

# BioStrat Ltd.

## Palynological Zonation for the Late Cretaceous of the northern North Sea and Norwegian Sea: Photographic Plates

To accompany Late Cretaceous  
Zonation Scheme

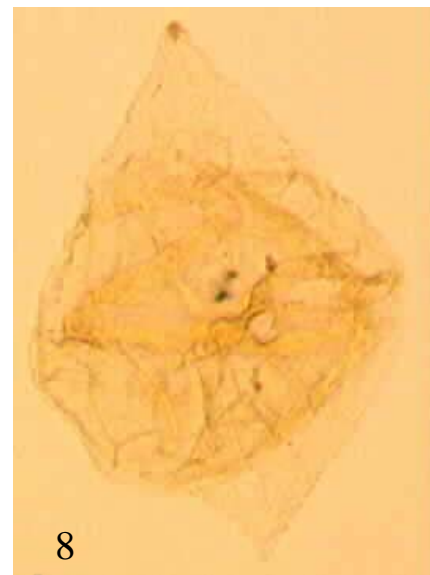
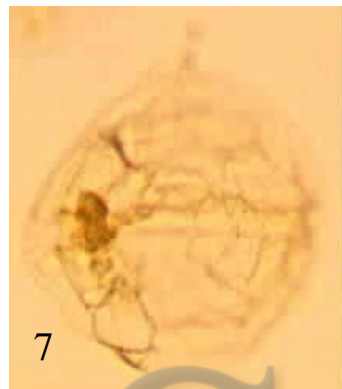
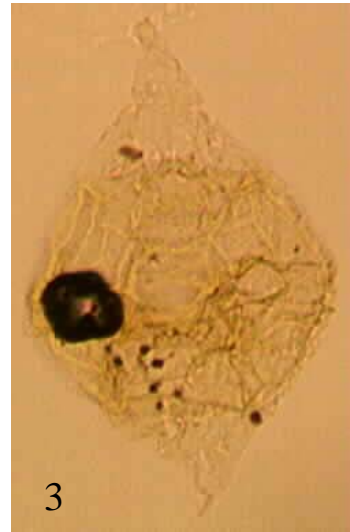
# Plate 1



**1&2.** *Acanthaulax wilsonii*,  
**3.** *Apteodinium granulatum*,  
**4&5.** *Amphidiedima denticulata*,  
**6.** *Alterbidinium daveyi*/*Isabelidinium acuminatum*,  
**7-9.** *Alterbidinium acutum*

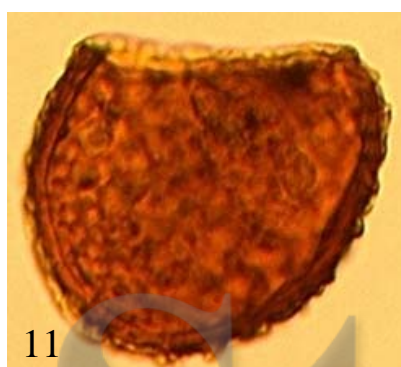
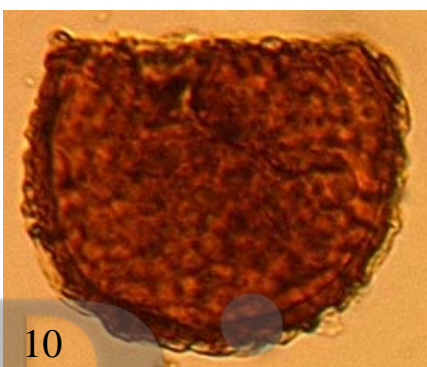
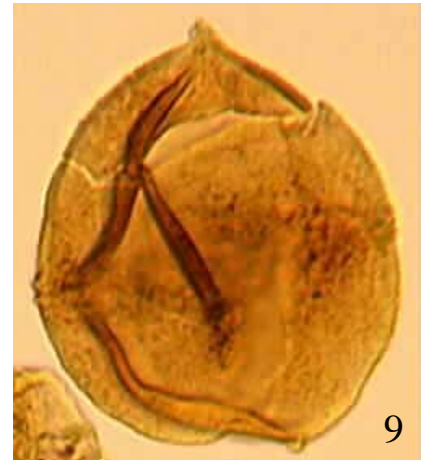
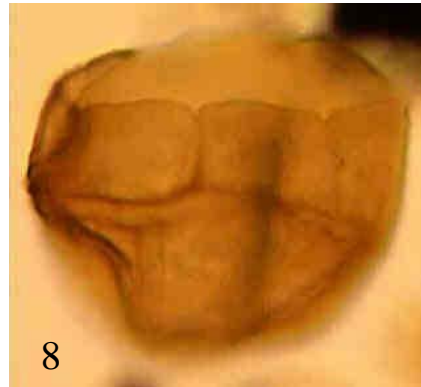
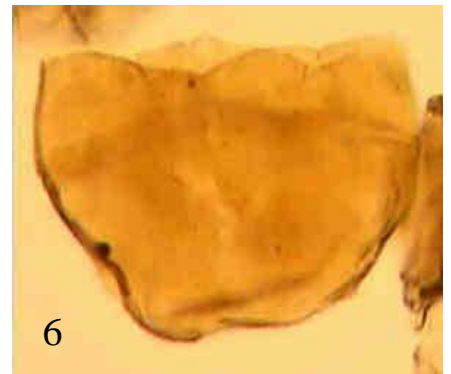
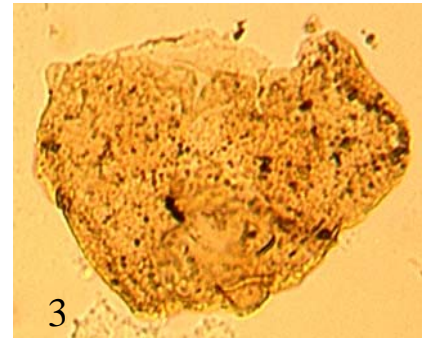
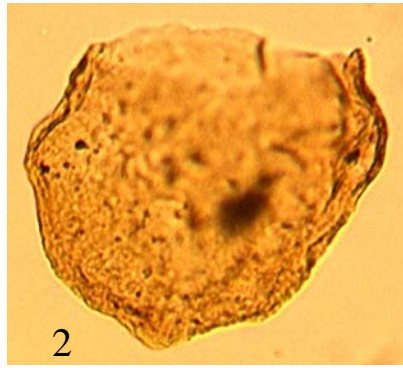
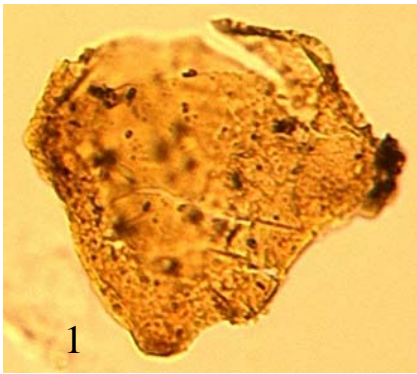
BioStrat

