

EXPLANATION OF THE PLATES

Abbreviations used in the explanation of Willem plates: Ka: Kallo boring, Km: Kortemark, Led: Ledeberg, Me: Merelbeke, M-en-P: Mons-en-Pévèle, Og: Ooigem boring, Sj: Sint Jan, Tt: Tielt boring.

PLATE 1

- Fig. 1: *Rhabdammina annulata* GRZYBOWSKI, 1896; $\times 160$; Tt - 148.5m.
 Fig. 2: *Rhabdammina cylindrica* GLAESSNER, 1937; $\times 50$; Ka - 361.5m.
 Fig. 3: *Rhadamina eocenica* (CUSHMAN & HANNA, 1927); $\times 50$; Ka - 361.5m.
 Fig. 4: *Rhizammina* sp. cf. *R. excelsa* (GRZYBOWSKI); $\times 50$; Ka - 372m.
 Fig. 5: *Hyperammina* ? sp.; $\times 100$; Ka - 372m.
 Fig. 6-7: *Saccammina* sp.; 6, $\times 92$, Ka - 375m; 7, $\times 150$, Ka - 369m.
 Fig. 8: *Pilulina* ? sp.; $\times 100$; Ka - 369m.
 Fig. 9: *Hemisphaerammina* ? sp.; $\times 80$; Og - 90.5m.
 Fig. 10: *Ammodiscus siliceus* (TERQUEM, 1862); $\times 128$; Ka - 315,9m (draft).
 Fig. 11: *Ammodiscus septatus* GRZYBOWSKI, 1897; $\times 185$; Tt - 144.5m.
 Fig. 12: *Glomospira charoides* (JONES & PARKER, 1860); $\times 250$; Ka - 375m.
 Fig. 13: *Reophax* sp. cf. *R. bacillaris* BRADY, 1884; $\times 100$; Ka - 378m.
 Fig. 14: *Reophax* sp. cf. *R. cylindrica* BRADY, 1884; $\times 75$; Ka - 372m.
 Fig. 15: *Reophax subfusiformis* EARLAND, 1933, emend. HOGLUND, 1947; $\times 100$; Ka - 372m.
 Fig. 16: *Reophax splendida* GRZYBOWSKI (1897); $\times 212$; Tt - 144.5m.
 Fig. 17: *Reophax* sp.; $\times 80$; Og - 90.5m.
 Fig. 18a-b: *Miliamina paleocenica* KIESEL, 1970; $\times 150$; Tt - 144.5m.
 Fig. 19: *Haplophragmoides burrowsi* HAYNES (1958); $\times 292$; Tt - 137.5m (draft).
 Fig. 20a-c: *Trochaminoides subtrullisatus* GRZYBOWSKI, 1897; a, $\times 125$, Ka - 375m, umbilical side; b, $\times 85$, Ka - 364m, umbilical side; c, $\times 100$, Ka - 375m, frontal view.
 Fig. 21a-d: *Trochaminoides subtrullisatus* GRZYBOWSKI, 1897; Ka - 372m; a, $\times 100$, umbilical side; b, $\times 100$, frontal view; c, $\times 130$, umbilical side; d, $\times 75$, umbilical view.
 Fig. 22a-c: *Haplophragmoides walteri* (GRZYBOWSKI, 1897); $\times 100$; Ka - 366m; umbilical sides.
 Fig. 23: *Haplophragmoides walteri* (GRZYBOWSKI, 1897); $\times 100$; Ka - 369m.

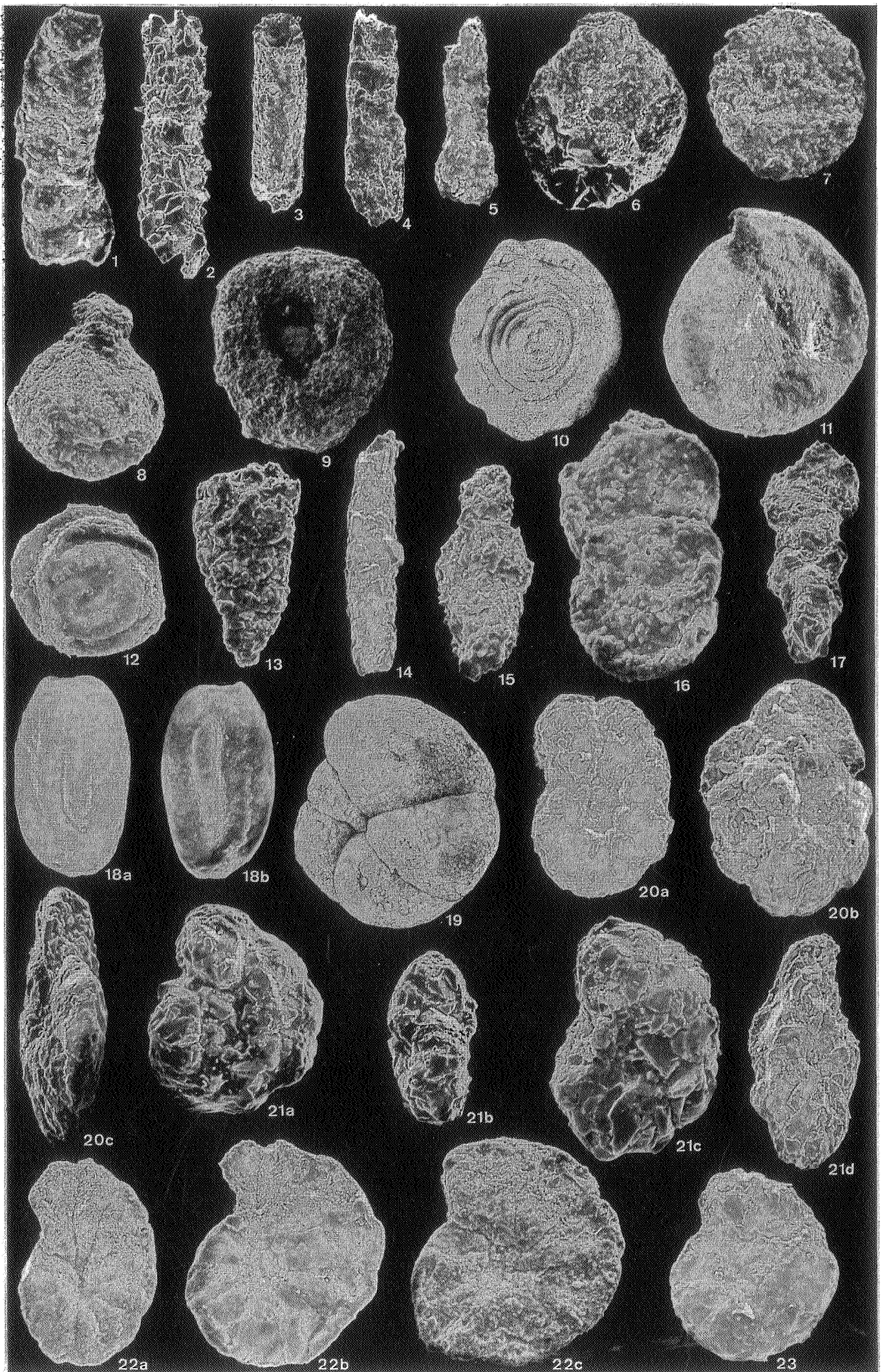


PLATE 2

- Fig. 1 : *Haplophragmoides* sp.; $\times 100$; Ka - 368.5 m; umbilical side.
- Fig. 2 : *Trochaminooides subtrullisatus* GRZYBOWSKI, 1897; $\times 100$; Ka - 368.5 m; umbilical side.
- Fig. 3a-d : *Trochaminooides dedapperi* n. sp.; a, $\times 65$, Ka - 372 m; b, $\times 100$, Ka - 369 m; c, $\times 75$, Ka - 366 m, holotype; d, $\times 100$, Ka $\times 375$ m; umbilical sides.
- Fig. 4a-c : *Recurvooides buffardi* n. sp.; $\times 130$; Tt $\times 142.5$ m; a, dorsal side; b, frontal side; c, ventral side; holotype.
- Fig. 5 : *Spiroplectammina adamsi* LALICKER, 1935; $\times 100$; Ka - 323.5 m.
- Fig. 6 : *Spiroplectammina deperdita* (d'ORBIGNY, 1846); $\times 70$; Ka - 301.5 m.
- Fig. 7 : *Spiroplectammina* sp. cf. *S. flabelliformis* (GUMBEL, 1868); $\times 105$; Ka - 337 m.
- Fig. 8 : *Spiroplectammina plummerae* CUSHMAN, 1948; $\times 85$; Ka - 321 m.
- Fig. 9 : *Spiroplectammina spectabilis* (GRZYBOWSKI, 1897); $\times 100$; Ka - 364 m.
- Fig. 10a-b : *Spiroplectammina wilcoxensis* CUSHMAN & PONTON, 1932; a, $\times 150$, Ka - 264 m; b, $\times 140$, Ka - 280 m.
- Fig. 11 : *Vulvulina* ? sp.; $\times 100$; Ka - 356 m.
- Fig. 12 : *Textularia agglutinans* d'ORBIGNY, 1839; $\times 95$. Ka - 245 m.
- Fig. 13 : *Dorothia fallax* HAGN, 1954; $\times 53$; Ka - 303.9 m; holotype.
- Fig. 14 : *Textularia* sp. cf. *T. minuta* TERQUEM, 1882; $\times 50$; M-en-P G55/5.
- Fig. 15 : *Textularia plummerae* LALICKER, 1935; $\times 160$; Ka - 364 m.
- Fig. 16 : *Textularia smithvillensis* CUSHMAN & ELLISOR, 1933; $\times 45$, Ka - 323.5 m.
- Fig. 17 : *Textularia* sp.; $\times 220$; Ka - 370 m.
- Fig. 18 : *Siphotextularia* ? sp.; $\times 150$; Ka - 356 m.
- Fig. 19 : *Trochammina* sp. cf. *T. globigeriniformis* (PARKER & JONES, 1865); $\times 170$; Og ± 80 m; ventral side.
- Fig. 20a-d : *Trochammina* sp. cf. *T. inflata* (MONTAGU, 1808); a, $\times 200$, Ka - 366 m, dorsal side; b, $\times 180$, Ka - 364 m, ventral side; c-d, same specimen, $\times 150$, Ka $\times 366$ m, c (ventral side), d (dorsal side).

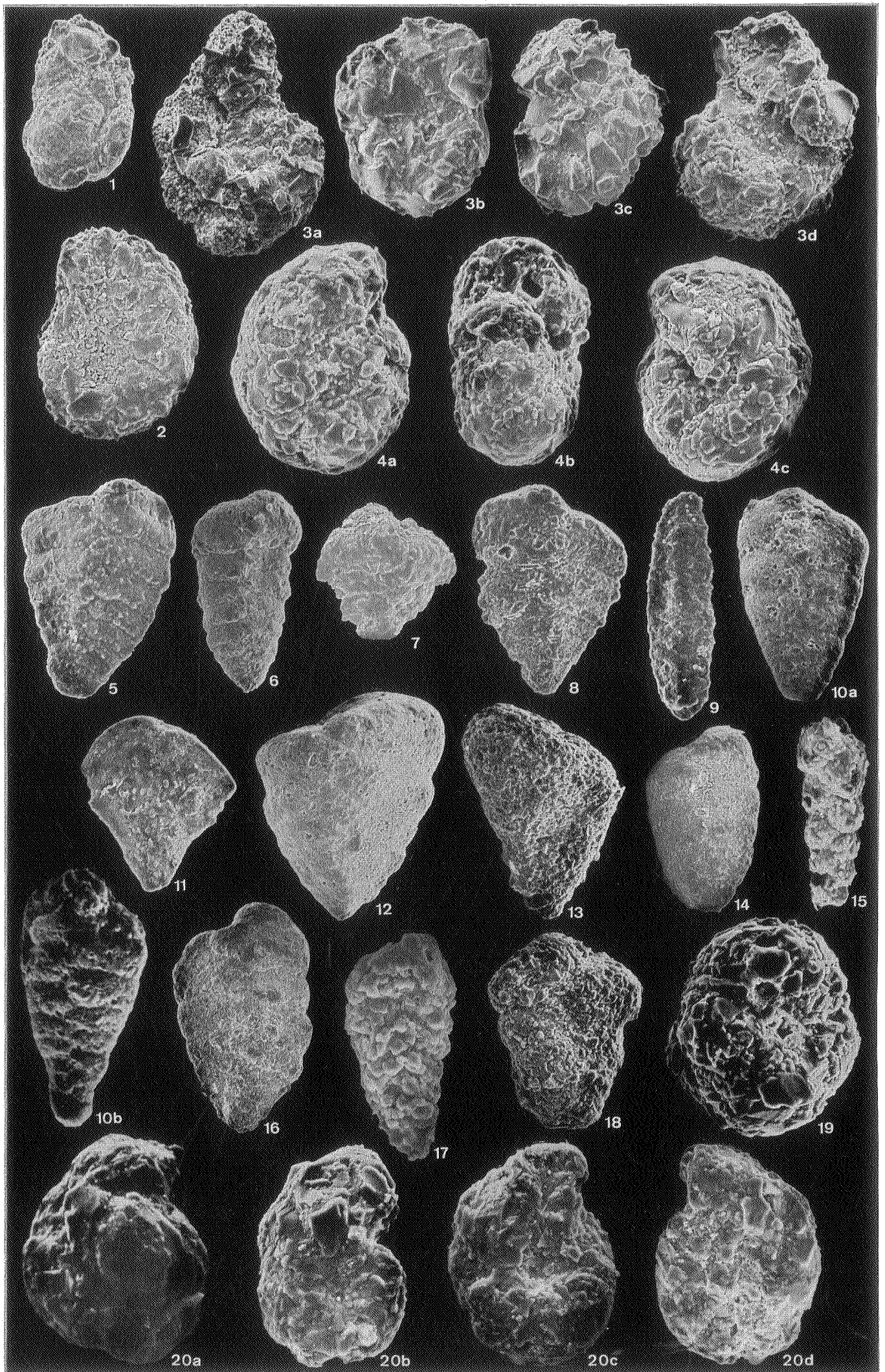


PLATE 3

- Fig. 1a-b : *Trochammina* sp. A; same specimen; $\times 130$; Ka - 364m; a, ventral side; b, dorsal side.
 Fig. 2a-b : *Trochammina* sp. B; same specimen; $\times 150$; tt - 140.5m; a, dorsal side; b, ventral side.
 Fig. 3a-c : *Verneuilina subeocaena* WICK, 1943; a-b, same specimen, $\times 92$, Ka - 372m; c, $\times 100$; Ka - 369m.
 Fig. 4 : *Verneuilina* sp.; $\times 100$; ka - 369m.
 Fig. 5 : *Gaudryinella* ? sp.; $\times 100$; Ka - 364m.
 Fig. 6 : *Reophax subfusiformis* EARLAND, 1933, emend. HOGLUND, 1947; $\times 130$; Ka - 378m.
 Fig. 7 : *Verneullinoides* sp.; $\times 100$; Ka - 369m.
 Fig. 8 : *Eggerella palmerae* (COLE, 1927); $\times 250$; Ka - 318.5m (draft).
 Fig. 9 : *Eggerella* sp.; $\times 250$; Ka - 368.5m.
 Fig. 10a-c : *Karreriella danica* CUSHMAN, 1937; a, $\times 75$, Ka - 310.8m; b, $\times 75$, Ka - 294.5m; c, $\times 50$, Ka - 323.5m.
 Fig. 11 : *Karreriella oveyi* (BOWEN, 1954); $\times 100$; Ka - 321m.
 Fig. 12 : *Karreriella* ? sp.; $\times 100$; Ka - 364m.
 Fig. 13 : *Clavulina anglica* (CUSHMAN, 1936); $\times 92$; Ka - 323.5m.
 Fig. 14 : *Clavulina* sp. cf. *C. parisiensis* d'ORBIGNY, 1846; $\times 70$; Ka - 322m.
 Fig. 15 : *Clavulina* ? sp.; $\times 190$; Tt - 135.5m.
 Fig. 16 : *Spiroloculina* ? sp. A; $\times 150$; Ka - 303.9m.
 Fig. 17 : *Spiroloculina* ? sp. B; $\times 150$; Led - 17.5m.
 Fig. 18 : *Quinqueloculina juleana* d'ORBIGNY, 1846; $\times 65$; Ka - 303.9m.
 Fig. 19 : *Quinqueloculina seminula* (LINNE, 1758); $\times 70$; Ka - 250m.

