

PLATE 50

Lepidodiscus laudoni (Bassler), 1936

- 1-7. SUIC 12545 (holotype of *Discocystis priesti* Strimple, 1967).
1. Oral surface, $\times 4$, whitened.
 2. Oral region, $\times 8$, whitened (text fig. 52A).
 3. Proximal part of ambulacrum IV, proximal end at left, $\times 8$, whitened (text fig. 53B).
 4. Proximal part of ambulacrum V, proximal end at top, $\times 8$, whitened (text fig. 52B).
 5. Lower side of specimen showing exterior of plates of transition zone, plates of proximal part of pedunculate zone, and centrally, an impression of the brachiopod on which specimen rested, $\times 4$, whitened.
 6. Lower side of specimen showing exterior of plates of transition zone, exterior of proximal plates of pedunculate zone, basal surfaces of plates of peripheral rim, centrally the inner side of a few plates of the upper oral surface, $\times 4$, in xylene.
 7. Center of lower side of specimen, showing basal surfaces of plates of peripheral rim, including proximal ends of basal ridges on most proximal circlet, surrounded by exteriors of plates of pedunculate zone; the inner side of a few plates of the upper oral surface are seen in the center, $\times 8$, in xylene (text fig. 54B).
- 8-12. SUIC 12546 (paratype of *Discocystis priesti* Strimple, 1967).
8. Oral surface, $\times 4$, whitened.
 9. Distal end of ambulacrum I, $\times 8$, whitened (text fig. 53A).
 10. Lower side of specimen, showing exterior side of plates of transition zone, parts of pedunculate zone, and peripheral rim; centrally the inner side of the upper oral surface is exposed and includes the central oral frame and some of the ambulacral floorplates and interambulacrals, $\times 4$, whitened.
 11. Center of lower side of specimen, $\times 8$, whitened.
 12. Center of lower side of specimen, $\times 8$, in xylene (text fig. 54A).

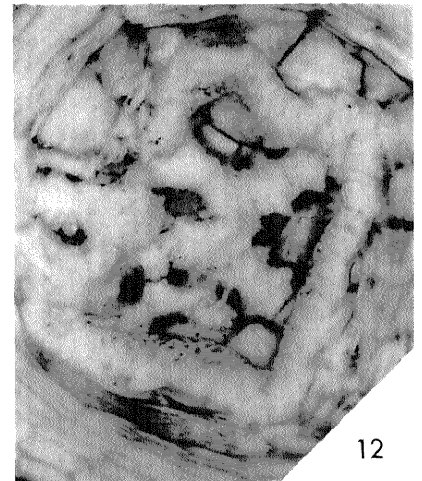
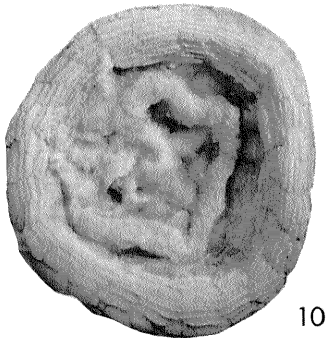
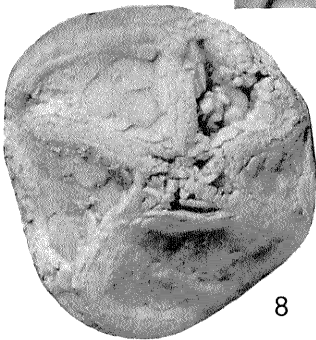
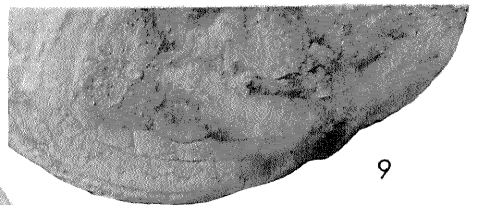
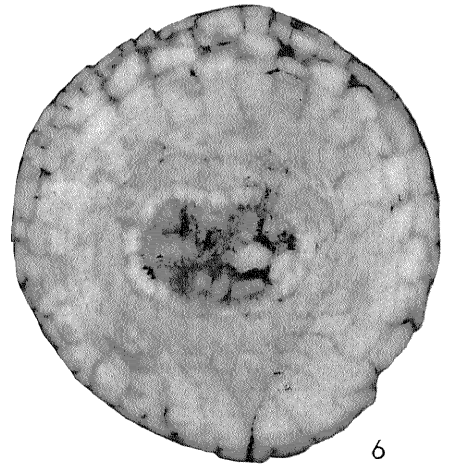
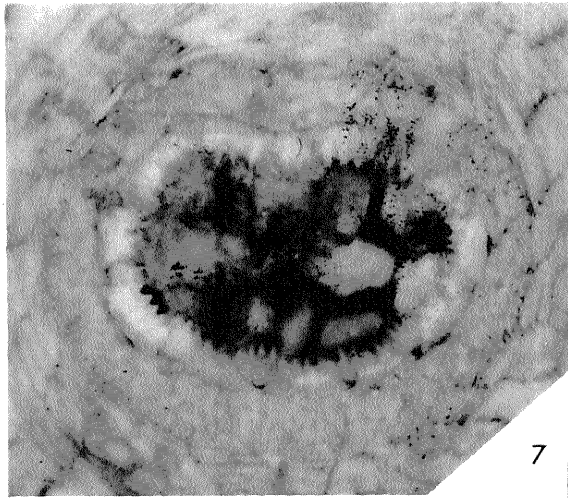
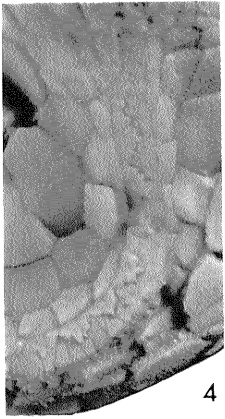
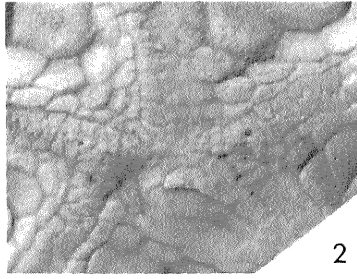
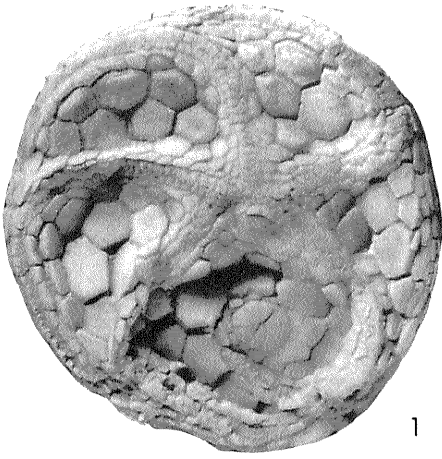


PLATE 51

Lepidodiscus laudoni (Bassler), 1936. Fig. 1-10.

1-4. UIPC Z6-B.

1. Oral surface, $\times 2$, whitened.
2. Oral region, $\times 6$, whitened.
3. Lower side of specimen; the exterior of the upper part of the pedunculate zone surrounds a large central area in which the inner side of the upper oral surface is seen and includes the oral frame, floorplates of the proximal parts of the ambulacra, interambulacrals, and the anal structure, $\times 2$, whitened.
4. Lower side of specimen, as viewed in figure 3, $\times 2$, in xylene.

5-8. NYSM 12778, a fragmentary specimen which includes parts of two ambulacra and adjacent interambulacrals; coverplates are missing along most of the length of the larger ambulacral segment.

5. Oral surface, $\times 2.5$, whitened.
6. Upper sides of ambulacral floorplates, $\times 5$, whitened.
7. Oral surface, $\times 3$, in xylene.
8. Upper sides of ambulacral floorplates, $\times 5$, in xylene.

9-10. IUPC 10837-19.

9. Lateral view of compressed clavate theca, ambulacrum V toward viewer, $\times 2$, whitened.
10. Lateral view of compressed clavate theca, ambulacrum II toward viewer, $\times 2$, in xylene.

Lepidodiscus sampsoni (Miller), 1891. Fig. 11-13.

11. USNM S-3888-A, oral surface, $\times 1.5$, whitened.
12. USNM S-3888-D, oral surface, $\times 2$, whitened.
13. USNM S-3888-B, "upper" side of obliquely compressed specimen showing ambulacra I-III and adjacent areas, $\times 1.5$, whitened.

