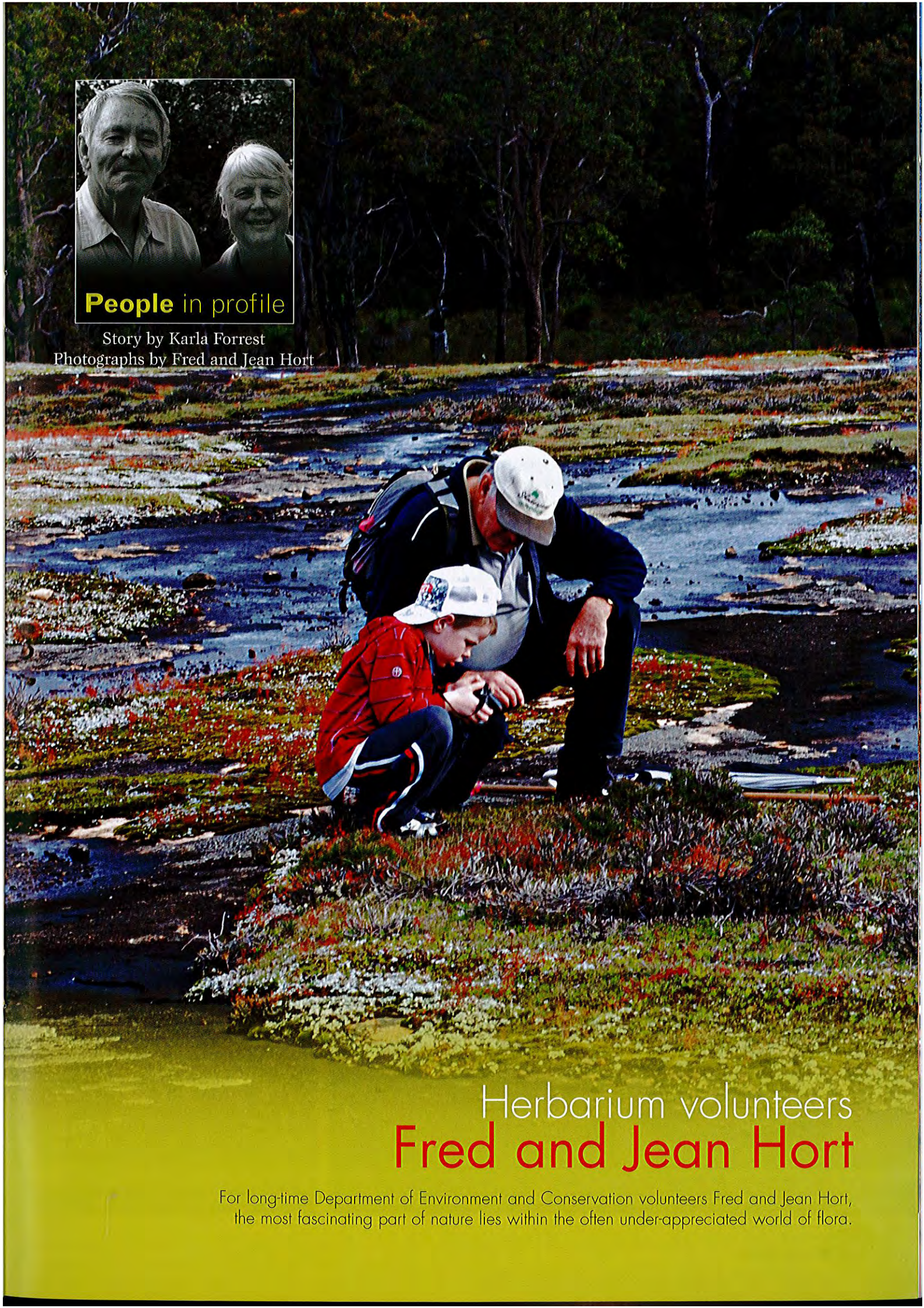


People in profile

Story by Karla Forrest
Photographs by Fred and Jean Hort



Herbarium volunteers
Fred and Jean Hort

For long-time Department of Environment and Conservation volunteers Fred and Jean Hort, the most fascinating part of nature lies within the often under-appreciated world of flora.