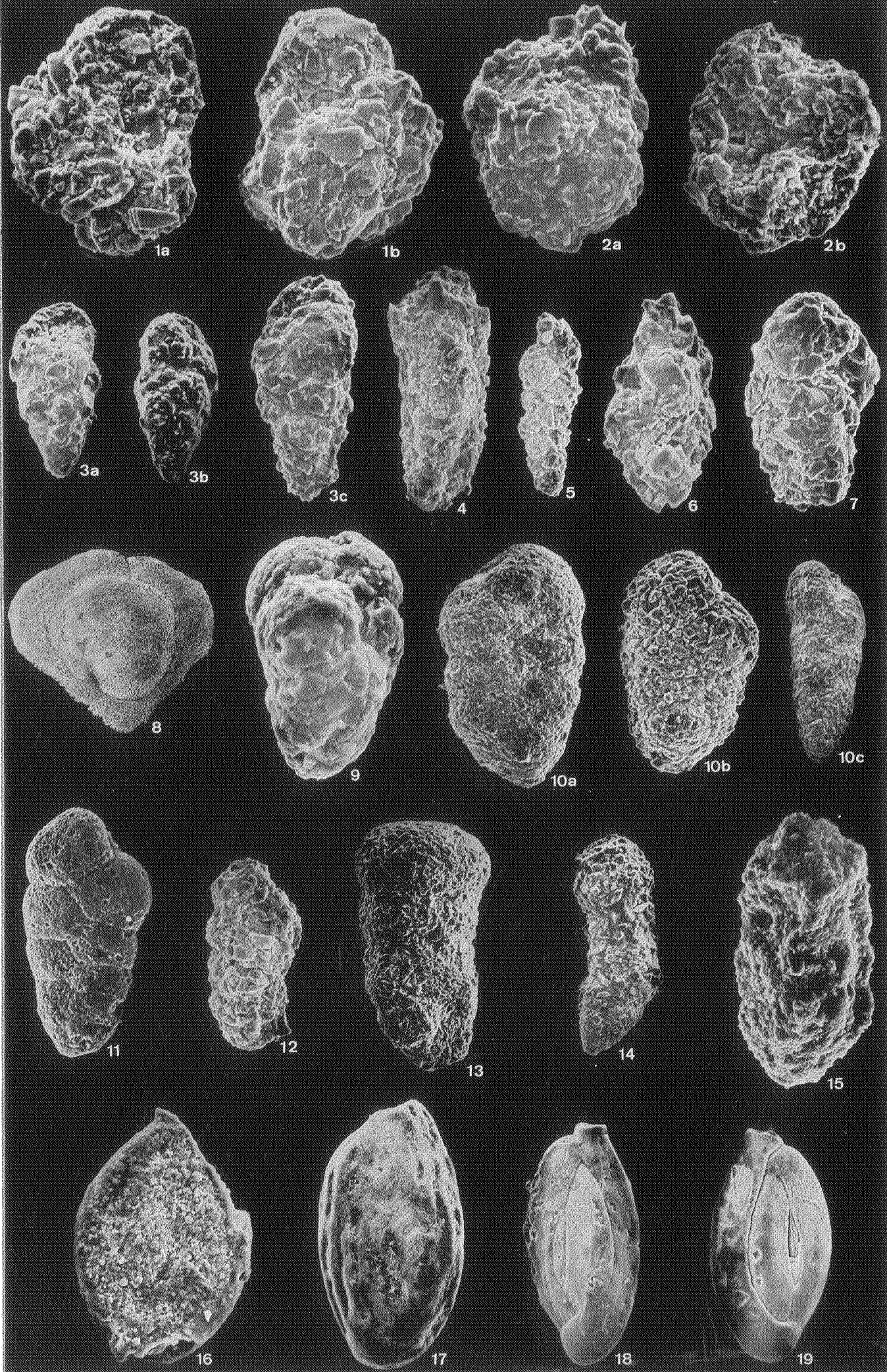


PLATE 4

- Fig. 1 : *Nodosaria latejugata* GUMBEL, 1868; $\times 14$; Ka - 323.5m.
 Fig. 2 : *Nodosaria minor* von HANTKEN, 1875; $\times 23$; Ka - 321m.
 Fig. 3 : *Nodosaria* ? sp. cf. *N. natchitochensis* (HOWE, 1939); $\times 120$; Ka - 352m.
 Fig. 4 : *Nodosaria* ? sp.; $\times 50$; Ka - 325.5m.
 Fig. 5 : *Dentalina approximata* (REUSS, 1866); $\times 30$; Ka - 329.5m.
 Fig. 6 : *Dentalina consobrina* d'ORBIGNY, 1846; $\times 57$; Ka - 323.5m.
 Fig. 7 : *Dentalina elegans* d'ORBIGNY, 1846; $\times 60$; Ka - 301.5m.
 Fig. 8 : *Dentalina frankei* SCHICKOR, 1968; $\times 60$; Ka $\times 332$ m.
 Fig. 9 : *Dentalina inepta* CUSHMAN, 1947; $\times 65$; Ka - 323.5m.
 Fig. 10 : *Dentalina nasuta* CUSHMAN, 1939; $\times 1939$; $\times 65$; Ka - 325.5m.
 Fig. 11 : *Dentalina pauperata* d'ORBIGNY, 1846; $\times 50$; La - 303.0m.
 Fig. 12 : *Dentalina mucronata* NEUGEBOREN, 1856; $\times 42$; Ka - 292.5m.
 Fig. 13 : *Dentalina megalopolitana* REUSS, 1855; $\times 32$; Ka - 310.8m.
 Fig. 14 : *Dentalina subrecta* REUSS, 1860; $\times 85$; Ka - 310.8m.
 Fig. 15a-b : *Dentalina spinescens* REUSS, 1851; a, $\times 60$, Ka - 330.5m; b, $\times 42$, Ka - 325.5m.
 Fig. 16 : *Dentalina wilcoxensis* CUSHMAN, 1944; $\times 75$; Ka - 318.5m.
 Fig. 17 : *Lagena amphora* REUSS, 1863; $\times 250$; Ka - 347.
 Fig. 18 : *Lagena axiformis* MATTHES, 1939; $\times 170$; Ka - 312.5m.
 Fig. 19 : *Lagena elegantissima* (BORNEMANN, 1855); $\times 200$; Ka - 315.9m.
 Fig. 20 : *Lagena hystrix* REUSS, 1863; $\times 170$; Ka - 301.5m.
 Fig. 21 : *Lagena* cf. *laevis* (MONTAGU, 1803); $\times 140$; Ka - 321m.
 Fig. 22 : *Lagena polygonissima* n. sp.; $\times 150$; Ka - 310.8m; holotype.
 Fig. 23 : *Lagena striata* d'ORBIGNY, 1839; $\times 112$; Ka - 301.5m.
 Fig. 24 : *Lagena substriata* WILLIAMSON, 1848; $\times 130$; Ka - 299m.
 Fig. 25 : *Lagena* sp.; $\times 140$; Ka - 283m.
 Fig. 26a-d : *Lenticulina* (*A.*) *platypleura* (JONES, 1852); a-b, $\times 64$, Ka - 301.5m; a, frontal view; b, umbilical side, draw; c, $\times 50$, Ka - 301.5m, umbilical side; d, $\times 45$, Ka $\times 303.9$ m, umbilical side.
 Fig. 27 : *Lenticulina* (*Astacolus*) sp. A; $\times 45$; Ka - 294.5m, umbilical side.

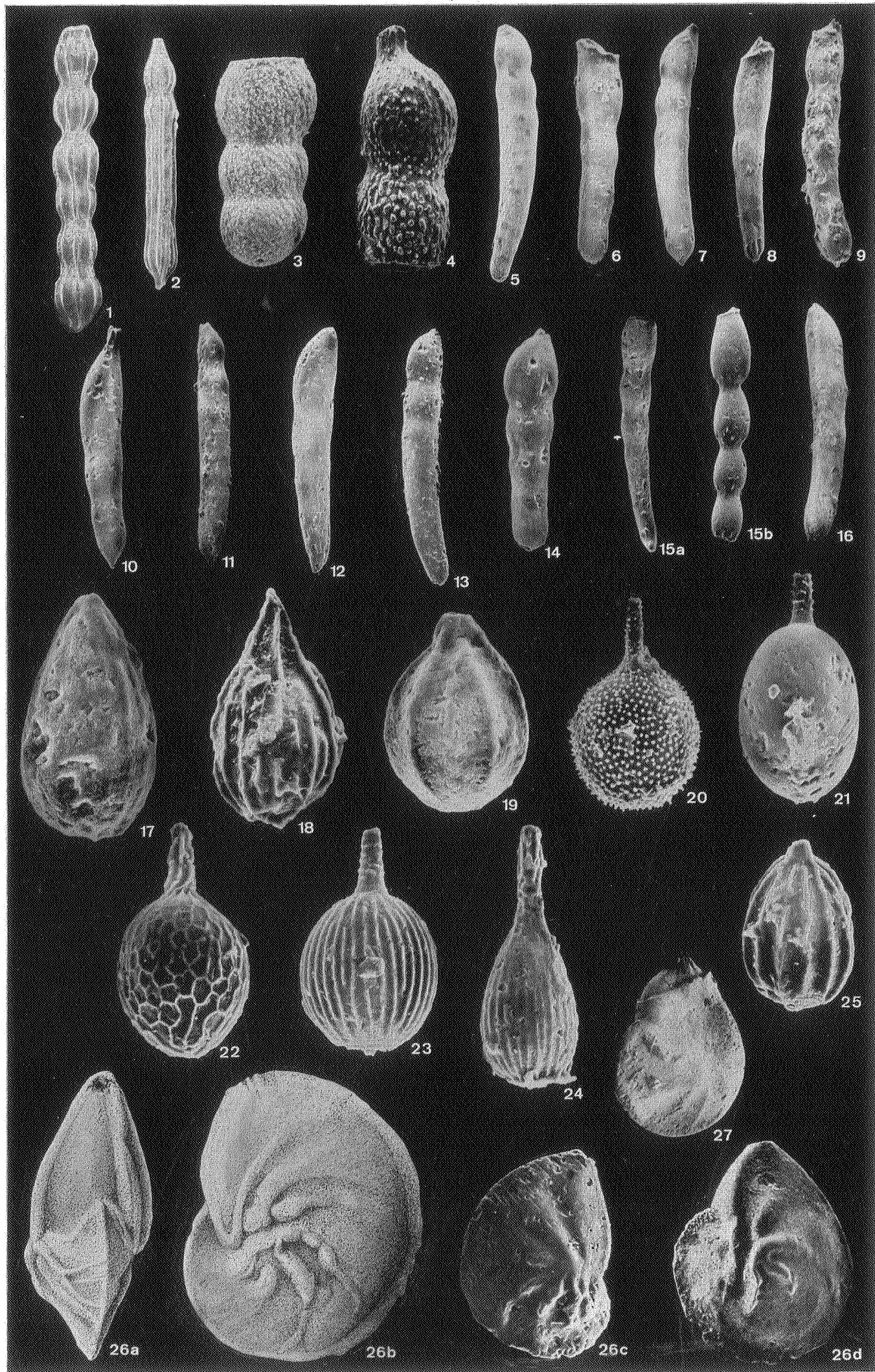


PLATE 5

- Fig. 1 : *Lenticulina (Darbyella) sp. cf. L. (D.) wilcoxensis* (CUSHMAN & GARRETT, 1939); $\times 45$; Ka - 292.5 m; dorsal side.
- Fig. 2 : *Lenticulina (R.) alata-limbata* (GUMBEL, 1868); $\times 40$; Ka - 301.5 m; umbilical side; drawings.
- Fig. 3 : *Lenticulina (R.) deformis* (REUSS, 1851); $\times 100$; Ka - 324 m; umbilical side.
- Fig. 4 : *Lenticulina (R.) cultrata* (de MONTFORT, 1808); $\times 40$; Ka - 303.9 m; umbilical side; drawing.
- Fig. 5 : *Lenticulina (R.) sp. cf. L. (R.) degolyeri* (PLUMMER, 1926); $\times 110$; Ka - 261.5 m; umbilical side.
- Fig. 6a-b : *Lenticulina (R.) ellisori* BOWEN, 1954; $\times 40$; Ka - 323.5 m; a, frontal view; b, umbilical side; drawings.
- Fig. 7a-b : *Lenticulina (R.) sp. cf. L. (R.) galeata* (REUSS, 1851); $\times 64$; Ka - 325.5 m; a, frontal view; b, umbilical side; drawings.
- Fig. 8a-b : *Lenticulina (R.) sp. cf. (R.) hornerstownensis* (OLSSON, 1960); $\times 64$; Ka - 358.5 m; a, frontal view; b, umbilical side; drawings.
- Fig. 9a-b : *Lenticulina (R.) sp. cf. L. (R.) kreyenhagenensis* (MALLORY, 1959); $\times 40$; Ka - 323.5 m; a, frontal view; b, umbilical side; drawings.
- Fig. 10 : *Lenticulina (R.) sp. cf. L. (R.) semiimpressa* (REUSS, 1866); $\times 128$; Ka - 358.5 m; umbilical side; drawing.
- Fig. 11 : *Lenticulina (R.) sp. cf. L. (R.) umbonata* (REUSS, 1851); $\times 225$; Ka - 358.5 m; umbilical side.
- Fig. 12 : *Lenticulina (R.) sp. cf. L. (R.) yeguatensis* (BERMUDEZ, 1949); $\times 64$; Ka - 323.5 m; umbilical side; drawing.
- Fig. 13 : *Marginulina acuticauda* TEN DAM, 1944. $\times 105$; Ka - 323.5 m.
- Fig. 14 : *Marginulina pediformis* BORNEMANN, 1855; $\times 83$; Ka - 303.9 m.
- Fig. 15a-b : *Marginulinopsis decorata* (REUSS, 1855); a, $\times 83$; Ka - 323.5 m; b, $\times 72$; Ka - 321 m.
- Fig. 16 : *Marginulinopsis decorata* (REUSS, 1855); $\times 65$; Ka - 328 m.
- Fig. 17 : *Marginulinopsis wetherelli* (JONES, 1854); $\times 32$; Ka - 323.5 m; drawing.