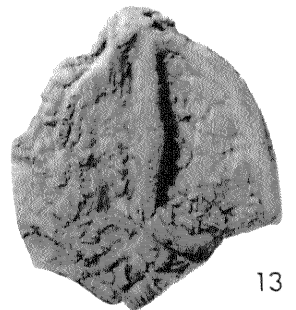
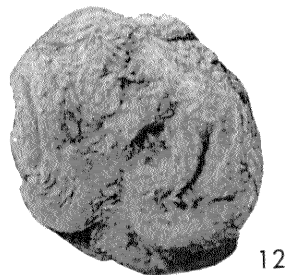
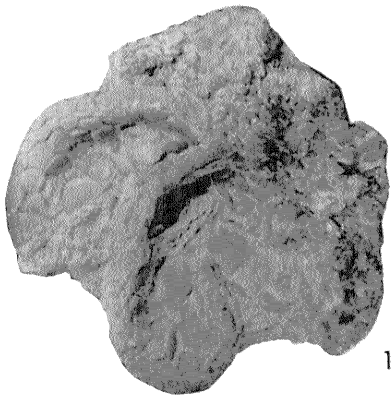
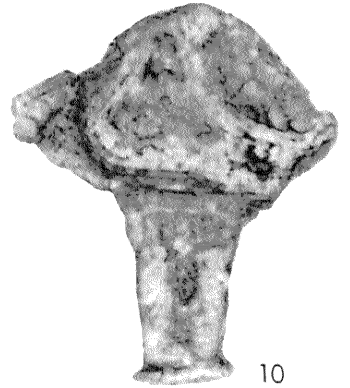
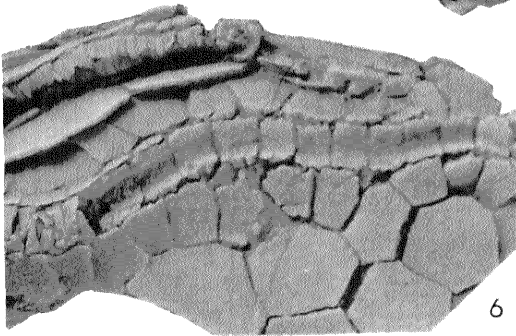
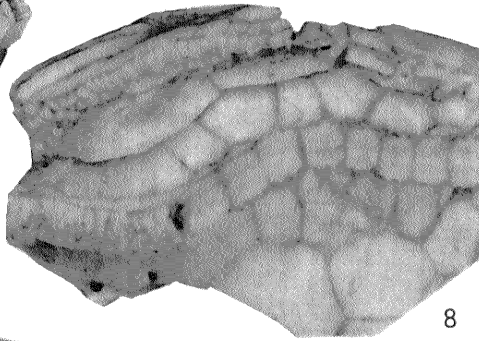
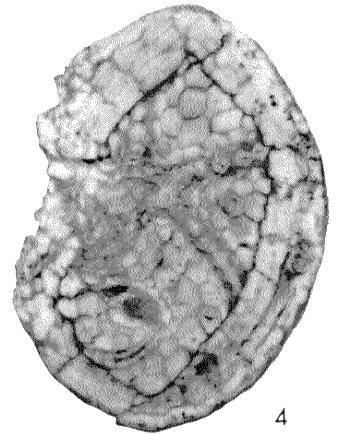
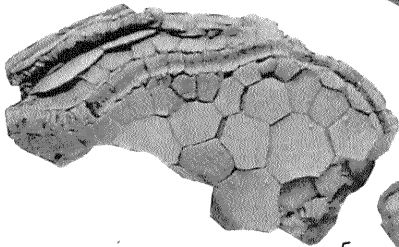
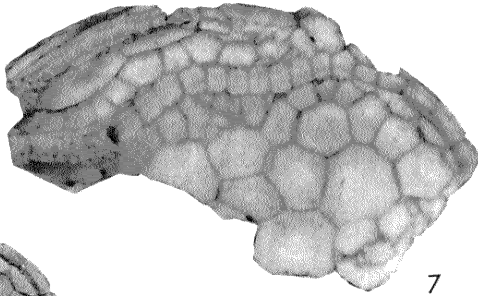
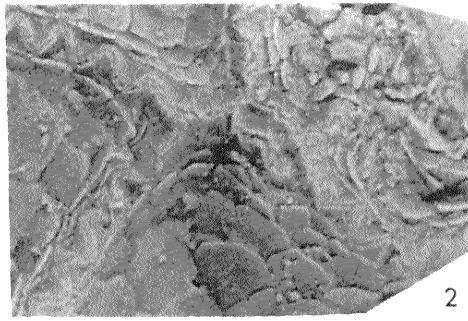


PLATE 52

Lepidodiscus sampsoni (Miller), 1891

- 1-6. CFMUC 7000, holotype.
 1. Oral surface, $\times 2$, whitened.
 2. Oral region, $\times 8$, whitened (text fig. 55B).
 3. Proximal part of ambulacrum IV, proximal end at left, $\times 8$, whitened.
 4. Proximal part of ambulacrum V, proximal end at left, $\times 8$, whitened (text fig. 55A).
 5. Anal area, $\times 8$, whitened.
 6. Oral surface, $\times 1$, in xylene.
7. USNM S-3888-C, oral surface, $\times 2.5$, whitened.
8. USNM S-3888-F, oral surface, $\times 2.5$, whitened.
- 9-10. USNM S-3888-G, a section of one ambulacrum and a few adjacent interambulacrals.
 9. Inner side of oral surface, exposing seven floorplates, $\times 4$, whitened.
 10. Inner side of oral surface, exposing seven floorplates, $\times 4$, in xylene.
11. USNM S-3888-H, inner side of oral surface of a small section of one ambulacrum, showing four floorplates, $\times 3$, in xylene.

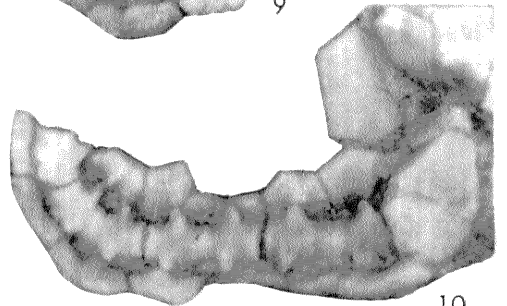
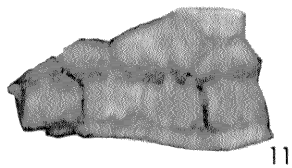
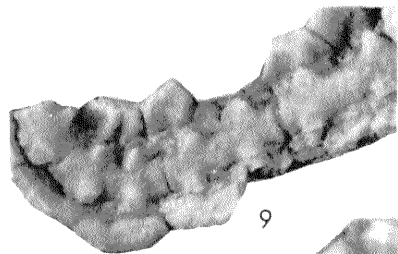
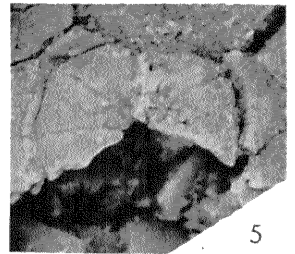
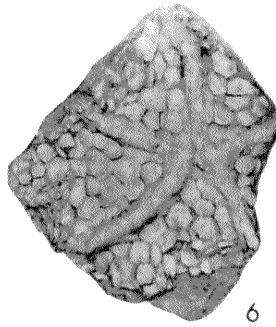
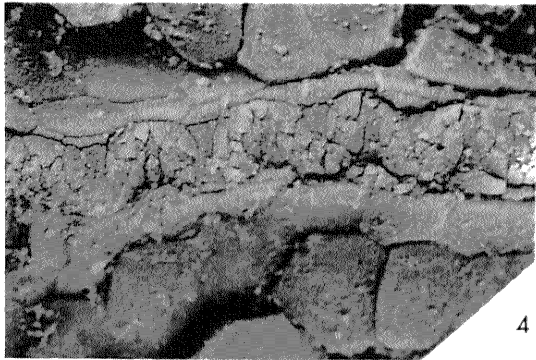
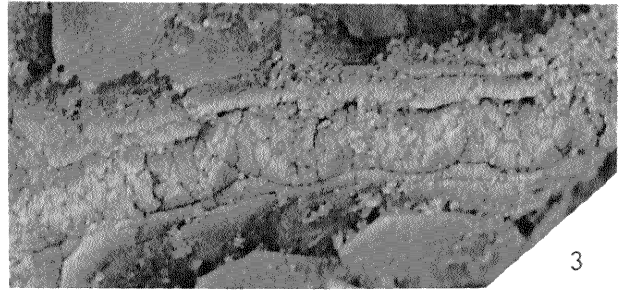


PLATE 53

Ulrichidiscus pulaskiensis (Miller and Gurley), 1894

1-7. CFMUC 6419, holotype.

1. Oral surface, $\times 2$, whitened.
2. Lower side of specimen, showing part of broken pedunculate zone and a small section of peripheral rim, $\times 2$, whitened.
3. A nearly complete length of pedunculate zone with a segment of peripheral rim at the base, $\times 4$, whitened (text fig. 56C).
4. Oral surface, $\times 3$, in xylene.
5. Oral region, $\times 5$, in xylene (text fig. 56A).
6. Oblique view of proximal part of ambulacrum V, proximal end at top, $\times 15$, in xylene (text fig. 58B).
7. Anal area, $\times 6$, in xylene (text fig. 56B).

8-13. USNM S-3193-A.

8. Oral surface, $\times 2$, whitened.
9. Oral surface, $\times 2$, in xylene.
10. Lower side of specimen which preserves disrupted thecal plates, $\times 1.5$, whitened.
11. Oral region, $\times 5$, whitened.
12. Oral region, $\times 5$, in xylene (text fig. 57).
13. Medial section of ambulacrum III, proximal end at right, $\times 10$, in xylene.