Fifteen years have passed since retirees Fred and Jean Hort first signed on as volunteers with the then Department of Conservation and Land Management (CALM). During that time they have dedicated themselves to finding, recording and reporting rare and endangered plants and insects throughout the Perth hills and beyond, and can lay claim to a wealth of achievements.

Fred and Jean have supplied countless high-quality plant samples to the Western Australian Herbarium's collection, many of which have been used as type specimens—the all-important original specimen from which the description of a new species is derived. Through this and their other volunteering activities, they have contributed a great deal to our knowledge of the state's flora. The productive duo have discovered many new species of plant, and have found new populations of species once thought rare. More recently, they have extended their interest and enthusiasm to surveying for rare insects such as butterflies. Along the way, they have worked with dozens of like-minded people, including botanists, lepidopterists, entomologists and conservation officers who encourage and support them.

An intense curiosity drives the Hort's dedication to volunteering.



Each time Fred and Jean step out the back door of their SwanView home on a field trip, they cannot predict what they will find. This, they say, is what makes their work so exciting. Armed with a camera, GPS, plant press, aerial photographs and notebooks, the pair spend a great deal of time in the bush, seeking out rare flora species to record and collect, or fascinating invertebrates to photograph.

The couple's commitment has seen them recognised as Research Associates of the WA Herbarium, as well as jointly being named Department of Environment and Conservation (DEC) Volunteer of the Year twice, with Fred receiving the award individually on

a third occasion. But arguably their most notable honour is having several plant species named after them. *Stylidium hortiorum*, *Darvinia hortiorum* and *Lechenaultia hortii* now bear the Hort name in recognition of their discoverers.

A family affair

Fred Hort grew up in Darlington, at the top of Greenmount Hill in WA, on a property almost surrounded by bushland. Despite living in a large family where there were always chores to be done, Fred and his siblings found time to thoroughly explore the bush around them. A particular interest in wildflowers saw them try to learn the names of various species using whatever books or resources they could get their hands on. They were fascinated by the many native orchids that grew around them and delighted in seeing them each year. Years later, that fascination has not waned.



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Fred Hort teaching his grandson about nature.

Above Lemon migrant butterfly (*Catopsilia pomona*).

Left *Stylidium hortiorum*, a trigger plant discovered by, and named after, Fred and Jean. A bee-fly (family Bombyliidae) feeds on the flower.



Left A female yellow colour-morph *Diaea* sp. spider (family Thomisidae) rests on a *Darwinia hortiorum* flower.

Below Photographing spiders with Farhan Bokhari in Wandoo National Park.

Below left Cinnamon sun orchid.

A love of orchids

One of Fred and Jean's first assignments as volunteers was to survey and report on the status of the star sun orchid (*Thelymitra stellata*), which grew in a few scattered populations in the Mundaring area. Yet when they began looking for it, they came across something even more exciting. It was thought to be the much rarer cinnamon sun orchid (*T. dedmaniarum*), a critically endangered plant with a distinct cinnamon perfume. Very little was known about it at the time, so the survey of the star sun orchid was temporarily shelved and the hunt for more cinnamon sun orchids began. Fred and Jean recorded the species in a number of locations in what is now Wandoo National Park.

Jean's love of the natural environment also began early in life. Growing up in Kadina on the Yorke Peninsula in South Australia, Jean attributes her interest in the environment to her grandfather and her mother. "They would point out specific plants and animals during our many bushwalks through the area," she says. "I was a bit of a tomboy. I loved being out and about, exploring and learning about the bush."

In 1972, Jean moved to WA with her family. She met Fred, and in 1974 they married. The couple lived in a number of places around the state, including Yarloop and later Esperance, where Fred worked for the Department of Education as a primary school teacher and principal. Eventually they moved back to Perth and Jean began

studying information technology, later becoming a part-time TAFE lecturer. By 1995, Fred had clocked up 35 years working in schools and decided it was time to retire and pursue his interest in orchids. Fred and Jean both signed up as volunteers in CALM's Perth Hills District and obtained the necessary licences to collect rare and endangered flora for research. Trips into the field became a frequent occurrence, with Jean joining Fred as often as she could on her days off and on weekends.





