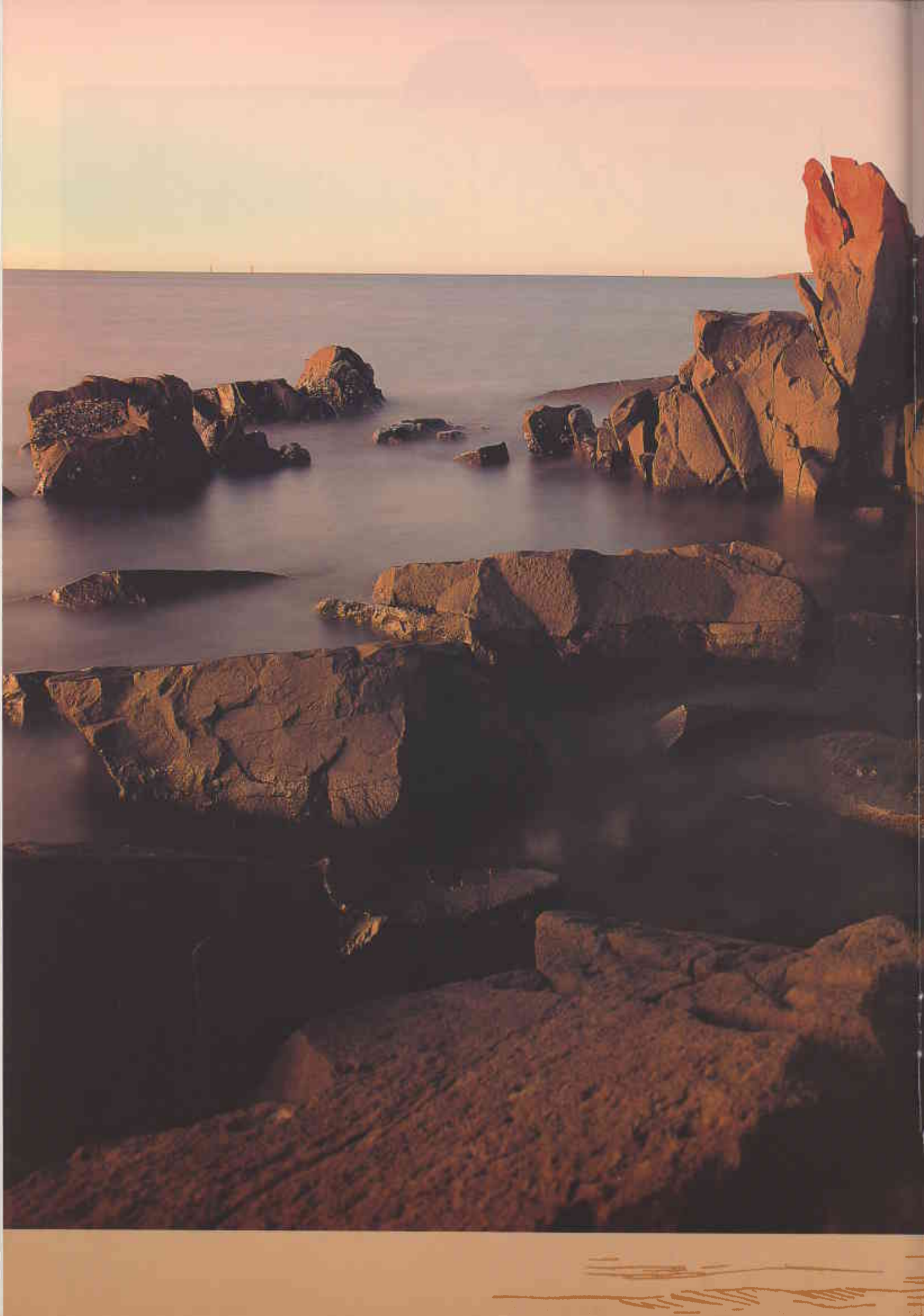

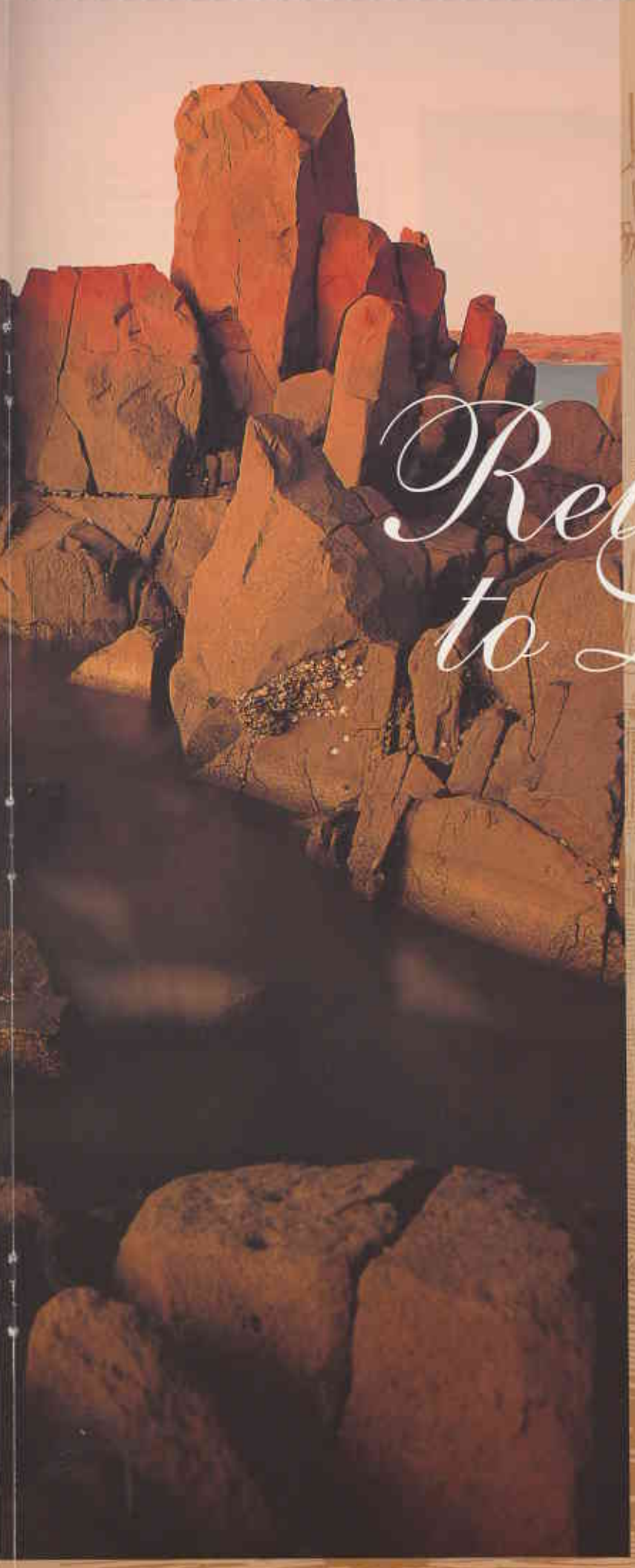

Return to Lilliput

Dampier's plant collection is back!

William Dampier was the first Englishman to collect botanical specimens from Australia. His journeys excited the imagination of Jonathan Swift and were made fully 70 years before Joseph Banks visited Botany Bay.

In August this year, after 300 years to the month, Dampier's specimens will be back—returning for public display in Western Australia.

by Neville Marchant

It's a small but fascinating collection of dried plants, gathered by William Dampier at Shark Bay and other points in the north-west of the State in 1699 (see 'William Dampier: Voyages to New Holland' in *LANDSCOPE*, Winter 1993). They are returning briefly from their home at the Sherardian Herbarium of the Department of Botany at Oxford University, in order to go on show at the Western Australian Museum in August. This is a joint project of the Museum and the Department of Conservation and Land Management (CALM). The specimens' scientific interest is limited, but their historical significance is immense. They are the first Australian plants to be collected by a European, and by a fascinating historical figure to boot.

