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WALK TRAILS

WALYUNGA NATIONAL PARK



Walyunga Pool

PAM01872

WALYUNGA NATIONAL PARK NATURE TRAILS

HILLS TRAIL Begin LONG POOL barbeque area near toilet block. 2.7 km round trip via CREEK TRAIL on return journey.

CREEK TRAIL Begin WALYUNGA POOL at upstream end and keep to the lowest path. About 0.5 km to LONG POOL. Return by same route or proceed to HILLS TRAIL, 2.7 km return.

TIME REQUIRED

HILLS TRAIL 2 hours (leisurely)
CREEK TRAIL ½ - ¾ hour (leisurely)

The features described at various points are not necessarily right on the spot. To get full advantage of the walk trail one may have to look around to locate the object in reference.

- * PLEASE BE CAREFUL WITH FIRE. You are asked to refrain from smoking while on the nature trail.
- * BUSH AREAS ARE FRAGILE. Please keep to the track.
- * BEWARE OF SNAKES. Snakes occur in the area but are more frightened of you than you are of them. Leave them alone and they will leave you alone.
- * STEEP HILLS will be encountered on the HILLS TRAIL. A rest site is provided at the top of the hill just beyond stop 4.

Compiled by the WESTERN AUSTRALIAN NATURALISTS CLUB and the NATIONAL PARKS AUTHORITY ecologist B. G. MUIR and produced by the Authority's PUBLICATION OFFICE.