Left Bronze sun orchid.

Below left Fred and Jean discovered a new population of the pink starbush.

However, its taxonomy had been confused for many years; the species that Fred and Jean had found was later recognised as a related but new species, the bronze sun orchid (*Thelymitra yorkensis*). This prompted a re-examination of the true cinnamon sun orchid, which corrected some previous misconceptions and enabled it to be properly identified and described. Looking back, Fred and Jean believe they first encountered what they now know to be true cinnamon sun orchid back in 1974 near Gidgegannup on a family field trip. "To us it was such a special orchid that we would visit it every year," Fred says.

Fred and Jean say it wasn't until they made the transition from reporting on orchids to many other types of plants that they began to truly realise the extent of WA's remarkably diverse floral life. The fascinating discoveries became more frequent as they expanded their focus. Shortly after becoming volunteers, the pair's efforts were again rewarded with the discovery of a new population of the threatened pink starbush (*Asterolasia grandiflora*), previously known from only a few populations.

Next, they worked on surveying populations of the summer pimelea (*Pimelea rara*), a species that had been presumed extinct until it was rediscovered in 1987. However, it was still considered rare until the Horts conducted a survey in 1997–98, finding many new populations along the Darling Scarp. Following this, DEC threatened flora coordinator Andrew Brown lightheartedly suggested it should be renamed *Pimelea commoner* (see 'People protecting plants', *LANDSCOPE*, Spring 1998). In 2005 came one of Fred and Jean's most remarkable finds—the rediscovery of a subspecies of black-eyed susan



Right Feather horned beetles
(*Rhipiceridae* sp.).

Below right Fred's photograph of the
underground orchid.

(*Tetralochea sparteae*) that had not been seen for 160 years, ever since it was first collected by colonial botanist James Drummond in 1843.

Discovering more than plants

Trips into the field sometimes yielded discoveries not limited to the flora variety, and on some occasions this resulted in a chance for Fred to express his sense of humour. Years ago, when walking in the bush near Wandering, Fred stumbled across an old tin toilet left by loggers. Ironically forgetting it was April Fools' Day, he sent a rather tongue-in-cheek email to CALM conservation coordinator at the time, John Carter: "Can you imagine my surprise and gratitude to find that you had provided a dunny for your volunteer workers? Yes ... there it was in the bush west of Metro Road. Despite the fact that it was located two kilometres west of my worksite, your kind thought was what counted. I noticed that the door is missing but don't fret about replacing it, as the view out front is wonderful."

Building and sharing knowledge

Having taught photography as part of her TAFE lecturing role, Jean is perfectly placed to use photography as a way of sharing her work with others. Her high-quality photographic work depicts her passion and skill perhaps better than words could. Jean's collection—which she shares with the world on the photo-sharing website Flickr—is filled with stunning photos of the plants and animals she and Fred encounter in their adventures. Many of these photographs have been used on the WA Herbarium's *FloraBase* website and in online encyclopedias and digital libraries. Fred, too, takes remarkable shots, such as his image of the bizarre



underground orchid (*Rhizanthella gardneri*), an endangered species that produces its flowers just below the soil surface. And it is this type of find, and the chance to photograph it, that gives Fred and Jean the greatest satisfaction. Because for some, nature might be best appreciated on a landscape scale, taking in the immense height of the karri forest in the state's south-west, or watching the sunset over Cable Beach. But for Fred and Jean, the best parts are the subtleties: the little things just waiting to be found—like the underground orchid—often overlooked and under-appreciated.

