

FAUNA OF THE BRAZIL LIMESTONE.

BY F. C. GREENE.

Prof. Chas. W. Shannon of Brazil sent to the State University a collection of fossils which he said came from a limestone just below the surface at that place. Later Dr. J. W. Beede of the State University and Mr. L. C. Snider sent in other collections from the same limestone at somewhat different localities in the same vicinity.

The stratigraphic chart in the 33rd annual report of this department shows this limestone as occurring in Division II of the Indiana Coal Measures. In the 23rd annual report of this department, Ashley gives the following sections from this locality:

	Brazil. Sec. 29.		Ashley. Sec. 31.	
	Ft.	In.	Ft.	In.
Sandstone	?	?	?	?
Limestone	17	0	11	0
Shale	4	0	6	0
COAL, good	3	4	1	6
COAL, bone	1	2	0	0
Fire-clay	?	?	0	0
Shale			16	0

In other places in this vicinity, the limestone is only seven feet thick or may be wanting, while the underlying shale varies from 0 to 8 feet in thickness. The limestone is a dark-colored, bituminous stone, having an irregular fracture and the fossils are mainly white or light-colored. It is sometimes overlain by very fossiliferous, dark-colored, calcareous shale from which finely preserved specimens may be washed.

FAUNA.

1. *Fusulinella* Sp. Probably a new species.
2. *Lophophyllum profundum* M-E and H.
3. *Zeacrinus* sp. (plates).
4. *Eupachyerinus tuberculatus* Meek and Worthen.
5. *Eupachyerinus* sp. (fewer but larger tubercles).

6. *Archeocidaris* sp. (plates and spines).
7. Worm c. f. *Spirorbis anthracosia* Whitfield.
8. Worm sp. (represented by burrows in the shell of *Productus costatus*).
9. *Fistulipora nodulifera* Meek.
10. *Stenopora spinulosa* Rogers.
11. *Stenopora ohioensis*? Foerste.
12. *Stenopora tuberculata* Prout.
13. *Stenopora* c. f. *cestriensis* Ulrich.
14. *Stenopora* sp. Probably a variety of *S. spinulosa*.
15. *Stenopora* 2 species. Probably undescribed.
16. *Fenestella limbata* Foerste.
17. *Fenestella modesta*? Ulrich (reverse only shown).
18. *Polypora whitei* Ulrich.
19. *Polypora spinulifera* Ulrich.
20. *Polypora* sp. (resembles *P. cestiensis* somewhat but differing from it in having much longer fenestrules).
21. *Pinnatopora* sp. (reverse only shown).
22. *Septopora pinnata* Ulrich.
23. *Septopora biserialis* Swallow.
24. *Rhombopora lepodendoidea* Meek.
25. *Streblotrypa distincta* Ulrich.
26. *Cystodictya carbonaria* Meek.
27. *Cystodictya* sp. (resembles *C. inequimarginata* but has 5-6 rows of zoecia).
28. *Prismopora sereata* Meek.
29. *Derbya crassa* M and H.
30. *Chonetes mesolobus* N and P.
31. *Productus cora* var. *americana* Swallow.
32. *Productus punctatus* Martin.
33. *Productus costatus* Sowerby.
34. *Productus wabashensis* N and P.
35. *Productus muricatus* N and P.
36. *Productus* sp.
37. *Dielasma bovidens* Morton.
38. *Spiriferina kentuckiensis* Shumard.
39. *Spirifer cameratus* Morton.

40. *Spirifer rockymontanus* Marcou.
41. *Reticularia perplexa* McChesney.
42. *Hustedia mormoni* Marcou.
43. *Seminula argentea* Shepard.
44. *Aviculopecten occidentalis* Shumard.
45. *Aviculopecten hertzeri*? Meek.
46. *Myalina recurvirostris* M and W.
47. *Macrodon carbonarius* Cox.
48. *Schizodus harii* Miller.
49. *Astartella varica*.
50. *Allorisma terminale*? Hall.
51. *Pelecypod* sp.
52. Cephalopod sp. (probably *Tainoceras occidentalis* Swallow).
53. *Griffithides scitula* M and W.
54. Fish tooth (fragment).

The Brazil limestone is probably to be correlated with the Fort Scott limestone of Kansas, since a similar fauna has been noted by the writer from this horizon (Henrietta limestone) of Missouri and southeast Iowa.