NATIONAL PARKS AUTHORITY

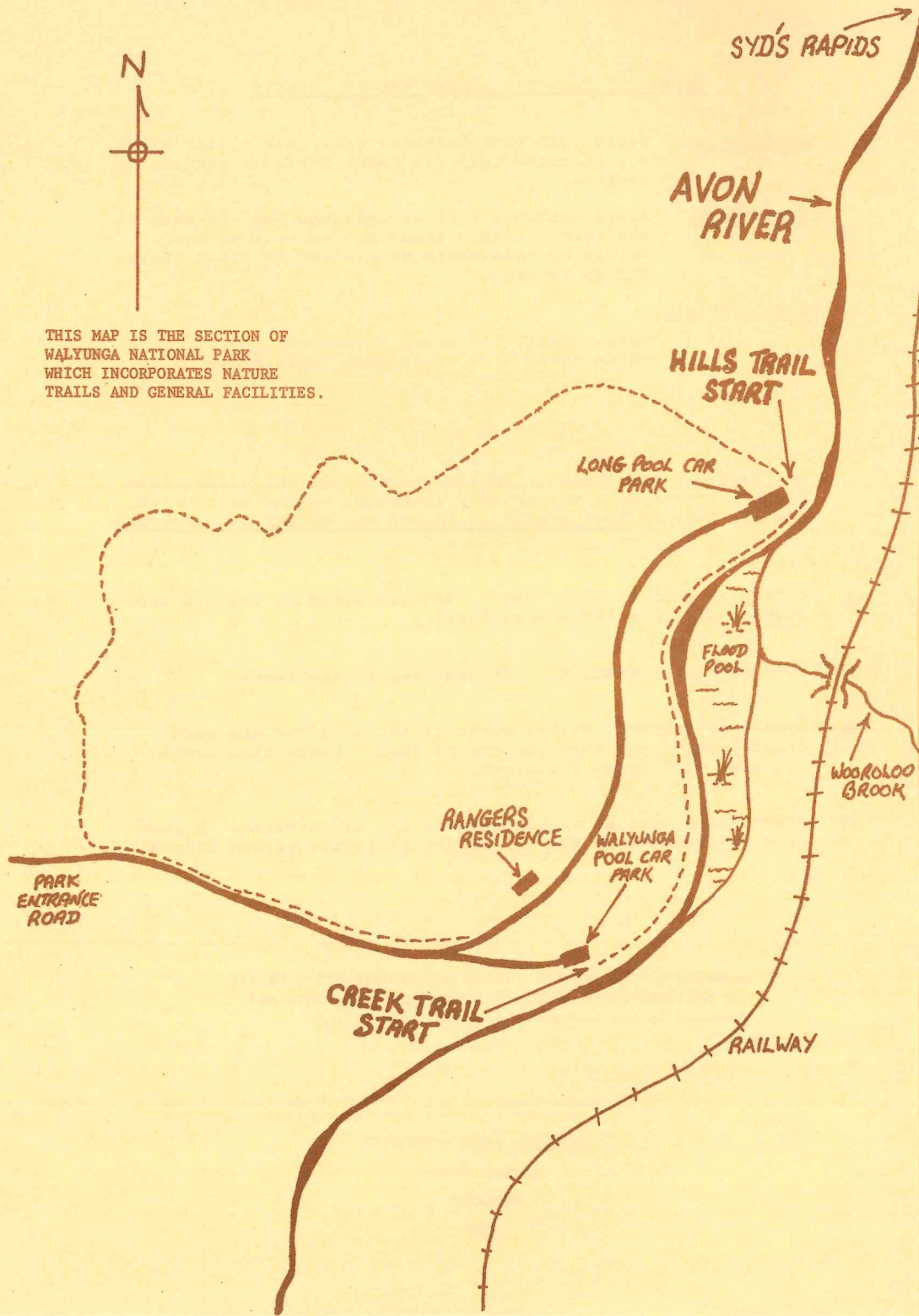
Hackett Drive

NEDLANDS

1983



THIS MAP IS THE SECTION OF
WALYUNGA NATIONAL PARK
WHICH INCORPORATES NATURE
TRAILS AND GENERAL FACILITIES.



HILLS TRAIL

STOP 1. This stop is located on the original silty flood plains of the river. The clay soil and damp conditions encourage growth of introduced plants. One of the strangest of these is an orchid.

In winter many small native plants such as *Polypompholyx* and sundew are present in the less disturbed areas.



x1
Polypompholyx

Trees on the flood plain are wandoo (white gum) with smooth, spotted, whitish trunks, marri (red gum), with brown flakey bark, and dark green leaves. On the waters' edge are flooded gum with grey flakey bark when mature and smooth grey bark when young.

x4
Introduced
Orchid



STOP 2. Brow of first hill.

Slope with migmatite boulders. This is granite which has been affected by pressure and now displays layers corresponding to planes of stress. Large crystals are feldspar. Many crystals are lined up parallel to planes of stress.

Trees are mostly wandoo but some marri are also present. Prickley Moses (*Acacia pulchella*) is the commonest shrub on the slopes.

Prickly
Moses

x1



Between here and the next stop *Leptospermum* (ti-tree) shrubs are abundant. This shrub is very showy in spring, its white to pale pink flowers attracting many insects and birds.



Ti-tree
x1/2

STOP 3. Take left fork of track.

We have just passed through an area of abundant wandoo trees and clumps of wandoo can be seen on neighbouring slopes. Many of these trees are growing on clay derived from a rock called dolerite. Dolerite is a hard, black, fine-grained rock which occurs in bands called dykes. These dykes penetrate the migmatite and granite of the Darling Range in many places.

The undershrubs are much more abundant in this area where there are less trees, and a heathy aspect is produced. If you look back to the east across the valley, rounded smooth granite slopes are visible. Also note that most of the visible hilltops are at about the same altitude. This is the level of the ancient land surface which has now eroded away.

STOP 4. Entering heath with less trees. Gravel becomes prominent in the soil. Most of the trees to the west of this point are marri on gravelly soil whereas to the east wandoo on clay is more common. The commonest species in the heath are *Hakea lissocarpha*, one-sided Bottlebrush, *Melaleuca* species and *Dryandra* (Honey-pots).

