

## LAKE MARINGUP - A RISING LAKE

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Following reports of some years standing, that there were cut karri stumps visible well out into Lake Maringup, we visited the lake in early April to investigate further.

Lake Maringup is a fresh water lake of about 320 acres and is situated about 15 miles south of Northcliffe between the Gardner River and the Deeside Road and about two miles inland from the south coast. To the north of the lake is flat country interspersed with karri "islands" and pockets of low jarrah country. To the south are stabilised sand dunes carrying peppermint and with odd areas of karri. To the east of the lake is a large area of swamp country, much of which is under water in winter. (See figure 1 for a sketch of the area and general drainage patterns.)

A track joins the lake at the north west corner and from this point we were able to see that there were indeed stumps in the lake. The water level was probably as low as it has been for some time and a number of stumps, about fifty in all could be seen along the northern shore. They started about a chain from the shore line and extended out to about five chains. The top of the stumps protruded about two feet above the water line and at this point were six feet and more in girth - some appeared from a distance to be about nine feet in girth.

In attempting to reach the nearest stump it was discovered with great surprise and to Steve Quain's extreme distress that the water was not in fact six inches deep as it appeared, but six feet. Apart from the surface layer of clean water the rest was a suspension of vegetative matter of the appearance and consistency of pea soup. This was something of a set-back but with the aid of a tractor tube to which a tarpaulin had been lashed the nearest stump was eventually reached. This stump was about six feet in girth, about six feet in height, of which four feet was submerged. The stump had in fact rotted off at the usual water level. Examination of the sample taken indicates that the species is Warren River Cedar (*Agonis juniperina*). This could be expected but nevertheless the girths of the stumps are a good deal larger than are commonly found. It was not possible with the craft at our disposal to reach the other stumps through the ooze. However an attempt was made from the southern side where the lake bottom was quite sound and water clear. After paddling about two thirds of the way across we were again turned back by ooze. From this vantage point more stumps could be seen along the northern shore. The interesting feature of this part of that the portion of the lake we saw appeared to be little more than six feet deep.

The conclusion must be drawn that the lake has risen at least six feet in very recent times since although cedar will grow very close to waters edge it never grows even in shallow, permanent water. One can also conclude that

because the deeper portion of the lake is only a little over six feet, then the area of the lake has also increased considerably in recent times.

The reason for the rise in water level provides opportunity for speculation.

The most likely possibility for such a dramatic rise would seem to be that something has occurred to alter the drainage pattern to cause an increase flow into the lake. Since there has been only minimal activity of any sort in the area by man a natural cause must be suspected. In examination of aerial photographs to determine the drainage pattern into the lake a most interesting feature was noticed about three miles south east of the lake. At this point a flat ends abruptly in a vee shape pointing in a southwesterly direction and surrounded on both sides by steep stabilised dunes. A narrow gully continues in this direction for about 10 chains. A short saddle about 5 chains long stops it here, but beyond this a narrow gully again continues for about 5 chains before opening up into a flat. This flat opens up to about 10 chains in width with steep dunes on both sides before entering a non stabilised drift about 10 chains from the shore-line. This feature has every appearance of a substantial creek system which has been blocked by a sand drift. This theory is further enhanced by the fact that the dune across this point has a completely different appearance on the aerial photos and would appear to be much younger than the dune immediately south of the Lake. The boundary of this dune is shown in Figure 1. (It seems almost certain that the lake at its original level was produced by the older dune to the south and west of the lake.) If this supposition is true then it means that the catchment of the lake has been increased by some 1 - 2,000 acres. It would be difficult to establish an accurate figure in this regard because the blockage could well have caused some of the flow to be diverted to another main stream flowing easterly across the Deeside Road.

At least that's one theory, what's yours?

Further investigations in the lake and the dunes would be well rewarded in this truly fascinating area. Equally interesting is the abundance of bird life, the association of karri and yate growing to within feet of the lakes edge, and the beauty of the lake itself.

However a note of warning to any would-be naturalists - Beware the ooze!

SKETCH PLAN OF LAKE MARINGUP AREA.

Sketched from aerial Photos Approx scale 1"=75ch.