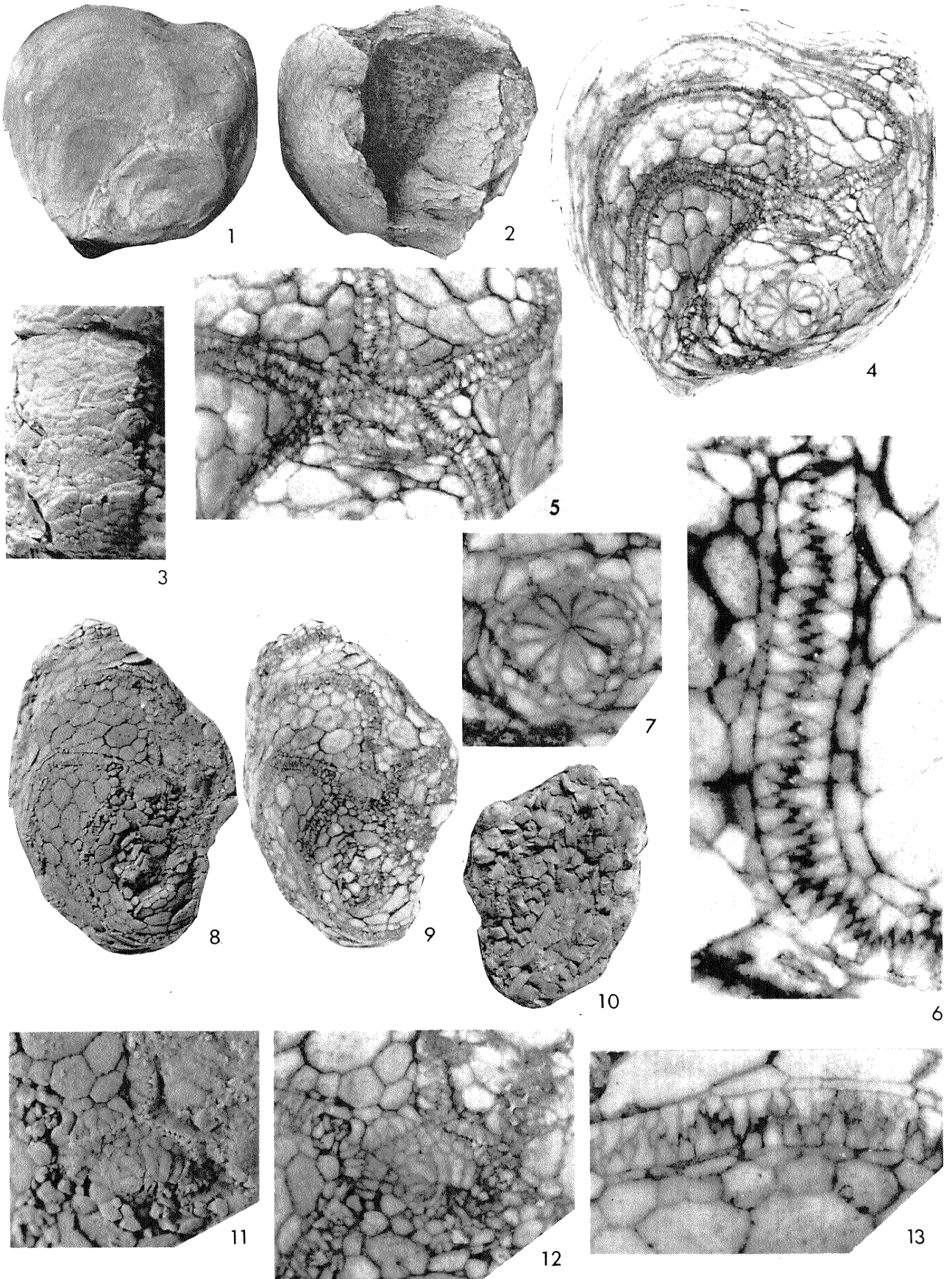


PLATE 54

Ulrichidiscus pulaskiensis (Miller and Gurley), 1894.

Fig. 1-7.

1-6. USNM S-3193-B.

1. Oral surface, $\times 2$, whitened.
 2. Oral surface, $\times 2$, in xylene.
 3. Distal end of ambulacrum I, $\times 10$, in xylene.
 4. Proximal segment of ambulacrum I, proximal end at left, $\times 10$, whitened.
 5. Medial segment of ambulacrum I, proximal end at left, $\times 10$, whitened.
 6. Distal end of ambulacrum I, $\times 10$, whitened.
7. USNM S-3193-C, lateral view of margin of theca and upper part of coral on which specimen rests, $\times 2$, whitened.

Cooperidiscus alleganius (Clarke), 1901. Fig. 8-11.

8-11. NYSM 4962, lectotype.

8. Oral surface, $\times 2$, whitened natural mold.
9. Oral surface, $\times 2$, whitened latex pull.
10. Anal area, $\times 6$, whitened latex pull (text fig. 59B).
11. Medial section of ambulacrum IV, proximal end at left, $\times 6$, whitened latex pull (text fig. 59A).

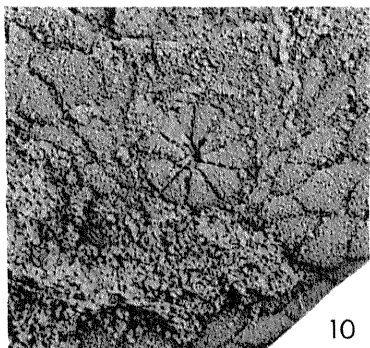
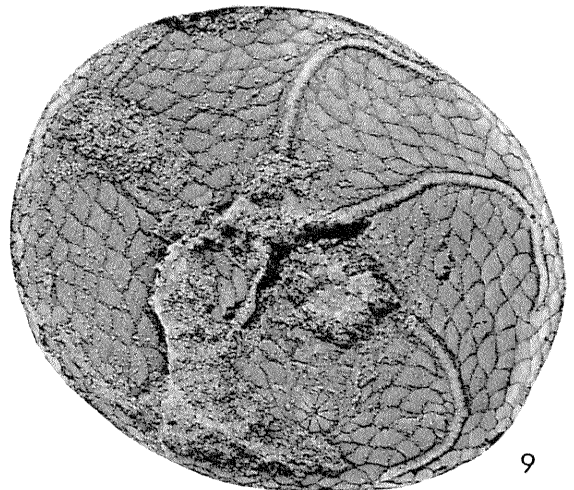
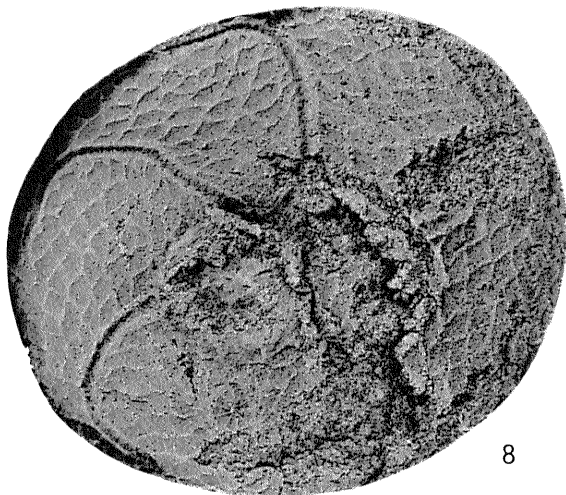
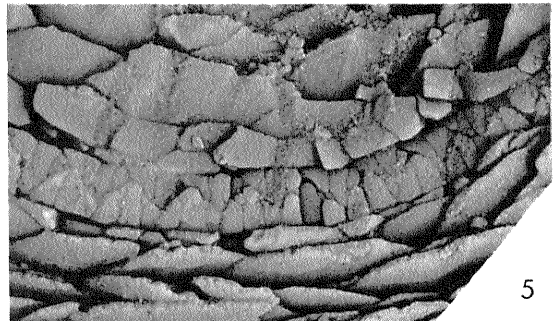
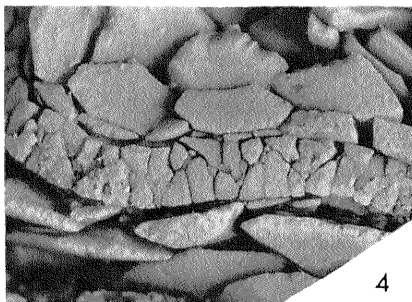
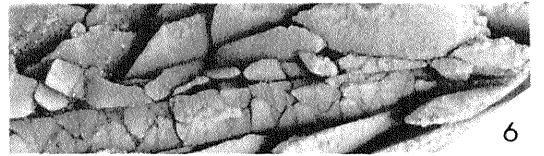
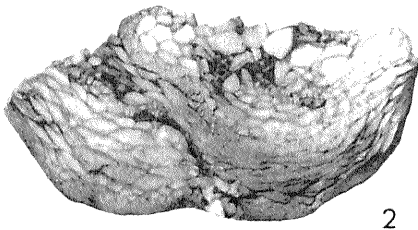
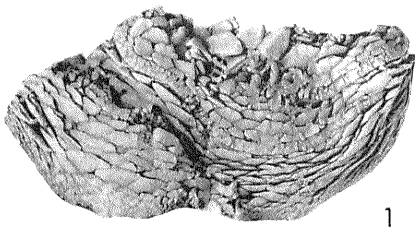


PLATE 55

Cooperidiscus alleganius (Clarke), 1901. Fig. 1-6.

- 1-2. NYSM 4959, lectoparatype.
 1. Oral surface, $\times 2$, whitened latex pull.
 2. Anal structure and adjacent areas, $\times 3$, whitened latex pull.
- 3-4. USNM 34131-A, lectoparatype.
 3. Oral surface, $\times 1.5$, whitened latex pull (text fig. 59C).
 4. Oral region, $\times 3$, whitened latex pull.
- 5-6. USNM 34131-B.
 5. Oral surface, $\times 1$, whitened latex pull.
 6. Oral region, $\times 3$, whitened latex pull.

Hemicystites carbonarius Bassler, 1936. Fig. 7-10.

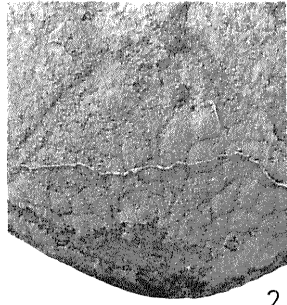
7. USNM 91837-A, slab with two specimens of type series, $\times 1$, whitened.
8. USNM 91837-A-1, syntype, $\times 4$, whitened.
9. USNM 91837-B, slab with six specimens of type series, $\times 1$, whitened.
10. USNM 91837-B-6, juvenile(?), syntype, $\times 10$, whitened.

Agelacrinites hanoveri Thomas, 1924. Fig. 11-15.

