

**A LARGE REMNANT OF YELLOW-SAND KWONGAN
NEAR BROOKTON, WESTERN AUSTRALIA**

By J.S. Beard* & R.J. Hnatiuk**

* 6 Fraser Road, Applecross, W.A. 6153

** Western Australian Herbarium, George Street, South Perth, 6151

ABSTRACT

The occurrence of a large patch of uncleared Banksia-Xylomelum vegetation on yellow sandy soil is reported. Such vegetation has been largely cleared for agriculture. About 100 species of native plants have been recorded for the area. The desirability to ensure the perpetuity of this parcel of land in its uncleared condition is noted.

Large blocks of uncleared land are scarce in the central and western wheat belt areas of Western Australia. Those that do remain are of especial and increasing value because they represent, to the post-pioneer generations, a little of what the landscape was like when the first agricultural settlers came to make their living. Some of these uncleared blocks are held by public Authorities for the specific purpose of flora and fauna conservation, but there are also some very valuable ones that are privately owned. Some in the latter category have been spared clearing because the owner appreciated the rich wildflower displays provided by the native bush, and he resisted the temptation to clear everything. Now he has a resource of considerable value to the heritage of both his family and his country.

One such block of uncleared, privately-owned land was discovered during the course of mapping the vegetation for the Corrigin area. It lies about 17 km NE of Brookton, (near 32°14'S lat. and 117°05'E long.). Initially, from aerial photographs, the area appeared to be a shrubland. As areas of such vegetation are not common in this part of the wheatbelt, we set out to examine it on the ground. We found it to be owned by Messrs. C.W. & K.I. Blechynden, who gave us permission to view the area. The block is entirely surrounded by cleared paddocks. On most sides it has good fences, but in some places there are either old or no fences, such that sheep can enter. It appears that sheep penetrate very little into the reserve, but other grazing and browsing animals (kangaroos and rabbits) were evident throughout the area.

The vegetation turned out to be a *Xylomelum angustifolium*-*Banksia attenuata/prionotes* low woodland with a thicket understorey made up of many genera and species, primarily of the families Proteaceae, Myrtaceae, Leguminosae, and Epacridaceae. We recorded 98 species of plants from the area (Table 1). The site was of about 200 ha. and lay at the top of a broad, low hill. It appeared to have a thick deposit of yellow sand, probably of

aeolian origin, blown over a lateritic base. The latter was exposed in two small areas on the eastern side and was dominated by a somewhat different suite of plants species including e.g. *Beaufortia bracteosa*, *Melaleuca seriata*, *Xanthorrhoea reflexa*.

The *Banksia-Xylomelum* vegetation is characteristic of many yellow sand plains. It once occurred widely as far north as Kalbarri National Park. The Brookton area is near its southern limits. The patch of vegetation described here is about the last remaining uncleared portion of kwongan (sandplain; Beard 1976) lying along the course of the Avon River for 40 km to the south east. The block represents a very small proportion of the yellow-sandplain vegetation that was scattered through this area.

There are two reserves, about 50 km to the north east - the Badjaling Nature Reserve (no. 23758 of 288 ha.) and the South Badjaling Nature Reserve (no. 12333 of 41 ha.). Both have been included in the Western Australian Museum's Biological Survey of the Western Australian Wheatbelt (Muir *et al.* unpublished). These surveys have shown the reserves to include *Banksia-Xylomelum* vegetation on yellow sand in their highest parts together with other kwongan down slope and salt vegetation on flats. On Reserve 23758, loc. 1.6 appears in the reports to be very similar in composition to that on the Blechynden farm. Reserve 12333 does not appear to contain anything closely similar although there is one sample with *Banksia attenuata* dominant plus *Eremaea pauciflora* and *Leptospermum erubescens*. Even in Reserve 23758 the *Banksia-Xylomelum* vegetation is of relatively limited occurrence, whereas on the Blechynden-Haily parcel it occupies virtually the whole 200 ha. Such a large area of one vegetation type has a very good chance of being self sustaining and therefore is of great value.

In view of the small number of preserved examples of the *Banksia-Xylomelum* vegetation in the wheatbelt, it would be of great value to the tangible heritage of the post-pioneer generations if the Blechynden parcel could be reserved in perpetuity.

REFERENCES

- Beard, J.S. 1976. An indigenous term for the Western Australian sandplain and its vegetation. *Journal Royal Society Western Australia* 59: 55-57.
 Muir, B.G., Chapman, A., Dell, J. & Kitchener, D.J. Biological Survey of the Western Australian Wheatbelt. Records of the Western Australian Museum, Supplement (unpublished).

Table 1. Plant species recorded during a survey of the Blechynden-Haily Block. Species marked with an asterisk (*) are represented by voucher specimens in the Western Australian Herbarium PERTH).