# Plate 2



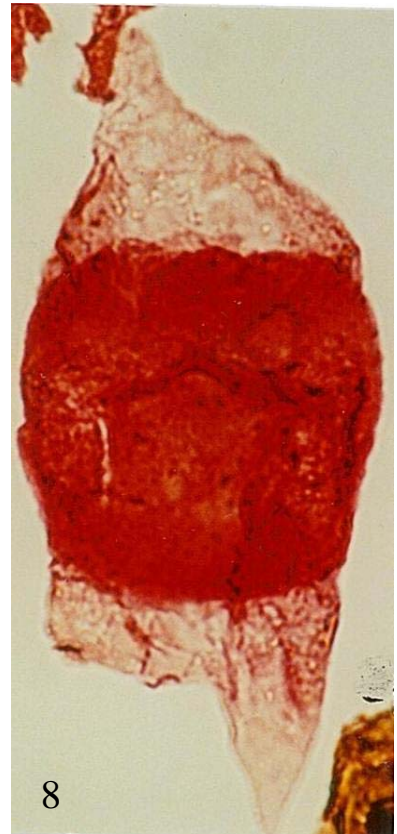
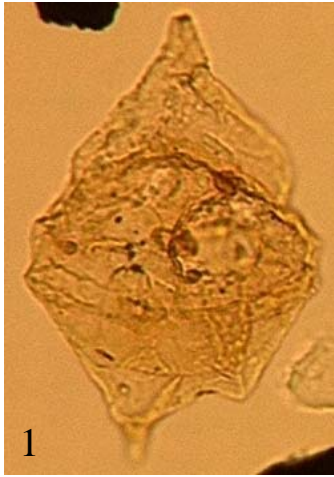
1-9. *Alterbidinium ioannidesii*

# Plate 3



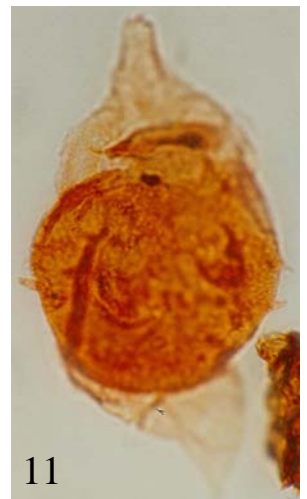
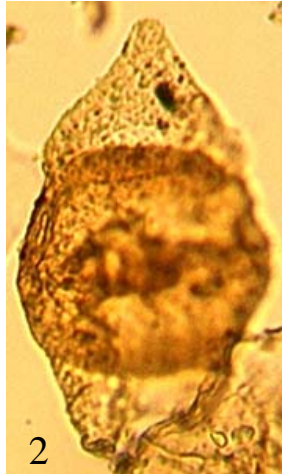
1-3. *Canningia cf. scabrosa*,  
4-9. *Canningia* sp. 1,  
10-12. *Cassiculosphaeridia?* sp. PK45

# Plate 4



1. *Chatangiella biapertura*,  
2. *Chatangiella granulifera*,  
3&8. *Chatangiella bondarenkoi*,  
4&5. *Chatangiella ditissima*,  
6&7. *Chatangiella niiga*

# Plate 5



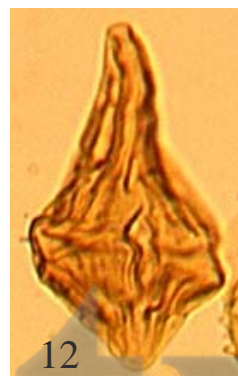
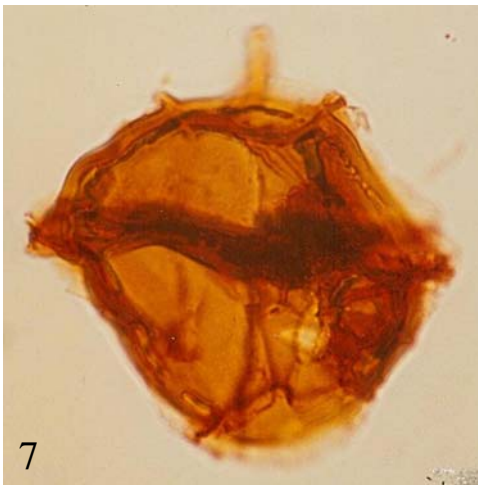
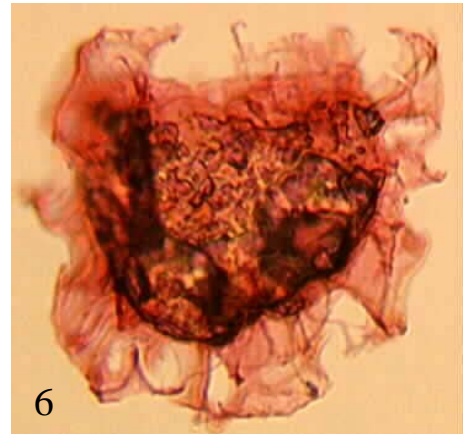
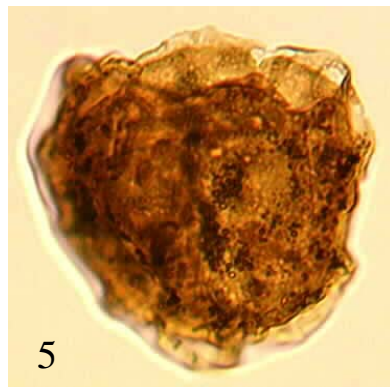
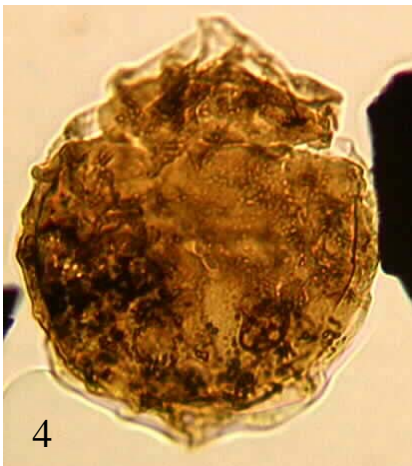
1-5. *Chatangiella* "ectogranulata"

6&7. *Chatangiella* manumii

8-11. *Chatangiella* "spinosa"