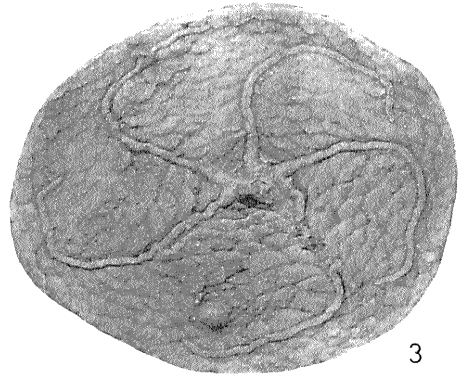
11. SUIC 35162, juvenile, $\times 10$, whitened (text fig. 61B).
12. SUIC 35164, juvenile, $\times 10$, whitened (text fig. 61E).
13. SUIC 1906, juvenile, $\times 10$, whitened (text fig. 61C).
14. SUIC 35163, juvenile, $\times 10$, whitened (text fig. 61D).
15. SUIC 36913, juvenile on left partially overgrown by an advanced juvenile with six ambulacra, $\times 10$, whitened.



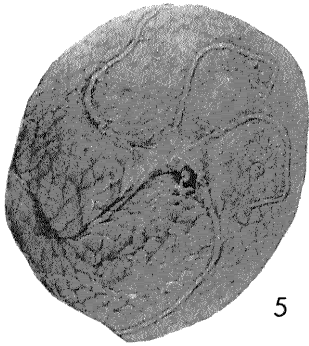
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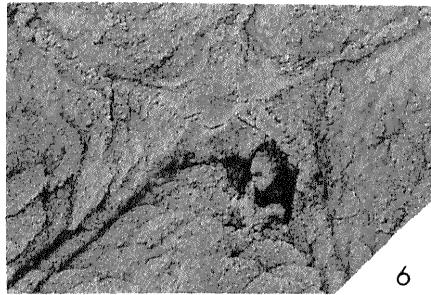
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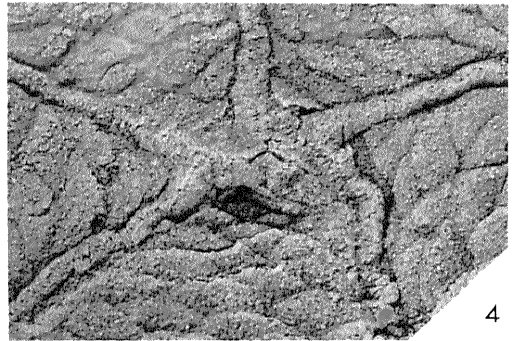
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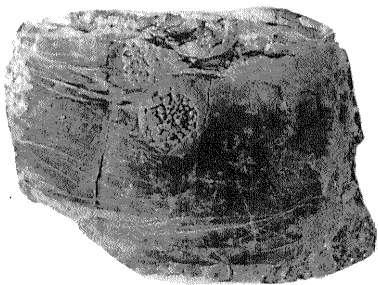
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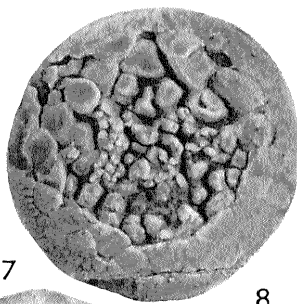
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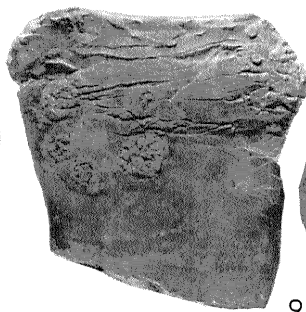
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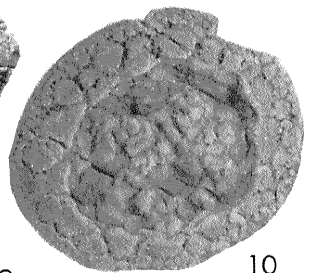
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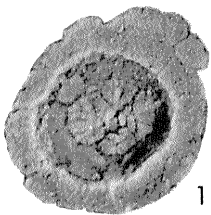
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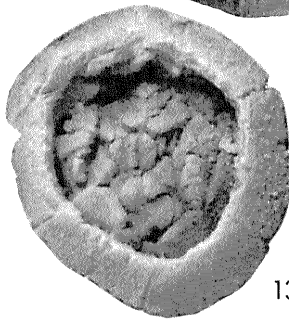
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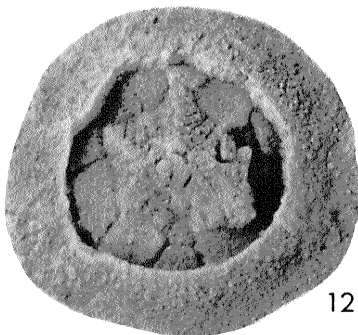
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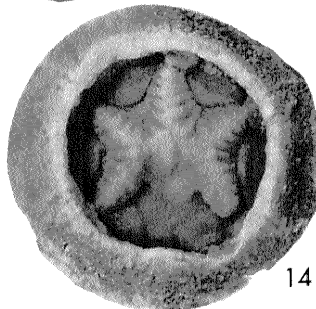
11



13



12



14



15

PLATE 56

Genus and Species Indeterminate

1-8. UCLA 48166.

1. Oral surface, $\times 2$, whitened.
2. Oral surface, $\times 2$, in xylene.
3. Lower side of specimen showing plates of transition zone and a few plates of pedunculate zone that lie along upper edge of specimen, $\times 2$, whitened.
4. Coverplates preserved near left end of central ambulacral segment, proximal end at left, $\times 10$, whitened.
5. Oral surface view of floorplates along left end of outer ambulacral segment, proximal end at left, $\times 10$, whitened.
6. Oral surface view of floorplates along left end of outer ambulacral segment, proximal end at left, $\times 8$, in xylene.
7. Oblique view of proximal end of outer ambulacral segment, showing a cross section of a floorplate and adjacent interambulacrals; transition zone plates have been pressed against inner sides of upper oral surface plates, $\times 5$, in xylene.
8. Right end of middle ambulacral segment with a few coverplates on left; upper sides of floorplates exposed along rest of segment, proximal end at left, $\times 7$, whitened.

9-11. UCLA 48167.

9. Oral surface, $\times 3$, whitened.
10. Oral surface, $\times 3$, in xylene.
11. Lower side of specimen which preserves some of the plates of transition zone, $\times 3$, whitened.

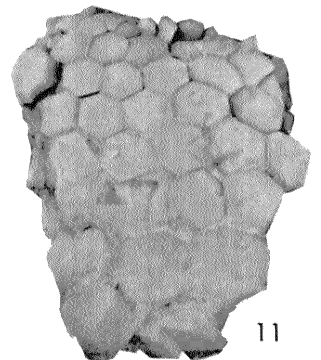
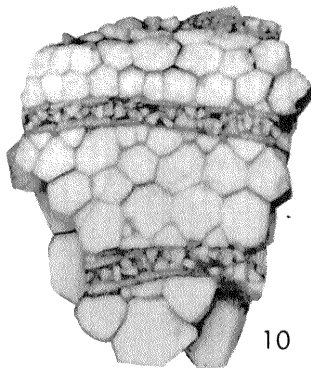
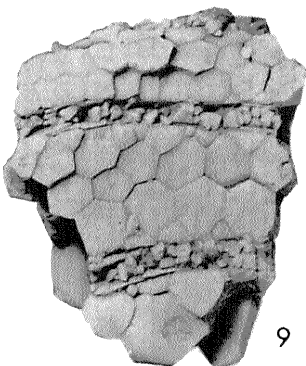
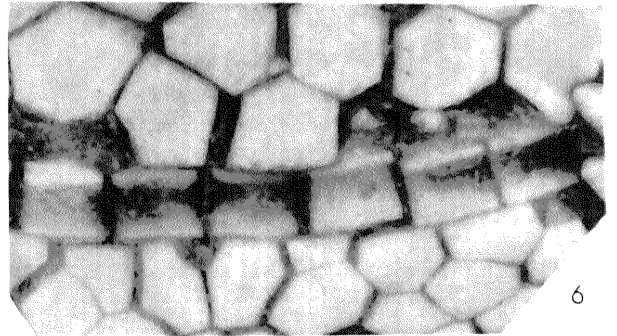
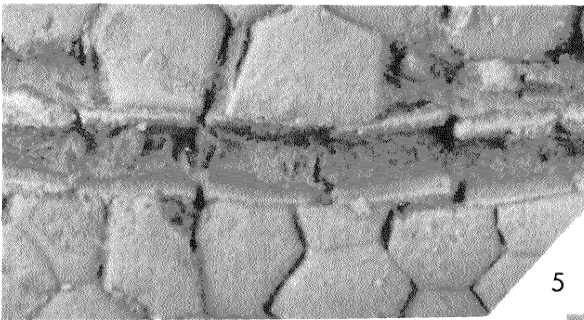
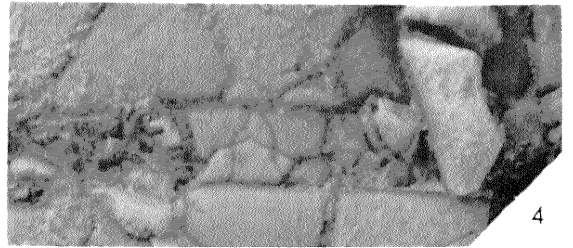
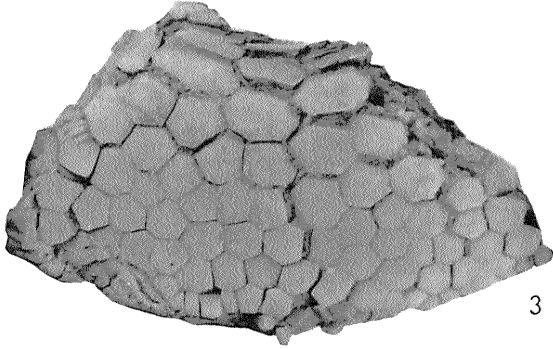
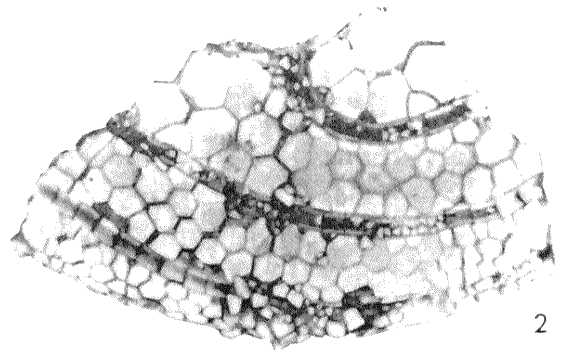


