

THE OCCURRENCE OF MONAZITE *in situ*
AT BLATHERARM CREEK, NEAR DEEPWATER,
NEW SOUTH WALES.

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The first reference to the occurrence of Monazite in New South Wales was made by Mr. W. A. Dixon, F.I.C., who in 1881 analysed a specimen from Vegetable Creek, Co. Gough.¹ No description of its mode of occurrence is given, but we may presume that it was found in alluvial drift. In 1898 Mr. J. C. H. Mingaye, F.I.C., F.C.S., Analyst and Assayer to the Department of Mines of New South Wales, contributed a note on an occurrence of Monazite in a gem sand from the Tooloom Alluvial Gold-fields.² More recently the same author detected it in the beach sands at Ballina, Richmond River.³

Towards the end of 1903 Mr. D. A. Porter, of Tamworth, a zealous collector of minerals in the northern districts of New South Wales, brought to the Museum for identification, some small fragments of a mineral found embedded in a decomposed felspathic rock near Deepwater, which he believed to contain some of the rare earths. This was identified as Monazite, and Mr. Porter having kindly presented a larger quantity, also specimens of the matrix and country-rock, it is now possible to supply some account of the occurrence *in situ* and mineral associates of this comparatively rare mineral in New South Wales.

The locality is given as Blatherarm Creek, about twenty-one miles N.W. of Deepwater, and twenty-five miles, approximately N.E. by N., from Emmaville. Of the mode of occurrence Mr. Porter says:—"It occurs in a mineral vein of six to eight inches wide, which exists in a small gap in a granite (?) or felsite (?) formation . . . and strikes about N. 20° E." The matrix consists of felspar (apparently orthoclase), much decomposed and kaolinised; quartz, slightly dark in colour, rarely shewing hexagonal outlines, but chiefly irregular and blebby; also wolfram which occurs in irregular masses. These are accompanied by a mineral consisting of small crumbling scales, bronzy in colour,

¹ Dixon—Ann. Rept. Dept. Mines N.S. Wales for 1881 (1882), p. 26 ;
Liversidge—Min. N.S. Wales, 1888, p. 114.

² Mingaye—Proc. Austr. Ass. Adv. Sci., vii., 1898, p. 333 ; Rec. Geol.
Surv. N.S. Wales, vi., 1899, p. 118.

³ Mingaye—Rec. Geol. Surv. N.S. Wales, vii., 1903, p. 222.