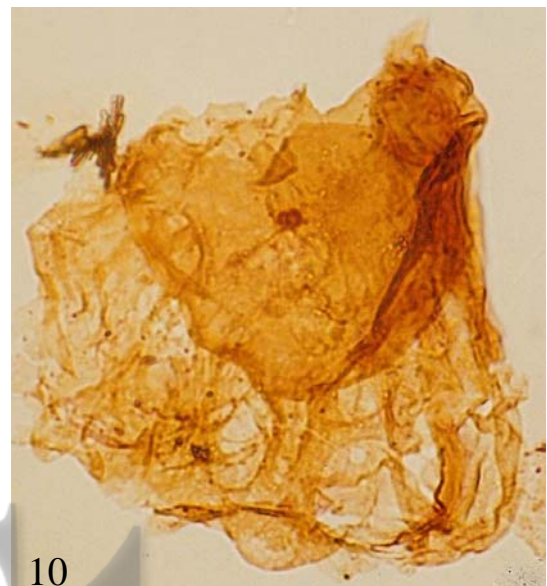
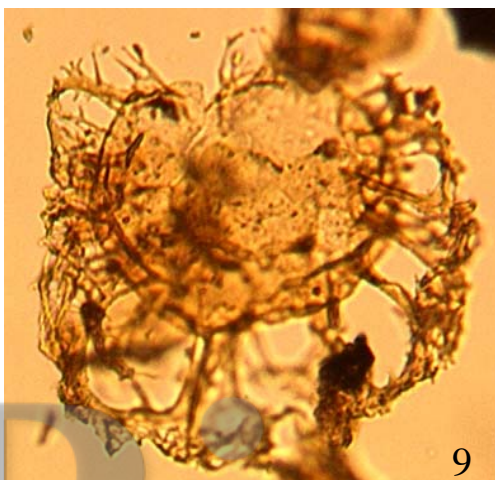
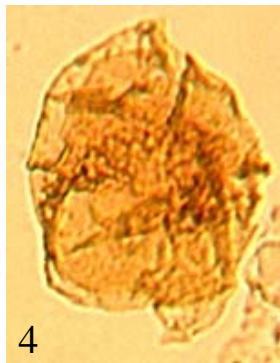
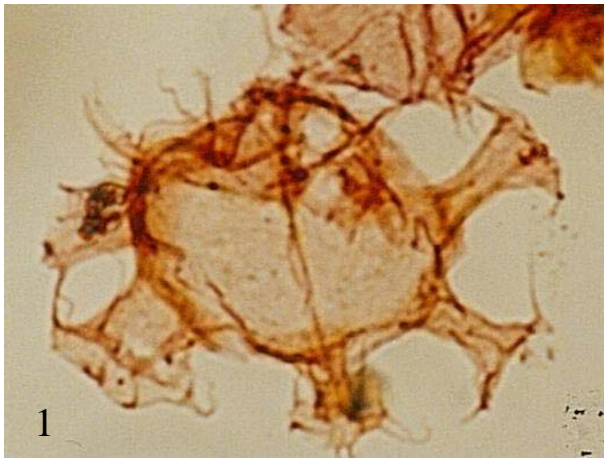
# BioStrat

# Plate 6



**1&2.** *Chlamydophorella grossa*, **3-5.** *Cyclonephelium compactum*,  
**6.** *Cyclonephelium membraniphorum*, **7.** *Cribroperidinium wetzellii*,  
**8&9.** *Deflandrea* sp. 1 McIntyre 1974, **10&11.** *Dinogymnium* sp. 1  
McIntyre 1974, **12&13.** *Dinogymnium sibiricum*.

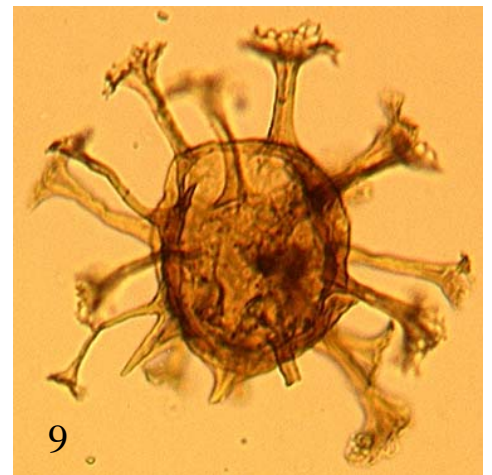
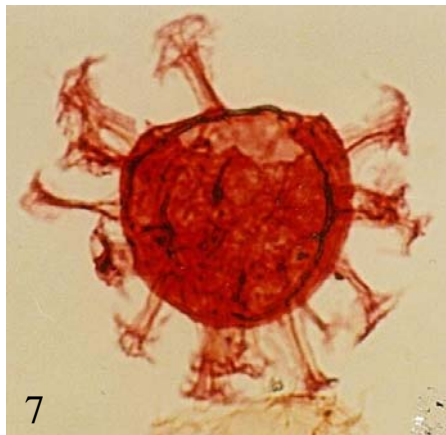
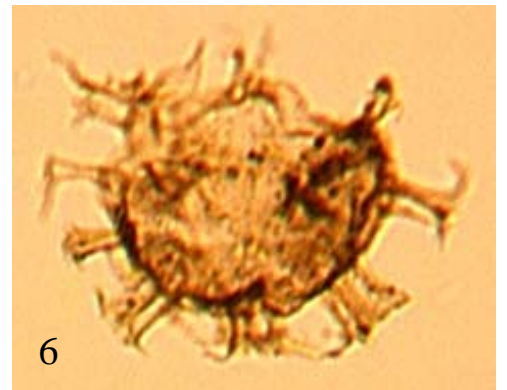
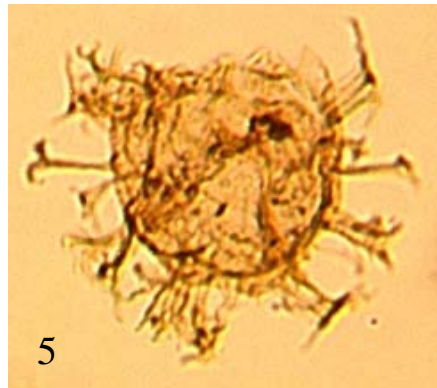
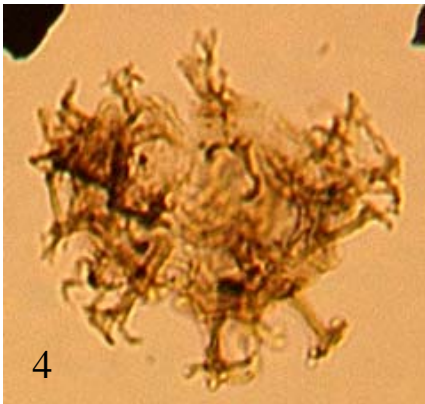
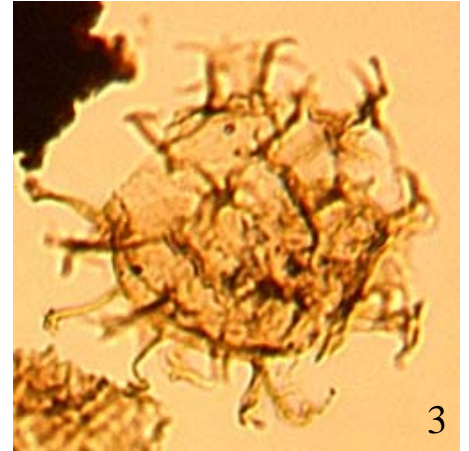
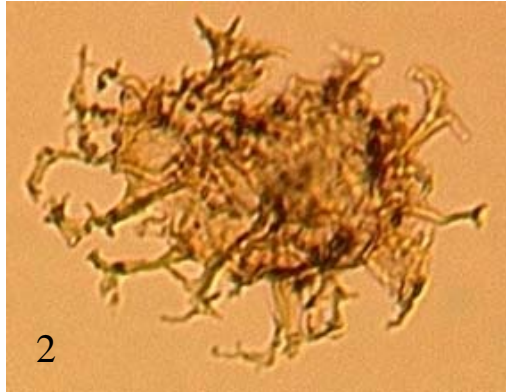
# Plate 7