PLATE 57

Hadrochthus commensalus Bell, *gen. et sp. nov.*

- 1-3. SUIC 80002, holotype.
1. Oral surface, $\times 4$, whitened (text fig. 60B).
 2. Lower side of specimen with disrupted plates from upper oral surface; these include interambulacrals with nodes and one floorplate, $\times 4$, whitened.
 3. Oral region, $\times 8$, whitened.
- 4-7. SUIC 80003, paratype (1).
4. Oral surface, $\times 4$, whitened, (text fig. 60A).
 5. Oblique view of oral surface with posterior interambulacrum toward viewer, $\times 4$, whitened.
 6. Anal region, $\times 6$, in xylene.
 7. Oral region, $\times 7$, whitened.
- 8-10. SUIC 32293, paratype (2).
8. Theca in place on cystoid, $\times 2$, whitened.
 9. Oral surface, $\times 5$, whitened.
 10. Lateral view of theca showing rim on cystoid, $\times 5$, whitened.
- 11-12. SUIC 32299, paratype (3).
11. Theca in place on cystoid, $\times 1$, whitened.
 12. Oral surface, $\times 8$, whitened.

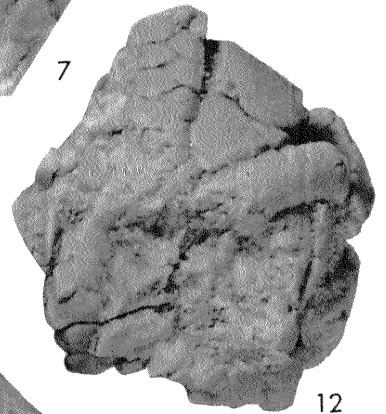
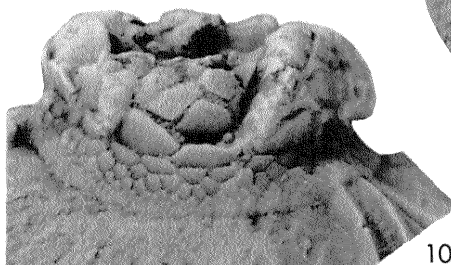
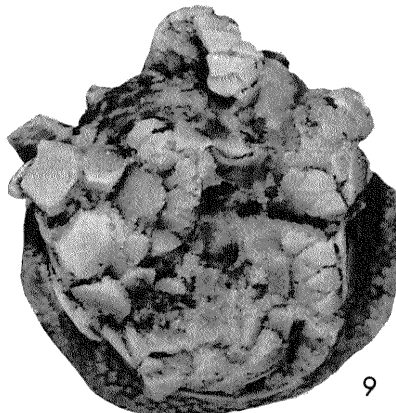
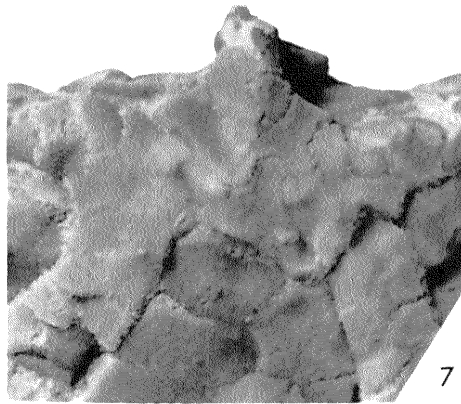
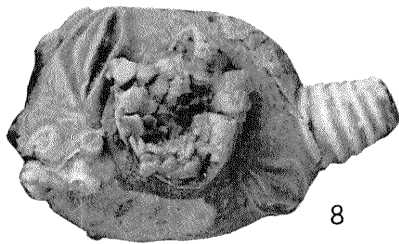
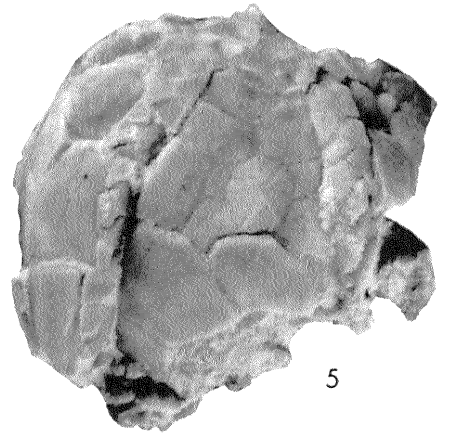
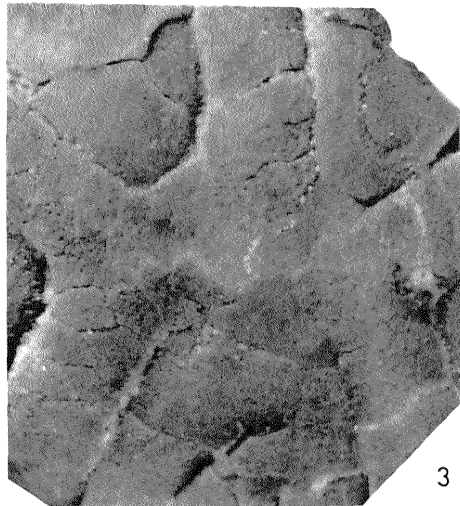
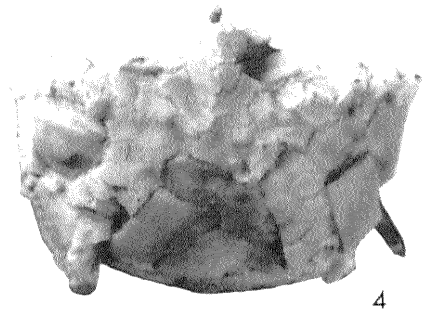
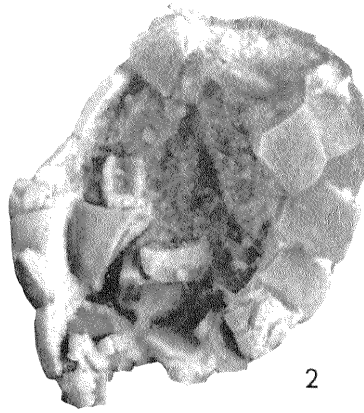


PLATE 58

Edrioaster bigsbyi (Billings), 1857

- 1-6. GSC 1407, right half of theca, GSC 1407-A, left half of theca, lectotype, all ambulacral coverplates missing.
 1. Oral surface, $\times 1.5$, whitened.
 2. Oral surface of GSC 1407-A, $\times 2$, in xylene.
 3. Oral surface of GSC 1407, $\times 2$, in xylene.
 4. Axial section view of GSC 1407, with ambulacrum III at the left, $\times 2$, in xylene (text fig. 62A).
 5. Axial section view of GSC 1407-A with ambulacrum III at the right, $\times 2$, in xylene (text fig. 62B).
 6. Lateral cross section view of GSC 1407-A with ambulacrum II toward viewer, $\times 2$, in xylene (text fig. 63A).
- 7-13. GSC 1407-E, right half, GSC 1407-F, left half, lectoparatype, ambulacral coverplates missing.
 7. Oral surface, $\times 2$, whitened.
 8. Oblique view of GSC 1407-F, which shows upper side of floorplates and a polished lateral margin, $\times 3$, whitened.
 9. Oblique view of GSC 1407-F which shows upper side of floorplates and a polished lateral margin, $\times 4$, in xylene.
 10. View of GSC 1407-F normal to upper side of floorplates, $\times 3$, in xylene.
 11. Upper side of floorplates of GSC 1407-E, $\times 4$, in xylene.
 12. Oblique view of upper side of the floorplates of proximal end of GSC 1407-E, $\times 5$, whitened (text fig. 63B).
 13. Oblique view of upper side of the floorplates of distal end of GSC 1407-E, $\times 5$, whitened.

