

29. SOME RADIOLARIAN SAMPLES FROM THE WESTERN INDIAN OCEAN, DSDP LEG 25

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INTRODUCTION

There was no radiolarian specialist in the shipboard scientific party on Leg 25. Therefore, this note reports on only a few samples taken by shipboard paleontologists, specializing in other groups of microfossils, from cores for which additional biostratigraphic interpretation was considered desirable.

The localities represented, and the approximate depths of the cores investigated, are:

Site 239: 21°17.67'S, 51°40.73'E; 4971 m

Site 240: 03°29.24'S, 50°03.22'E; 5082 m

Site 248: 29°31.78'S, 37°28.48'E; 4994 m

Site 249: 29°56.99'S, 36°04.62'E; 2088 m

The concepts of species applied in this report conform to those used by Riedel and Sanfilippo (1971) and Sanfilippo and Riedel (1973).

SITE 239

Samples 8-1, 89-91 cm and 8-3, 85-86 cm contain few, moderately well preserved (somewhat dissolved) radiolarians of a variety of ages ranging from early Eocene to middle Miocene. Included are: *collosphaerids*, *Cannartus* (?) *petterssoni*, *Ceratospyrus articulata*, *Dictyospyrus discus*, *Dorcadospyrus dentata*, *Giraffospyrus lata*, *Liriospyrus stauropora*, *Tristylospyrus tricerus*, *Bekoma campechensis*, *Buryella clinata*, *Lychnocanoma anacolum*, *L. auxilla*, *Phormocyrtis cubensis*, *P. striata exquisita*, *P. striata striata*, *Stichocorys wolffii*, *Thyrsochyrtis hirsuta hirsuta*, *T. hirsuta tensa*, *T. rhizodon*, *T. triacantha*, *Podocyrtis fasciolata*, *P. mitra*, *P. papalis*, *P. sinuosa*, and *Theocampe mongolfieri*.

Samples 9-3, 105-106 cm; 11, CC; 12, CC; and 15, CC contain no, or very rare, radiolarians; insufficient for interpretation.

SITE 240

Samples 1-3, 86-88 cm; 1-5, 132-134 cm; 1-6, 133-135 cm; and 1, CC were examined. All contained abundant, well preserved Quaternary radiolarians including *Spongaster tetras*, *Ommatartus tetrathalamus*, *Theocorythium trachel-*

ium, *Pterocorys hertwigii*, and *Lithopera bacca*, and no admixed Tertiary forms.

Sample 3-1, 104-106 cm contains no radiolarians.

SITE 248

Samples with radiolarians sufficient for interpretation are shown in Table 1. Others examined, in which radiolarians are absent or very rare, are 10-1, 100-102 cm; 13-6, 132-134 cm; 14-1, 60-62 cm; 14-4, 90-92 cm; 14-5, 70-72 cm; 14-6, 70-72 cm; and 14, CC. The radiolarian assemblages in Cores 10 to 12 seem to belong in the lower part of the *Phormocyrtis striata striata* Zone, which is approximately equivalent to the *Hantkenina aragonensis* Zone and the boundary between the *Discoaster lodoensis* and *D. sublodoensis* zones (late early Eocene).

SITE 249

Samples 23-3, 121-123 cm; 23-4, top; 23-5, 130-132 cm; 24-1, 106-108 cm; 26-1, 38-40 cm; 26-1, 121-123 cm; 26-2, 40-42 cm; 27-2, 80-82 cm; 27-3, 125-127 cm; 28-1, 78-79 cm; 29, CC; 30-1, 128-129 cm; 30-3, 117-118 cm; 30-4, 18-19 cm; 30, CC; 31-2, 44-45 cm; and 31-3, 135-136 cm contain few to common, poorly to moderately preserved radiolarians. They are absent or very rare in 23-5, 89-91 cm; 25-2, 102 cm; 25-3, 48-50 cm; and 32-1, 104-106 cm. The assemblages evaluated from Cores 23 to 26 appear to be early Late Cretaceous in age.