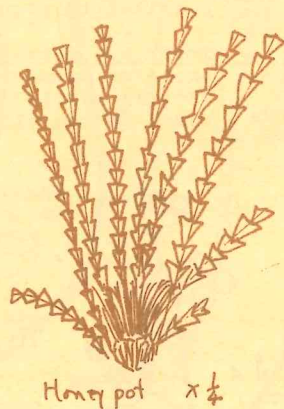


Walk on through the heath until you get to the other side and stop. From here, if you look to the north some old dead trees are seen. Old trees of this type are vital in providing nest hollows and homes for many birds, reptiles and insects. Unfortunately, too frequent burning and the desire to "clean up" dead trees has destroyed much of this valuable habitat in other areas.

Wandoo trees produce many excellent nest hollows whereas marri produces very few. Thus the type of tree is as important as its being old.

Without moving on, a migmatite outcrop with *Zamia* Palms is visible just beyond the first shallow valley. Note the "scree" or slope of angular boulders. These result from breakup of the rock with sudden changes in temperature. Also present in that locality are areas of "soil succession". These are areas where the rock has broken down to shallow films of soil which initially support only mosses and some *Borya nitida* (Pincussion plant). Later, these plants help to trap further soil particles and as depth increases various shrubs become established. These shrubs trap more soil and produce humus and the deeper, enriched soil produced can eventually support larger trees and shrubs.

A little further on near the crest of the hill a very open wandoo woodland on ironstone gravel can be seen about 50 m south and to the left of the track. There are very few shrubs because of lack of soil. Trees become established by the roots penetrating into cracks in the rock.



Pincussion plant
x 1.

On the brow of the hill can be seen *Zamia* Palm and blackboys (grass trees). *Zamia*'s are not a true palm but members of the cycad family, distant relatives of the conifers (pine and fir family). *Zamia*'s have separate male and female plants. Both plants produce cones, the male cones producing only pollen. The female cones are larger and produce the well known bright red "nuts". The red flesh on the nuts is poisonous.

Blackboys are also of interest. The black trunk is made up of hundreds of leaf bases, the rest of the leaf having been burnt off and blackened by fire. The plants grow slowly, with a burst of growth following fire. Thus the size of a blackboy depends to a large extent on how often it has been burnt.

A little further on, a large wandoo tree is a few metres off the track on the north side. Note the hollow limbs suitable for bird nests and the "staghead" top branches, indicating the tree is past its prime. Wandoo trees of this size are now scarce because of extensive timbercutting in the early days of settlement, and in some areas, recent forestry practices.

To the north-west from here farmland adjacent to the National Park is visible on hill tops. The deep valley between where you stand and the farmland is an old river valley down which the Avon flowed thousands of years ago. Subsequently a river, which flowed downstream from where the Walyunga Pool carpark is now, cut back into the valley and captured the Avon, leaving the large valley before you as all that remains of the old watercourse.

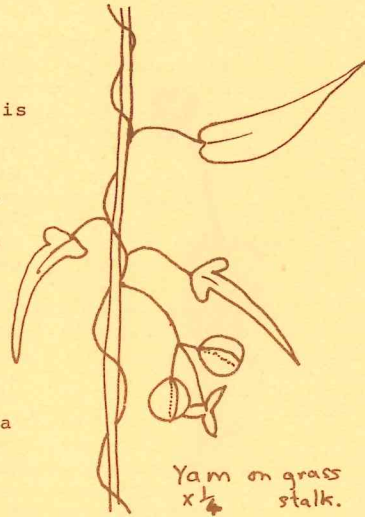
STOP 5. Track swings to right.

A small rock pavement is visible on the right of the track. Please keep to the trail here as walking on the area will destroy the small plants and start erosion. Note the rock exfoliating in sheets. This results from temperature changes in the rock causing a "skin" to split off and lift. The slabs which result, often have spaces beneath them which are very important habitats for reptiles and insects.

Unfortunately unscrupulous collecting of these slabs for ornamental purposes has destroyed these habitats in many areas. Here you can get a close up view of the soil succession mentioned in Stop 4.