Born in 1652, William Dampier (navigator, naturalist, hydrographer and part-time buccaneer) lived at a time when readers were eager to learn of other cultures, particularly if they seemed utopian, of accounts of noble savages and strange plants and animals. Dampier's detailed observations of the flora and fauna he encountered on his travels, including graphic descriptions and some drawings of birds and fish, were welcome fodder for the hungry public imagination. It is likely that his botanical work influenced Joseph Banks. Before his death in 1715, Dampier made three circumnavigations and published five books on his travels. Many of his books were reprinted and some were translated into other languages.

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Main: Flying Fox Passage near Sandy Island in the Dampier Archipelago. William Dampier landed near here in 1699.
Photo – Chris Garnett
Background: HMS *Roebuck*, under the command of William Dampier, sketched by John Allcot.
Inset: A parekeelya (*Calandrinia polyandra*), the same species as collected by Dampier in 1699.
Photo – Alex George

Left: William Dampier—navigator, naturalist, hydrographer, and with a reputation as a buccaneer—captured the imagination of European readers with his stories of the new world.
Illustration – David Gough

Below: Safe anchorage in the blue waters of Shark Bay. The scattered shrubs on red sand dunes characterise the areas where Dampier collected plants.
Photo – Eva Boogaard/Lochman Transparencies

During 1675–1678 Dampier was involved with buccaneers, and was among the best known and probably the most intelligent of the groups who thwarted the Spanish ships attempting to take the wealth of the Pacific and the Americas to Spain. It is not known what sort of role he played on these voyages. It is possible that he merely found pirate ships, and government-sanctioned privateers, a convenient way to travel. He appears to have spent most of his time observing and writing up his journal.

The term 'buccaneer' is a little ambivalent. It was not regarded in his time as too lowly an occupation, although some authors used it to mean 'pirate'. Dampier did not merit this description. A competent scientist, he conducted research, eventually

Right: Wireweed wattle (*Acacia coriacea*) occurs throughout arid Western Australia and other States. It flowers in June to July, too early for Dampier to have collected the yellow flower heads seen.
Photo – Bruce Maslin

Below right: A high number of blue flowered plants in 'New Holland' was observed by Dampier. Hoary dampiera (*D. incana*) is endemic to the north-west coast.
Photo – Alex George

publishing *Discourse on Winds, Breezes, Storms, Tides and Currents*, and justifiably questioned accepted notions regarding the longitudinal width of the oceans.

In 1679, Dampier set off on his first voyage around the world, a 12-year journey. He visited Western Australia twice, once in the *Cygnet* in 1688, and the second time in the *Roebuck* in 1699. His now famous descriptions of the people, plants and animals of Western Australia were typical of the many published accounts based on notes made during his three long voyages to the Pacific, Asia, Australia and America.

Everywhere he travelled he gathered considerable knowledge of the economic botany of the places he visited. He published details of edible plants, fishing and farming methods, and foresaw the value of tropical fruits such as the capsicums, pineapples and limes of the New World, and coconut, sago and breadfruit in the Pacific and Asia. Dampier detailed the use of breadfruit on Guam 83 years before Joseph Banks studied the same species on Tahiti and 100 years before Bligh's ill-fated *Bounty* expedition was mounted to collect plants from the Pacific to take to the West Indies. He also commented on durian and jackfruit. No wonder he expressed disappointment with the aridity and consequent lack of edible plants on the coast of Western Australia.

WESTERN AUSTRALIA BOUND

Dampier was not the first European to sight the western coast of 'New Holland' or its offshore islands. There are many accounts of English and Dutch shipwrecks and approaches to the coast, and there are some plant specimens almost certainly collected by the Dutch. Dampier was, however, the first Englishman to land on the West Coast, from the *Cygnet* in 1688, at what is now known as Karrakatta Bay at the western entrance to King Sound, north of Derby. He was 36 years old.