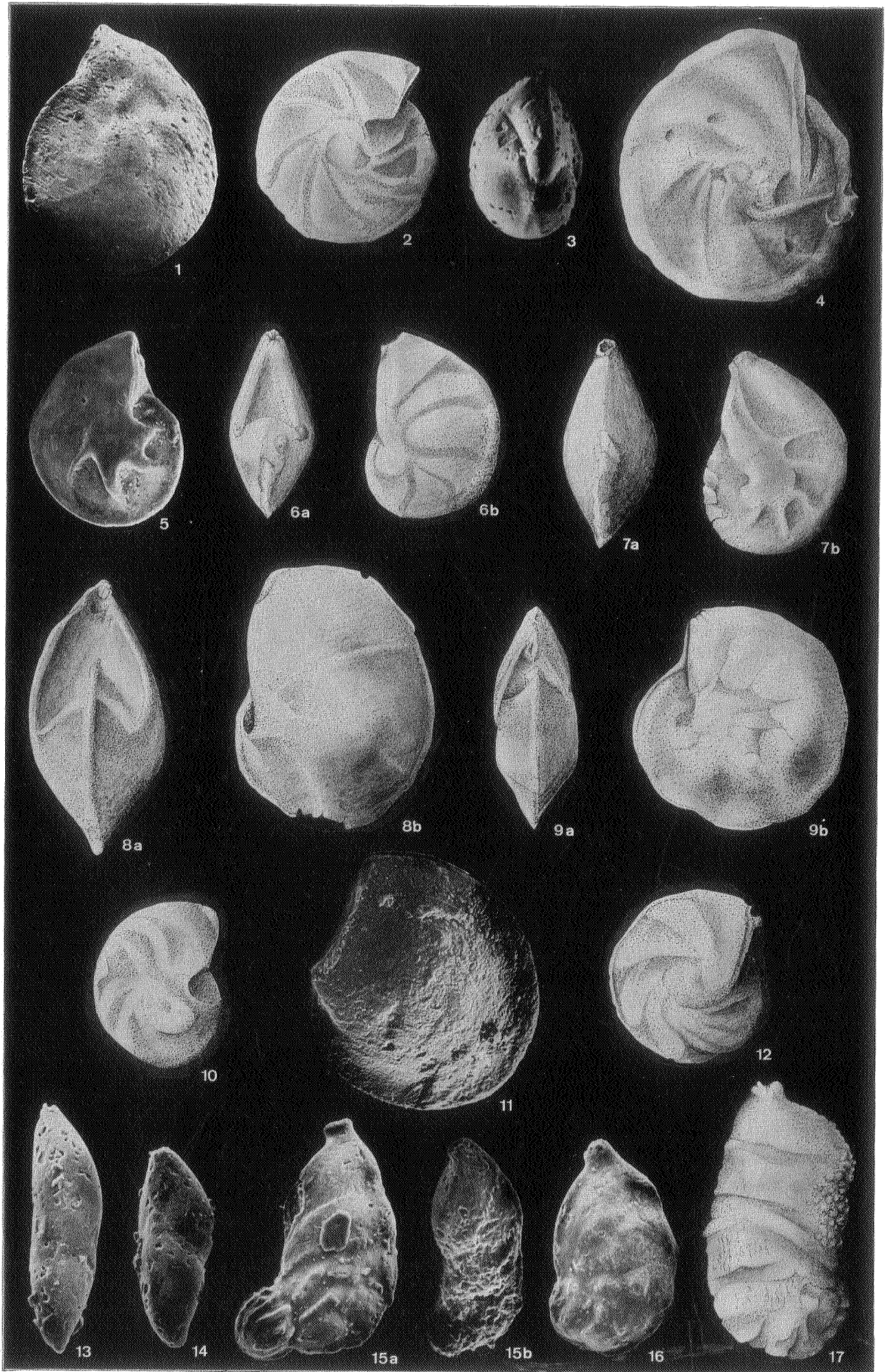


PLATE 6

- Fig. 1 : *Globulina ampulla* (JONES, 1852); $\times 165$; Ka - 315.9 m.
 Fig. 2 : *Globulina gibba* (d'ORBIGNY, 1826); $\times 83$; Ka - 300.7 m.
 Fig. 3a-b : *Globulina gravida* (TERQUEM, 1878); $\times 192$; Ka - 292.5 m; drawing.
 Fig. 4 : *Globulina inaequalis* REUSS, 1850; $\times 173$; Ka - 306 m.
 Fig. 5 : *Globulina hispida* TERQUEM, 1882; $\times 190$; Ka - 254.5 m
 Fig. 6 : *Globulina* sp.; $\times 195$; Ka - 248 m.
 Fig. 7 : *Guttulina irregularis* (d'ORBIGNY, 1846); $\times 110$; Ka - 245 m.
 Fig. 8 : *Guttulina parisiensis* LE CALVEZ, 1950; $\times 73$; Ka - 254.5 m.
 Fig. 9 : *Guttulina lactea* (WALKER & JACOB, 1798); $\times 283$; Ka - 242.5 m.
 Fig. 10 : *Guttulina problema* (d'ORBIGNY, 1826); $\times 79$; Ka - 257 m.
 Fig. 11 : *Pseudopolymorphina* sp.; $\times 190$; Ka - 242.5 m.
 Fig. 12 : *Pseudopolymorphina* sp.; $\times 240$; Ka - 318.5 m.
 Fig. 13a-b : *Pyrulina polita* (TERQUEM, 1882); a, $\times 125$, Ka - 308.6 m; b, $\times 184$; Ka - 322 m.
 Fig. 14 : *Pyrulina thouini* (d'ORBIGNY, 1826); $\times 165$; Ka - 321 m.
 Fig. 15 : *Sigmomorphina amygdaloides* (REUSS, 1846); $\times 120$; Ka - 245 m.
 Fig. 16 : *Glandulina laevigata* (d'ORBIGNY, 1826); $\times 64$; Ka - 294.5 m.
 Fig. 17 : *Glandulina* ? sp. cf. *G. ovula* (d'ORBIGNY, 1826); $\times 110$; Ka - 299 m.
 Fig. 18 : *Glandulina* ? *elongata* BORNEMANN, 1855; $\times 105$; Ka - 321 m.
 Fig. 19 : *Glandulina* ? *tumida* (BOWEN, 1954); $\times 110$; Ka - 250 m.
 Fig. 20 : *Oolina* sp. cf. *O. globosa* (WALKER & BOYS, 1784); $\times 195$; Ka - 297 m.
 Fig. 21 : *Fissurina laevigata* (REUSS, 1850); $\times 225$; Tt - 105.5 m.
 Fig. 22 : *Fissurina marginata* (WALKER & BOYS, 1784); $\times 225$; Ka - 354.5 m.
 Fig. 23 : *Fissurina* sp.; $\times 330$; Ka - 323.5 m.
 Fig. 24 : *Fissurina orbignyana* SEGUENZA, 1826; $\times 200$; Ka - 312.5 m.
 Fig. 25 : *Fissurina creba* (MATTHES, 1939); $\times 90$; Ka - 321 m.

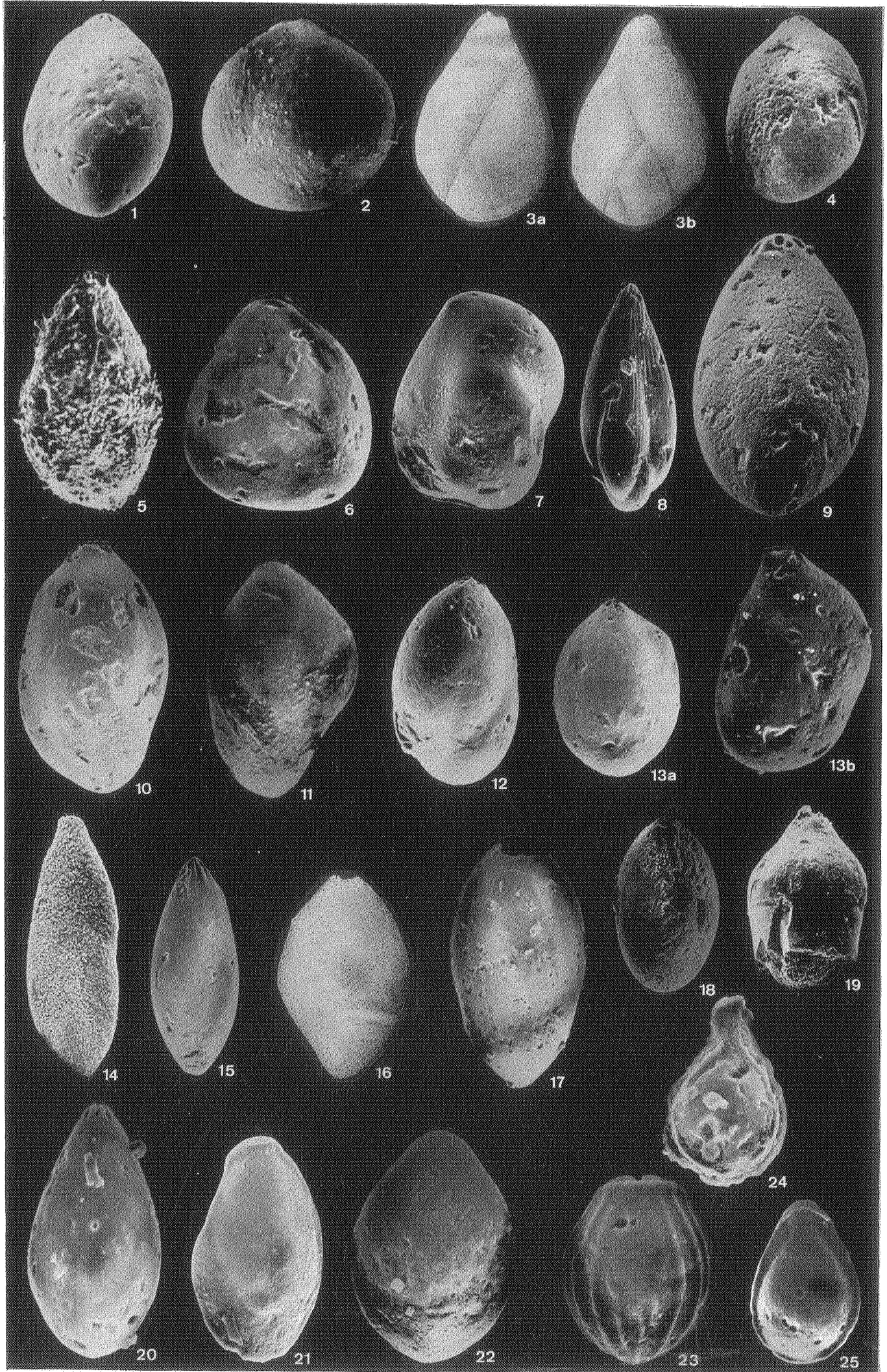


PLATE 7

- Fig. 1a-b : *Turrilina brevispina* TEN DAM, 1944; a, $\times 238$; Ka - 277 m; b, $\times 230$; Ka - 273 m.
- Fig. 2a-b : *Bagatella* ? *canteni* (BHATIA, 1955); $\times 225$; Ka - 335,5 m; a, initial whorl; b, last whorl; different specimens.
- Fig. 3 : *Bolivina anglica* CUSHMAN, 1936; $\times 100$; Tt - 105,5 m.
- Fig. 4 : *Bolivina brabantica* KAASSCHIETER, 1961; $\times 140$; Ka - 257 m.
- Fig. 5 : *Bolivina budensis* (von HANTKEN, 1875); $\times 230$; Ka - 245 m.
- Fig. 6 : *Bolivina carinata* TERQUEM, 1882; $\times 130$; Me 5.
- Fig. 7 : *Bolivina* sp. cf. *B. cookei* CUSHMAN, 1922; $\times 105$; Ka - 329,5 m.
- Fig. 8 : *Bolivina crenulata* CUSHMAN 1936; $\times 140$; Ka - 297 m.
- Fig. 9 : *Bolivina pulchra* LE CALVEZ, 1950; $\times 180$; Ka - 242,5 m.
- Fig. 10 : *Stilostomella* ? sp.; $\times 75$; Ka - 318,5 m.
- Fig. 11a-c : *Bulimina parisiensis* KAASSCHIETER, 1961; a, $\times 237$, Ka - 242,5 m; b, $\times 180$, Ka - 257 m; c, $\times 148$, Ka - 257 m.
- Fig. 12 : *Uvigerina garzaensis* CUSHMAN & SIEGFUS, 1939; $\times 120$; Ka - 299 m.
- Fig. 13 : *Sagrina limbata* (TERQUEM, 1882); $\times 160$; Ka - 245 m.
- Fig. 14 : *Trifarina muralis* (TERQUEM, 1882); $\times 160$; Ka - 254,5 m.
- Fig. 15 : *Trifarina wilcoxensis* (CUSHMAN & PONTON, 1932); $\times 160$; Ka - 254,5 m.
- Fig. 16 : *Uvigerinella abbreviata* (TERQUEM, 1882); $\times 200$; Ka - 323,5 m.
- Fig. 17a-b : *Discorbis alata* LE CALVEZ, 1949; $\times 250$; Ka - 354,5 m; a, dorsal side; b, ventral side; same specimen.
- Fig. 18 : *Discorbis perovalis* (TERQUEM, 1882); $\times 170$; Ka - 280 m; ventral side.
- Fig. 19a-b : *Discorbis vesicularis* (de LAMARCK, 1804); $\times 180$; Ka - 245 m; a, ventral side; b, dorsal side; same specimen.