Black coloured moss forms first in cracks, then soil accumulates and pincussion plant (*Borya nitida*) becomes established. As soil becomes deeper shrubs and trees gain a foothold. The area around this rock is very wet in winter and orchids and triggerplants are abundant.

A little further on, an outcrop of rock is present on the left of the track. *Phyllanthus* (false boronia), *Dryandra nivea* (honey-pot) and yams grow here. The yam is a twining creeper with arrow-shaped leaves and yellow spikes of flowers and three-sided fruits in spring and early summer. Aborigines prize the sweet-potato-like tuber for its starch and water content.

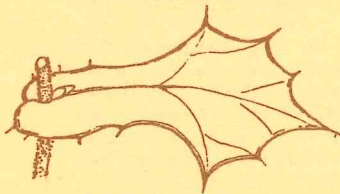


Yam on grass
x 1/2 stalk.

STOP 6. Bottom of slope near creek.

Some of the tall shrubs on the sandy area are *Hakea prostrata*. "Prostrata" means prostrate, or lying on the ground. This is a good example of where many samples of plants must be collected before a scientist puts a name on a species. The plant was originally collected by Robert Brown in 1801 as a prostrate specimen in wind-swept heaths on the south coast. After naming, it was found to occur elsewhere as a tree up to 5 m tall.

At the creek in the winter months many types of mosses can be observed and frogs heard calling.



Hakea prostrata leaf
x 1

STOP 7. Track comes in on right-hand side; Keep left.

Soil here is pinkish-grey sand. Note the lack of wandoo on the light soils and abundance of marri. Bull banksia (*Banksia grandis*) is also present. The large serrate leaf and yellow flowers in early summer are distinctive.

Also note parrot bush (*Dryandra sessilis*) a plant rich in nectar when flowering. Many insects and birds will be observed visiting the flowers.

If you are an early morning visitor it is worthwhile looking closely at the sandy track. Footprints and trails of kangaroo, bandicoot, lizards and snakes are often visible.

Keep bearing left to Stop 8.



Parrot
Bush
x 1/2

STOP 8. Track joins firebreak parallel to entrance roadway.

At this point the soil is of loamy clay and supports wandoo and many shrubs such as *Hakea varia*, a species with both needle-like spiny leaves and soft, flat leaves. Another attractive species is *Isopogon dubius*, the pink drumstick (obvious when in flower).

Exposed in the firebreak are two types of rounded boulders. One type (uncommon) is made of concentric layers. These are termed "onion-skin" boulders, referring to the layers of "skin" which form around the core of the rock. The layers result from weathering of the boulders, the skin being the most oxidised and softest layer. Also present are many round, smooth water worn pebbles which do not show onion-skin weathering. These are water worn pebbles which formed when the valley was part of the main river system, i.e. before the present Avon River captured the water flow.

Although this is the end of the main portion of the nature trail, we recommend you to continue your return along the firebreak towards the parking areas rather than along the roadway. Apart from being safer, if you look again at the distant hills and the valley rock outcrops on your left, many of the features you have just seen will again be visible (except the sandy area). This will help you to remember details and when next you visit you may have the satisfaction of recognising the features again, without needing to refer to a brochure.

From Stop 8 it is about 0.2 km to the Walyunga Pool carpark and about 0.7 km to Long Pool carpark.

May we suggest you go to Walyunga Pool carpark and walk along the rivers edge following our CREEK TRAIL. This will lead you back to Long Pool.

CREEK TRAIL

Start at east (upstream) end of Walyunga Pool.

Take the lowest path as the trail is a little difficult to follow because of many tracks made by visitors. It basically follows the creek edge just back from the high water level in winter time. The numbered pegs are widely spaced but placed in conspicuous locations.

STOP 1. This "wall" like structure of large boulders is made of a rock called gneiss. This rock is composed of alternate bands (some microscopic) of granular minerals (quartz and feldspar) and platy minerals such as mica. The commonest mica is a black form called biotite. The flat glossy plates of this mineral glint in the sun. On the flat side surface of the largest boulder can be seen small plates of quartz left exposed from a thin vein when the rest of the rock has eroded away.