The *Cygnet* needed to be careened, and Dampier took the opportunity to describe the landscape, people and plants he saw. He was confronted by a flora and fauna unlike anything he had seen before, despite his wide travels. His published works described them in terms of those he had seen in far away places: the Pandanus plants were 'Dragons Blood tree', and he also mentioned dugong ('manatee') and turtle. The people he also compared with South Africans, whom he had not yet seen; it seems he embellished his descriptions somewhat for print.

In 1699, Dampier's reports from his earlier voyage interested the British Government enough to sponsor an expedition that same year. The expedition was originally planned to

travel from England to Cape Horn and then to approach New Holland from the east. Had this plan been followed, Dampier would have discovered eastern Australia 70 years before Captain Cook. But Fate was not on his side. Delays in departure meant that winter closed in, making Cape Horn unsafe. Instead, the 290-ton *Roebuck* followed the well-established Dutch route from South Africa across the Indian Ocean, sighting land off the west coast of *Terra Australis*, near present-day Geraldton.

For just more than five weeks he explored the west coast, landing first in Shark Bay, which he named.

> 'The Sea-fish that we saw here—or there was no River Land or Pond of fresh water to be seen—are chiefly Sharks. There are an abundance of them in this particular Sound that I therefore gave it the name of Shark's Bay.'

He then landed in the Dampier Archipelago, near present-day Karratha, and finally at La Grange Bay, south of present-day Broome. It was in these places that he made his famous plant collections, pressing and drying them between pages of books, including:

> 'besides some Plants, Herbs, and tall Flowers, some very small flowers, growing on the ground, that were sweet and beautiful, and for the most part unlike any I had seen elsewhere'.

A HISTORIC COLLECTION

It was a wonder that the specimens survived the long journey to England. After collecting them, Dampier sailed to Timor and along the north coast of New Guinea. The *Roebuck* foundered in March, 1701, off Ascension Island in the south Atlantic. The crew sheltered on the island and, fortunately, an East India Company ship rescued them, Dampier returning home with his journal and precious herbarium.

On his return, he gave the specimens to Dr Woodward, a friend of William Sherard, founder of the Sherardian Chair of Botany at Oxford. Woodward gave some Dampier specimens to Plukenet, who made illustrations in his *Amaltheum Botanicum*, published in 1705. Woodward is sometimes credited with the authorship of the plant descriptions given in Dampier's *A Voyage to New Holland* (1703). It is more likely that he translated descriptions from the *Historia Plantarum*, a huge work produced by John Ray, widely regarded as the father of English natural history, who had received some of Dampier's specimens.

In 1710, Woodward gave his herbarium to the care of Sherard and they have remained in Oxford ever since. The Dampier collections comprise 23 specimens, including the Dampier pea, now known as *Swainsona*

A PEA BY ANY OTHER NAME

Dampier was the first person to collect the magnificent Dampier pea. There were no leaves on the original specimen, only flowers and a young woolly pod. Originally called the Dampier glory pea, the species now known at least in the eastern States as the Sturt pea extends from Shark Bay across central Australia to western New South Wales. It has had a chequered nomenclatural history. The species was not formally described as new until 1832. The description of *Donia formosa* referred to a specimen collected on the north-west coast of New Holland by Captain King in 1818.

The Dampier pea was later regarded as belonging to the same genus as the New Zealand *Clianthus* ('glory pea'), because of a superficial resemblance. However, careful comparisons in the 1980s led to the discovery that the Dampier glory pea was really more closely related to the members of the genus *Swainsona*, hence its modern-day name of *Swainsona formosa*.

