

DIRECTOR

Report on a visit to Middle Island (The Archipelago of Recherche). 29 October - 3 November 1975.

During the period December 1972 - January 1973, a fire of unknown origin consumed most of the vegetation of the eastern half of Middle Island. Subsequently, in response to a request from this Department, Dr. A.S. Weston and Mr. M.E. Trudgen of the W.A. Herbarium visited the island to document the effects of the fire and the regeneration of the vegetation. The results of the first visit in November 1973 are detailed in A.S. Weston (1974). The effects of the Summer 1972-73 fire on the biota of Middle Island (Recherche Archipelago, W.A.) Unpubl. manuscript. A second visit by the same party in November 1974 was made for the purposes of monitoring the regeneration in the permanent plots established in 1973.

This regeneration monitoring programme was continued by a visit by Mr. Trudgen and myself between the above dates.

Data from all three visits will be collated in the near future. It is envisaged that a visit in late 1976 will provide the data necessary to prepare a complete report for publication.

Generally, the vegetation is regenerating well and much of the burnt area is covered by a dense *Eucalyptus/Melaleuca/Alyogyne* scrub up to 3m tall.

Only 1½ days were available to inspect the island as a whole, and much of this time was spent in the unburnt parts of the island, some of which is covered by a *Eucalyptus* open woodland with a *Poa* tussock grassland understory formation which is not well represented on the mainland. It seems likely that this may be a 'post-pyric climax' formation such as may have existed on many mainland forest areas in pre-European, and certainly pre-Aboriginal, times.

It is proposed to undertake further studies on the unburnt area next year to determine more precisely the composition of the vegetation.

The presence of the tammar (*Macropus eugenii*) on an island whose vegetation is in two clearly defined stages of pyric succession provides a unique opportunity for a study of the relationship between habitat/food availability and usage. It may be possible for a study of this kind to be conducted during my visit to the island next year. My brief observations were that the tammars were sparsely dispersed throughout thick areas of regenerating vegetation, and densely clumped in certain areas of mature vegetation.

Because of the possible significance of the unburnt vegetation (a vestige of a formation no longer found on the mainland) and its potential fire hazard, it would seem wise to discourage further visits to the island by members of the public, at least until after next year's study. At present the island

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is a prohibited entry area though this ruling cannot be policed, and permits to camp here have been issued.

The problems associated with having people on the island include:

interference with existing monitoring programme,
fire, particularly in the unburnt area,
disturbance of the fragile narrow dune between Pink Lake and the adjacent bay, particularly while the vegetation is regenerating following the fire.

I suggest several special signs be made and erected on the island explaining to casual visitors the status of the island as a reserve and the importance attached to non-disturbance of the area, particularly in the above three respects.

Policing of the prohibited entry status could be enhanced by making more use of a local fisherman, Mr. J. Cahill, who operates from the adjacent mainland.

Applications for permission to camp on the island should be subject to increased scrutiny, particularly in the light of past reports of campers using the island more as a holiday resort than an area of biological and archeological importance.

A complaint has been made to the Department regarding the cutting of trees in the vicinity of the hut. While I did notice that several of *Melaleucas* had been cut, the damage is slight and of little consequence. Some timber may have been cut for firewood and some for the purpose of erecting tents. There was no way of knowing when the cutting took place or who was responsible.

The hut on the island is in need of some repair. In particular, the rainwater tank, tankstand and the guttering could be replaced. In the past, repairs have been effected by various visitors, but continuation of this policy may encourage recreational use of the island.



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