush Heritage managers left five years ago. The property is now looked after by two managers who live 150km away on Cravens Peak, which makes them the only full-time staff overseeing 448,000ha. It's a mammoth job in harsh and lonely conditions, which might explain why Cravens Peak has had four different sets of occupants since 2006. Late last year, wild bushfires swept across the property for eight weeks, destroying more than a quarter of it.

Experienced pastoralists are watching these ventures with ambivalence, for the generous government grants that helped Bush Heritage buy this land do not extend to managing it over the coming decades. And the demands of fire and weed control, eradicating feral animals, erecting fences and general maintenance of such a huge property will make that "a big task", in the words of Drew Wagner, an executive with the pastoralist organisation AgForce Queensland. "It's a romantic notion, owning a half-million-hectare nature conservancy in perpetuity," says Wagner. "But the reality is that if it's not managed properly, what you're trying to preserve will be destroyed."

In 1955, a fledgling US conservation group called The Nature Conservancy bought its first 24ha block of land in upstate New York, the modest beginning of a "direct action" program to save threatened habitats that has since become a global phenomenon. It now operates in more than 30 countries and is the grand-daddy of non-profit wildlife-reserve organisations, having acquired or organised protection for 48 million hectares of land. Using philanthropic donations, it acquires land and then either retains it as a nature reserve or sells it to a "conservation buyer", who signs a legal covenant protecting the land into perpetuity.

The model has since been copied around the world, beginning here with the founding of Trust For Nature in Victoria 40 years ago. Former Australian Greens leader Bob Brown took inspiration from The Nature Conservancy in 1991 when he bought two blocks of old-growth forest in Tasmania that were due to be logged, using a $49,000 environmental prize he'd won and $200,000 he raised by "passing the hat around". In the process Brown kickstarted the Australian Bush Heritage Fund - now known as Bush Heritage Australia - to raise donations to buy modest plots of land in Tasmania, Western Australia and Queensland. Around the same time, the Perth-based insurance millionaire Martin Copley began buying the first landholdings for what would eventually become his conservation organisation, Australian Wildlife Conservancy.

Within a decade, Copley's organisation had acquired five properties in Western Australia totalling 450,000ha, including two pastoral stations and a small island in Shark Bay. Meanwhile, Bush Heritage Australia took a major leap when it bought the 59,000ha Queensland pastoral station Carnarvon in 2001. Both organisations proved adept at raising money from wealthy donors who love the bush, boosted by the Howard government's offer of 2:1 matching funds for the private purchase of land for conservation. New state-based bodies such as the Tasmanian Land Conservancy and Nature Conservation Trust of NSW sprang up, and in 2001 The Nature Conservancy itself established an Australian office.

These organisations offer a simple form of green activism: they buy a slice of the landscape and promise to protect it forever. That has proved particularly appealing to affluent older Australians who are keen to leave behind a tangible environmental legacy. Notable wealthy donors to these bodies have included Graham Turner, founder of Flight Centre, and David Thomas, founder of Cellarmasters, whose

foundation has given $10 million to The Nature Conservancy.

Australian Wildlife Conservancy now owns 3 million hectares of private nature reserves, Bush Heritage about a third of that. Both organisations pulled in $10-11 million in donations last year, and their example has inspired others; the Tasmanian Land Conservancy is now the second-largest private landowner in that state. Support from public figures has been integral. Environmentalist Tim Flannery is a board member of Australian Wildlife Conservancy and visited one of its reserves for his TV series Two in the Top End. Bush Heritage Australia lists among its ambassadors the songwriter John Williamson, former deputy prime minister Tim Fischer and Chris Darwin, the great-great-grandson of Charles Darwin. The organisation funds regular media visits to its reserves, including this magazine's trip to Ethabuka.

The matching funding introduced under the Howard government's National Heritage Trust has also played a huge role. More than a third of Bush Heritage Australia's 34 properties were acquired with its help, and more than $23 million has been distributed to various organisations over the past five years. Ambitious projects involving multiple partners have become common. The Nature Conservancy, for instance, has contributed to 13 of Bush Heritage Australia's acquisitions, including Cravens Peak and Ethabuka, for which it kicked in $1.86 million plus an ongoing management contribution. In Western Australia, the activist Keith Bradby is trying to marshall the collective backing of several private conservancy groups to buy the farmlands that separate two national parks in the southwest, thus creating a 7 million-hectare conservation zone.

To many conservationists this is a model of far-sighted government/private teamwork - a "grand historical experiment", in the words of ANU academics Libby Robin and Mike Smith. "I think it's fantastic," says Martin Taylor, an ecologist from World Wildlife Fund Australia. "Some of the acquisitions have been jewels - Wongalara in the Northern Territory, Mount Zero in Queensland, Cravens Peak and Ethabuka, these are all very important reserves." Taylor's "niggling concern" is that private reserves are not protected from mining exploration like national parks - a loophole he'd like closed by legislation - but he gives the private conservancy organisations full marks for their management of these huge landholdings.