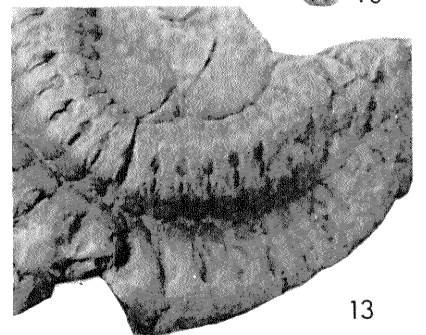
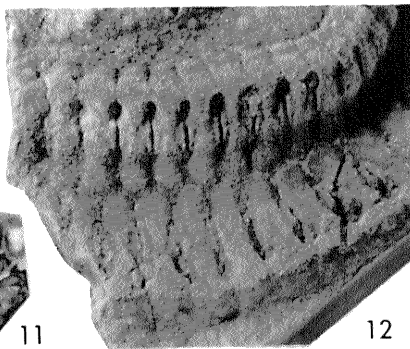
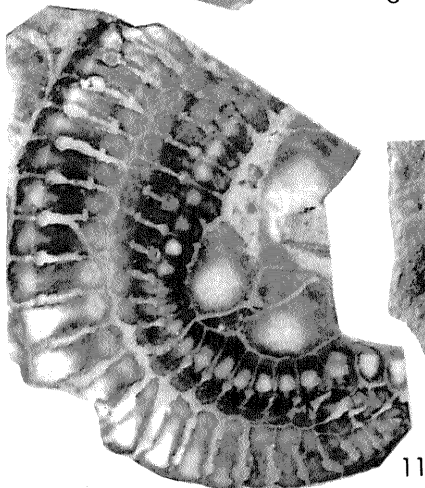
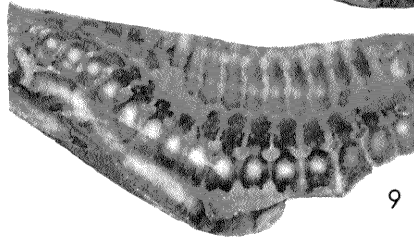
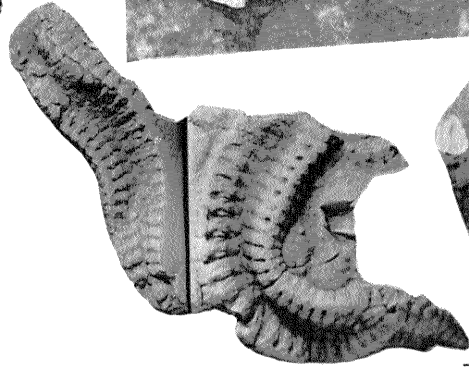
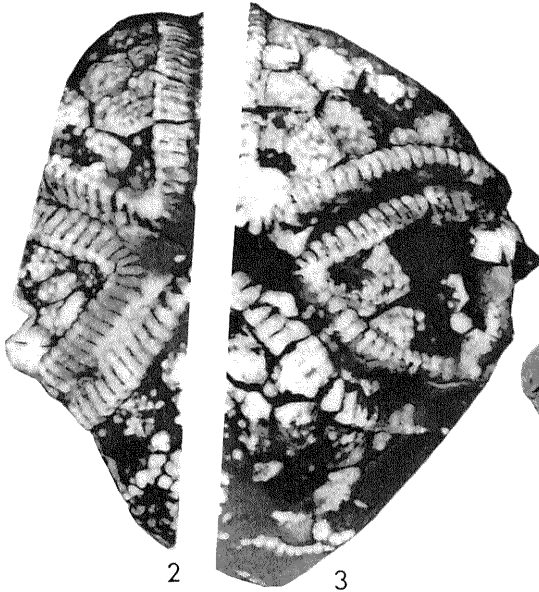
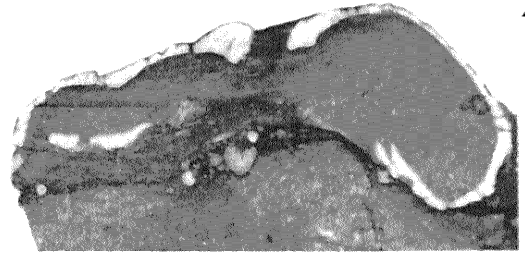
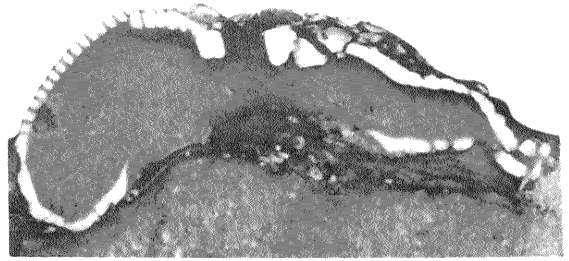
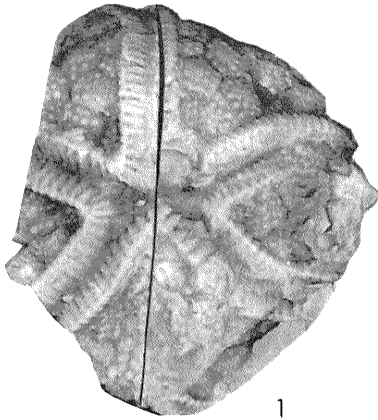


PLATE 59

Edrioaster bigsbyi (Billings), 1857

- 1-5. GSC 1407-C.
 1. Oral surface, $\times 1$, whitened.
 2. Lower side of oral surface, $\times 1$, whitened.
 3. Oral surface, $\times 2$, in xylene.
 4. Lower side of oral surface, $\times 1.5$, in xylene.
 5. Oral region, $\times 3$, in xylene.
6. UMMP 10347, oral surface, $\times 1.3$, whitened.
- 7-12. GSC 1407-G.
 7. Oral surface, $\times 1$, whitened.
 8. Lower side of oral surface, $\times 1$, whitened.
 9. Oral surface, $\times 1.5$, in xylene.
 10. Lower side of oral surface, $\times 1.5$, in xylene.
 11. Platelets of a segment of distal membrane, near center of lower side of specimen, $\times 5$, whitened.
 12. Platelets of a segment of distal membrane near center of lower side of specimen, $\times 5$, whitened.
- 13-14. GSC 1407-H, upper oral surface compressed laterally.
 13. One side of oral surface which includes ambulacra II, III, and IV, oral area at bottom center, $\times 1.5$, whitened.
 14. Opposite side of upper oral surface which includes ambulacra I, V, and parts of II and IV, oral area at top center, $\times 1.5$, whitened.
- 15-17. GSC 1407-D.
 15. Oral surface, $\times 1$, in xylene.
 16. Ambulacrum III, proximal end at left, $\times 3$, whitened.
 17. Oral area with oblique lighting to show prosopon; ambulacrum III directed toward lower right corner, $\times 2$, whitened.

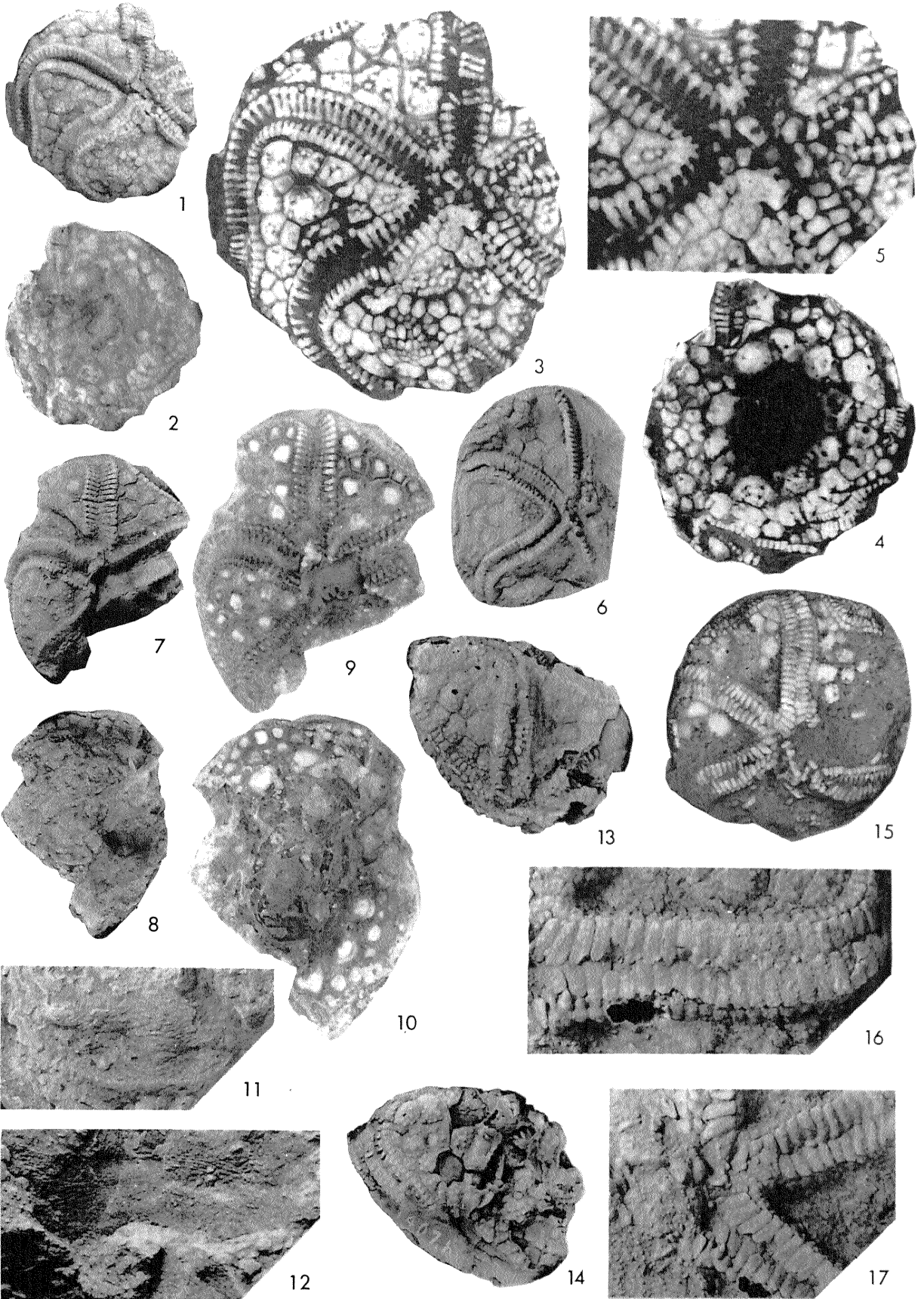


PLATE 60

Edrioaster priscus (Miller and Gurley), 1894. Fig. 1-6.

1-3. YPM 28456.

