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ROLES, RESPONSIBILITIES AND RESOURCES

A paper for the Declared Rare Flora Management Workshop for Environmental Officers, Como, 1 - 2 August, 1988
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Discussion of the role of the Environmental Officer in a forest management team with respect to Declared Rare Flora, can be approached by comparison with that of a Wildlife Officer. We will observe later, though that there are some differences.

1. The Role of the Wildlife Officer in Flora Conservation.
A Wildlife Officer is a front line operator, frequently dealing with contentious or emotive issues. It is considered essential that he be flexible, and subject to line command for expert legal advice and technical direction, and to ensure a uniform approach to prosecutions. The need for very good liaison with Regional and District staff is appreciated by him and crossflow of information is promoted.
He must be able to identify a wide range of flora.
A Wildlife Officer's activities in respect of Declared Rare Flora fall under five broad categories.

   1.1 Enforcement.
   About 75% of a Wildlife Officer's time is spent on enforcement of seven Acts of which the pertinent one here is the Wildlife Conservation Act. He must have a good knowledge of that, the Regulations, Notices (Proclamations) and Policy, also of interviewing, of the way to collect evidence which will prove an offence and of presenting that evidence in court.
   He disseminates to land managers in his District information about D.R.F. on land under their control, and ensures understanding by them of their obligations under the Act.

   1.2 Monitoring.
   Condition or stage of reproduction of threatened flora, and of vegetation generally on Nature Reserves, is periodically checked by Wildlife Officers.

   1.3 Surveying.
   Activities include assessment of any land for conservation values, potentially leading to creation of Reserves, searches to establish Rare or proposed Rare Flora locations and range, and assistance to research groups.

   1.4 Liaison.
   Assistance given to individuals, other Departments, Shires, A.P.B., mining companies, etc. includes:

      a) checks for presence of D.R.F. or geographically restricted flora prior to commencement of works and advice of any constraint given to the proposer of the works,
      b) attendance at any fire on a Nature Reserve in a technical advisory capacity.

1.5 Education.
Identification of flora, talks and excursions are provided to individuals and to interest groups, and training is conducted within the Department.

2. The Role of the Environmental Officer in Flora Conservation.

An Environmental Officer in a Forest District should be seen as having a role similar to that of a Wildlife Officer, with the following differences:

a) Enforcement of the Wildlife Conservation Act would not normally be engaged upon,
b) the special sphere of influence is at present restricted to land managed by the Department, and
c) there is a responsibility to supervise other officers in the area of flora conservation.

The officer should have a basic knowledge of the relevant Act, but a good knowledge of Policy Statement No. 9 and of Administrative Instruction No. 24. He/she should be able to identify the D.R.F. present in the District and preferably also other D.R.F. species in adjoining Districts, and would be expected to have a fair knowledge of other species used as indicators for Phytopthora activity.
The responsibilities of an Environmental Officer can be described under the fllowing headings:

2.1 Monitoring
Work areas to be monitored include:
Up-to-date status of all records showing locations of D.R.F. - check at least annually, in May, preferably also in November.
Unfailing use of these records by all staff when preparing prescriptions for operations.
Effectiveness of conservation efforts during field operations.
Maintenance of, and continuity of accessions to, the District herbarium.

2.2 Liaison.
This important area of activity of the Environmental Officer should cover the following points:-

Assess proposed work prescriptions and, when these do not conform with policy and directive on flora conservation from more senior levels, discuss with District Managers, Regional Leader Prot., Env. Prot. Branch staff, Research Branch staff and adjoining District staff as required to resolve the issue.
Set in place a procedure whereby fire suppression forces are advised automatically and promptly of the presence of D.R.F. on land under any vesting which is threatened by wildfire.

Attend wildfire reported on land not administered by this Department (especially V.C.L.) where D.R.F. are known to exist, for the purpose of ensuring protection of that flora if practicable.
Pass on new information on D.R.F. populations to the recipients as instructed in A.I. No. 24, and observations by any officer in relation to flora offences to the Wildlife Officers.
Provide upon request such assistance as is possible, to individuals, other Departments, Shires, A.P.B., mining companies, etc., on flora identification and flora matters generally.

2.3 Education.
The Environmental Officer should:-
Keep abreast of new knowledge on flora which reaches the District via correspondence and reports.
Ensure that training needs within the District staff are determined and satisfied by local or other training input.

