



NATIONAL PARKS  
ASSOCIATION  
OF THE A.C.T.  
BULLETIN

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NATIONAL PARKS ASSOCIATION OF THE A. C. T. INC.

"A National Park for the National Capital"

President : Mr J. Webb, 1 Lalor St., Ainslie (43661)  
Secretary : Miss M. Sexton, Box457 P.O. Canberra City  
Treasurer : Mr J. L. Schunke, 26 Cliathus St., O'Connor

Monthly Meeting - 4th Tuesday of the month

The July meeting was the Sixth Annual Meeting of our Association. The annual report was presented by the President, Mr Ian Grant, and the Financial Report was given by the Treasurer, Mr Baird. Special thanks were given to Mr Jim Webb for his untiring efforts on the Committee during the past year and to Mr Baird for his years of work as association treasurer.

The following were elected on to the Committee for 1966-67:-

President : Mr Jim Webb,  
Vice-President: Vacant  
Secretary: Miss Marie Sexton  
Assistant Secretary: Mrs Hammond  
Treasurer: Mr J. L. Schunke  
Publicity Officer: Mr A Brand  
Committee Members: Dr N Burbidge,  
Dr R. Storey; Mr I Baird,  
Mr K. Green, Mr A. Bagnall,  
Mrs F. Brand.

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## The Rutile Mining Industry

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- by H. Fairlie Cunninghame B. Sc.

This is only a small section of a large article published in the National Parks Journal of N. S. W. in February 1966. It sets out to show that the industry is financially sound and produces valuable overseas income for N. S. W.; that the operations are also capable of leaving the land in a condition more suitable for human use than originally but it is not possible to preserve nature in and extract heavy minerals from the one area, for once the land is mined it can be revegetated, but never restored to its original condition. The only way to make the most of each asset is to select areas most suitable for nature conservation and reserve them exclusively for this use, leaving all other areas free to be mined, and in fact mining them intensively before other forms of land development raise land values to the point where mining would be uneconomical. This requires planning, and here is the crux of the whole conservation concept.

The early beach sand mining industry consisted mainly of gathering storm-concentrated deposits but it is in the swamps and hind dune areas that most of the present mining is taking place, and the destruction of the vegetation of these areas by the mining operations is what concerns the nature conservationist.

Mining Method - Before mining proper can begin the vegetation of the area has to be removed. It is piled up in rows by a bulldozer and burnt. Then the topsoil is bulldozed into heaps for later spreading over the mined area to facilitate the restoration of vegetation. Any unmineralized sand covering the heavy mineral deposits may be piled up in other heaps. A large hole, 100 yards or more across, is scooped in the sand and filled with water to form an artificial pond on which two suction dredges and the initial wet concentrating plant float on separate pontoons. The concentrating plant is as large as a three-storey building and receives sand from the dredges

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through floating pipelines. It processes the sand, extracting the heavy minerals by means of spiral separators, and discharges the clean sand, or tailings, mixed with water through four or five high-pressure jets at the end of a 60 foot or more long boom mounted at the rear of the pontoon. The sand shoots another 50 feet or so through the air to land on the top of the bank of the pond.

Restoration of Mined Areas - Restoration methods differ on the frontal dunes and on the hind dunes, but in both places it is desirable to contour the sand as evenly as possible to avoid local wind turbulence which sets up a scouring action. Slopes should not be steeper than 15 degrees from the horizontal.

On the foredune the most satisfactory procedure has been found to consist of laying a thick brush mat which completely covers the sand, and planting sand spinifex (Spinifex hirsutus) in amongst it. Either seeds or runners can be planted. This is a native grass normally found in these locations and requires salt spray and drifting sand to thrive.