1. Oral surface, $\times 2$, whitened.
2. Lower side of oral surface, $\times 2$, whitened.
3. Ambulacrum III, lit obliquely, distal end at right, $\times 5$, whitened.

4-5. CFMUC 33380.

4. Oral surface, $\times 3$, whitened.
5. Lower side of oral surface, $\times 3$, whitened.

6. YPM 28455, oral surface, $\times 2$, whitened.*Edriophus saratogensis* (Ruedemann), 1912. Fig. 7-14.

7-8. NYSM 7385, holotype.

7. Oral surface, $\times 4$, whitened latex pull (text fig. 65A).
8. Oral surface, $\times 4$, whitened natural mold.

9-10. NYSM 7386, paratype (1).

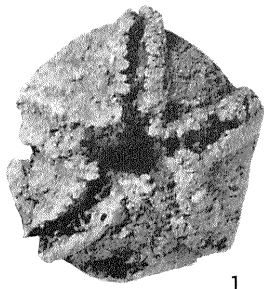
9. Oral surface, $\times 3$, whitened latex pull (text fig. 65C).
10. Oral surface, $\times 3$, whitened natural mold.

11-12. NYSM 7387, paratype (2), left margin of theca broken to reveal inner side of distal part of ambulacrum I, which lies below ambitus.

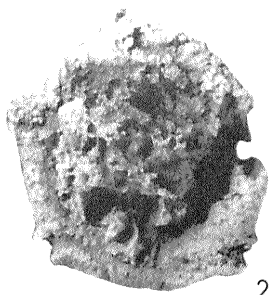
11. Oral surface, $\times 3$, whitened latex pull (text fig. 65B).
12. Oral surface, $\times 3$, whitened natural mold.

13-14. NYSM 12779.

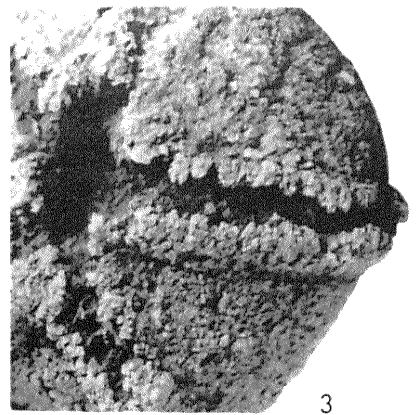
13. Oral surface, $\times 3$, whitened latex pull (text fig. 65D).
14. Oral surface, $\times 3$, whitened natural mold.



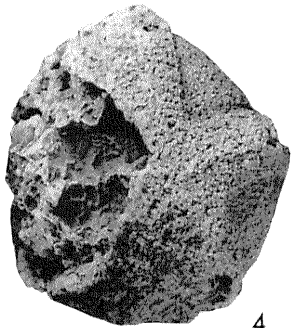
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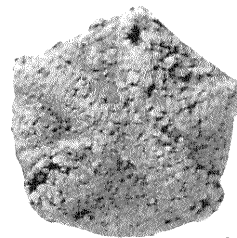
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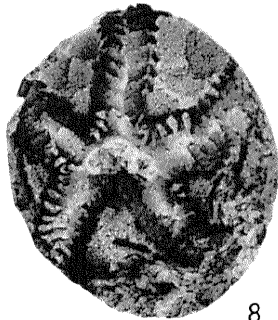
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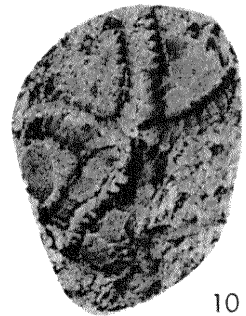
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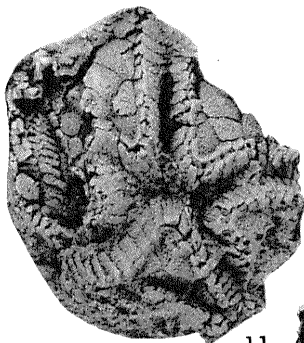
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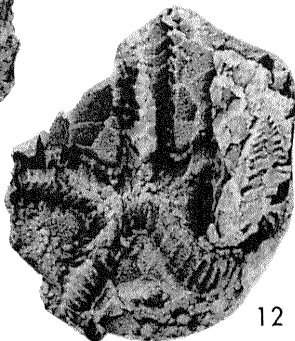
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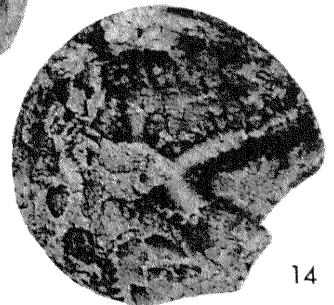
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13



14

PLATE 61

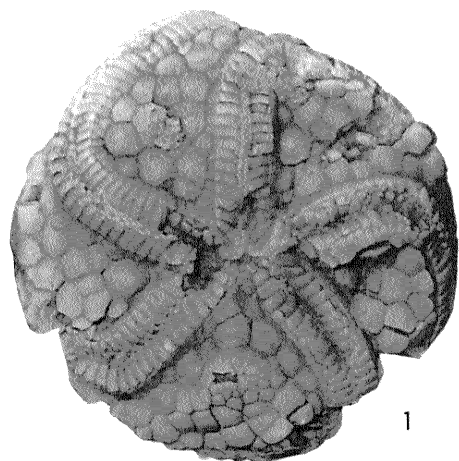
Edriophus levis (Bather), 1914

1-6. UCMP 40477.

1. Oral surface, $\times 1.5$, whitened.
2. Lower side of specimen which exposes part of lower side of oral surface and part of inner side of upper oral surface; the latter includes the oral frame and floorplates of ambulacrum V, $\times 1.5$, whitened.
3. Platelets of a small segment of distal membrane preserved on lower side of specimen, $\times 3$, in xylene.
4. Oral region, $\times 3$, in xylene.
5. Oral frame, $\times 2$, in xylene.
6. Inner side of floorplates of ambulacrum V and part of oral frame, $\times 3$, in xylene.

7-9. UCMP 40478, lower side of specimen which centrally exposes inner side of upper oral surface, this includes oral frame and proximal parts of ambulacra; marginally the exterior of plates of subambital zone are seen and this zone includes the distal parts of the ambulacra.

7. Lower side of specimen, $\times 1.5$, whitened.
8. Lower side of specimen, $\times 1.5$, in xylene.
9. Oral frame, $\times 4$, in xylene.



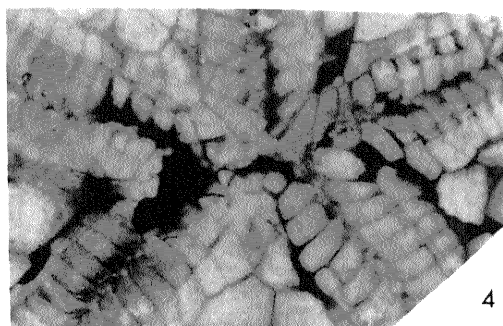
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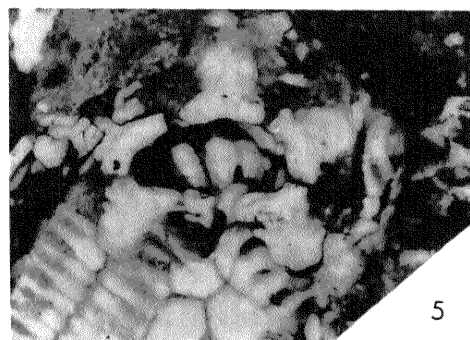
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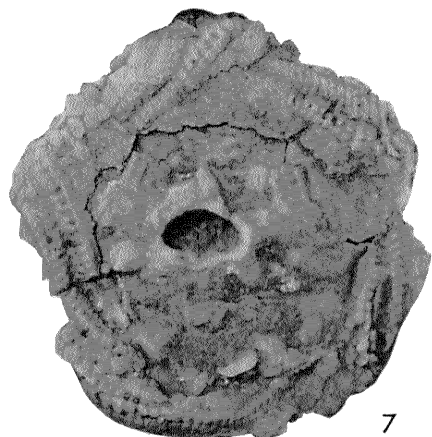
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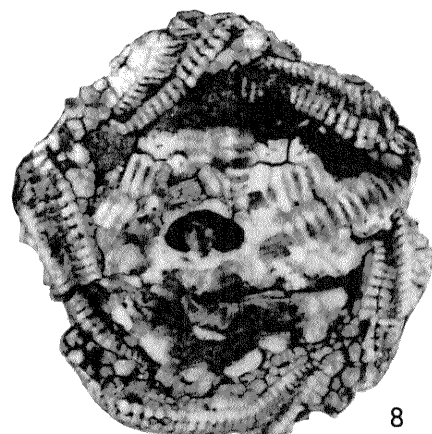
5



7



6



8



9

PLATE 62***Edriophus levis* (Bather), 1914**

- 1-3. UCMP 40479.
 1. Oral surface, × 2, whitened (text fig. 64).
 2. Oral surface, × 2, in xylene.
 3. Oral region, × 3, whitened.
- 4-5. USNM S-3197-B.
 4. Oral surface, × 1, whitened.
 5. Oral region, × 2, whitened.
6. USNM Acc. No. 212887, anal area, × 5, whitened.
- 7-10. UCMP 40480.
 7. Oral surface, × 1, whitened.
 8. Oral surface, × 1, in xylene.
 9. Oral region, × 2, whitened.
 10. Oral region, × 2, in xylene.