The above summary of the role of the Environmental Officer leads to the view that achievement of some of the required results may be difficult where field officers operate in a multifunctional way over a 'personal' territory. Overall supervision and control will be fragmented, and responsibilities for some segments may be not undertaken.

3. Resources which support protection of Declared Rare Flora

The following notes are supplementary to Policy Statement No. 9 and Administrative Instruction No. 24.
Note in Policy Statement No. 9., the third paragraph of the explanation of ''Taking Endangered Flora'' has been amended in January, 1988. The original implication that burning may not constitute 'taking' if it would be beneficial for regeneration of a species has been corrected. A Permit to take Declared Rare Flora is definitely required before the plants can be burned.
It should also be noted that an attachment circulated with A.I. No. 24 breaks the confidentiality requirement relating to Declared Rare Flora by displaying a location map for a currently Declared species in a document which is itself not restricted in circulation. To overcome that, managers are asked to substitute into their copies of A.I. No. 24 the facsimile Register sheet which is supplied.

The approved sources of information on Declared Rare Flora (D.R.F.) are now reiterated and commented upon.

3.1 Approximate locational information.
Sources of information to an operation planner which will prompt consideration of threatened flora protection requirements will be:

H.O.C.S. folder (folio 7),
P.O.C.S. folder (folio 11),
and/or Fire Management Master Plan,
and/or Operations Master Plan.

Presence of D.R.F. and other threatened flora if possible will be marked on every one of the above maps by means of a small circular red (or other similar colour, uniform for the District, if red is already in use) sticker bearing the H.O. file number of the species, for each population of any species. Stickers will be placed as close as possible to the actual location(s) without obscuring other important detail on the maps.
Use of other than the H.O. File number is to be discouraged for two reasons, viz.

a) that number is the lead to more detailed information about a population in the Rare Species Register,
b) a local file number would need to be supplemented by a folio number, possibly even a date to locate the relevant file.

Such file references can be placed on each Register sheet if desired.

3.2 Detailed locational information.
Sources of information to an operation planner, which will allow protection of threatened flora to be planned, are the Rare Flora Register in Forest Regions or equivalent maps and species files in other Regions.
Sheets which bring the Register up to date with the list of D.R.F.gazetted on 25/9/87 do not yet have all detail completed. However the partially completed sheets have been circulated to make possible the transfer of information to the sources listed in Section 1.1 above. They will be replaced as soon as further information has been obtained. A few further sheets for species gazetted on 15/7/88 will be prepared soon.

Species may be filed within the Register by H.O. file number sequence rather than alphabetically if so preferred by users. Supplementary references to local files may be noted on Register sheets as mentioned earlier.
Register sheets for populations on land not controlled by this Department will be so marked on a red sticker in the top right corner. These sheets will be held following the sheets relating to CALM land for each species.
Species deemed worthy of special monitoring and care though not D.R.F. will be held in a separate section at the back of the Register.

3.3 Identificational information.
Sources are listed in a suggested sequence of application.

3.3.1 Fisheries and Wildlife Bulletins Nos. 42 and 54.
These contain line drawings of the species Declared up to 1983. However, thirty four of these are no longer Declared.

3.3.2 Photographs.
Some species are featured in Rare Flora Manuals compiled for the Central Forest Region, otherwise photographs may be obtainable from Wildlife Officers.

3.3.3 Specialist assistance.
Descriptive material and/or demonstration in the field may be obtainable from botanists at Woodvale, from Environmental Protection Branch or from Wildlife Officers.

3.3.4 District herbaria.
Assistance will be required from Woodvale or from Environmental Protection Branch at Bunbury for the placing of specimens of D.R.F. into District herbaria, because of the requirement for special licenses to collect such species. Even than it is likely that some species will be considered too rare to collect even for this purpose.

3.3.5 New publication.
Dr. S.D. Hopper and Ms S. Patrick are working on a publication which will describe all of the currently Declared species but it will probably not be published before the end of the current calendar year.

1.4 Management information.
Until today such information was not available to managers except by enquiring of Research or Environmental Protection Branch officers regarding a particular species which was of interest at the time. However, in addition to guidance which you gain here, two measures are proposed which could remedy that situation.