- Acacia lasiocarpa* Benth. var. *bracteolata* B.R. Maslin
 **Acacia sessilispica* Maiden & Blakely
 **Acacia spinosissima* Benth.
 **Acacia lasiocalyx* C. Andrews
Actinostrobilus arenarius C.A. Gardner
 **Adenanthos flavidiflorus* F. Muell.
Alexgeorgea sp.
Amphipogon turbinatus R.Br.

- **Andersonia brevifolia* Sond.
- Angianthus pusillus* Benth.
- Anigozanthus humilis* Lindl.
- **Astroloma* ? *pallidum* (RH 790175)
- **Baeckea crispiflora* F. Muell.
- **Baeckea* ? *preissiana* (Schau.) Domin
- Banksia attenuata* R.Br.
- **Banksia menziesii* R.Br.
- Banksia prionotes* Lindl.
- **Beaufortia bracteosa* Diels
- Borya nitida* Labill.
- *? *Brachyloma* (RH 790174)
- **Calothamnus quadrifidus* R.Br.
- **Calytrix angulata* Lindl.
- **Calytrix brachyphylla* Turcz.
- **Calytrix strigosa* A. Cunn.
- Cassytha* sp.
- Casuarina huegeliana* Miq.
- **Casuarina humilis* Otto & Dietr.
- **Casuarina microstachya* Miq.
- Caustis dioica* R.Br.
- **Chorizema aciculare* (DC.) C.A. Gardner
- **Conospermum stoechadis* Endl.
- Conostylis teretifolia* J.W. Green
- **Drosera leucoblasta* Benth.
- **Dryandra armata* R.Br.
- Dryandra fraseri* R.Br.
- **Dryandra nivea* R.Br.
- **Dryandra sessilis* (R.Br.) Druce
- **Dryandra* sp. (RH 790144)
- **Eremaea pauciflora* (Endl.) Druce
- **Gastrolobium hookeri* Meisn.
- **Gompholobium tomentosum* Labill.
- **Grevillea acrobotrya* Meisn.
- Grevillea didymobotrya* (Endl.) Meisn.
- Grevillea eriostachya* Lindl.
- **Hakea lissocarpha* R.Br.
- Hakea prostrata* R.Br.
- Hakea trifurcata* (Sm.) R.Br.
- Hakea* sp. aff. *falcata* (RH 790136)
- Harperia lateriflora* W.V. Fitzg.
- Hemiandra pungens* R.Br.
- **Hibbertia huegelii* (Endl.) F. Muell.
- **Hibbertia* sp. (RH 790165)
- Hypochoeris glabra* L.
- **Isotropis drummondii* Meisn.
- **Jacksonia aphylla* (Turcz.) Druce
- **Laxmannia grandiflora* Lindl.
- Laxmannia sessilis* Lindl.
- **Lepidobolus preissianus* Nees.
- **Leptospermum erubescens* Schau.
- Leptospermum spinescens* Endl.
- **Leucopogon* sp. (RH 790171)
- **Levenhookia dubia* Sond.
- **Lhotskya violacea* Lindl.
- **Loxocarya fasciculata* (R.Br.) Benth.
- Lyginia barbata* R.Br.
- **Lysinema ciliatum* R.Br.

- Melaleuca seriata* Lindl.
Melaleuca sp. ? *urceolaris* F. Muell. ex Benth.
Mesomelaena stygia (R.Br.) Nees
Muehlenbeckia adpressa (Labill.) Meisn.
**Neurachne alopecuroides* R.Br.
Nuytsia floribunda (Labill.) R.Br.
**Opercularia vaginata* Labill.
Pentaschistes airoides (Nees) Stapf.
Petrophile ericifolia R.Br.
**Petrophile media* R.Br.
**Petrophile squamata* R.Br.
**Pimelea floribunda* Meisn.
**Pimelea suaveolens* (Endl.) Meisn.
Schoenus curvifolius (R.Br.) Benth.
Schoenus globifer Nees
**Schoenus hexandrus* F. Muell. ex R. Tate
**Stackhousia pubescens* A. Rich.
Stipa sp.
Stirlingia latifolia (R.Br.) Steud.
**Stylidium bulbiferum* Benth.
**Stylidium piliferum* R.Br.
**Stylidium repens* R.Br.
Stylidium sp.
Synaphea petiolaris R.Br.
Ursinia anthemoides (L.) Gaertn.
**Verticorida acerosa* Lindl.
**Verticordia brownii* (Desf.) DC.
**Verticordia ? chrysantha* Endl.
**Verticordia insignis* Endl.
**Verticordia picta* Endl.
Xanthorrhoea reflexa Herbert
Xylomelum angustifolium Kippist & Meisn.