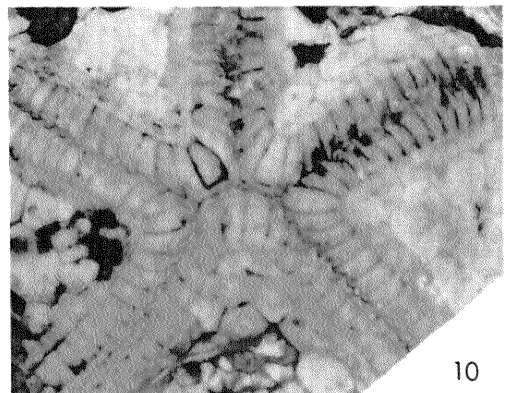
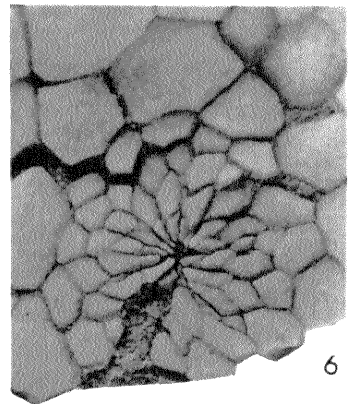
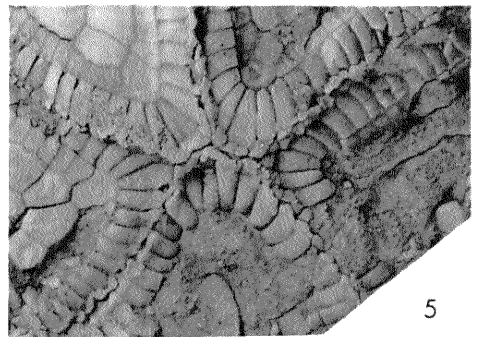
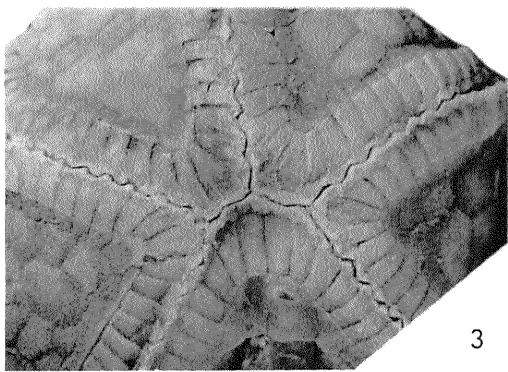
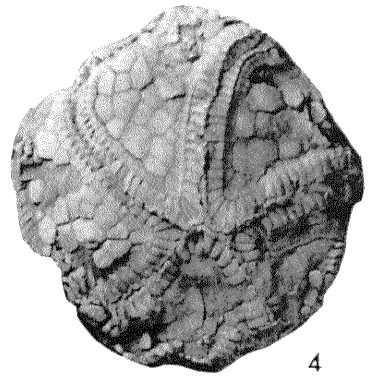
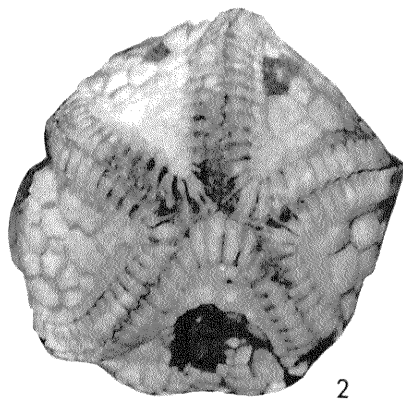
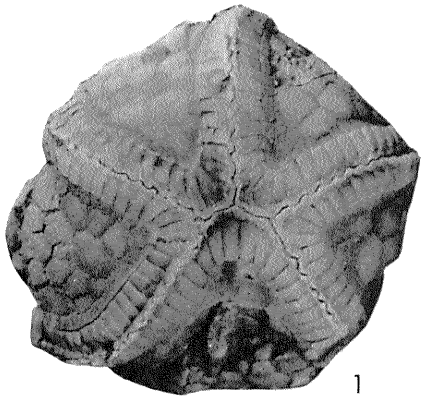
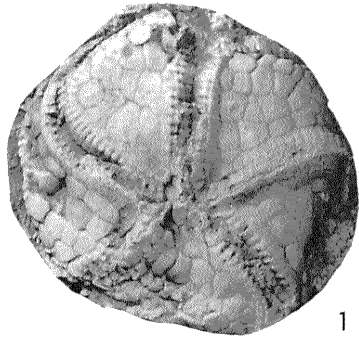


PLATE 63

Edriophus levis (Bather), 1914

- 1-6. GSC 18659.
1. Oral surface, $\times 1$, whitened.
 2. Oral surface, $\times 1$, in xylene.
 3. Medial part of ambulacrum IV, proximal end at left, $\times 4$, whitened.
 4. Medial part of ambulacrum IV, proximal end at left; more proximal coverplates are transparent and reveal their alignment with floorplates, $\times 4$, in xylene.
 5. Medial part of ambulacrum III, proximal end at left; upper sides of floorplates are seen along right end, $\times 3$, whitened.
 6. Medial part of ambulacrum II, proximal end at bottom; upper sides of floorplates are exposed, $\times 4$, in xylene.
- 7-8. USNM S-3197-A.
7. Oral surface, $\times 1$, whitened.
 8. Oral region, $\times 3$, in xylene.
- 9-10. UMMP 5731.
9. Oral surface, $\times 1$, whitened.
 10. Oral surface, $\times 1.5$, in xylene.
- 11-13. UMMP 26428.
11. Oral surface, $\times 1.5$, in xylene.
 12. Proximal part of ambulacrum I, proximal end at left, $\times 4$, whitened.
 13. Oral region, $\times 4$, whitened.



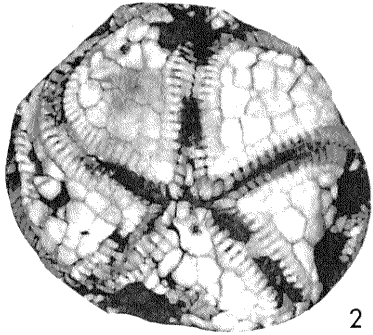
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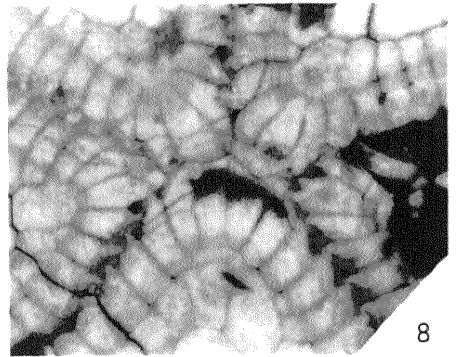
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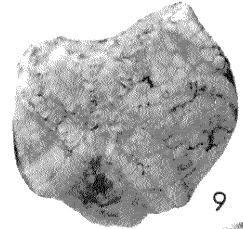
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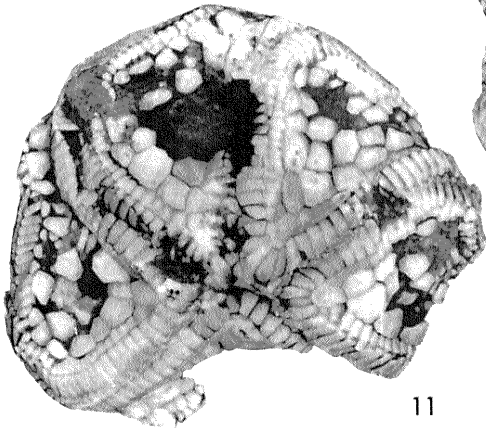
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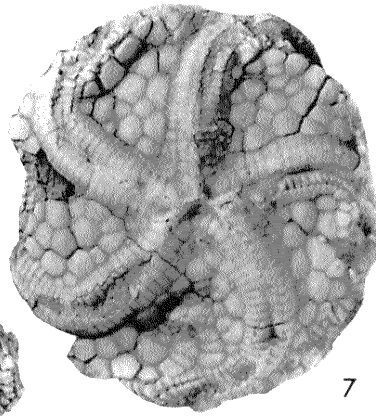
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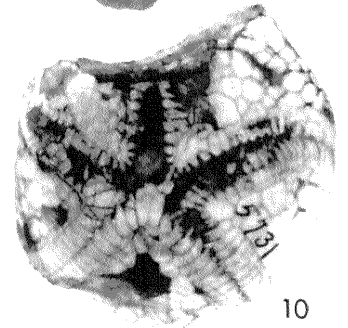
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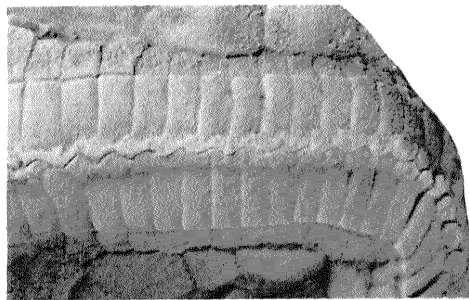
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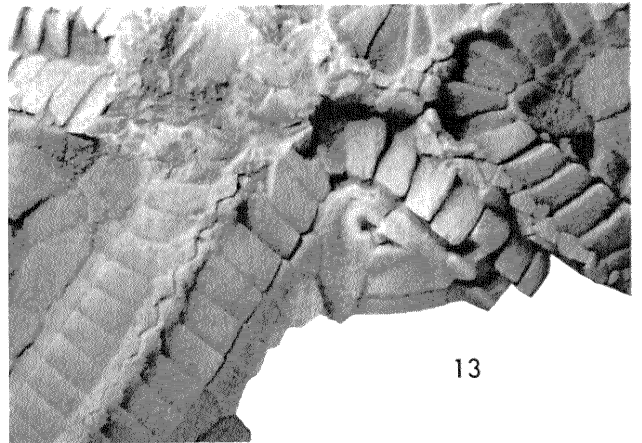
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10



12



13