REFERENCES

- Riedel, W. R. and Sanfilippo, A., 1971. Cenozoic Radiolaria from the western tropical Pacific, Leg 7. In Winterer, E. L. et al., Initial Reports of the Deep Sea Drilling Project, Volume 7: Washington (U. S. Government Printing Office), p. 1529-1672.
- Sanfilippo, A. and Riedel, W. R., 1973. Cenozoic Radiolaria (exclusive of Theoperids, Artostrobiids and Amphiphydacidids) from the Gulf of Mexico, Deep Sea Drilling Project, Leg 10. In Worzel, J. L., Bryant, W., et al., Initial Reports of the Deep Sea Drilling Project, Volume 10: Washington (U. S. Government Printing Office), p. 475-612.

TABLE 1
Radiolarians at Site 248

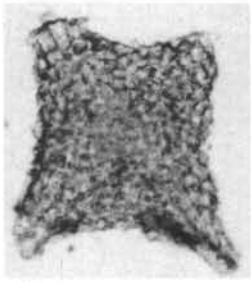
Radiolarian Zone	Species		Abundance	Preservation	Spongastractus balbis	Spongastractus pachystylus	Periphaena tripyramis triangula	Lithocyclus ocellus group	Amphicraspedum murrayanum	Ceratospyris articulata	Dictyospyris discus	Buryella clinata	Calocycloma castum	Eusyringium lagena	Lamptonium jabaeforme chaunothorax	Lithochytris archaea	Lithochytris vespertilio	Phormocyrtis striata striata	Rhopalocanium ornatum	Sethochytris babylonis group	Theocorys anaclasta	Theocorys anapographa	Theocotyle cryptocephala nigrinia	Thyrsocyrtis hirsuta hirsuta	Thyrsocyrtis rhizodon	Podocyrtis papalis
	Samples																									
<i>Phormocyrtis striata striata</i>	248-10-2, 147-149	F M																								
	248-10, CC	F M					+			+	+	R														
	248-11-2, 70-72	F P										+														
	248-11-3, 137-138	F M										R														
	248-12-1, 80-82	C M																								
	248-12-3, 80-82	C M					+	+				R						F					R			
	248-12-4, 30-32	C M				+			+			R	+					-	R	-		-	-	-	-	
	248-12-6, 50-52	C M										R				R										
	248-12-6, 60-62	C M					+					R						R							R	
	248-12-6, 120-122	F M							R			F		R		+		R		R					R	
248-12, CC	C M																							R		

PLATE 1

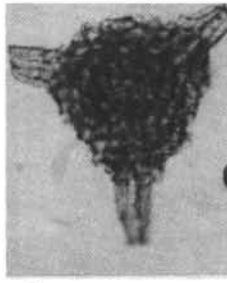
Cretaceous Radiolarians from Site 249
(Magnification 255X)

- Figures 1-17 Assemblage from 249-24-1, 106-108 cm; S1.1.
- Figures 1, 2 Spongodiscids gen. et sp. indet.
1. P31/2.
2. X31/1.
- Figures 3, 4 *Hemicryptocapsa* sp.
3. R36/3.
4. B21/1.
- Figure 5 *Amphipyndax?* sp.; W41/3.
- Figure 6. *Lithomitra pseudopinguis* Tan Sin Hok; N33/4.
- Figure 7 *Theocorys* sp.; G45/0.
- Figure 8 *Theocorys?* sp.; W41/0.
- Figures 9, 10 *Stichocapsa* sp.
9. D24/4.
10. S27/0
- Figure 11 *Eucyrtis* sp.; N26/0.
- Figure 12 *Dictyomitra* sp.; R45/3.
- Figure 13 *Eucyrtidium* sp.; N34/0.
- Figure 14 *Lithomitra* sp.; P31/0.
- Figure 15 *Amphipyndax mediocris* Tan Sin Hok; 021/0.
- Figure 16 *Amphipyndax?* sp.; V33/2.
- Figure 17 *Lophophaena* sp.; R22/0.
- Figures 18-22 Assemblage from 249-26-2, 40-42 cm; S1.1.
- Figure 18 Hagiastrid; N51/4.
- Figure 19 *Tricolocapsa* sp.; S14/4.
- Figure 20 *Cyrtocapsa*; V42/2.
- Figure 21 ?*Eucyrtis* sp.; C45/0.
- Figure 22 *Dictyomitra* sp.; J47/4.