1. *Calliasphaeridium asymmetricum*,  
2. *Disphaerogena carposphaeropsis*,  
3-8. *Eurydinium* cf. *Ingramii*,  
9&10. *Glaphyrocysta expansa*

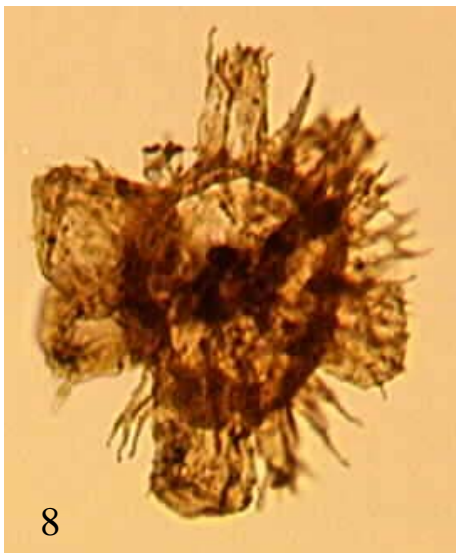
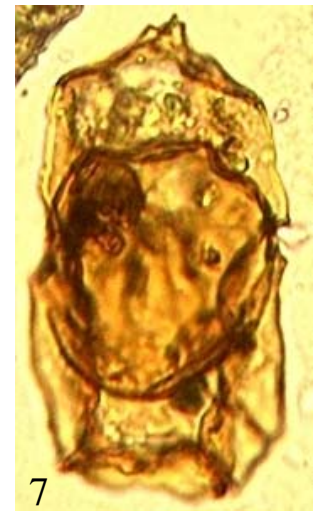
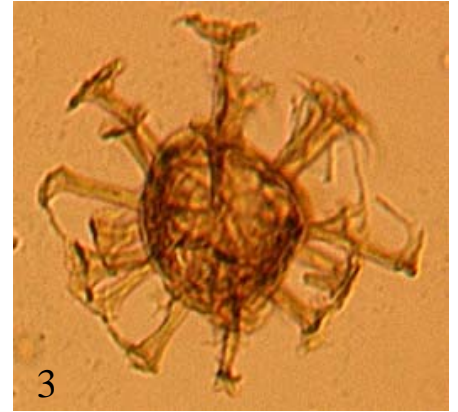
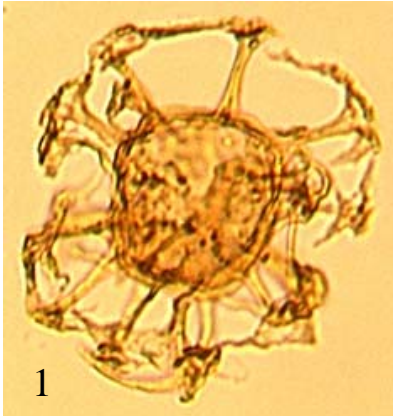


# Plate 8



1-5. *Heterosphaeridium cf. difficile*,  
6. *Heterosphaeridium difficile*/cf. *difficile* transient  
7-9. *Hystrichosphaeridium costatum*

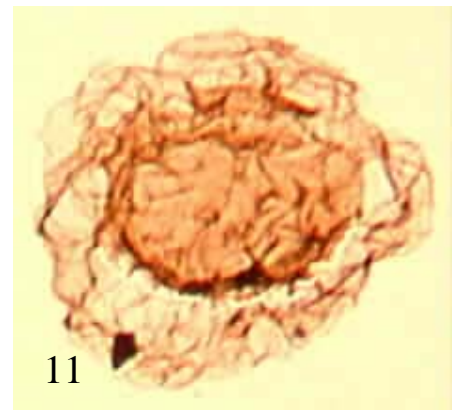
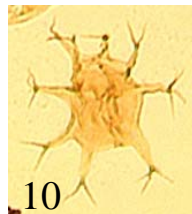
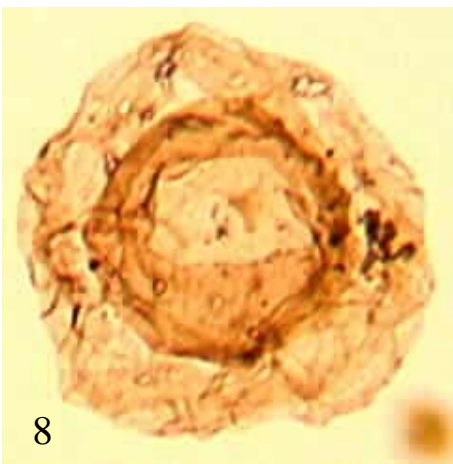
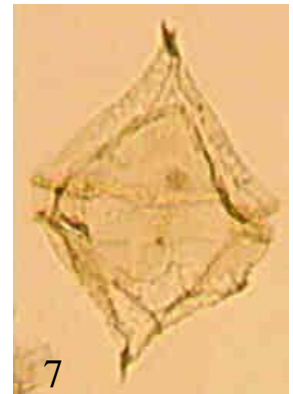
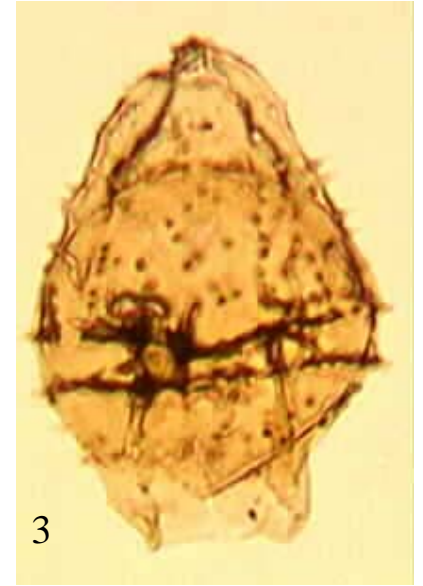
# Plate 9



1-3. *Hystrichosphaeridium* sp. 3 McIntyre 1974,  
4-6. *Hystrichosphaeridiosopsis irisae*,  
7. *Hystrichosphaeropsis quasiscabrata*,  
8. *Florentinia torulosa*  
9&10. *Impagidinium septentrionalis*