Fred and Jean have long remembered an editorial by former CALM Executive Director Syd Shea that stressed the importance of building knowledge about the environment





with the aim of conserving and protecting it. The idea that we don't know what we need to conserve until we know what we've got is one that really resonated with Fred and Jean, and is reflected in their efforts to record and report on poorly known flora, in order to give it a chance to be conserved. Having started with no formal qualifications or prior study in botany or conservation, Fred and Jean had to work hard to build up their knowledge. Mike Hislop, a WA Herbarium identification botanist who works closely with the Horts, believes this is why they have been so successful. "They have built up their knowledge systemically, giving them a wider understanding of many plant groups, rather than focusing on just one area," he says.

While the Horts' tremendous enthusiasm and energy has been a

valuable asset to DEC over the years, it has also benefited Fred and Jean themselves, by enabling them to form strong friendships with like-minded people, and giving them the chance to study amazing rare and endangered plants. Fred and Jean are a testament to the value of volunteers. Adding to

the work of conservation agencies and the many other groups which make up the greater environmental community, the Horts' work is part of the all-important task of continually increasing our knowledge about, and so our ability to conserve, the natural environment.



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DEC is always looking for people who want to contribute their time to helping the environment. Opportunities are available in many areas ranging from conservation and science, to education and helping visitors enjoy our national parks and reserves. If you are interested in volunteering please contact DEC's Community Involvement Unit on (08) 9334 0468 or by email (community.involvement@dec.wa.gov.au).

Above A pair of wasp-mimicking mydas flies (*Miltinus maculipennis*).

Right Scarlet leschenaultia (*Lechenaultia laricina*).

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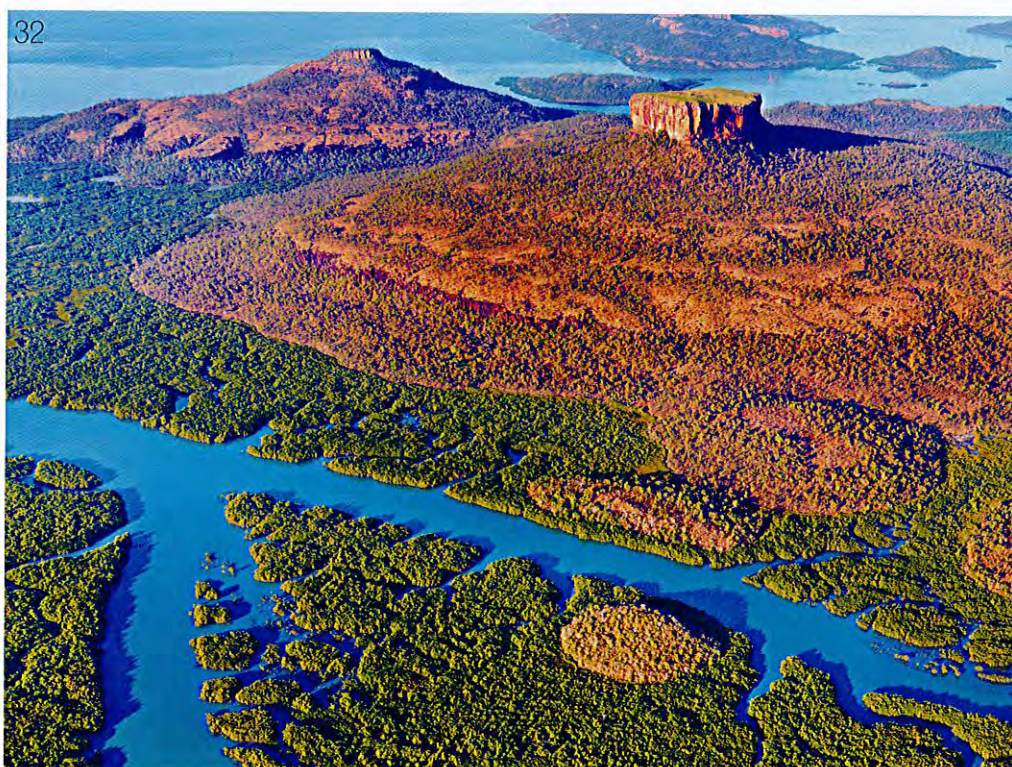
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