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PRELIMINARY REPORT ON THE MICROPALAEONTOLOGICAL
EXAMINATION OF ROCK SAMPLES COLLECTED IN THE
VICINITY OF ROMA, WESTERN QUEENSLAND,
DURING JULY, 1948.

by

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29th December, 1948.

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In July, 1948, the writer visited Roma with the object of collecting material for micropalaeontological study as no similar investigation had been carried out on the sediments in the area which Whitehouse refers to as the Roma Series. Systematic collections were made in company with Mr. Derek Pitman of Roma Blocks Ltd. and the results of the examination, so far, have been entirely satisfactory. About two hundred samples were collected for examination for foraminifera and where possible specimens of typical species of the larger fossils of the Roma series were gathered.

Localities from which collections could be made were much more numerous than anticipated. The most striking outcrops were along the banks of Bungeworgorai and Clerk Creek, where cliff sections up to 30 feet high were exposed.

Collections were made from four areas:

1. Bungeworgorai Creek and its tributary, Clerk Creek, five miles west of Roma along the western railway line.
2. Wollumbilla Creek, about 24 miles east of Roma and sections at Warooby and Pickaginnie between Roma and Wollumbilla.
3. Miami Crossing, Bungil Creek, 4 miles north of Roma on the Durham Downs road.
4. Road and railway cuttings between Yingerbay, 14 miles north of Roma on the Injune line, and Roma.

1. Specimens were collected along Clerk Creek on the north side of the railway line, then for a distance of about two miles along Bungeworgorai Creek on the south side of the line, to the end of the cliff section south of the old Mt. Abundance Homestead. The sediments consisted of grey to dark grey shales and sandstones in which there were bands of rounded to ovate limestone concretions, some having a maximum diameter of 12 inches and containing typical Roma species of megafossils such as Fissulunula clarkii, Panope rugosa and some Ammonites. Parabelus australis was common in patches in some of the shale. The shales and sandstones also contained a characteristic assemblage of crushed or deflated tests of arenaceous foraminifera which included species described by the writer from bore sections in the Great Artesian Basin.

2. (a) Numerous samples were collected at Wollumbilla Creek at Wollumbilla Township, 400 yards north of the railway bridge over the creek. The sediments were flatly bedded and an irregular surface marked the break between the overlying sandstone and the underlying reddish to greenish shales, the whole section being about 8 feet thick. Arenaceous foraminifera were fairly common in the samples but the tests were chiefly crushed or deflated.

(b) Sediments from exposures in Pickaginnie Creek, south of Pickaginnie railway station were chiefly fine sandstones which contained a few poorly preserved foraminifera.

(c) In a creek between Pickaginnie and Blythesdale, south of the Great Western Line, the beds consisted of shale, sandstone and gypsum with a few poorly preserved foraminifera.

(d) The sediments in a section in Warooby Creek consisted entirely of sandstones with some gypsum. Foraminifera were recorded but were scarce.

3. Specimens were collected from the banks of a small tributary of Bungil Creek and on the roadside at Minmi Crossing about 5 miles north of Roma on the Durham Downs Road. They consisted of ochreous shales and sandstones. Poorly preserved pelecypoda were noted in the shales in the creek bed. The sandstones in a tributary on the east side of the crossing contained numerous arenaceous foraminifera.

4. Samples consisting almost entirely of sandstones, were collected from road and railway cuttings from Yingerbay, 14 miles north of Roma on the Injune railway line, southwards towards Roma. Only one sample which came from a gully near Euthulla, south of Yingerbay, contained foraminifera, the assemblage consisting of numerous and large tests of arenaceous species which were well preserved in comparison with those from other localities.

Notes on the Foraminiferal Assemblages

With regard to the foraminiferal assemblages in the deposits in the Roma area, all determinable species have been described from the Lower Cretaceous beds in the Great Artesian Basin, while undescribed species are equally characteristic of the assemblage.

Three assemblages can be recognised:

1. Ammobaculites sp. common, with Haplophragmoides charmanii, Spiroplectammina cushmani, Bicenerina sp., Trochammina raggatti.

This assemblage is found in Bungeworgorai and Clerk Creeks and in Wollumbilla Creek.

2. Haplophragmoides charmanii (common), Trochammina raggatti, (common) Ammobaculites sp. and Spiroplectammina cushmani.

This assemblage is found in the sample from near Euthulla, south of Yingerbay. Although all forms are similar to those in assemblage 1, certain species are common and are usually well preserved.

3. Spiroplectammina cushmani. This species alone comprised the assemblage in the sandstones from the tributary of Bungil Creek, Minmi Crossing. The writer has not met with a similar assemblage in any of her work on the foraminifera in the Lower Cretaceous deposits.

The stratigraphic relationship of these assemblages has not yet been worked out in detail but there seems little doubt, however, that deposits in Bungeworgorai and Clerk Creeks are lithologically and micropalaeontologically similar to those 30 miles to the east at Wollumbilla Creek.

The assemblage at Euthulla, south of Yingerbay occurs in sandstones which outcrop a short distance away from the current bedded freshwater deposits exposed in a cliff section 30 feet high in a railway cutting immediately north of Yingerbay and probably belonging to the Blythesdale Series. These

foraminiferal bearing sandstones may represent the basal horizon in the Roma Series. It is hoped that further collections of material for micro-examination will be made east and west of this locality to prove the stratigraphic position of the beds containing this well defined assemblage.

The assemblage at Miami Crossing is so far unique in the sediments referred to the Roma Series. The presence of numerous large tests of Spiroplectammia here may only represent a facies change from conditions at Ruthalla. Only further work can solve this problem.

29th December, 1948.
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