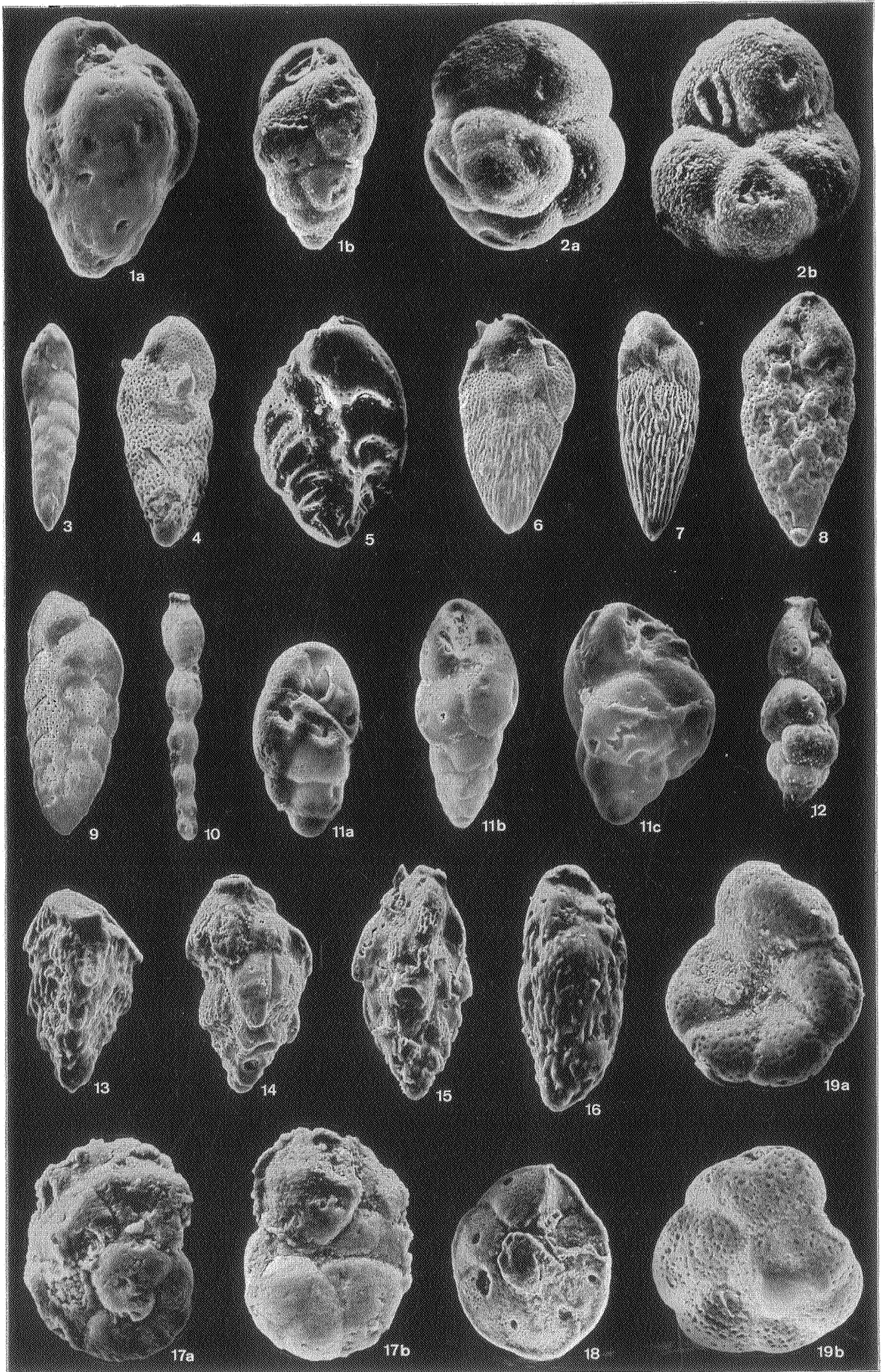


PLATE 8

- Fig. 1a-c : *Discorbis perplexa* LE CALVEZ, 1949; $\times 263$; a & b, Led - 17,5 m, ventral sides; c, Led - 19,5 m, dorsal side; different specimens.
- Fig. 2 : *Epistominella vitrea* PARKER, 1953; $\times 250$; Ka - 292,5 m; ventral side.
- Fig. 3a-b : *Eoepomidella linki* WICKENDEN, 1948; $\times 250$; a, Ka - 242,5 m, ventral side; b, Tt - 41,5 m, dorsal side; different specimens.
- Fig. 4a-b : *Eoepomidella* sp. cf. *E. multisecta* (GALLOWAY & HEMINWAY, 1941); $\times 200$; Ka - 301,5 m; a, ventral side; b, dorsal side; same specimen.
- Fig. 5a-c : *Eurycheilostoma ? globospina* n. sp.; $\times 250$; Ka - 315,9 m; holotype; a, dorsal side; b, frontal view; c, ventral side.
- Fig. 6a-c : *Pippersia kalloensis* n. sp.; $\times 350$; Ka - 242,5 m; holotype; a, ventral side; b, frontal view; c, dorsal side.
- Fig. 7a-b : *Cancris subonica* (TERQUEM, 1882); Ka - 254,5 m; a, $\times 100$, ventral side; b, $\times 110$, dorsal side; same specimen.
- Fig. 8 : *Asterigerina bartoniana* (TEN DAM, 1947); $\times 110$; Led - 17,5 m; ventral side.
- Fig. 9a-b : *Asterigerina bartoniana kaasschieteri* ZANEVA, 1972; $\times 53$; Ka - 310,8 m; a, dorsal side; b, ventral side; different specimens.

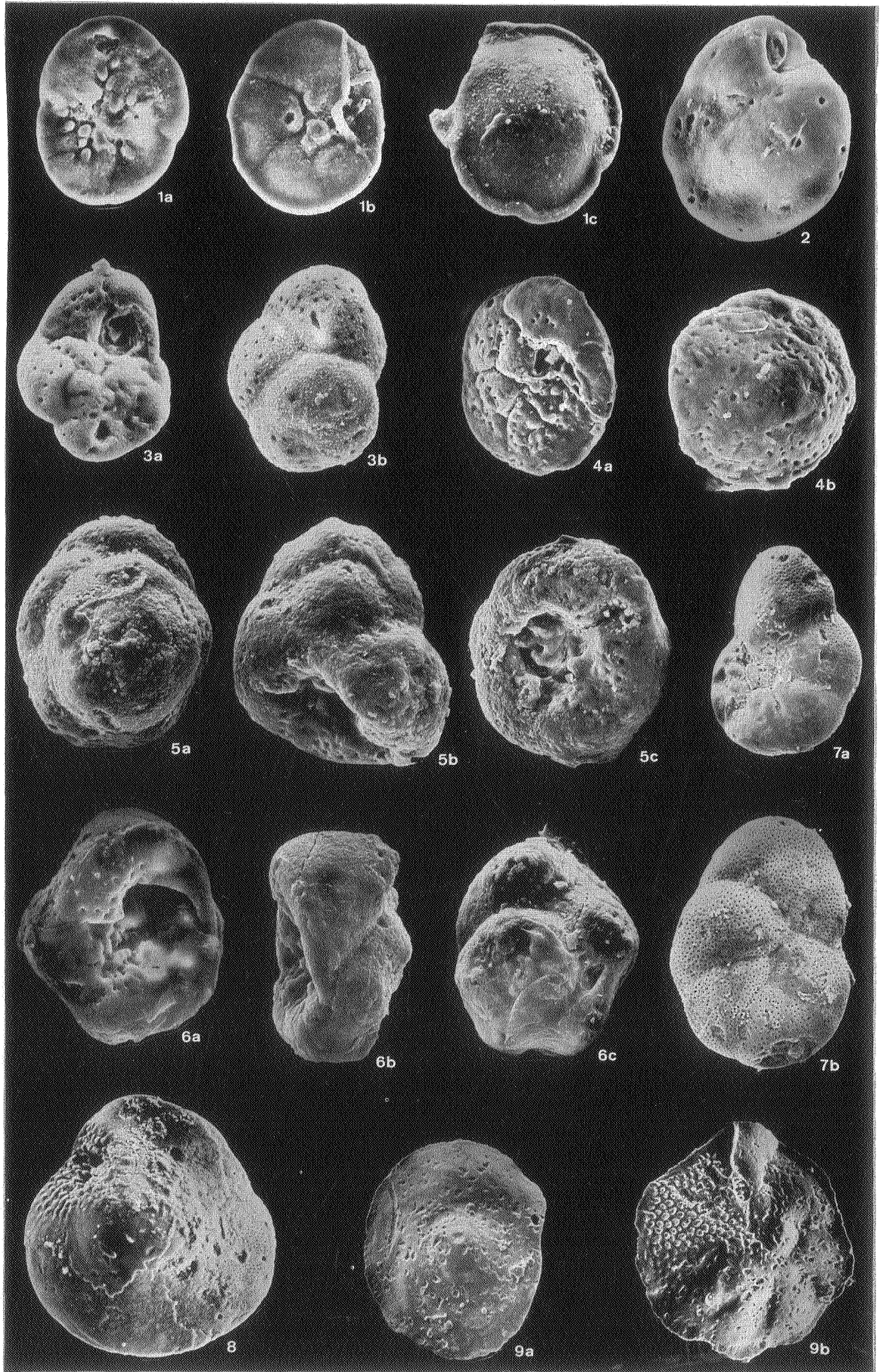


PLATE 9

- Fig. 1a-b : *Asterigerina guerrai* (BERMUDEZ, 1952); Ka - 301,5 m; a, $\times 135$, dorsal side; b, $\times 110$, ventral side; same specimen.
- Fig. 2a-b : *Asterigerina wilcoxensis* CUSHMAN & GARRETT, 1939; Ka - 310,8 m; a, $\times 100$, ventral side; b, $\times 150$, dorsal side; same specimen.
- Fig. 3a-b : *Pararotalia armata* (d'ORBIGNY, 1826); a, $\times 140$, Me 5, ventral side; b, $\times 180$, Led - 19,5 m, dorsal side; different specimens.
- Fig. 4 : *Pararotalia curryi* LOEBLICH & TAPPAN, 1957; $\times 220$; Ka - 257 m; dorsal side.
- Fig. 5 : *Pararotalia inermis* (TERQUEM, 1882); $\times 130$; Led - 17,5 m; ventral side.
- Fig. 6 : *Pararotalia spinigera* (LE CALVEZ, 1952); $\times 100$; Ka - 257 m; ventral side.
- Fig. 7a-b : *Elphidium hiltermanni* HAGN, 1952; $\times 250$; a, Tt - 43,5 m; b, Ka - 242,5 m; umbilical sides.
- Fig. 8 : *Elphidium* sp. *E. costiferum* TERQUEM, 1882; $\times 150$; Ka - 280 m.
- Fig. 9a-b : *Elphidium* ? *latidorsatum* (REUSS, 1864); Ka - 257 m; a, $\times 150$, frontal view; b, $\times 100$, umbilical side; different specimens.
- Fig. 10a-b : *Cribrononion subnodosum minor* (ELLERMAN, 1960); Ka - 299 m; a, $\times 195$, umbilical side; b, $\times 173$, frontal view; same specimen.
- Fig. 11a-b : *Protelphidium hofkeri* HAYNES, 1956; Ka - 283 m; $\times 275$, umbilical side; b, $\times 250$, frontal view; same specimen.
- Fig. 12a-b : *Protelphidium sublaevum* (TEN DAM, 1944); a, $\times 170$, Me 5, umbilical side; b, $\times 263$, Km - 8,9 m, frontal view; different specimens.
- Fig. 13 : *Numulites planulatus* (de LAMARCK, 1804), $\times 25$; Led - 19,5 m.

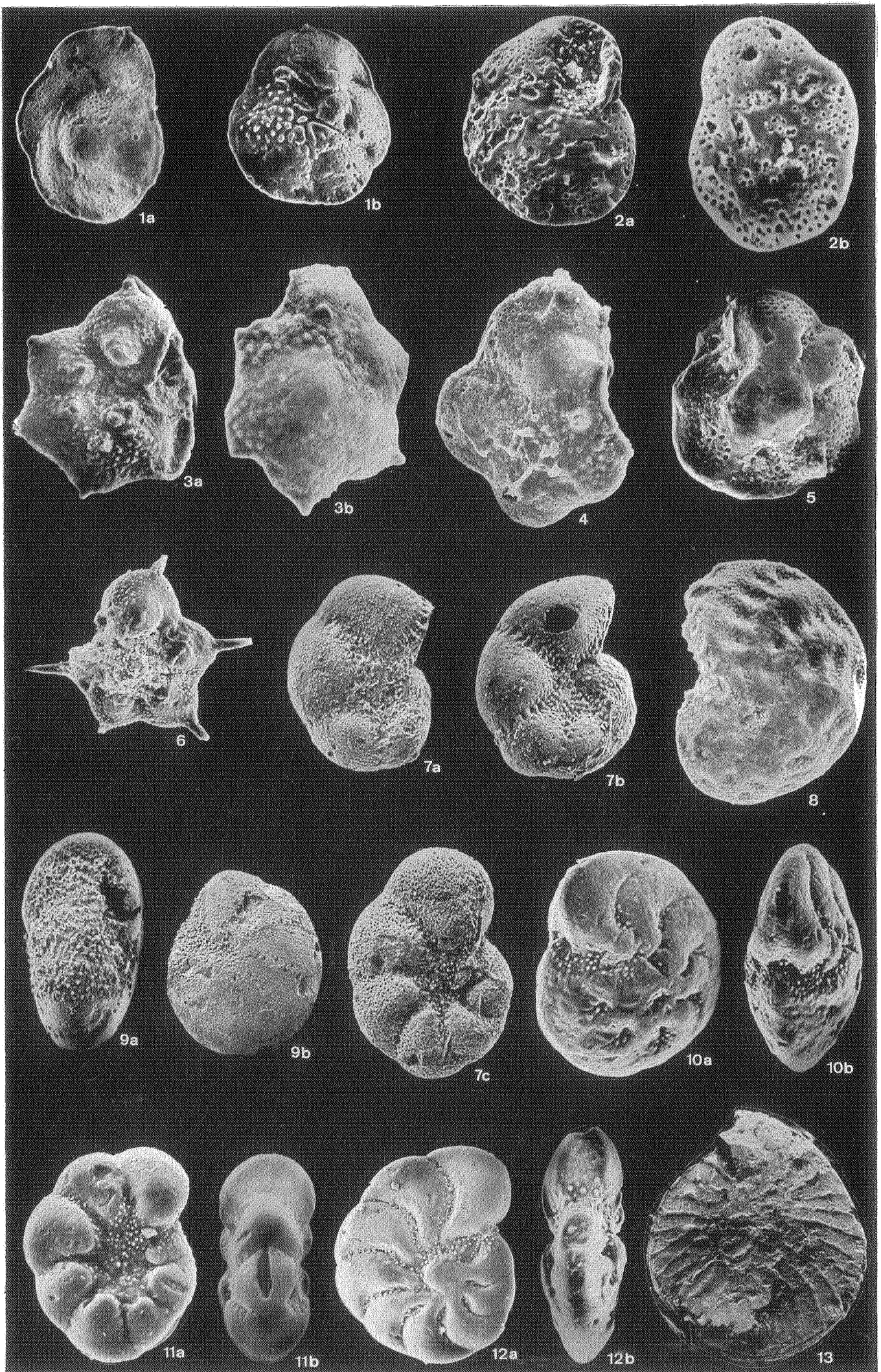


PLATE 10

- Fig. 1a-b : *Guembelitra triseriata* (TERQUEM, 1882); Ka - 242,5 m; a, $\times 350$; b, $\times 190$.
- Fig. 2 : *Guembelitra* sp. cf. *G. columbiana* HOWE, 1939; $\times 325$; Tt - 20,5 m.
- Fig. 3 : *Globanomalina wilcoxensis* CUSHMAN & PONTON, 1932; $\times 300$; Ka - 264 m; umbilical side.
- Fig. 4 : *Globorotalia broedermanni* CUSHMAN, & BERMUDEZ 1949; a, b & c, same specimen; Ka - 358,5 m; a, $\times 200$, dorsal side; b, $\times 263$, frontal view; c, $\times 230$, ventral side; d & e, same specimen; Ka - 323,5 m; d, $\times 250$, dorsal side; e, $\times 200$, ventral side.
- Fig. 5a-d : *Globorotalia pseudoscitula* GLAESSNER, 1937; a & b, same specimen; Ka - 264 m; a, dorsal side; b, ventral side; c & d, same specimen; Ka - 245 m; c, $\times 190$, dorsal side; d, $\times 170$, ventral side.
- Fig. 6a-c : *Turborotalia coalingensis* CUSHMAN & HANNA, 1927; a & b, same specimen; Me 5; a, $\times 160$, dorsal side; b, $\times 210$, ventral side; c, $\times 160$, Ka - 245 m, dorsal side.
- Fig. 7a-c : *Turborotalia esnaensis* (LEROY, 1953); Tt - 24,5 m; a, $\times 190$, dorsal side; b, $\times 263$, ventral side; c, $\times 325$, frontal view; different specimens.
- Fig. 8 : *Turborotalia pentacamerata* (SUBBOTINA, 1947); $\times 180$; Ka - 323,5 m; dorsal side.