BioStrat

# Plate 10



1&2. *Isabelidinium microarmum*

3. *Isabelidinium gallium*

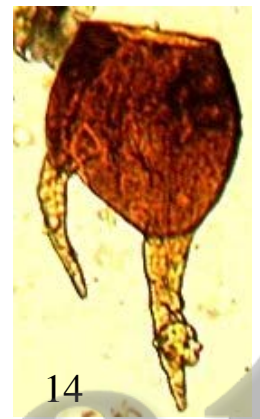
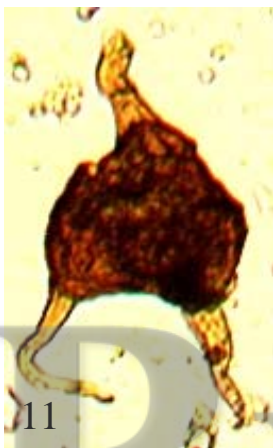
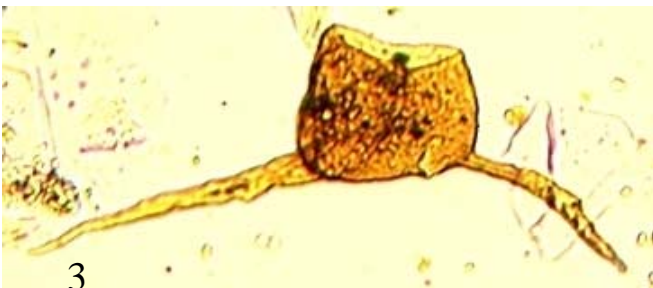
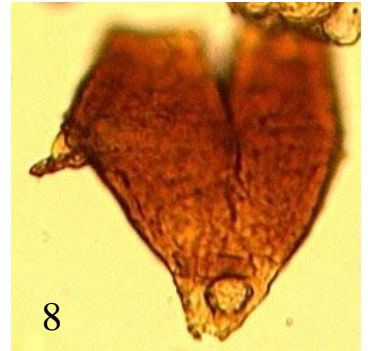
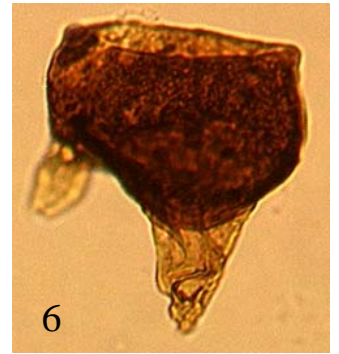
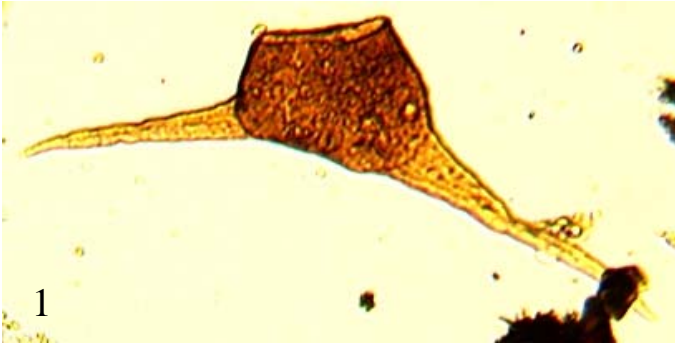
4-7. *Laciniadinium rhombiforme*

8&11. *Membranilarnacia polycladiata*

9&10. *Multiplicisphaeridium* sp. sensu Marheinecke 1986

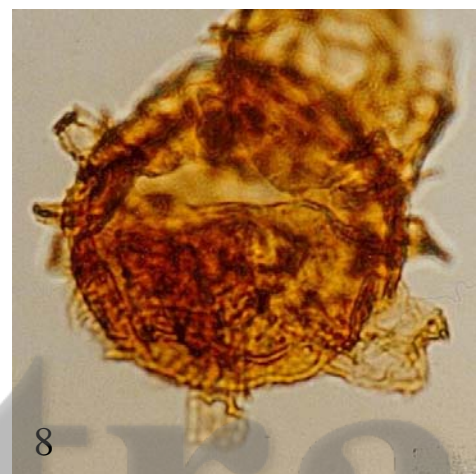
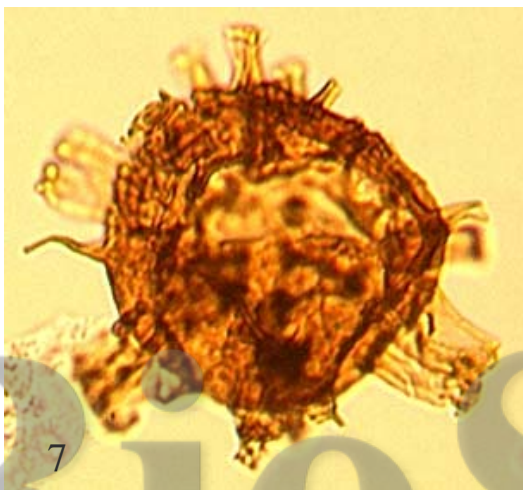
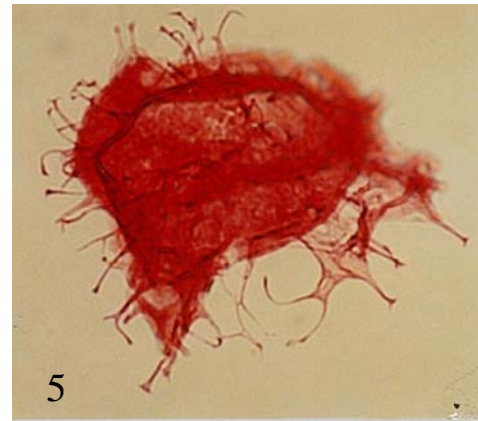
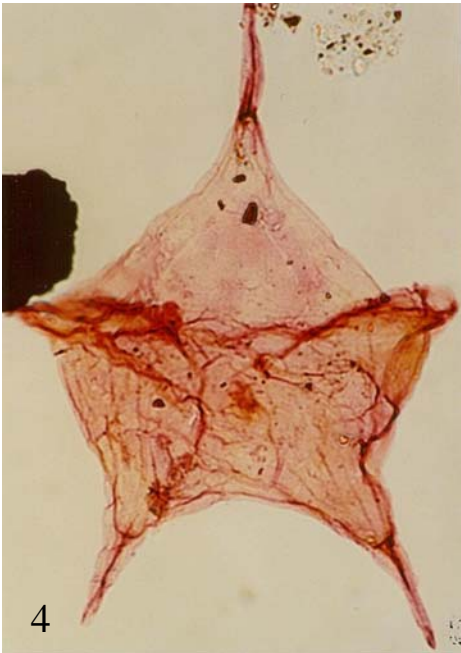
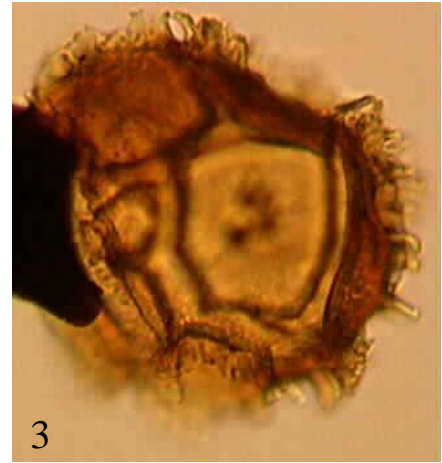
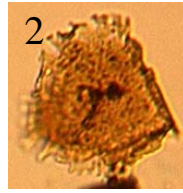
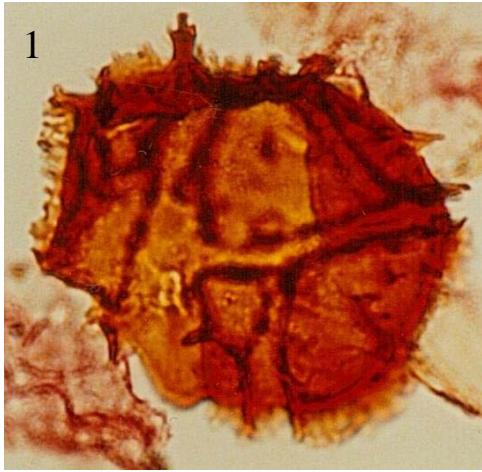
BioStrat

