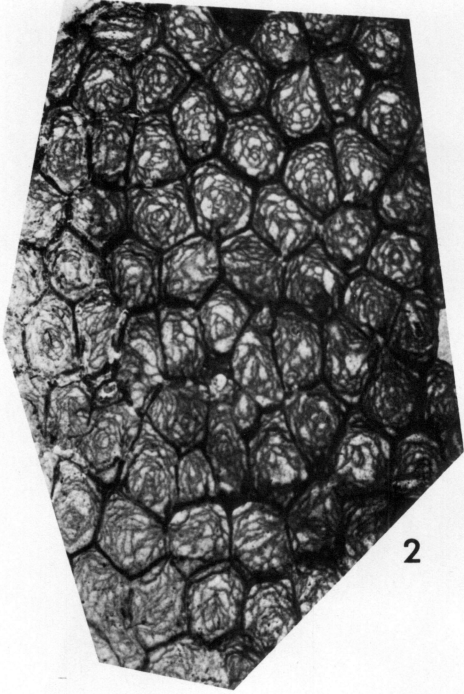
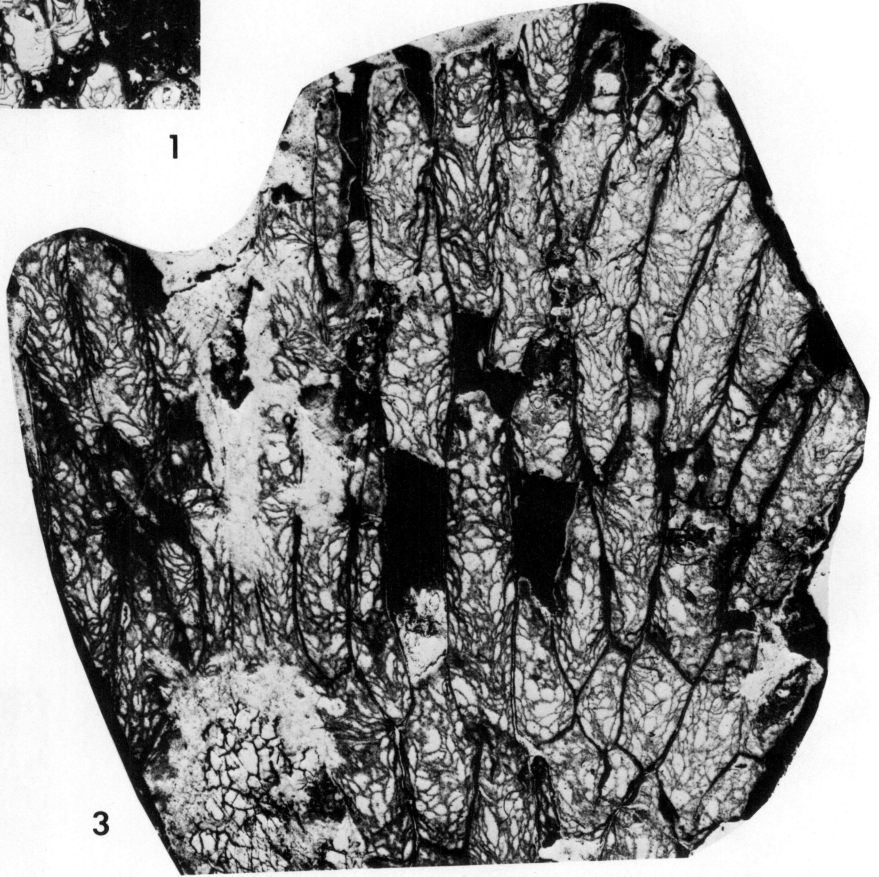