There have been claims that Dampier brought back seeds of *S. formosa*, but this is unproven, and considering the loss of the *Roebuck* at Ascension Island, highly improbable. *Clianthus formosus*, now regarded as *S. formosa*, was first recorded in cultivation in Europe in 1851.

Photo – Chris Garnett

Left: The Dampier Archipelago, near present-day Dampier and Karratha, are vegetated with low hummock grasses and shrubs.
Photo – Dennis Sarson/Lochman Transparencies

Right: The common, shingle-back or bobtail (*Tiligue rugosa*) fascinated Dampier, who described it in detail.
Photo – Jiri Lochman

Below right: The annual redflower lotus (*Lotus cruentus*), a member of the pea-flower family, is a low herb that flowers after cyclonic rains.
Photo – Alex George

Below far right: Adriana tomentosa, related to the castor oil weed, is a common arid shrub with greenish flowers and rough-skinned fruits.
Photo – Stephen van Leeuwen

formosa. They have been examined by a number of botanists through the ages, who have studied the flora of Australia and have variously labelled the specimens.

Apart from their immense significance as the first collections of Australian plants, the specimens are of little scientific value. Unfortunately, not all the specimens were available to George Bentham or Ferdinand von Mueller when they compiled the *Flora of Australia*. As the beginning of botanical nomenclature is set at 1753 with the publication of Linnaeus' *Species Plantarum*, the older phrase names have no priority. Even the common name of Dampier pea for *Swainsona formosa* was later replaced by the more widely accepted South Australian name Sturt pea. However, in this case, there are no rules of priority, and we can call this remarkable species the Dampier pea if we wish.

FLORAL WONDERS

It was at Shark Bay that Dampier made his often quoted observation of the frequent blue flower colour of Australian plants:

> 'The Blossoms of the different Sort of Trees were of several colours, as red, white, yellow &c., but mostly blue.'

One of the best known of Australian plants, and one where most species have blue flowers, commemorates Dampier. The genus *Dampiera* was named by Robert Brown, who accompanied Flinders' voyages around Australia, and who was later to become the first Keeper of Botany at the British Museum. In 1810, he published *Dampiera*, using the specimen Dampier collected at Shark Bay in 1699.

A moss specimen in the Dampier collection may be the first Australian record of that group of plants. The given location for the specimen *Leucobryum candidum* is New Holland, although there is some doubt that the material was collected there. It may have been collected in Timor or New Guinea. Even though this moss is usually found in climates moister than that of Shark Bay, it could occur there in sheltered habitats, and it would be worth searching for.

A LIZARD'S TALE

Plants were not the only strange and wonderful living things to make their way back to England with William Dampier's unique descriptions. He also met that well-known denizen of Perth suburbs and the south-west, the 'bobtail':

> '. . . a sort of Guano's, of the same shape and size with other Guano's decrib'd but differing from them in three Particulars; For these had a larger and uglier Head; and had no Tail: And at the rump, instead of a Tail there, they had a stump of a Tail, which appeared like another Head; but not really such, being without Mouth or Eyes: Yet this creature seem'd by this means to have a Head at each

Above and right: Although Dampier didn't visit Roebuck Bay near Broome, it is a fitting place to commemorate his two visits to Western Australia.
Photos – Pamela Butt

> end; and which may be reckoned a fourth difference, the Legs also seem'd all four of them to be Fore-legs, being all alike in shape and length, and seeming by the joints and bending to be made as if they were to go indifferently either Head or Tail foremost. They were speckled black and yellow like Toads, and had Scales or knobs like those of Crocodiles, plated onto the Skin, or stuck into it as part of the Skin. They are very slow in motion; and when a Man comes nigh them they stand still and hiss, not endeavouring to get away.'

Dampier then goes on to describe the liver and smelly insides, declaring them to be unpalatable ('both in Looks and Smell of them being so offensive').

Apart from the description of the colour as 'speckled black and yellow' this description enables us to identify the species as the 'shingle back' or 'bobtail'. There is considerable variation in the colour of this species, but the yellow is more accurately a very dull yellow or tan colour.