# Plate 11



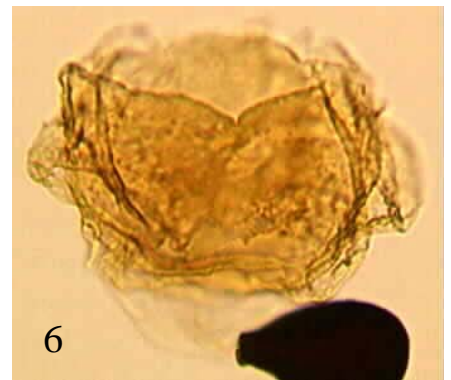
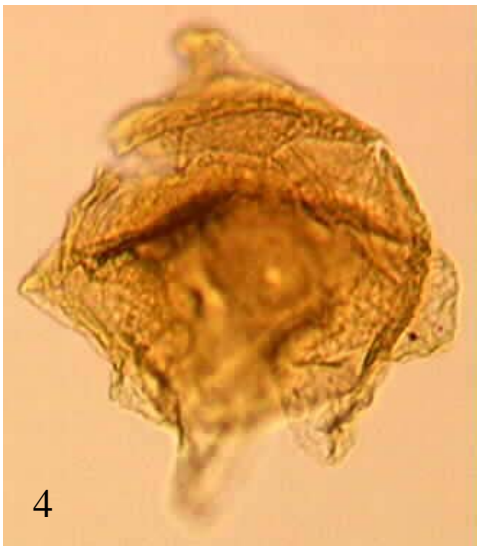
1-4. *Odontochitina diducta*,  
5-8. *Odontochitina molesta*,  
9-14. *Odontochitina "shetlandense"*

# Plate 12



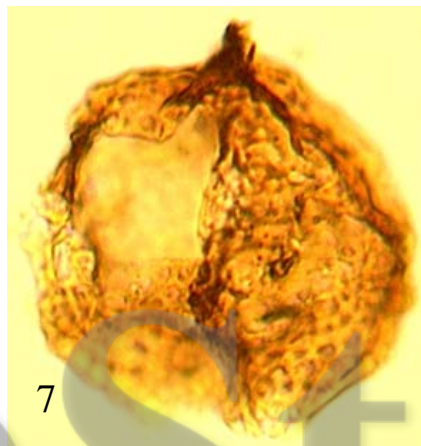
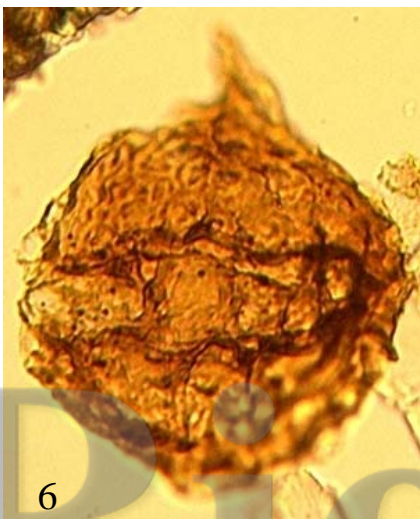
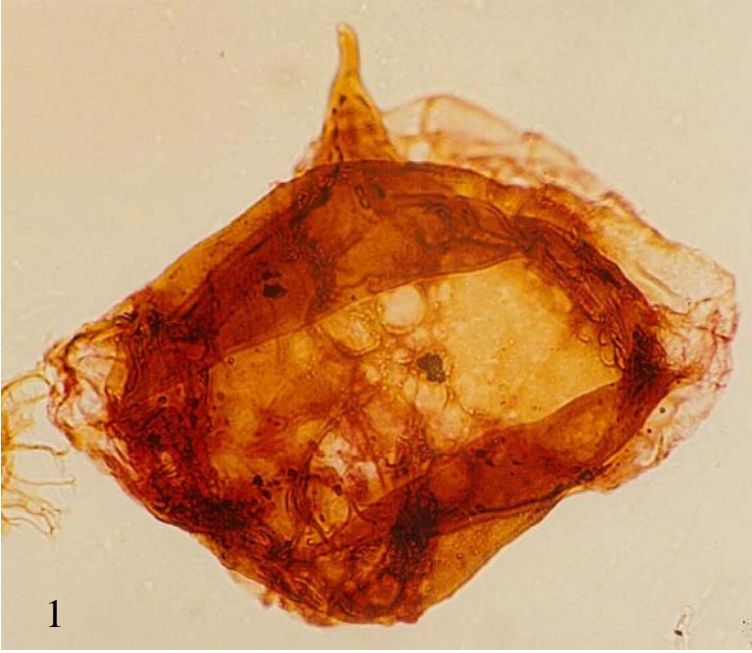
1-3. *Palaeoglenodinium cretaceum*,  
4. *Phelodinium koslowskii*,  
5&6. *Palynodinium grillator*  
7&8. *Rhaetiadinium truncigerum*

