6. On the Genus *Thysanophyllum* (Tetracoral).

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Thysanophyllum orientale Nicholson and Thomson, a cerioid form, is the genoelectotype of the genus *Thysanophyllum* chosen by Gregory in 1917. *T. minus* Thomson and *T. argylli* (Thomson) from the Lower Carboniferous of Scotland as well as such forms as *T. aseptatum*, *T. cystosum* and its variety described by T. A. Dobrolyubova from the Higher Carboniferous of the Ural seem to be perfectly congeneric with the genotype, especially in their cerioid coralla. There are, however, many fasciculate forms assigned to the same genus, as *T. pseudovermiculare* (M'Coy), *T. kendalense* (Smith and Lang) and *T. longiseptatum* Yabe et Hayasaka. Such fasciculate thysanophylla are more akin to the genus *Dorlodotia* Salee than to massive *Thysanophyllum*, in the fundamental structure of corallites and especially in their fasciculate coralla. *Dorlodotia* is fasciculate *Thysanophyllum* with stouter columella. In this regard, *T. circulo-cysticum* Chu, *T. asiaticum* Yu and *T. grabawi* Yu from the Lower Carboniferous of southern China should be better referred to *Dorlodotia* than to *Thysanophyllum*.

The genus *Dorlodotia* 1919 is regarded by some palaeontologists to be synonymous with *Lithostrotionella* Yabe and Hayasaka 1915, both having distinct columella, and hence to be abandoned, according to the rule of priority. However, the genotype of the *Lithostrotionella* and its allied species are all cerioid corals in distinction from fasciculate forms of *Dorlodotia*. In the writer's opinion, the generic name *Lithostrotionella* should be reserved for cerioid forms with distinct columella and *Dorlodotia* for fasciculate forms with distinct columella, and in the same manner, a new generic name is to be given to the fasciculate forms of *Thysanophyllum*, as enumerated afore, confining the name *Thysanophyllum* to its cerioid forms.

The following is the key for the genera of these allied, compound rugose corals with a lonsdaleoid dissepimentarium.

		Geological range			
		C	S	D	M
a)	Cerioid form				
1)	with distinct columella.....			—	—
2)	with discontinuous, indistinct columella.....				—
	 <i>Thysanophyllum</i>				

b) Fasciculate form

1) with distinct columella.....*Dorlodotia*

2) with discontinuous, indistinct columella

.....New genus

C, *Caninia* zoneS, *Seminula* zoneD, *Dibunophyllum* zone

M, Moscovian

Genus *Thysanophyllum* Nicholson and Thomson, emend MinatoGenolectotype: *Thysanophyllum orientale* Nicholson and Thomson.

Diagnosis: Corallum compound, massive, cerioid, with lonsdaleoid dissepimentarium, with septa withdrawn from the axial part. No distinct corumella, except one of the septa slightly prolonged into the central part of the corallite in the position of conter septum (2). Tabulae complete, usually forming flat-topped dome, sometimes being quite flat or even sagging.

Remarks: *T. minus* Thomson, and *T. argylli* (Thomson) from the Lower Carboniferous deposits of Scotland, and *T. aseptatum*, *T. cystosum* and its variety *major* from the western slope of the Ural are perhaps congeneric with the genotype. Further the Mississippian species described by I. Hayasaka under the name of *Lithostrotionella simplex* and *Lithostrotionella kueichouensis* Yu from the Lower Carboniferous of southern China too may belong to the same genus.

At Nagaiwa, the type locality of the Nagaiwa series, Hikoroiti-mura, Kesen-gori, Iwate prefecture, in the Kitakami mountainland, the writer lately collected corals assignable to the genus *Thysanophyllum* in the sense here defined and probably conspecific with *T. aseptatum* Dobrolyubova from the higher Carboniferous of the Ural. From the same locality, *Chaetetes asiatica* Yabe and Hayasaka was once listed by Y. Onuki, while *Lithostrotionella* sp., *Chaetetes asiatica* and *Fusulinella* sp. were reported from the same series of the other localities. This faunal association, though scanty in species, may denote the Middle Carboniferous, or Moscovian age of the series.

The specific description of the *Thysanophyllum* from Nagaiwa follows:

Thysanophyllum aseptatum Dobrolyubova

Fig. 1

1936. *Thysanophyllum aseptatum* T.A. Dobrolyubova: The corals of the Carboniferous deposits of the western slope of the Middle Ural and their stratigraphic importance. Transaction of the All Union Scientific Research Institute, Economic Mineralogy, Fasc. 103, p. 31, pl. XIV, figs. 42, 43.

Thin sections only examined.

Corallum compound, massive, cerioid. Wall not much thickened. Non-septated dissepimentarium occupied by a few, very large lonsdaleoid dissepiment

septa more than 17: all short and never thickened by organic deposits. Minor septa lacking. One septum (probably counter septum), thin as the others, elongated in some, especially younger corallites. Tabulae complete, usually flat, 5 or 7 counted in 1 mm.

Fig. 1. *Thysanophyllum aseptatum* Dobrolyubova

Bibliography:

- D. Hill: A Monograph on the Carboniferous rugose corals' of Scotland.
Palaeontographical Society, London, Mon., 1940, p. 160.