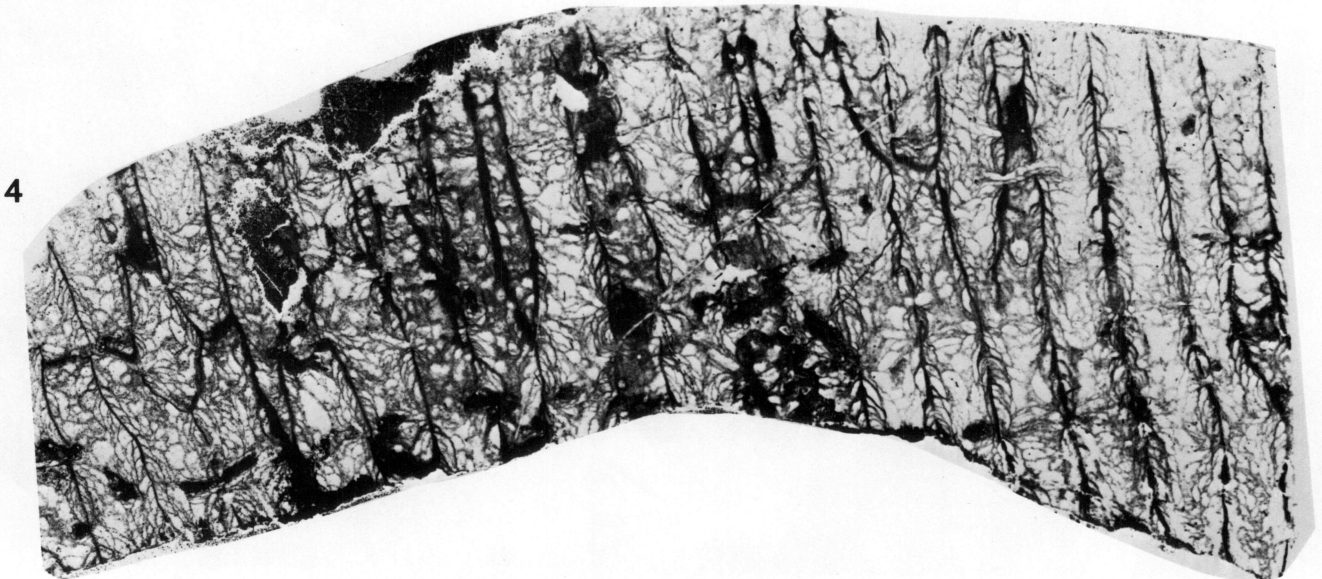
1



2



3



4

Documentation.—LACMIP hypotype 8394. Six thin sections and 12 polished sections from two coralla from LACMIP loc. 1260 were studied.

Discussion.—The corallites of the specimens from the Spring Mountains are a little smaller in diameter than those listed for the type series. However, other characteristics, especially the occurrence of connecting processes in neighboring corallites at the same levels, are identical. A few corallites show traces of septal spinules in longitudinal and tangential longitudinal sections (Figure 7.2), arranged in a grid-like pattern, like some in the McCloud Limestone specimens. However, the preservation is variable in coralla from all localities so that apparent absence of them from the type specimens is not deemed to be a species character. The arrangement of the spinules is strongly reminiscent of those in the Lower Cretaceous coralline sponge *Acanthochaetetes seunesi* as figured by Wood (1990, fig. 7, top right) and suggests a future phyletic reassignment for the syringoporids.

This is the third record of this species in the Great Basin, where it seems to be everywhere associated with cerioid corals of Zone 1 of Easton (1960) and Zonule 2 of Wilson and Langenheim (1962). The occurrence of connecting processes at the same levels in neighboring corallites gives it a bamboo-like appearance readily recognized in the field, making it a potential index fossil.

SYRINGOPORA MULTATTENUATA McChesney, 1859
Figures 7.3–7.5, 8.1

Syringopora multattenuata MCCHESENEY, 1859, p. 75; MCCHESENEY, 1867, p. 2, Pl. 2, fig. 4; MCCUTCHEON, 1961, p. 1014, Pl. 121, figs. 1–8; WILSON, 1982, p. 83, figs. 48e–48f.

Documentation.—LACMIP hypotypes 8395, 8396 (LACMIP locs. 1255, 1257). Thirteen thin sections and polished sections from four coralla from LACMIP locs. 1255–1257 and 5645 were studied.

Discussion.—*Syringopora multattenuata* was redescribed and neotypes designated by McCutcheon (1961), who noted its wide distribution in the Upper Pennsylvanian (Missourian) to Lower Permian (Wolfcampian) formations in the midwestern and western United States and Spitsbergen. Wilson (1982) found the species in the McCloud Limestone in fusulinid zone D, Wolfcampian, of Skinner and Wilde (1965). It should be noted that in the McCloud Limestone and in the Bird Spring Formation of the Spring Mountains and the Arrow Canyon Range (Langenheim and Langenheim, 1965) definite *S. multattenuata* occurs stratigraphically below *S. mcutcheonae*, although Langenheim and Langenheim (1965) cited a *Syringopora* cf. *S. multattenuata* in the unit above *S. mcutcheonae* at Arrow Canyon. The distribution of these two species in the shelf and “terrene” faunas suggests a faunal association.

McCutcheon (1961, p. 1016), following Hill and Stumm (1956), considered that *Kueichowpora* (Chi, 1933) is an unwarranted generic concept because the axial tube, by which the genus largely is characterized, is “of specific significance only.” The writer agrees with this conclusion, thereby retaining *Syringopora multattenuata* in the original genus rather than placing it in *Kueichowpora*. A thorough revision of syringoporid species with axial tubes might demonstrate that *Syringopora multattenuata* is a senior synonym of several other species and give this species a wider geographic distribution.

Family Incertae sedis
Genus CORNWALLATIA Hoare, 1966
CORNWALLATIA TABULARIA (Hoare, 1964)
Figure 8.2–8.4

Cornwallia tabularia HOARE, 1964, p. 502, Pl. 77, figs. 3–9.

Cornwallatia tabularia HOARE. HOARE, 1966, Pl. 17, fig. 1 (upper part).