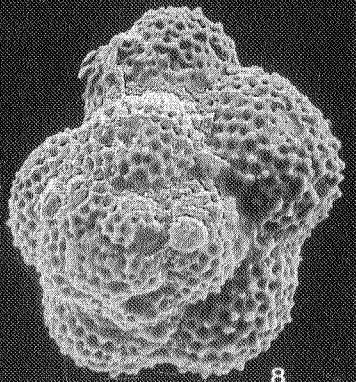
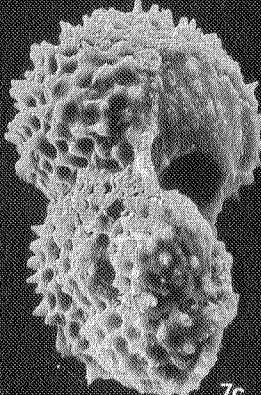
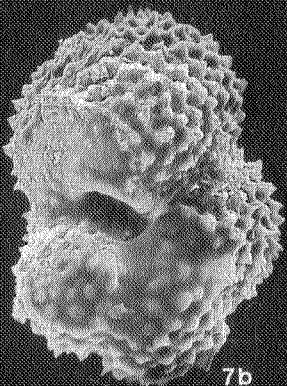
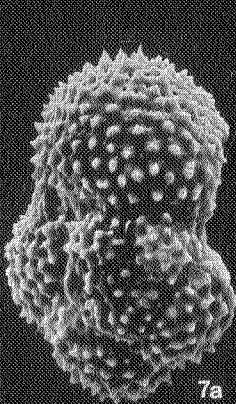
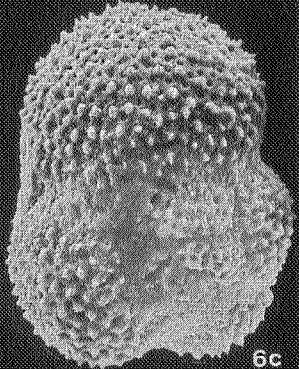
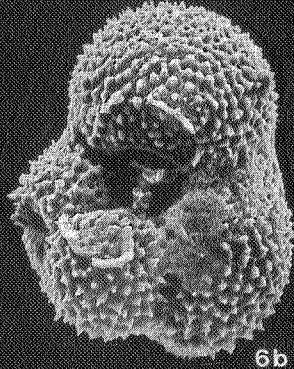
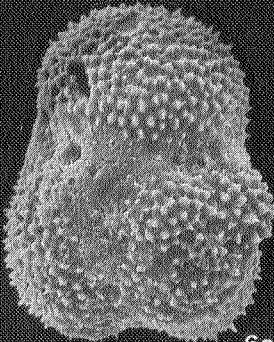
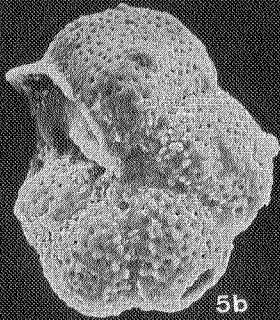
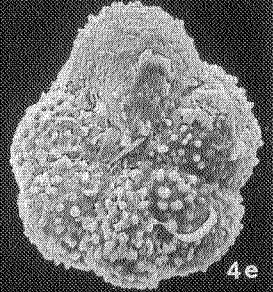
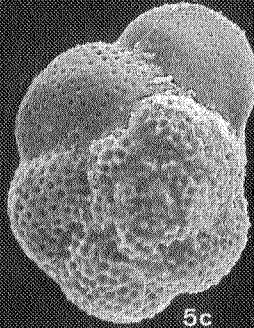
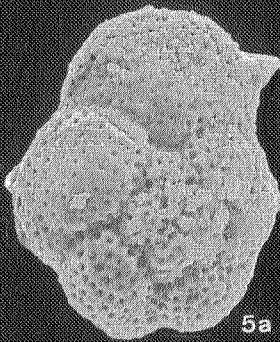
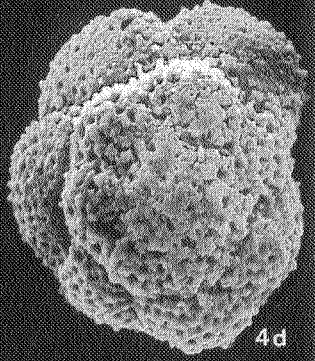
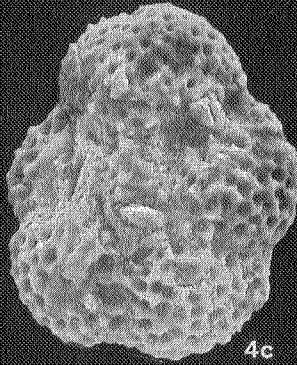
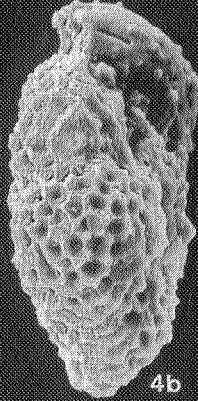
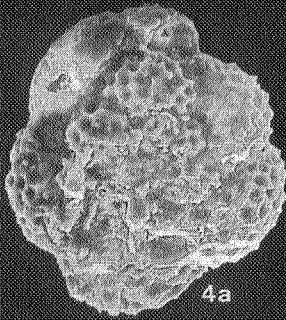
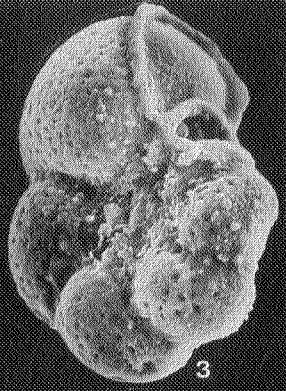
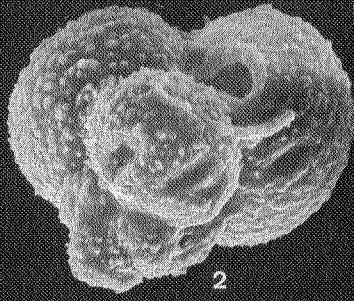
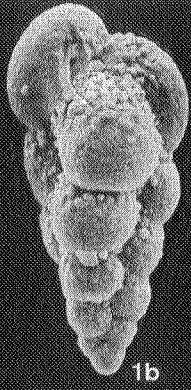
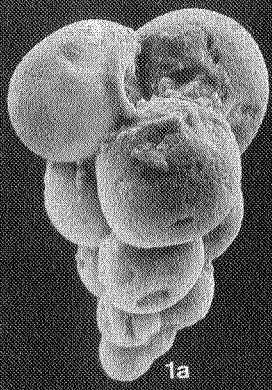


PLATE 11

- Fig. 1a-i : *Turborotalia pentacamerata* (SUBBOTINA, 1947); a & b, same specimen; Ka - 358,5 m; a, $\times 200$, ventral side; b, $\times 210$, dorsal side; c & d, same specimen; Ka - 245 m; c, $\times 170$, dorsal side; d, $\times 180$, ventral side; e, $\times 200$, Ka - 323,5 m, ventral side; f, $\times 180$, Ka - 323,5 m, dorsal side; g, $\times 160$, Ka - 323,5 m, ventral side; h, $\times 160$, Ka - 323,5 m, frontal side; i, $\times 120$, Ka - 323,5 m, dorsal side.
- Fig. 2a-d : *Turborotalia perclara* (LOEBLICH & TAPPAN, 1957); a & b, same specimen; $\times 190$; Ka - 358,5 m; a, dorsal side; b, ventral side; c & d, same specimen; $\times 250$; Ka - 335,5 m; c, dorsal side; d, ventral side.
- Fig. 3a-d : *Turborotalia soldadoensis* (BRONNIMANN, 1952); a & b, same specimen; Ka - 257 m; a, $\times 180$, dorsal side; b, $\times 190$, ventral side; c, $\times 210$, Ka - 257 m, frontal view; d, $\times 170$, Ka - 356 m, dorsal side.
- Fig. 4a-c : *Globigerina aquiensis* LOEBLICH & TAPPAN, 1957; a & b, same specimen; Ka - 323,5 m; a, $\times 180$, dorsal side; b, $\times 190$, ventral side; c, $\times 160$, Ka - 323,5 m, ventral side.

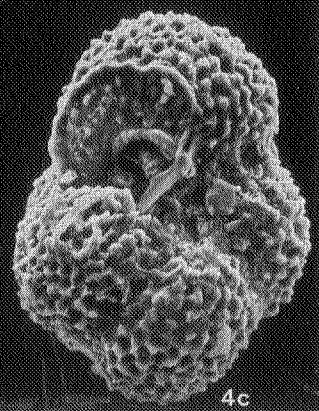
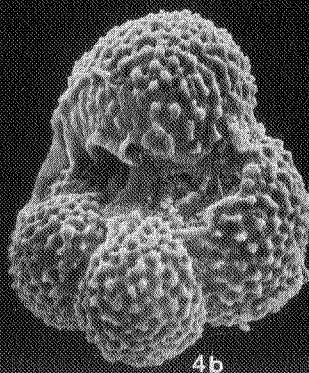
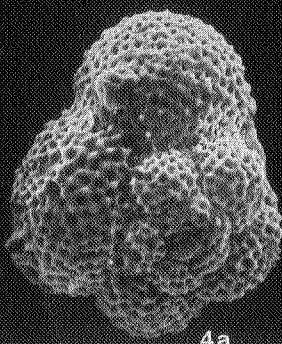
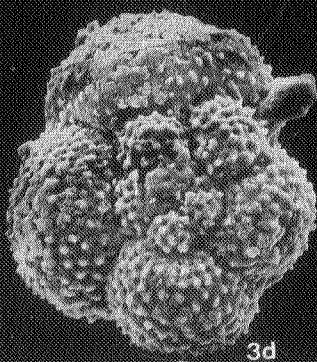
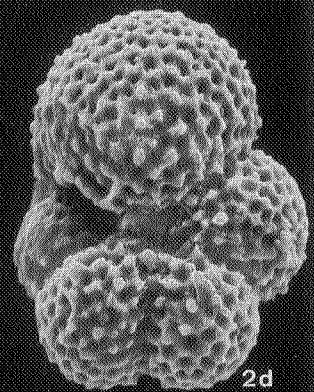
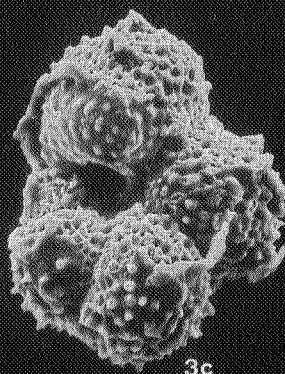
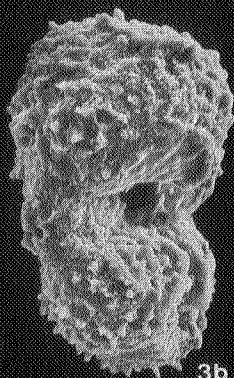
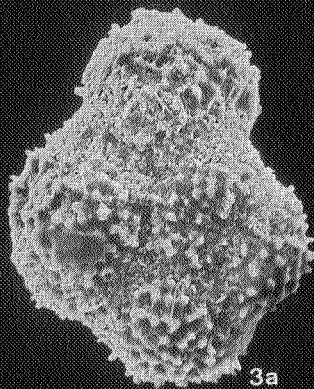
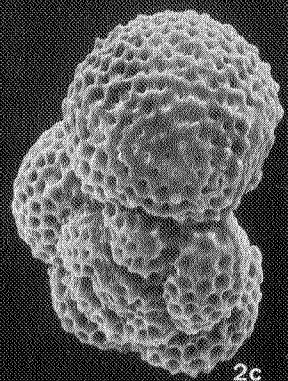
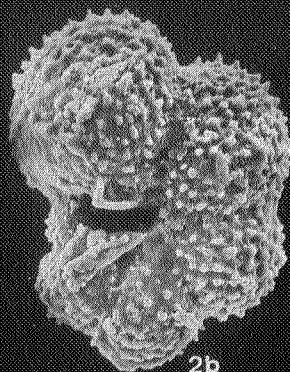
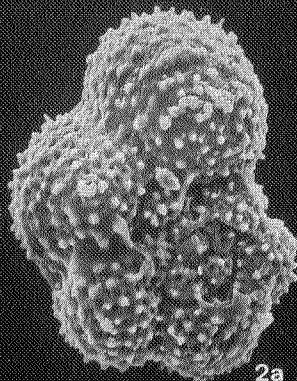
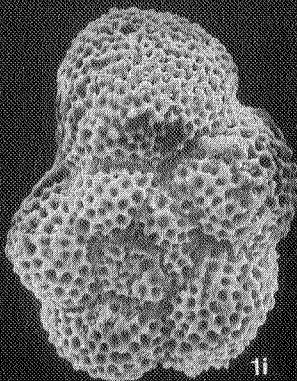
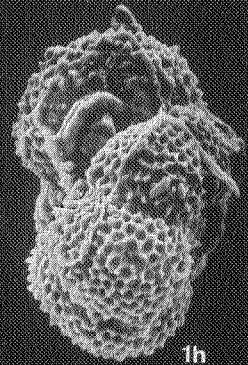
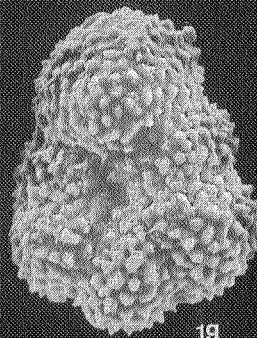
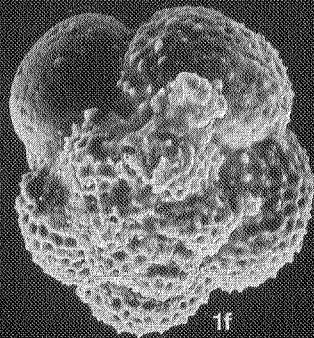
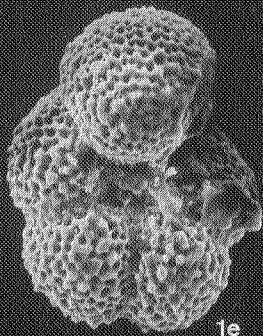
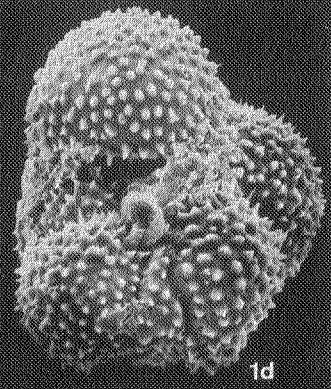
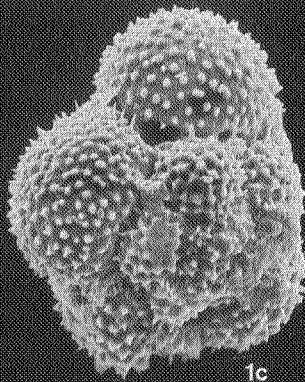
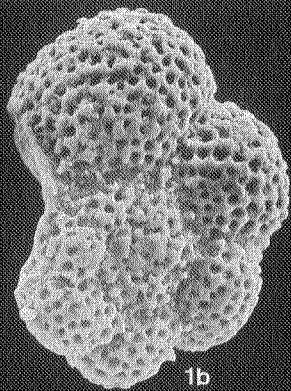
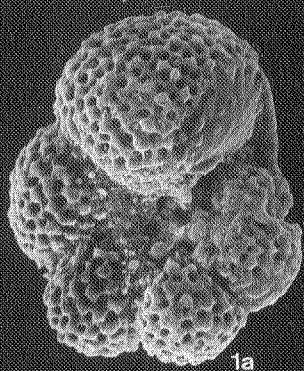


PLATE 12

- Fig. 1a-e : *Globigerina aquiensis* LOEBLICH & TAPPAN, 1957; Ka - 323,5m; a, $\times 180$, dorsal side; b, $\times 220$, dorsal side; c, $\times 200$, dorsal side; d, $\times 210$, frontal view; e, $\times 170$, ventral side; different specimens.
- Fig. 2a-c : *Globigerina inaequispira* SUBBOTINA, 1953; Ka - 261,5m; a, $\times 180$, ventral side; b, $\times 170$, frontal view; c, $\times 150$, dorsal side; same specimen.
- Fig. 3a-g : *Globigerina patagonica* TODD & KNIKER, 1952; a, $\times 170$, Ka - 310,8m, dorsal side; b, $\times 160$, Ka - 310,8m, frontal view; c, $\times 170$, Ka - 310,8m, frontal view; d & e, same specimen, Ka - 245m; d, $\times 180$, frontal view; e, $\times 170$, ventral side; f, $\times 200$, Ka - 234m, dorsal side; g, $\times 250$, Tt - 41,5m, frontal view.
- Fig. 4a-e : *Globigerina ex gr. praebulloides* BLOW, 1959; Tt - 95,5m; a, $\times 140$, ventral side; b, $\times 250$, ventral side; c, $\times 250$, frontal view; d, $\times 165$, dorsal side; e, $\times 250$, frontal view; different specimens.