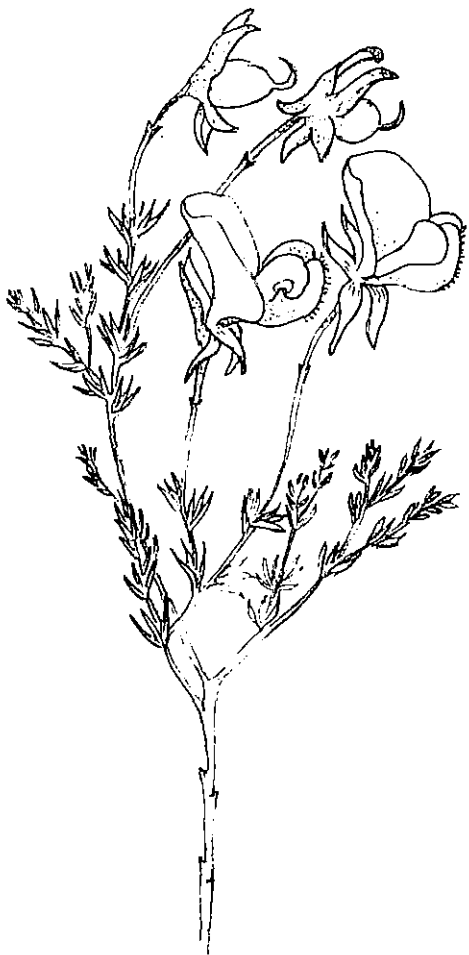
Mining companies have to deposit a substantial bond with the Mines Department to cover the cost of restoration and if they do not complete this work satisfactorily their bond is forfeited and pays for the work to be done by a suitable authority.

Beach Sand Mining and Conservation - It has been shown that the beach sand mining industry is worth several millions of pounds to N. S. W. each year, and it is capable of leaving the land flatter, and hence in a state more suitable for playground or sportsground type parks, camping grounds, golf courses, town and industrial sites etc., than was the original land. Also the products of the industry are becoming more and more vital to our industrial progress. It must, therefore, be regarded as an important industry and a valuable asset to the State and to Australia.

However, it is not the only asset that exists in the areas where it is found. The natural vegetation and fauna is also an asset, both from a scientific and recreational point of view, but the relative value of the two types of assets is a debatable point. The immediate value of the mineral asset can be measured in millions of pounds, while the value of the natural asset usually cannot, but the monetary value of the mineral asset is comparatively short-lived, for in time the products made from the minerals and objects bought with the money paid for it will become obsolete and be discarded, only the knowledge gained through its use remaining, whereas the natural asset, with wise use, can remain an asset in perpetuity and be of immense value to future generations who will find no value in the worked-out mineral deposits. Thus both forms of assets are important, one at the present time and the other mainly in the future, and we should not allow either one to completely destroy the other.

EYES OR NO EYES NO. 19

Among the plants with "pea" flowers which grow in the A. C. T. are two species of the genus Gompholobium. One of these shown in the sketch (a little less than natural size) is Gompholobium huegelii. It grows about 1-2 feet high and can be found on the slopes of Mt. Jerrabombera near Queanbeyan.



The leaves have three narrow leaflets on a very short stalk so that they appear to be in a tuft. The flowers are bright yellow and up to  $\frac{3}{4}$  inch long. The calyx is olive green outside but pale within and it persists around the plump pod which is like a balloon enclosing small seeds.

An interesting feature of the flower is the conspicuous fringe of white hairs on the margin of the keel petals.

The other local species is a prostrate plant with hairy branchlets and smaller flowers in which the keel petals are less fringed.

These attractive plants do not seem to have a common name. If you know of a name for them or if your children have one please let me know.

N. T. B.

MEETINGS

August

Date : Tuesday 23rd August at 8 p.m.  
 Place : Institute of Anatomy  
 Feature : A talk about Mollucs given by  
 Mr W. Buick of the Australian National  
 University.

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September

Date : Tuesday 27th September at 8 p.m.  
 Place : Institute of Anatomy  
 Feature : A talk by Mr G. Winston, an overseas  
 scholar, biologist, whose subject will  
 be the "Ecology of Eastern Samoa".

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"Wilderness protection must not be delayed. If you will remember your first-aid course, you will remember these priorities: bleeding, breathing, shock. It does little good, if a patient is bleeding to death, to sit down and study objectively, what kind of bandage will be needed on the wound. You get in there and stop the bleeding. Otherwise you'll have nothing to bandage but a corpse."

- David Brower, in "Wildlands in  
 Our Civilisation".

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O U T I N G S

August

Date : 28th August, 1966

Place : Ginninderra Falls

Leader : Mr I Baird

Time : 10 o'clock

Meeting Place : The junction of the Coppins Crossing Road  
and Weetangerra Road.

Details : This area will be on the edge of the new suburban  
district of Belconnen, and thus will be possibly  
subject to misuse in the future.

September

Date : Sunday 25th September.

Place : Geological excursion

Leader : Prof. Brown

Time ) : Watch the newspaper add or ring Dr Story, 77174

Meeting) : Better still, come to the August meeting when

Place ) : details will be given.

October

Date : 3rd October - (Monday holiday) at 10 o'clock

Place : Cotter Valley - Meet at Uriarra Homestead.

Leader : Dr Burbidge.

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