Documentation.—LACMIP hypotype 8397. Three thin sections and 12 polished sections from one corallum from LACMIP loc. 1263 were studied.

Discussion.—This is the first record of *Cornwallatia* outside the type locality in the Lower Permian Sunflower Formation of Elko County, northern Nevada, where the coralla are intergrown with coralla of *Bayhaium*, another cerioid tabulate coral (Hoare, 1966). *Bayhaium* long was thought (Langenheim and McCutcheon, 1959; Hoare, 1966; Wilson, 1982) to be endemic to northern California–northern Nevada areas, but Ding and Yu (1984) extended the range to the Lower Permian of Shaanxi Province, China.

The Sunflower Formation is located in the Antler Highland carbonate province (plotted on Stewart, 1980, fig. 29) The Clark County occurrence of *Cornwallatia tabularia* is a significant faunal tie of this province with the predominately shelf coral faunas of the east.

Hill (1981) considered *Cornwallatia* to be a junior synonym of *Neosyringopora* Sokolov. I have considered them to be separate genera chiefly on the basis that *Cornwallatia* is essentially cerioid and *Neosyringopora* essentially fasciculate.

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FIGURE 8—1, *Syringopora multattenuata* McChesney, transverse section, hypotype, LACMIP 8396. 2–4, *Cornwallatia tabularia* (Hoare), hypotype, LACMIP 8397. 2, transverse section; 3, 4, longitudinal sections. All figures $\times 3$.

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- known as the Lee Canyon Section after Lee Canyon, which lies to the south. The section begins with the occurrence of the lowest colonial rugose coral associated with large fusulinids, an association that indicates nearness to the base of the Permian throughout the Great Basin. Measured and collected by Edward Wilson and Larry Walters.
- 1255.—Limestone, medium to fine grained, dark gray weathers medium gray, beds 1–3 feet thick, no chert, series of steps, partly covered, attitude 230, 24°NE. Large scaphopods, abundant very large fasciculate rugose corals, syringoporid corals, fusulinids.
- 1256.—112 feet (34 m) above loc. 1255. Very large pelmatozoan columnals, abundant syringoporid corals, beds about 2 feet thick.
- 1257.—28 feet (8.5 m) above loc. 1256. Fusulinids, *Syringopora*.
- 1258.—186 feet (57 m) above loc. 1257. Thin-bedded gray limestone, no chert. Fasciculate rugose corals.
- 1260.—221 feet (67 m) above loc. 1258. Same lithology. *Syringopora*.
- 1262.—105 feet (32 m) above loc. 1256. Lowest cerioid coral seen. Top of ridge in the NE¼, SW¼, sec. 28.
- 1263.—Estimated 50 feet (15 m) below loc. 1262. Large coralla of cerioid syringoporid corals to 2 feet in diameter.
- 1264.—68 feet (21 m) above loc. 1262. Highest beds of limestone before a predominately sandy unit begins. Offset west across saddle in NE¼, SW¼, sec. 28 and begin measuring NW up ridge towards VABM 6496. Abundant *Omphalotrochus*, cerioid and fasciculate rugose corals, some syringoporids.
- 1268.—3,175 feet (968 m) above loc. 1264. Massive limestone cliff 15 feet (4.6 m) high with beds at top 1–3 feet thick and containing large fusulinids and masses of fasciculate corals. This is the limestone at the top of the predominately sandstone unit correlated by Barosh (1968) with the “Rib Hill” Sandstone of the Egan Range, White Pine County, Nevada. The loc. 1268 limestone and overlying thin-bedded sandstones were considered by Barosh (1968) to be equivalent to the Arcturus Formation of the Egan Range.
- 1274.—865 feet (264 m) above loc. 1268. Rare, small fasciculate corals. This is 570 feet (174 m) below the fault marking the top of the Lee Canyon section.
- 5645.—Peak across saddle due west of hill “5579” as shown in the NW¼, NW¼, sec. 27, T17S, R57E of the same map cited under loc. 1255. This is along strike from loc. 1255. Limestone, medium grained, dark gray weathers light gray, beds 1–2 feet thick, 15-foot-thick unit with fusulinids, lowest colonial rugose corals (very large fasciculate corals), abundant. Also abundant *Syringopora*, fusulinids. Attitude 355 24°NW.

ACCEPTED 7 MARCH 1991

APPENDIX

LOCALITY REGISTER

The following localities are entered in the LACMIP locality register. They are in the Permian part of the Bird Spring Group, in a measured section that begins in the SW¼, SW¼, sec. 27, T17S, R57E as shown on the USGS topographic map of Charleston Peak, Nevada, 1957, 15 min., 1:62,500 and continues across strike, with some offsets to stay on ridge crests, through sec. 28 and the east ½, sec. 20, passing through VABM 6496 and ending with prominent fault in the saddle of the NE¼, NE¼, sec. 20. The line of section is shown in figure 2 of Rich, 1963, and an index map of the area in figure 1 of Rich, 1963. This has become