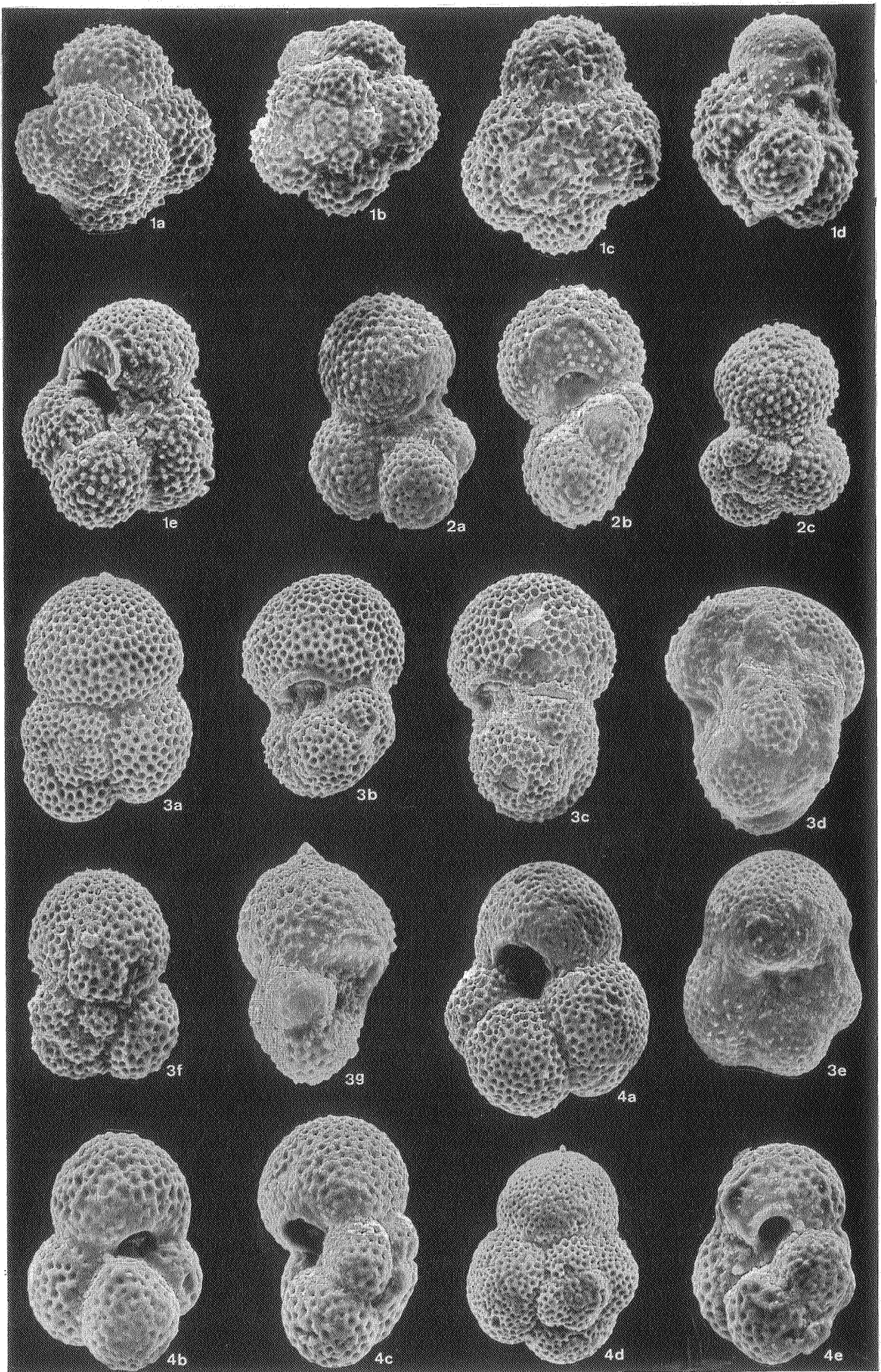


PLATE 13

- Fig. 1a-c : *Eponides gracillima* TEN DAM, 1944; $\times 200$; Ka - 324 m; a, dorsal side; b, frontal view; c, ventral side; same specimen; drawings.
- Fig. 2a-c : *Eponides lunata* BROTZEN, 1948; $\times 300$; Ka - 347 m; a, dorsal side; b, frontal view; c, ventral side; same specimen; drawings.
- Fig. 3a-c : *Eponides polygona* LE CALVEZ, 1949; $\times 200$; Ka - 248 m; a, dorsal side; b, frontal view; c, ventral side; same specimen; drawings.
- Fig. 4a-c : *Eponides plummerae* CUSHMAN, 1948; $\times 200$; Ka - 356 m; a, ventral side; b, frontal view; c, dorsal side; same specimen; drawings.
- Fig. 5a-b : *Cibicidina burlingtonensis* (JENNINGS, 1936); Ka - 283 m; a, $\times 135$, dorsal side; b, $\times 120$, ventral side; same specimen.
- Fig. 6a-d : *Cibicidina ekblomi* (BROTZEN, 1948); Ka - 254,5 m; a, $\times 200$, ventral side; b, $\times 195$, dorsal side; c, $\times 200$, ventral side; d, $\times 200$, dorsal side; different specimens.
- Fig. 7a-b : *Cibicidina producta* (TERQUEM, 1882); $\times 170$; Ka - 250 m; a, dorsal side; b, ventral side; same specimen.

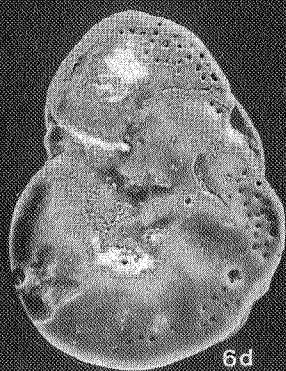
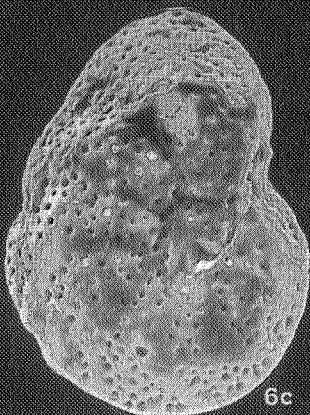
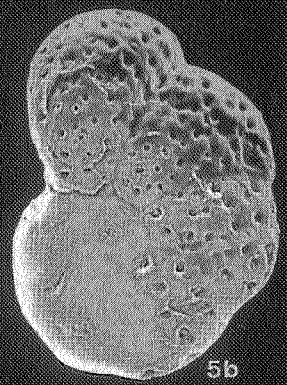
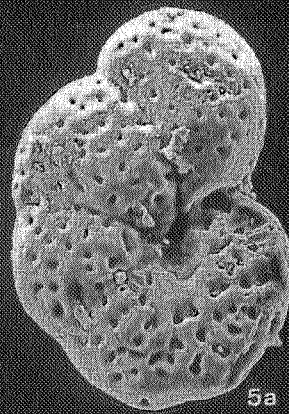
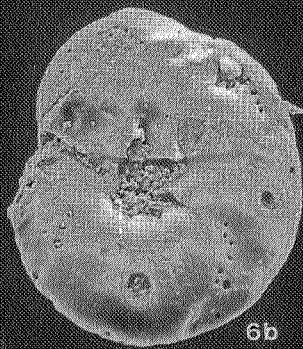
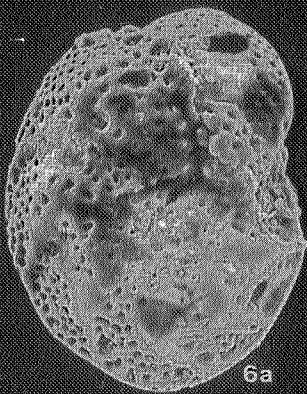
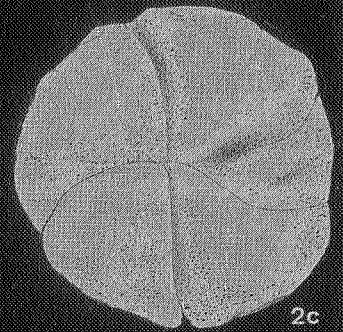
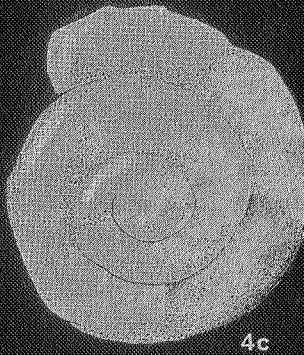
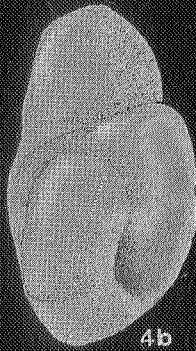
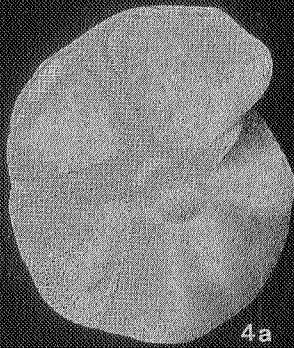
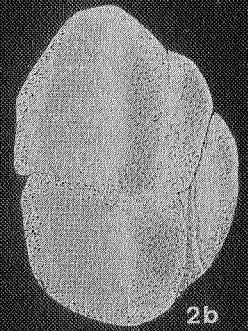
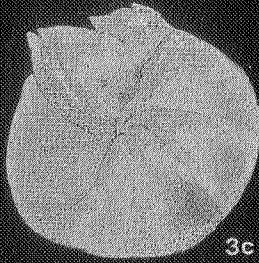
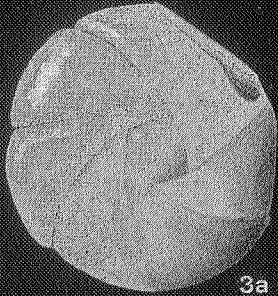
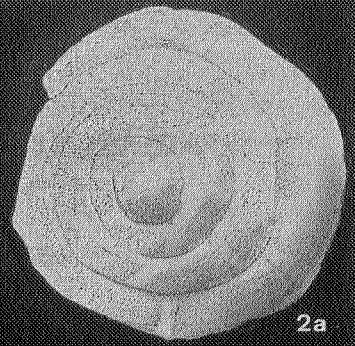
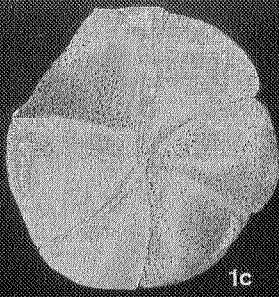
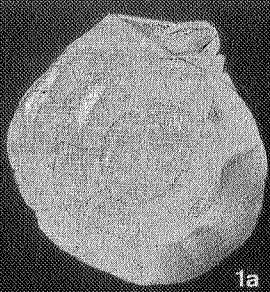
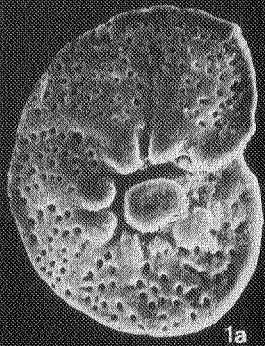


PLATE 14

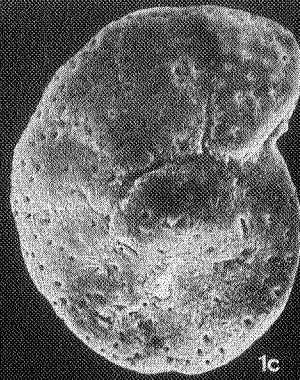
- Fig. 1a-f : *Cibicidina mauricensis* (HOWE & ROBERTS, 1939); Ka - 259 m; a, $\times 220$, dorsal side; b, $\times 170$, ventral side; c, $\times 170$, ventral side; d, $\times 170$, dorsal side; e, $\times 170$, ventral side; f, Ka - 245 m, $\times 100$, dorsal side; different specimens.
- Fig. 2a-d : *Cibicidina newmana*e (PLUMMER, 1926); Ka - 254,5 m; a & b, same specimen; a, $\times 130$, ventral side; b, $\times 150$, dorsal side; c, $\times 150$, dorsal side; d, $\times 150$, ventral side.
- Fig. 3a-d : *Cibicidina tendami* (KAASSCHIETER, 1961); Ka - 303,9 m; a, $\times 65$, dorsal side; b, $\times 85$, ventral side; c, $\times 65$, ventral side; d, $\times 75$, dorsal side; different specimens.
- Fig. 4 : *Cibicides ex gr. carinata* (TERQUEM, 1882); $\times 150$; Ka - 257 m; dorsal side.
- Fig. 5a-b : *Cibicides tallahatensis* BANDY, 1949; $\times 250$; Ka - 29,5 m; dorsal side; b, ventral side; same specimen.
- Fig. 6a-c : *Cibicides westi* HOWE, 1939; $\times 100$; Ka - 350 m; a, ventral side; b, frontal view; c, dorsal side; same specimen.