INFLUENCE THROUGH THE AGES

Jonathan Swift's *Gulliver's Travels*, a novel about *'a person of quality in Terra Australis incognita'*, borrowed heavily from travel accounts of his time for style and source material, and mentions William Dampier by name. It has been claimed that the imaginary land of Lilliput was based on the writing of Dampier in his description of his 1699 visit to Western Australia. Other writers of the relatively new genre of prose fiction were thought to have been influenced by Dampier's published accounts of his travels: Defoe's *Robinson Crusoe* may have been partly based on Dampier's experiences.

Dampier was to live for only three-and-a-half years after returning from his third circumnavigation. He was 63 and had spent 42 years wandering the Earth. His contribution was great, but he was unlucky. He could have achieved more discoveries of New Holland if he had had the opportunity, but the wars of the Spanish succession diverted British attention from the southern lands, and it was not until the mid-eighteenth century that interest resurged with the voyages of Captain Cook.

A memorial to Dampier was unveiled on 30 October 1938, at Broome, in the Bay named after Dampier's ship. Even though Dampier did not visit this section of the coast, it is a fitting memorial to the ship and its naturalist-hydrographer leader. The inscription has a fitting couplet especially written by John Masefield:

> 'We little guess which deed a future year
> May mark to mortals from our passing here.'

PRESSING THE POINT

Plant specimens can be preserved for perpetuity if they are pressed between papers so that they dry but are not exposed to air. The papers are changed during the first week or so in order to dry the flattened specimen as much as possible. Once the specimen is too dry to support mould or insects it can be mounted on a sheet and made available for botanical studies.

Any specimen, if it has been preserved in the usual way, can be studied in detail by researchers. A flower, for example, can be carefully removed and soaked in ordinary household detergent. It will swell to its original size, shape and disposition of organs to become three-dimensional, just as it was when it was alive and selected for a specimen.

Some material is too valuable to be subjected to such treatment. Then we rely on a careful comparison of the dried specimen with other material.

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LANDSCOPE

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What does the future hold for our karri forest? Research provides some interesting insights. See page 18.

The photographic exellence of WA team Babs and Bert Wells was driven by a love of the job. See page 10.

Many WA women have played important roles in the conservation of our natural resources. Some of them feature in our story on page 41.

'Growing Gnangara Park', on page 35, continues the story of WA's largest proposed outer suburban native parkland.

Partnerships are important. Many private sector businesses and individuals are active partners in protecting our natural heritage. See page 47.

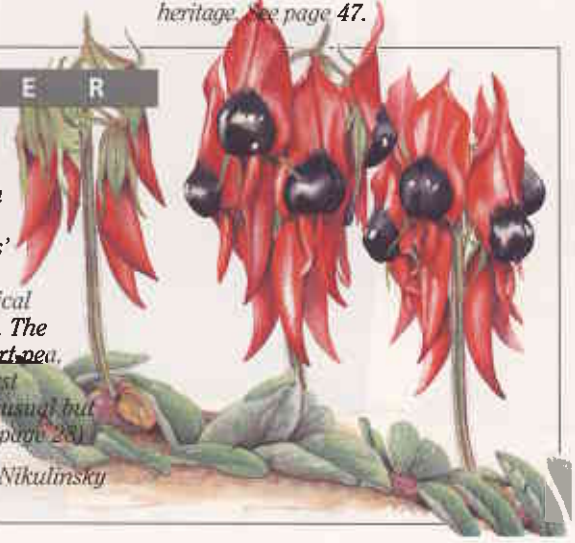
FEATURES

REGULARS

COVER

The Dampier collection returns briefly to Western Australia for an exhibition at the WA Museum. The specimens' scientific interest is limited, but their historical significance is immense. The illustration is of the Sturt pea, and Dampier was the first person to collect this unusual but magnificent plant. (See page 28)

Illustration by Philippa Nikulinsky



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