# Plate 13



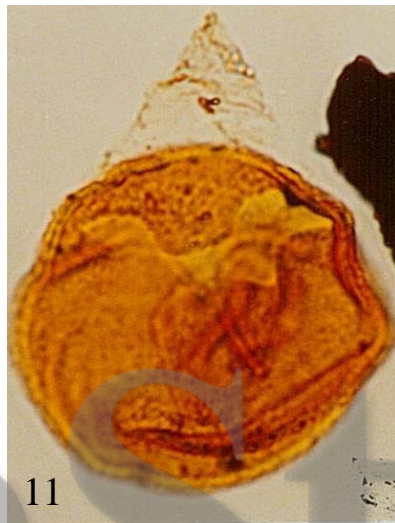
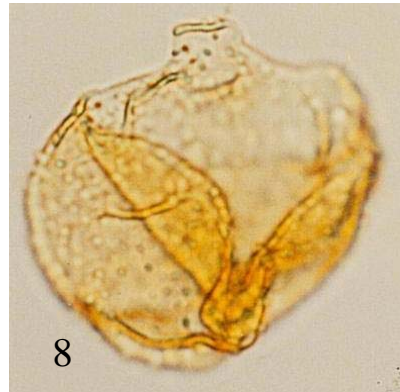
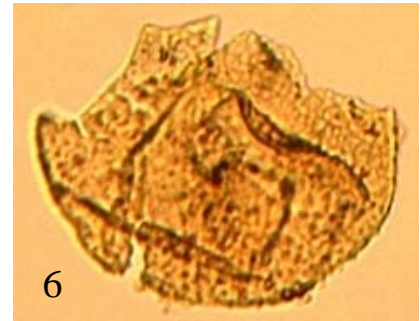
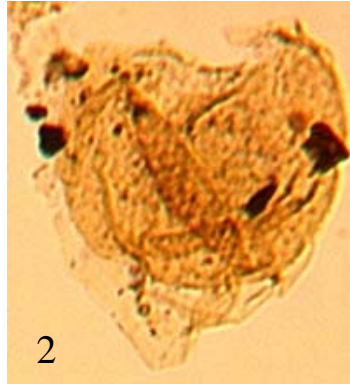
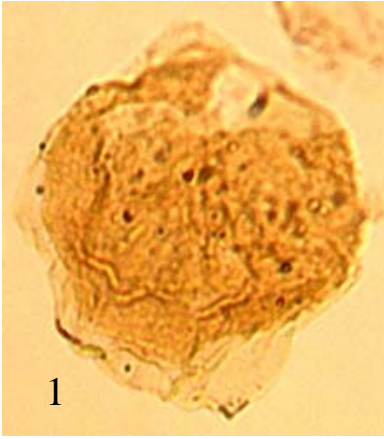
1-7. *Senoniasphaera* "maastrichtia",  
8. *Senoniasphaera inornata*

# Plate 14



1&2. *Spongodinium delitiense*,  
3-7. *Spongodinium "eodelitiense"*  
8. "*Sidridinium*" sp.

# Plate 15



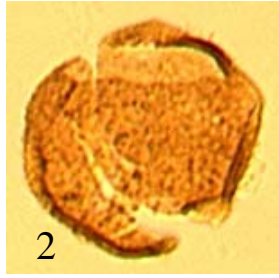
**1-9.** *Trithyrodinium* "granulatum",  
**10-12.** *Trithyrodinium suspectum*