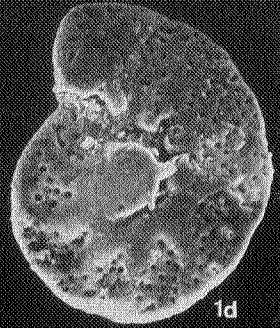
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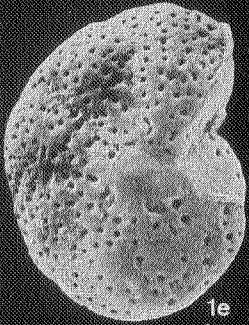
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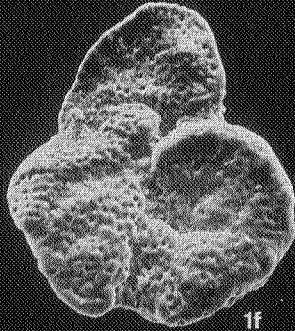
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1d



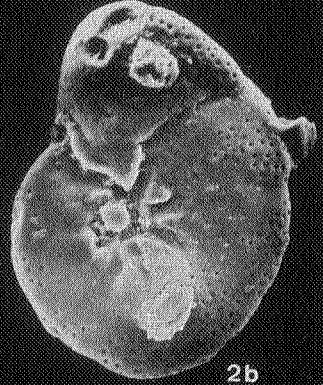
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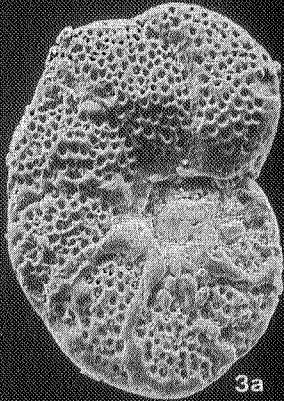
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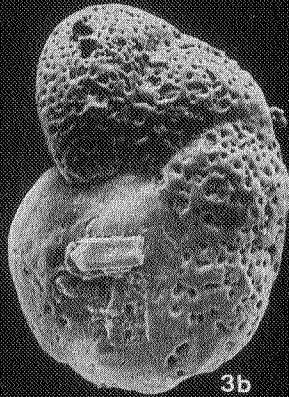
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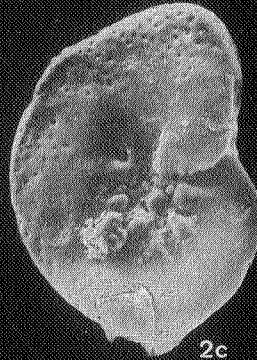
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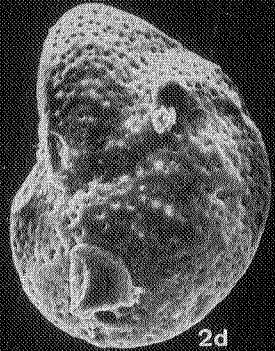
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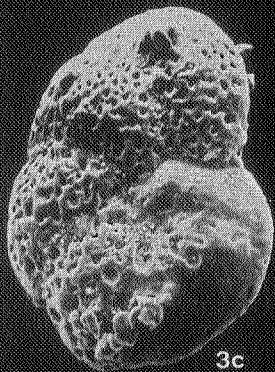
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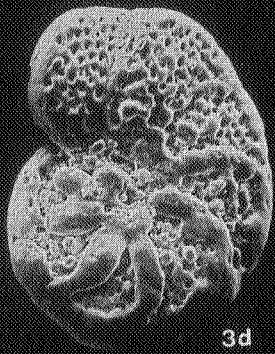
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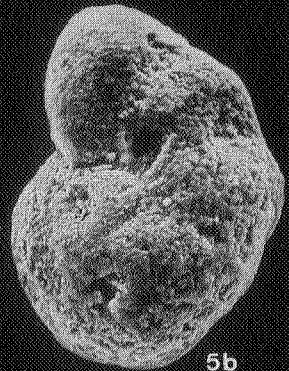
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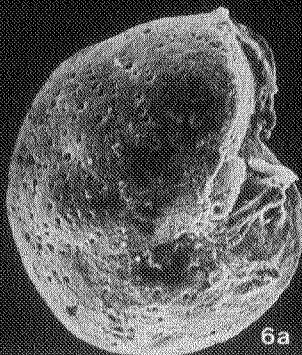
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5b



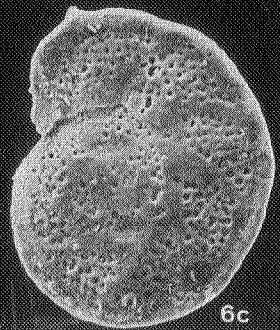
4



6a



6b



6c

PLATE 15

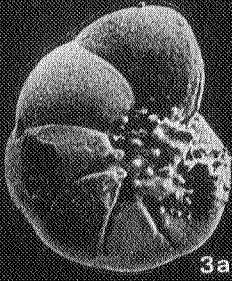
- Fig. 1 : *Fursenkoina schreibersiana* (CZJZEK, 1848); $\times 85$; Ka - 281,5 m.
- Fig. 2 : *Fursenkoina* sp.; $\times 90$; Ka - 303,9 m.
- Fig. 3a-c : *Nonion graniferum* (TERQUEM, 1882); a, $\times 165$, Ka - 245 m, umbilical side; b & c, same specimen; Ka - 242,5 m; b, $\times 300$, umbilical side; c, $\times 375$, frontal view.
- Fig. 4a-c : *Florilus communis* (d'ORBIGNY, 1846); a, $\times 150$, Ka - 245 m; b, $\times 100$, Ka - 245 m; c, $\times 108$, Ka - 321 m; umbilical sides; different specimens.
- Fig. 5 : *Nonion laevum* (d'ORBIGNY, 1826); $\times 160$; Ka - 242,5 m; umbilical sides.
- Fig. 6a-b : *Nonionella spissa* CUSHMAN, 1931; Me 5; a, $\times 108$; b, $\times 110$; umbilical sides; same specimen.
- Fig. 7a-c : *Alabamina obtusa* (BURROWS & HOLLAND, 1897); $\times 120$; Ka - 323,5 m; a, ventral side; b, frontal view; c, dorsal side; same specimen; drawings.
- Fig. 8a-c : *Alabamina wilcoxensis* TOULMIN, 1941; $\times 180$; Ka - 283 m; a, ventral side; b, frontal view; c, dorsal side; same specimen; drawings.
- Fig. 9a-b : *Gyroidinoides danvillensis* (HOWE & WALLACE, 1932); $\times 110$; Ka - 358,5 m; a, dorsal side; b, ventral side; different specimens.
- Fig. 10a-b : *Gyroidinoides octocameratus* (CUSHMAN & HANNA, 1927); $\times 110$; Ka - 310,8 m; a, dorsal side; b, ventral side; different specimens.



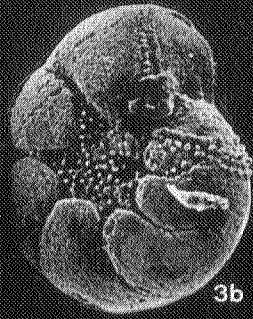
1



2



3a



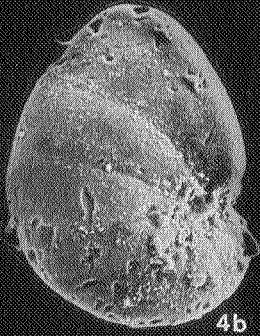
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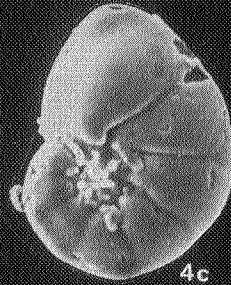
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4a



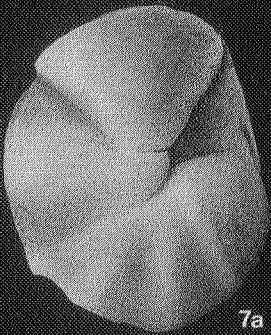
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4c



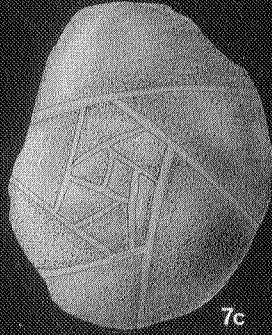
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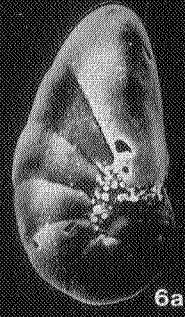
7a



7b



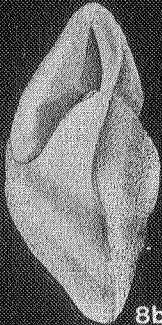
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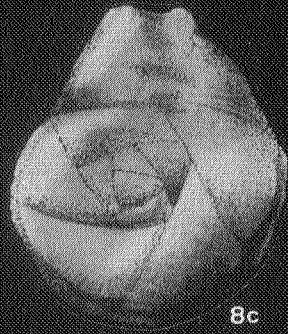
6a



8a



8b



8c



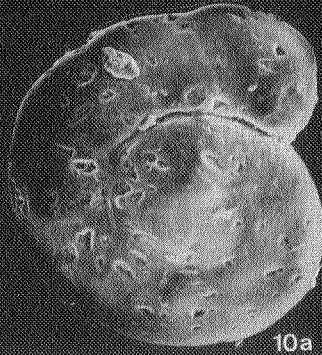
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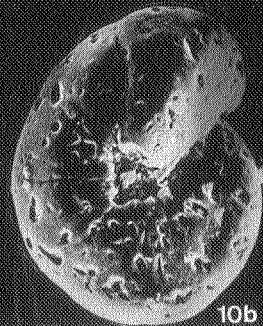
9a



9b



10a



10b

PLATE 16

- Fig. 1a-c : *Anomalinoidea acutus* (PLUMMER, 1926); $\times 100$; Ka - 308,6 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 2a-c : *Anomalinoidea cunobelini* (HAYNES, 1957); $\times 100$; Ka - 352,5 m; a, ventral side; b, frontal view; c, dorsal side; same specimen.
- Fig. 3a-c : *Anomalinoidea ypresiensis* (TEN DAM, 1944); $\times 140$; Ka - 312,5 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 4a-c : *Anomalinoidea sp. cf. A. danicus* (BROTZEN, 1940); $\times 180$; Ka - 354,5 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 5a-c : *Anomalinoidea anomalinoidea* (TEN DAM, 1944); $\times 128$; Ka - 318,5 m; a, dorsal side; b, frontal view; c, ventral side; same specimen; drawings.
- Fig. 6a-c : *Anomalinoidea nobilis* BROTZEN, 1948; $\times 140$; Ka - 323,5 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 7a-d : *Karrerria fallax* RZEHAKE, 1891; a, $\times 85$; Ka - 315,9 m, dorsal side; b, $\times 110$, Ka - 312,5 m; c, $\times 85$, Ka - 312,5 m; ventral sides; different specimens.

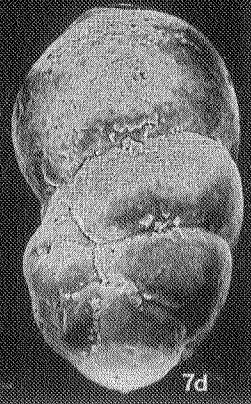
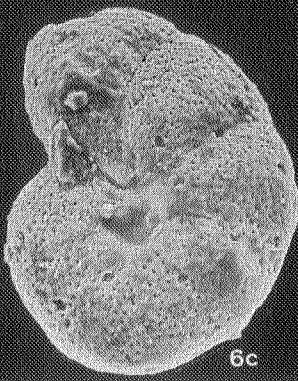
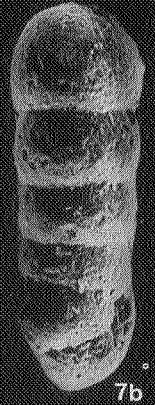
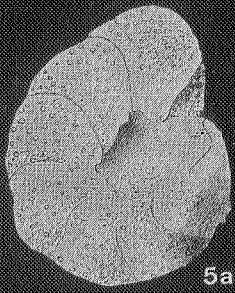
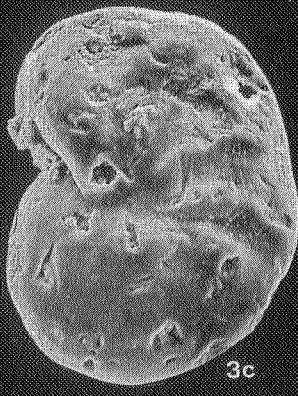
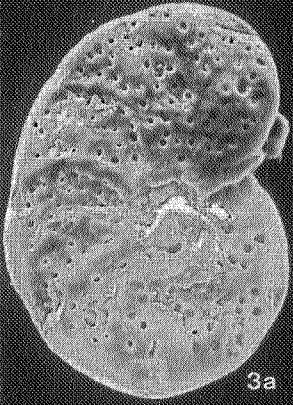
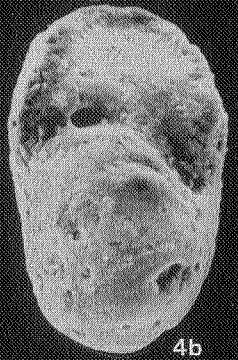
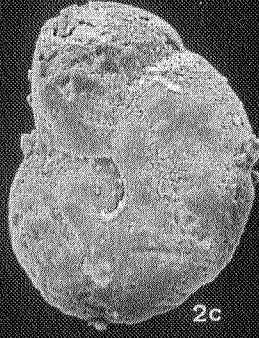
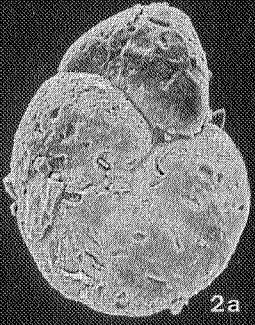
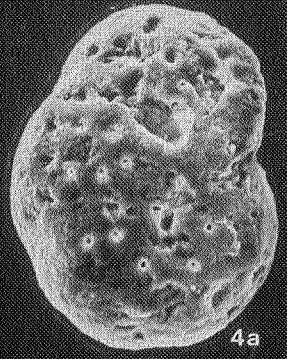
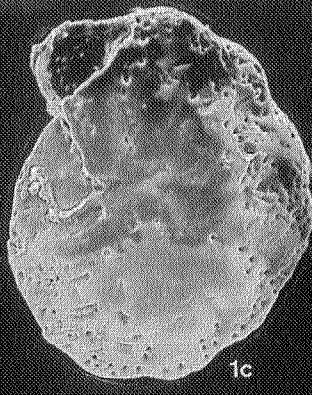
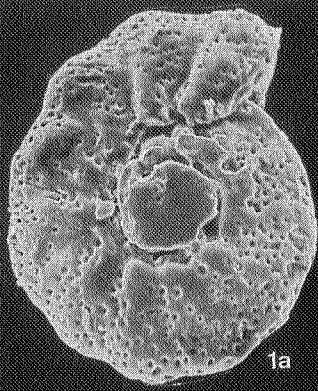


PLATE 17

- Fig. 1a-c : *Cibicoides acutimargus* (TEN DAM, 1944); $\times 85$, Ka - 257 m; a, ventral side; b, frontal view; c, dorsal side; same specimen.
- Fig. 2a-c : *Cibicoides crassus* (TEN DAM, 1944); $\times 160$; Ka - 354,5 m; a, ventral side; b, frontal view; c, dorsal side; same specimen.
- Fig. 3a-c : *Cibicoides proprius* BROTZEN, 1948; $\times 100$; Ka - 323,5 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 4a-c : *Cibicoides sulzensis* (HERMANN, 1917); $\times 150$; Ka - 318,5 m; a, ventral side; b, frontal view; c, dorsal side; same specimen.
- Fig. 5a-c : *Cibicoides pseudoungerianus* (CUSHMAN, 1922); $\times 100$; Ka - 283 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 6a-c : *Cibicoides succedens* (BROTZEN, 1948); $\times 190$; Ka - 339,5 m; a, dorsal side; b, frontal view; c, ventral side; same specimen.
- Fig. 7a-c : *Pulsiphonina prima* (PLUMMER, 1926); $\times 180$; Ka - 303,9 m; a, dorsal side; b, frontal view; c, ventral side; same specimen; drawings.