1.4.1 A priority ranking code for species.
This would be of particular value in developing firefighting strategy during wildfire operations, by providing intelligence on the importance to be placed upon preservation of a population of D.R.F.
The code would consist of a double letter or letter/number combination and would be placed on each red sticker on the H.O.C.S., etc. plans and on the Register sheets.

OVERHEAD

The system proposed is explained further on a sheet handed out and constructive comment is invited, <u>to be noted on that sheet</u> and <u>returned to me</u>, after you have discussed it with other officers.

1.4.2 Species management plans.
The Northern Forest Region is currently attempting to prepare a management plan for each species, and employs a consultant for this purpose.

The framework of the proposed document, running to about five pages plus a small scale map, is given as Appendix 1.

A recommended method of summarizing and stressing to field officers the operational requirements of protecting D.R.F. is the 'Endangered Flora Protection Working Plan' prepared by Busselton District, with certain amendments. Copies of introductory pages are provided as Appendix 2 and the full document may be viewed if you have time.

4. Practical problems which have arisen.

4.1 Protection of a small (about 1ha) and clearly-defined population in Dardanup block.
At the time this was an unnamed species, now declared Rare. The officer planning an aerial burning operation took a crew in and hand-raked a trail about 400m long in rather difficult terrain prior to 'edge-burning' around the population.
Three small 'hopovers' burnt a few plants but these were marked and have since provided interesting information on the regenerative characteristics of the species.

4.2 Protection of a fairly extensive (about 15ha) but well-defined population in Kingia block.
Protective aerial ignition of the block could not be postponed although the population was not discovered until too late to be sure of getting permission to take the fire-tolerant species. Also the small size of the plants suggested that they would benefit from a further five-year period without fire.
Assistance was given to the District to select a firebreak between existing roads, utilizing old snig tracks and a short logging road. A break of about 600m length was then mechanically scraped and the aerial burn carried out.

4.3 Protection of a scattered, ill-defined population in St. John block.
The known area (about 10ha) and incomplete knowledge of the total extent of the population made it impractical to exclude a proposed logging operation. However the scattered nature also made it seem likely that a relatively small number of individuals might be damaged.
A recommendation was therefore made that permission should be sought to take an unspecified number of the species, and the application was approved. This approval did partly depend on the species to be affected.

4.4 Protection of a fire-sensitive species in Macgregor block.
At the time no species had been Declared Rare though the species concerned was known to be geographically restricted and had been specially enclosed by a bulldozed break linking with the existing ''Creek Reserve'' within proposed plantation area.
The pre-logging aerial burn had avoided the creek reserves but a decision was made on the ground to burn out one. Because of a misunderstanding over the locations of the ''protected'' species the reserve which contained it was the one burnt.
This incident underlines the need for the Rare Flora Register but also the need for careful communications between planners and operators.

4.5 Problem of incomplete knowledge of population biology.
The above example did not result in loss of the population because of ample regeneration from seed. On the basis of that and other observations the recommendation was later being made that populations of the species could be burnt provided that permission to take was obtained, as was in fact approved. However two previously unknown populations were discovered in late winter 1985, which had been to a large extent killed by a prescription burn at the end of the previous November. No seedling regeneration was observable at that time, when on past indications it should have been abundant. At this date there are only a few seedlings of less than 30cm in height present. However, very large mature specimens which escaped crown scorch are continuing in a healthy condition.
The suggestion is that timing and intensity of fire will have an effect on population regeneration.

DECLARED RARE FLORA MANAGEMENT WORKSHOP

APPENDIX 1.

FRAMEWORK FOR RARE SPECIES MANAGEMENT PLAN

Botanical name of taxon.

Common name of taxon.

General comments include history of discovery, broad distribution, notes on propagation, any commercial use, etc.

Brief description of plant.

Distribution and habitat (including vegetation type, soil type, influence of canopy cover)

Conservation status
May usefully include a tabular summary of some of the detail to be found in the Rare Flora Register, but not specific detail on locations
eg. Region, Locality, Land Status, Date of most recent Survey, Area/No. of plants, Condition.

Plant characteristics:	Response to fire Response to soil disturbance Susceptibility to dieback Susceptibility to weed invasion Grazing impact/
Management requirements:	General style Burning frequency and time. Other protection. Eradication of weeds.
Research requirement:	Survey Fire ecology Phenology Monitoring Re-establishment.

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APPENDICES

BUSSELTON DISTRICT

ENDANGERED FLORA PROTECTION

WORKING PLAN

1987/88