

A PARTIAL SECTION OF ESCABROSA LIMESTONE IN THE  
GALIURO MOUNTAINS, PINAL COUNTY, ARIZONA

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A series of Paleozoic limestones and dolomites are exposed on the north flank of Little Table Mountain in the northern Galiuro Mountains. Elevations in this region range from 4500 feet in Virgus Canyon to a maximum of 6254 feet at the top of Little Table Mountain.

The limestones and dolomites are exposed where the overlying volcanic rocks have been eroded away. These sediment exposures appear to be small hills on the pre-volcanic surface which are now partially buried by the flat-lying volcanics.

The measured section is in the southeast quarter of Section 15, Township 7 South, Range 18 East, Gila and Salt River Baseline and Meridian. This area is located one and one-half miles north of the crest of Little Table Mountain on the east slope of a low ridge lying along the west side of Virgus Canyon. The sediments here have a general northeast strike and principally flat northwest dips. Several short offsets were made in measuring the section.

PARTIAL SECTION OF ESCABROSA LIMESTONE:

|  | Thickness<br>(feet) |
|--|---------------------|
| 1. Dolomite, greyish-pink, fine-grained; few thin, reddish chert lenses; top covered. . . . .  | 46                  |
| 2. Limestone, light grey, coarse-grained, fossiliferous; beds 1 to 2 feet thick. . . . .   | 80                  |
| 3. Limestone, grey, fine to medium-grained, fossiliferous; abundant 1 to 8 inch pinkish chert lenses; beds a few inches to 18 inches thick . . . . .   | 127                 |
| 4. Limestone, grey, medium-grained, fossiliferous; few small calcite and quartz geodes near base; cliff forming  | 36                  |
| 5. Dolomite, tan to pink, fine-grained, weathering to smooth surface; contains coral and crinoid fragments, many quartz geodes up to 2 inches, few thin, reddish chert lenses, white nodules; beds 1 to 3 feet thick; limestone lens 0 to 5 feet thick near top of unit. . . . | 85                  |
| 6. Dolomite, tan to grey, medium-grained, weathering to rough, pitted surface; contains crinoid fragments, few quartz geodes up to 2 inches; beds 1 to 3 feet thick; top bed weathers to splotchy brown and grey . . .   | 90                  |
| 7. Quartzite, pink to tan; crossbedded in 1 to 2 foot beds; subrounded grains cemented by calcite, quartz; top 6 inches fossiliferous. . . . .   | 9                   |

|  |           |
|--|-----------|
| 8. Dolomite, dark tan, medium-grained, weathering to rough, pitted surface; contains crinoid fragments, few quartz geodes up to 3 inches. Similar to unit 6. . .   | 19        |
| 9. Dolomite, buff to tan with pinkish cast, medium-grained; weathering to smooth surface; contains 1 to 5 inch quartz geodes, thin chert lenses, crinoid fragments; beds 1 to 2 feet thick; base covered . . . . . | <u>16</u> |
| Total of measured Escabrosa section . . . . .  | 508       |
| Covered . . . . .  | 30        |

MARTIN LIMESTONE:

|   |   |
|---|---|
| Dolomite, reddish, fine-grained, fossiliferous; beds 1 to 6 inches thick interbedded with reddish shale 1 to 2 inches thick; few quartz geodes up to 2 inches top and base covered. . . . . | 6 |
|---|---|

The six feet of interbedded, reddish shale and dolomite resembles very closely upper Martin beds described from southeastern Arizona. A thirty foot section between the Devonian Martin and the Mississippian Escabrosa is covered in the vicinity of the measured section. Scattered, poor exposures indicate that this section consists predominantly of thin-bedded reddish shales with some interbedded, red dolomite of Devonian age with a few feet of tan Escabrosa dolomite at the top.

A number of fossils collected in the vicinity of the measured section was reviewed by Prof. Halsey Miller of the University of Arizona. Prof. Miller identified a few of the better preserved fossils.

Within the top six inches of unit 7 a tooth was found which belonged to Psephodus, family Cochliodontidae, suborder Bradyodonti. This fossil has been found in Carboniferous rocks of Europe, India, and North America.

The limestone and dolomite beds throughout the section contain crinoid columnals which locally comprise the major portion of some beds. Among the columnals collected, only one type was distinctive enough to be identified. This columnal, which was elongated laterally and slightly twisted, was considered as possibly belonging to Platycrinus, species(?).

A variety of corals was noted; however, they generally were not well enough preserved to be identified. Small lenses of limestone composed chiefly of Homalophyllum, species(?), occur locally along the contact between unit 5 and unit 6. This coral has been found in the Devonian and Mississippian formations of North America.

Near the middle of unit 2, a single Pentremites elongatus was found. The Burlington age of this blastoid establishes the limestone as lower Mississippian. Two other Pentremites, species(?) similar to Pentremites elongatus were also collected from the same unit.

Some brachiopods, gastropods and crinoid calyxes were collected, but were not well enough preserved to be positively identified.

Based on the lithologic similarity with various Escabrosa limestone sections, and the diagnostic fossils found in the various beds, the sedimentary section exposed on the north flank of Little Table Mountain is considered as the lower portion of the Escabrosa limestone.

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