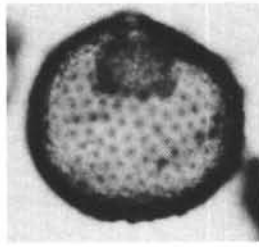
PLATE 1



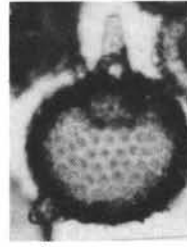
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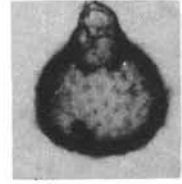
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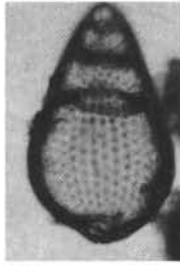
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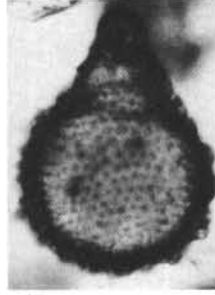
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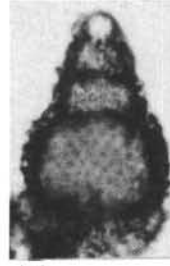
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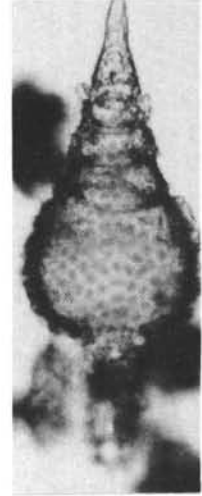
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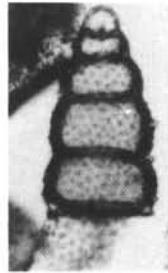
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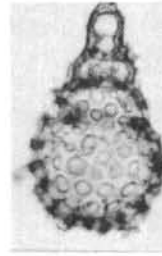
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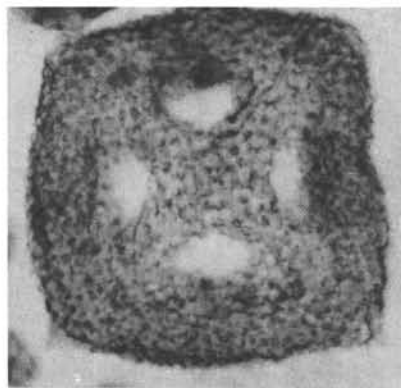
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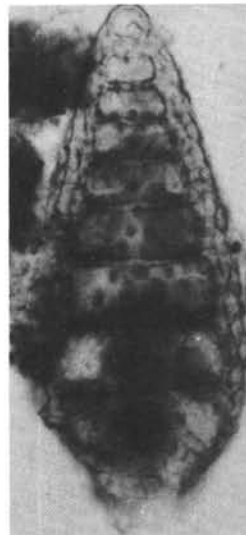
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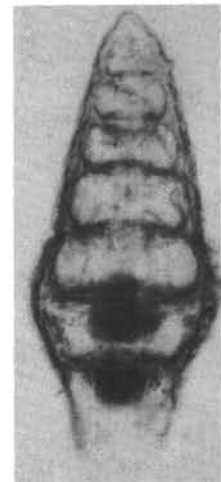
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