The pastoral industry, however, is less convinced. Drew Wagner from AgForce Queensland says the removal of cattle from land can have unforeseen impacts - increased fire risk, for instance, because vegetation is no longer being eaten down. Wagner questions how organisations funded primarily by donations plan to manage such issues across vast landholdings. "It's easy to buy a property; it's difficult to manage it," he says. "How many nearly half-million-hectare national parks have only two people managing the entire site, including fire management and biosecurity to control pests and weeds? The answer is none."

The pastoral industry has a vested reason for resisting these new nature reserves, of course - every cattle or sheep station closed is a lost employment opportunity for its members. But Wagner's concerns are echoed by Guy Fitzhardinge, a cattle farmer who was a director of Bush Heritage Australia from 2001-2009. Fitzhardinge, in fact, encouraged the organisation to buy Ethabuka and Cravens Peak, and has no doubts about their ecological significance or the value of the scientific research conducted there. But Bush Heritage Australia has since bought two more 200,000ha-plus stations and a dozen other properties around the country, and Fitzhardinge wonders whether the organisation is fully aware of the challenges it has taken on.

People will donate generously to buy land, he notes, but getting them to stump up for running costs is harder. On top of that is the difficulty of finding qualified staff who can tough out the challenges of remote station life without the economic motive of running cattle or sheep. "I think there was a pretty simplistic understanding of buying up property and managing it - there was an underestimation of what skills and personnel were required," Fitzhardinge says. "It's very easy to fall into the trap of thinking you need to employ people with ecological skills when the reality is that most of the work is not to do with ecology - it's maintaining fences and roads, fixing equipment, looking after a homestead."

The conservation organisation Birds Australia learnt a cautionary lesson after buying Newhaven cattle station in the Northern Territory in 2000 with the help of $330,000 from the Federal Government; the costs of running the 260,000ha nature reserve proved so onerous that it was forced to donate the property to Australian Wildlife Conservancy in 2006. (Land acquired with the government's help is covered by an enduring legal covenant which states that it must be kept for conservation purposes.)

But Bush Heritage Australia's CEO, Gerard O'Neill, refutes the suggestion that his organisation might have bitten off more than it can chew. The full-time staff on stations such as Cravens Peak are supplemented by volunteers, O'Neill points out, and many properties are visited regularly by scientific teams. When fires swept through Ethabuka and Cravens Peak last year, a contingent of more than 30 people - staff, volunteers, neighbours, government personnel - rallied together to help fight them. "My view is that we have the right deployment of people at the moment," he says.

O'Neill's cattle-running neighbours in Queensland seem inclined to give him the benefit of the doubt for now. The North Australian Pastoral Company operates two stations next to Cravens Peak and Ethabuka, and its CEO, Nigel Alexander, admits he was initially concerned about the possibility of increased fire risk or dingo attacks (Bush Heritage Australia does not set baits for dingoes on its properties). But Alexander is hopeful that Bush Heritage Australia's work could yield useful information about water systems and sustainability, and says that having greenies next door has proved "marginally beneficial".

ON a remote corner of Ethabuka stands the remnants of an abandoned cattle yard constructed from rough-hewn lengths of acacia, now turned grey and brittle under the desert sun. Nearby, a cluster of young eucalypts rises from a soft bed of fine red sand. "That's a river," quips Adam Kerezsy, pointing to this now-dry section of the Field River, which briefly ran during the 2010 floods. Back then, Kerezsy and Tischler brought an inflatable dinghy along on one of their field trips, making them possibly the only humans in history to have paddled these desert rivers.

Kerezsy remembers vividly the landscape of this area before the floods; when he first arrived six years ago, years of drought and fires had left it parched and barren. "It had been burnt out right through the Northern Territory," he recalls. "The place looked like southern Africa - there were just a few bits and pieces of scrappy vegetation; even the spinifex took two or three years to come back. Travelling across the property could take eight hours; the terrain was so dry you were just constantly getting bogged in sand every time you crested a dune."

It's a cycle of drought and flood that has been played out for millennia here, extremes that only the dedicated or foolhardy can withstand for long. Bush Heritage Australia's latest annual report carries "before and after" photos comparing the barren Ethabuka of 2003 with the green landscape of today, telling its donors that "thanks to you, Ethabuka is now a haven for desert wildlife". It's a slightly breathless claim, of course - the transformation has been caused by once-in-a-generation rain and floods more than any human intervention.

The rains will eventually cease, as they always do, and when drought returns the real test of Bush Heritage Australia's visionary plans may come. Even Adam Kerezsy admits he's unsure whether it's sustainable over the long haul. But studying creatures that have survived for millennia can make you philosophical about such things. Just understanding the cycles of this remote landscape might take 70 years of continual observation, and Kerezsy knows that by then he'll be long gone. "You need to be a much longer-living organism than us to understand how these things work," he says. "But we do our best."