

allites are in the same block as the holotype of *Stylasteria rowetti* n. sp.

Discussion.—This monotypic genus (Hill, 1981), previously unreported outside its type area in the Lower Permian (Wolfcampian) Florence Limestone of Kansas, is the only known endemic American waagenophyllid genus. Occurrence of this coral in the Nevada Permian in rocks of approximately the same age as those of the Kansan occurrence indicates that the species had a continuous geographic range connecting the two areas southward around the Permian transcontinental arch peninsula, probably through northern Sonora seas. This coral is rare in Arrow Canyon, but is locally abundant in Kansas.

Figures of this species from Kansas localities have not been published other than those of Moore and Jeffords (1941), which have been refigured (see synonymy). A specimen from LACMIP locality 894 in the Florence Limestone of Butler County, Kansas, is shown (figures 4.10, 5.1) for further comparison.

One of the corallites from Arrow Canyon has a narrow peripheral section of lonsdaleoid dissepiments in one part of an otherwise regular dissepimentarium. The Kansas specimens have a few septa that do not reach the wall, but none with as many as the Arrow Canyon corallite has been figured or seen by us. Because the other Arrow Canyon corallites have regular dissepimentaria identical to the Kansas specimens, we assume that the lonsdaleoid section is not uncharacteristic of the species.

Subclass TABULATA Milne Edwards and Haime, 1850
Order AULOPORIDA Sokolov, 1950
Superfamily SYRINGOPORICAE de Fromentel, 1861
Family MULTITHECOPORIDAE Sokolov, 1950
Genus NEOMULTITHECOPORA Lin, 1963
NEOMULTITHECOPORA MCCUTCHEONAE
(Wilson and Langenheim, 1962)
Figure 6.2, 6.3

Syringopora mccutcheonae WILSON AND LANGENHEIM, 1962, p. 515, Pl. 89, figs. 11–13; LANGENHEIM AND LANGENHEIM, 1965, p. 236; WILSON, 1982, p. 83, figs. 48a–48b; WILSON, 1991, p. 736, figs. 7.1–7.2.
Neomultithecopora C., *Syringopora mccutcheonae* SANDO, 1984, text-fig. 2.

Documentation.—LACMIP hypotype 11441. Two thin sections and 54 polished sections from 7 coralla from LACMIP loc. 2548 were studied.

Discussion.—This widespread species has been reported from White Pine County (Egan Range), Clark County (Spring Mountains, Arrow Canyon Range), all Nevada, and Shasta County (Klamath Mountains), California. All occurrences are Lower Permian, Zone of *Pseudoschwagerina*, and in the same stratigraphic positions relative to other corals. It is an especially useful index fossil because the connecting processes arranged in uniform levels makes it readily recognizable in the field.

Family GORSKYITIDAE Lin, 1963
Genus CORNWALLATIA Hoare, 1966
CORNWALLATIA TABULARIA (Hoare, 1964)
Figure 6.4, 6.5

Cornwallia tabularia HOARE, 1964, p. 502, Pl. 77, figs. 3–9.
Cornwallatia tabularia (Hoare). HOARE, 1966, Pl. 17, fig. 1 (upper part); WILSON, 1991, p. 739, figs. 8.2–8.4.

Documentation.—LACMIP hypotype 11442. Three thin sections and 28 polished sections from two coralla from LACMIP loc. 2548 were studied.

Discussion.—This is the third locality from which *Cornwallatia tabularia* has been reported. Hoare (1964) described it from the Sunflower Formation in Elko County, Nevada. Wilson (1991)

reported it from the Bird Spring Group in the Spring Mountains, western Clark County, Nevada. It also occurs in the Bird Spring Group of the Providence Mountains, San Bernardino County, California (LACMIP locality 1505).

Although only two coralla were collected in Arrow Canyon, one is reasonably large (19 cm diameter), suggesting a long established corallum.

We have followed Sando (1984) in recognizing *Cornwallatia* as a valid genus rather than as junior synonym of *Neosyringopora* as recommended by Hill (1981).

Genus NEOSYRINGOPORA Sokolov, 1955
NEOSYRINGOPORA MULTATTENUATA (McChesney, 1859)
Figure 6.6, 6.7

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; WILSON, 1991, p. 739, figs. 7.3–7.5, 8.1.

Documentation.—LACMIP hypotype 11443 (LACMIP loc. 2544). Four thin sections and 44 polished sections from one corallum from LACMIP loc. 2544 and four thin sections and 37 polished sections from one corallum from LACMIP loc. 12613 were studied.

Discussion.—This species 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. Arrow Canyon is one of her western United States localities, cited again by Langenheim and Langenheim (1965) in the Bird Spring Formation there below the occurrence of *Neomultithecopora mccutcheonae*, with *Neosyringopora* cf. *N. multattenuata* in the unit above *N. mccutcheonae*. Wilson (1982) reported the species in the McCloud Limestone fusulinid zone D, Wolfcampian, of Skinner and Wilde (1965), also below *N. mccutcheonae*.

Neosyringopora centrocyllindrica (Driscoll and Newton, 1969), from the Demoinesian Tensleep Formation of Montana, also is a hollow-tubed, dissepimented syringoporid that has not been compared with *N. multattenuata*, although Sando (1984) listed its characteristics and assigned it to his morphogroup *Neosyringopora* B, cited by him as ranging from Upper Pennsylvanian (Desmoinesian) through Lower Permian (Wolfcampian). *Neosyringopora centrocyllindrica* has far fewer structures inside its hollow tube than *N. multattenuata* and generally has only a single rank of large dissepiments bordering the central tube, whereas *N. multattenuata* commonly has tabulae inside the central tube and more than one rank of dissepiments. Corallite diameters of *N. centrocyllindrica* are much greater (2.5–2.9 mm) than those of *N. multattenuata* (2.0–2.2 mm).

Sando (1965) redescribed *Syringopora occidentalis* Meek (1877), the holotype of which was collected from Morgan Peak in the Wasatch Range of Utah and may be either from the upper Weber Sandstone (Pennsylvanian) or the Park City Formation (Permian). On the basis of the holotype being a poorly preserved immature corallum, Sando (1965) suggested that the species be considered a nomen dubium, although he pointed out that it showed similarities to *N. multattenuata*, notably a hollow tube, similar corallite diameter, and lack of spines. Perhaps it could be considered a questionable junior synonym of *N. multattenuata*.

At Arrow Canyon, *N. multattenuata* has a wide stratigraphic range for an upper Paleozoic coral, being round in several beds from the Upper Pennsylvanian (Missourian) to the Lower Permian (Wolfcampian) (Langenheim and Langenheim, 1965; Fritz,