# Plate 16



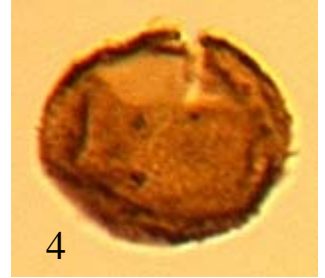
1



2



3



4



5



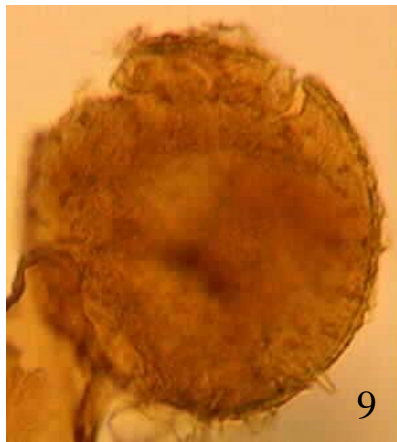
6



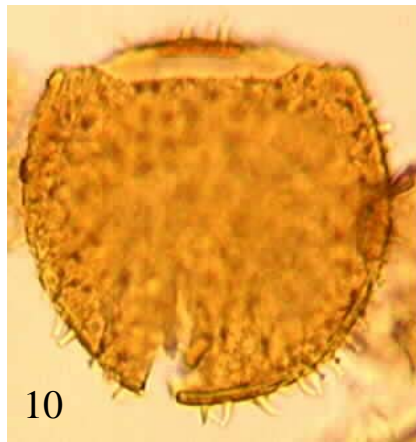
7



8



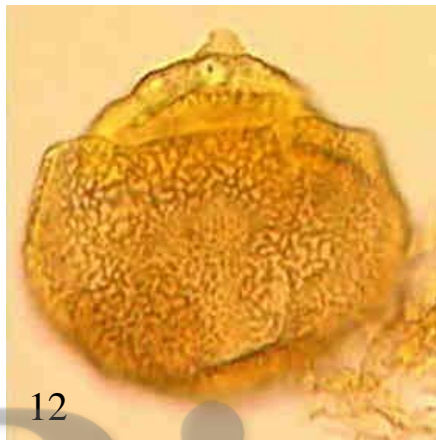
9



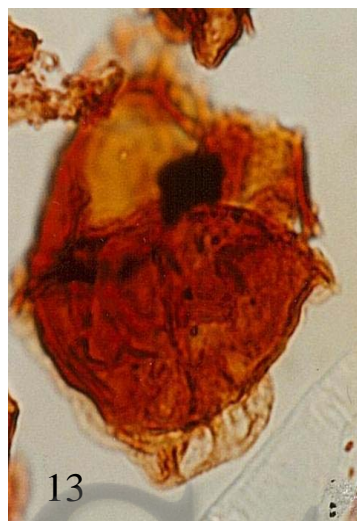
10



11



12



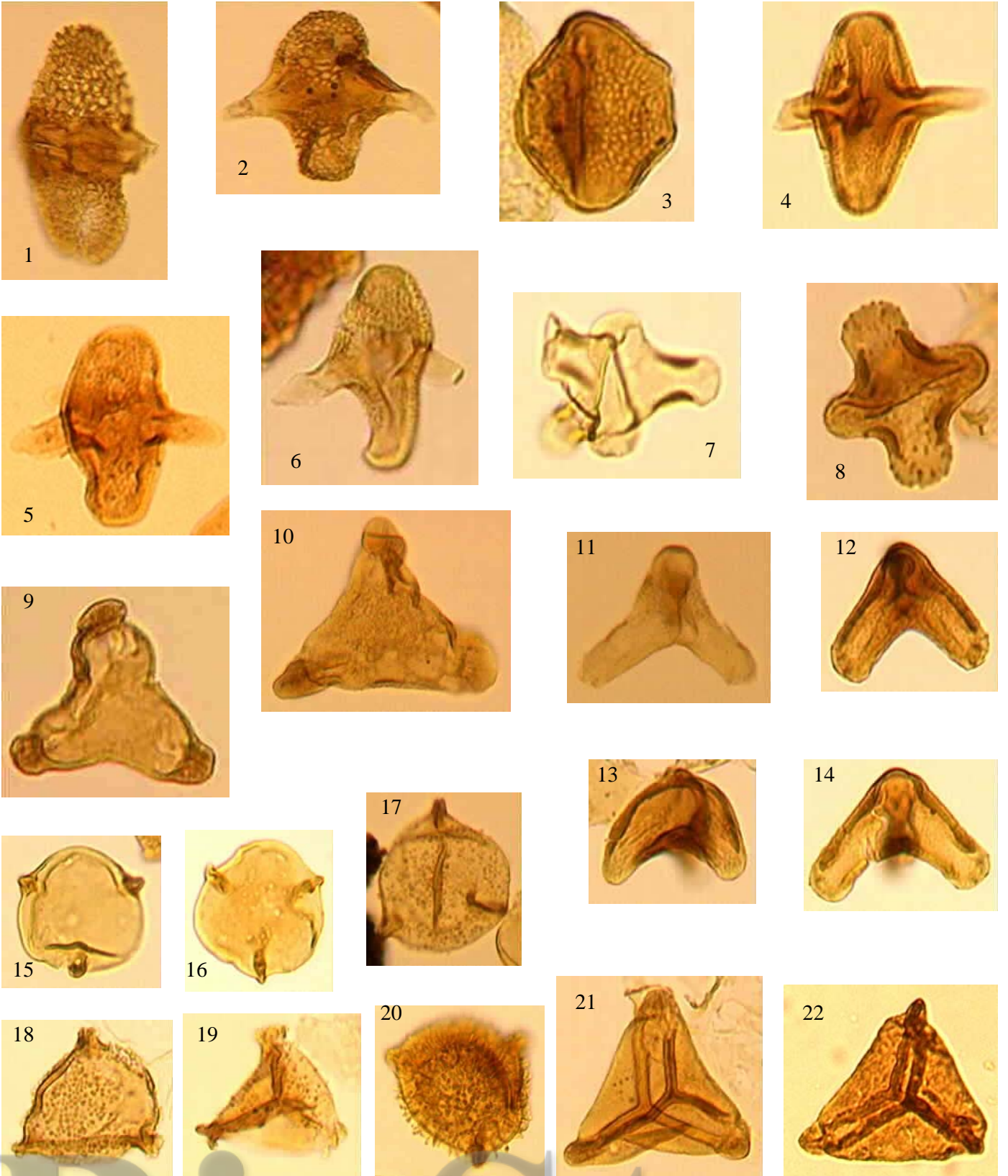
13



14

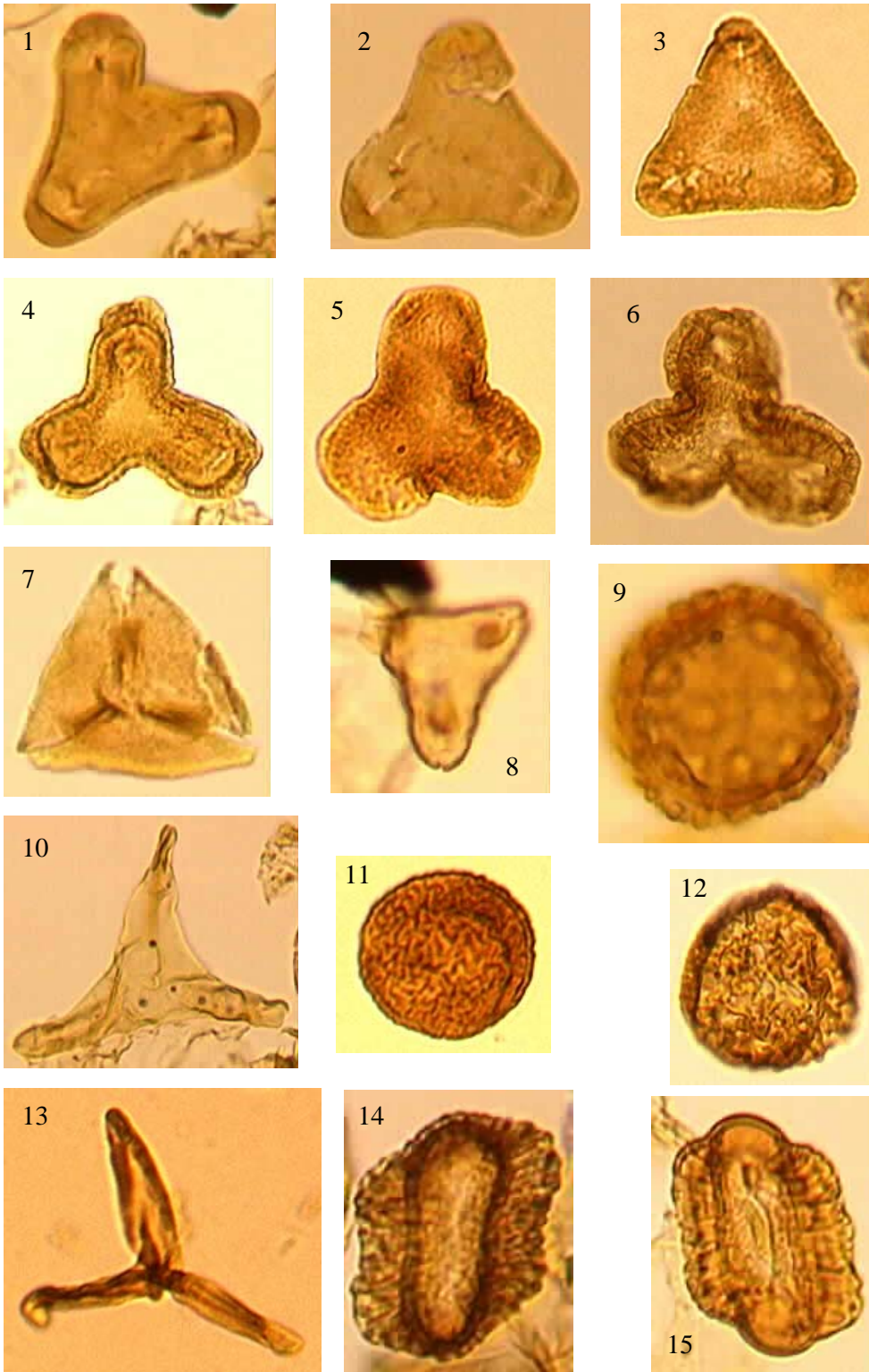
1-8. *Trithyrodinium* "incognitum",  
9&10. *Trithyrodinium* "spinosum",  
11&12. *Trithyrodinium* *vermiculatum*,  
13&14. *Triblastula wilsonii*

# Plate 17



1&2. *Integricarpus* sp. 1 Samoilovitch 1967, 3. *Integricarpus* cf. *venustus*,  
 4-6. *Integricarpus venustus*, 7&8. *Aquillapollenites* spp., 9&10. *Expressipollis sibiricus*,  
 11-14. *Manicarpus trapeziforme*, 15&16. *Orbiculipollis globosus*,  
 17-20. *Orbiculipollis* "granulatus", 21&22. *Expressipollis* sp. 2 McIntyre 1974

# Plate 18



**1&2.** *Loranthacites* spp., **3.** *Loranthacites tri*  
**4.** *Anacolosidites* sp. 1, **5&6.** *Anacolosidites* sp. 2,  
**7&8.** *Fibulapollis triangularis*, **9.** *Erdtmanipollis procumbentiformis*,  
**10&13.** *Fibulapollis* sp. 1, **11&12.** *Camarozonosporites insignis*,  
**14&15.** *Wodehousia* sp.