Along the banks grow stands of Sheoak trees (*Casuarina*) and floodgums.

STOP 2. The black blocky boulders at this stop contrast strongly with the brownish rounded boulders at Stop 1. This black rock is called dolerite and is granular, but very fine grained compared to the gneiss. This rock is an "intrusive rock", forced in veins through the gneiss in a melted state. Its colour is a consequence of dark coloured minerals being most abundant in its make-up.

Along the banks are paper bark trees (*Melaleuca raphiophylla*) and the pool in the river has a dense growth of the aquatic plant *Potamogeton* (may be submerged in winter).

This dense growth of plants is very important to fish and other aquatic fauna because breeding occurs in the season when water flow has stopped and the growth provides cover for eggs and juvenile fish. The cover provided, greatly increases the probability of some young surviving until old enough to defend themselves or deliberately hide from predators.

STOP 3. Trees on the river here are mostly Wandoo (*Eucalyptus wandoo*) with whitish smooth bark and Flooded Gum (*Eucalyptus rudis*) with grey flakey rough bark on the lower trunk and smooth grey upper branches.

The tall wattle trees on the banks edge are *Acacia saligna*. These rather tatty looking trees have that appearance because they are used intensively by numerous insects as food, nest sites, etc. reducing the foliage to tatters in their enthusiasm. Similarly, the bark supports numerous species of beetles and moth grubs and some grubs even burrow through the wood, occasionally weakening the tree to point of collapse. Beneath these trees are some shrubs with attractive yellow flowers in spring. These plants are *Labichea lanceolata*, closely related to the Cassia so common in Perth gardens.

At about 60 metres from Stop 3 is a clump of Prickly Poison (*Gastrolobium spinosum*). These plants are a natural part of the environment in Western Australia. Native fauna can feed freely on the foliage or seeds with impunity, only the non-adapted exotic animals introduced by man being poisoned by the plants if they feed on it.



Variable leaf shapes of Prickly Poison.

STOP 4. There are good examples of boulders of gneiss and dolerite in the creek bed. Many of the boulders of gneiss show distorted and wavy structures of the grains. This distortion is caused by partial remelting of the granite (the original rock type) allowing flow structures to develop.

Amongst the plants growing in and along the creek are *Callistemon phoeniceus*, (a bottlebrush), Robin-redbreast bush (*Melaleuca lateritia*) and Paperbarks. The first two species have attractive red bottle bush flowers during summer.

Between here and Stop 5 (Stops 4 and 5 are about 200 m. apart) is a steep rocky area. Growing here and in the surrounds is a wiry-leaved species of wattle which looks remarkably like English Broom. A little further on is another deep pool which during the summer months supports dense water plants and several species of fish. There are species of fish known from the Avon at this point including Pygmy Perch, Nightfish and Freshwater Cobbler.

A little further again is a steep bank of gravelly soil - negotiate this carefully as the gravel rolls easily. The trail then leads down onto a section of raised clay river bank where there is an abundance of alien vegetation. The nature trail crosses a vehicle track which leads on to a ford across the river. This ford is not usable in winter.

STOP 5. Exposed here on the sides of the river are high banks of reddish clayey soil. This soil is derived from the underlying rock and contrasts strongly in colour to the coffee coloured or grey clays which are alluvial soils deposit by the river. The red colour of the banks is the result of a high iron content in the soil, the iron being derived mostly from the dolerite rocks. The trail here is right on the waters edge.

On the top of the bank here is the Long Pool carpark and picnic area. On the northern edge of the picnic area, near the toilet block, is the beginning of the HILLS TRAIL. This trail has much more interest as it is longer and thus crosses many habitat types whereas the CREEK TRAIL follows only a single habitat type along the river.

We invite you to walk the HILLS TRAIL if you haven't already done so, it is very rewarding.