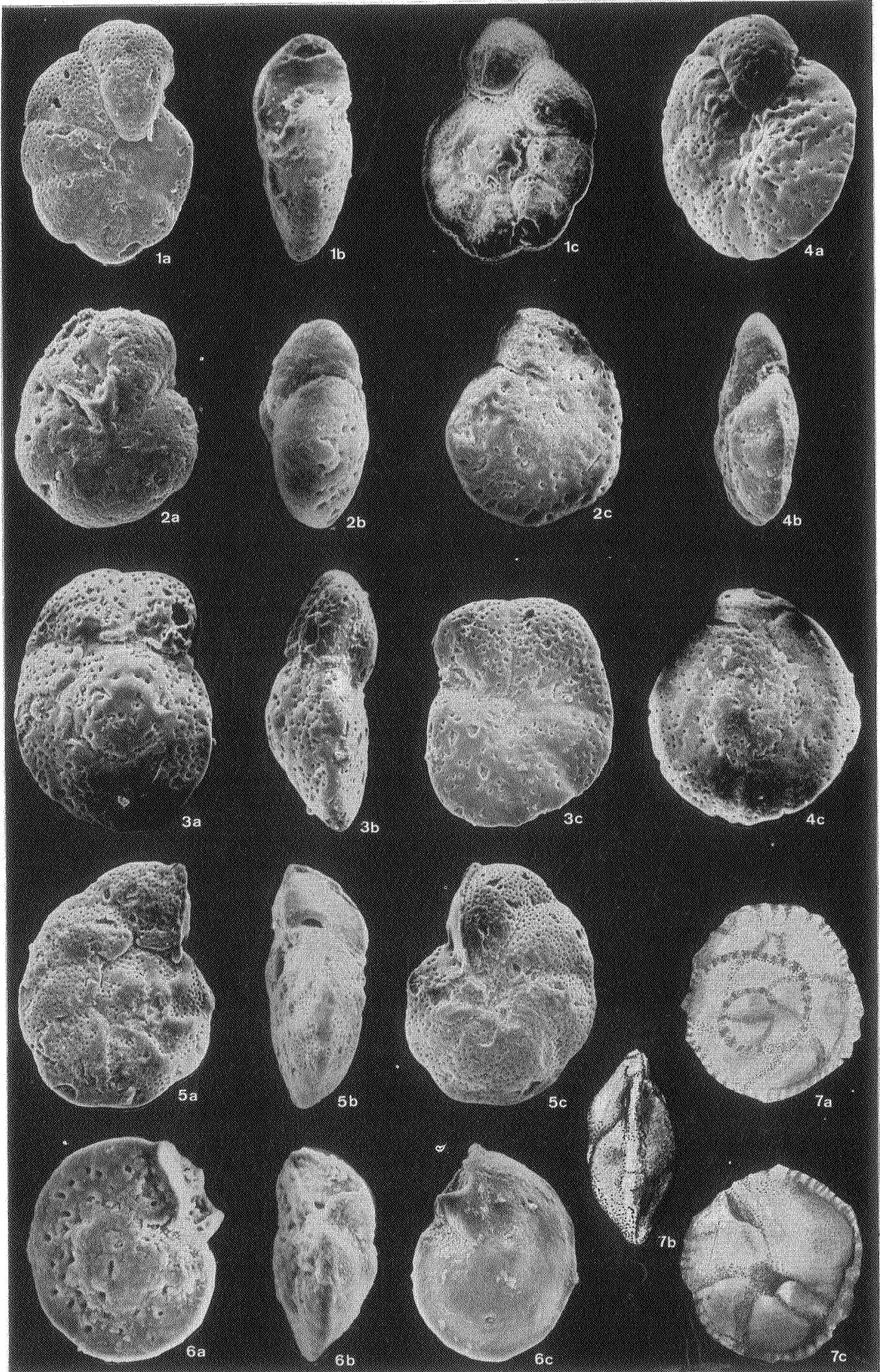


PLATE 18

- Fig. a-d : *Ammodiscus siliceus* (TERQUEM, 1862); $\times 128$; a, Ka - 372 m; specimen with diamond-shaped outline resembling representatives of the genus *Psamminopelta* TAPPAN, 1957; b, Ka - 378 m, specimen of which the whorls are not planispirally wound up; c & d, Ka - 366 m, compressed specimens.
- Fig. e-h : *Miliammina paleocenica* KIESEL, 1970; $\times 128$; e, Ka - 347 m; specimen resembling *M. biobscura* STELCK & WALL, 1954; f, Tt - 137,5 m; g, Tt - 137,5 m, specimen of which the whorls are out of the spiral plane; h, Tt - 137,5 m.
- Fig. i-l : *Haplophragmoides burrowsi* HAYNES, 1958; $\times 128$; Tt - 140,5 m; deformed specimens.
- Fig. m-p : *Dorothia fallax* HAGN, 1954; $\times 64$; Ka - 303,9 m; m-n, specimens with a rounded initial part; o-p, specimens with a more pointed initial part.
- Fig. q-t : *Verneuilina subeocaena* WICK, 1943; $\times 128$; deformed specimens (q & r represent the same individual).

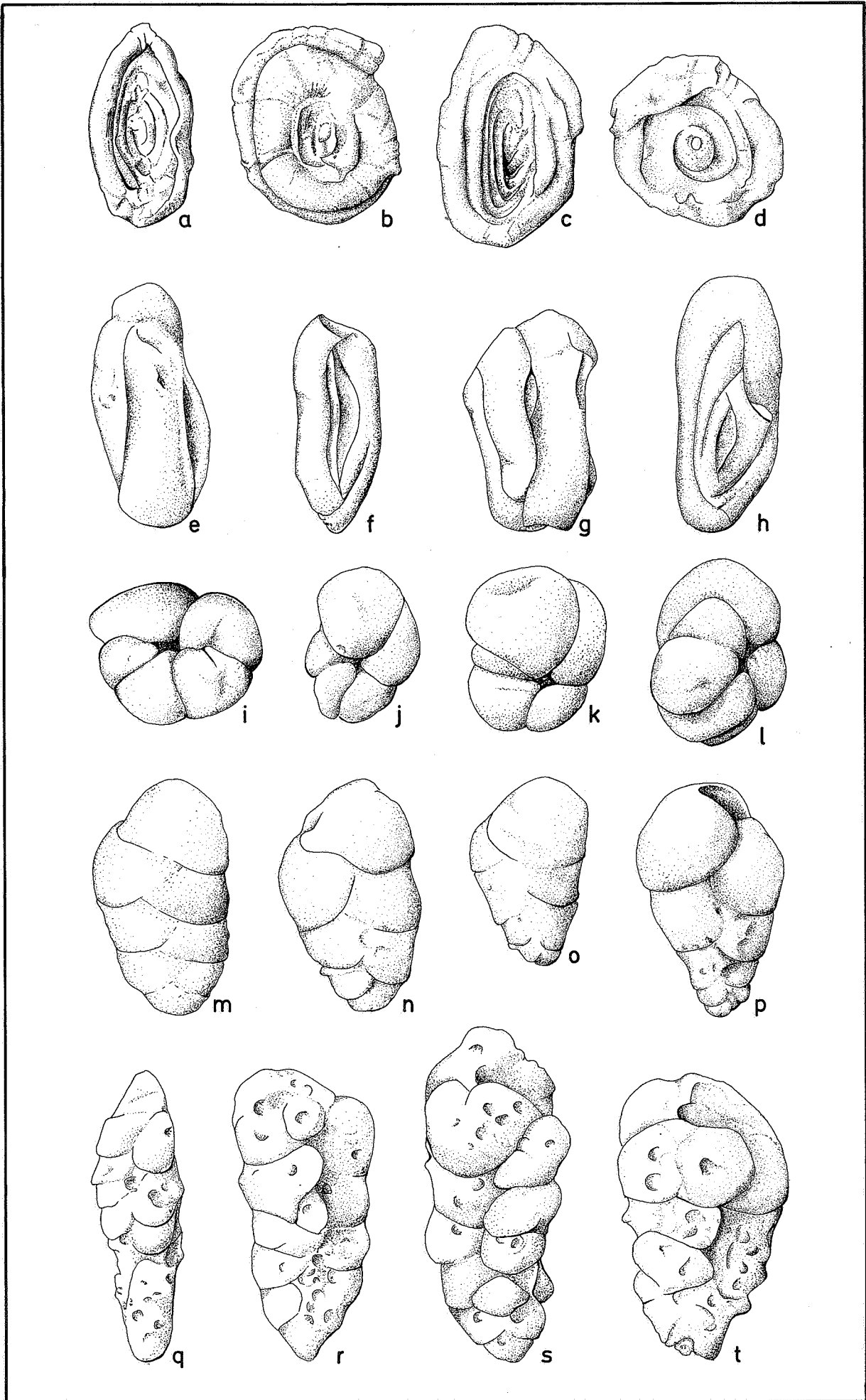


PLATE 19

- Fig. a-b : *Nodosaria acuminata* von HANTKEN, 1875; $\times 40$; a, Ka - 298,5 m, specimen with a large initial chamber; b, Ka - 306 m, specimen with a small initial chamber.
- Fig. c-d : *Nodosaria* sp. cf. *N. ewaldi* (REUSS, 1851); $\times 128$; c, Ka - 325,5 m, cylindrical chamber; d, Ka - 350 m, bottle-like chamber.
- Fig. e : *Nodosaria minor* von HANTKEN, 1875; $\times 40$; Ka - 323,5 m; specimen resembling *Dentalina multilineata* BORNEMANN, 1855.
- Fig. f-i : *Nodosaria* sp. cf. *N. pyrula* d'ORBIGNY, 1826; $\times 128$; Ka - 352,5 m
- Fig. j-m : *Nodosaria latejugata* GUMBEL, 1868; $\times 40$; Ka - 323,5 m; j-k, megalospheres; l-m, single chambers.
- Fig. n-p : *Nodosaria manifesta* (REUSS, 1851); $\times 128$; Ka - 310,8 m; n-p, megalospheres; o, microsphere.
- Fig. q-s : *Lagena?* sp. cf. *L. cookei* CUSHMAN, 1923; $\times 128$; a-b, Ka - 328 m; c, Ka - 325,5 m.
- Fig. t-w : *Lagena* cf. *laevis* von MONTAGU, 1808; $\times 128$; a, Ka - 321 m; b, Ka - 318,5 m; c, Ka - 360 m; d, Ka - 297 m.

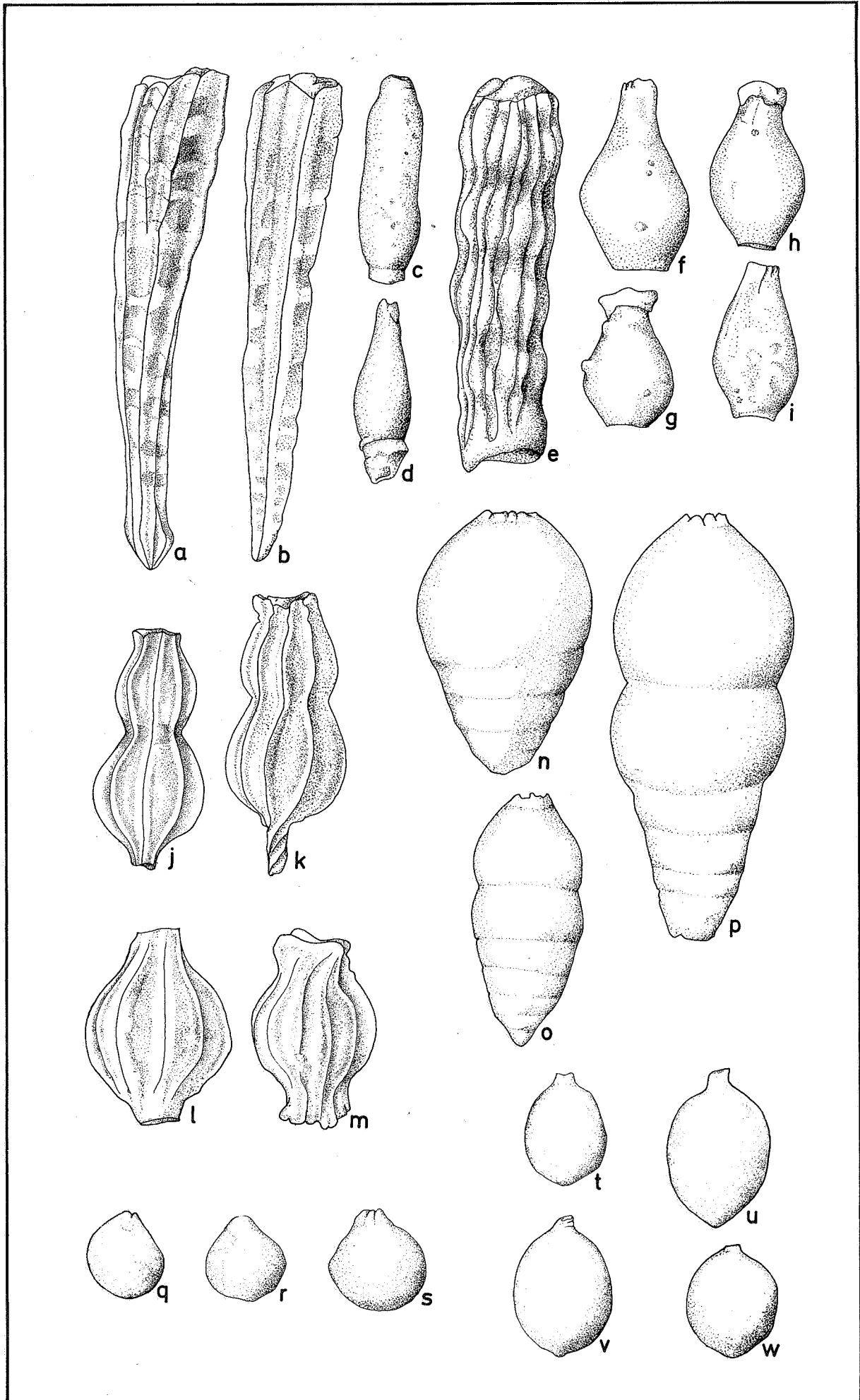


PLATE 20

- Fig. a-b : *Lenticulina (Darbyella) sp.*; $\times 40$; Ka - 303,9 m; specimen resembling *Lenticulina (D.) articulata* (BRADY, 1884).
- Fig. c-e : *Lenticulina (R.) inornata* (d'ORBIGNY, 1846); $\times 40$; c and e, Ka - 310,8 m; d, Ka - 323,5 m.
- Fig. f-i : *Lenticulina (R.) sp. cf. L. (R.) degolyeri* (PLUMMER, 1926); $\times 128$; Ka - 261,5 m.
- Fig. j-n : *Marginulinopsis decorata* (REUSS, 1855); $\times 128$; Ka - 323,5 m.
- Fig. o-r : *Marginulinopsis wetherelli* (JONES, 1854); $\times 40$; Ka - 325,5 m.

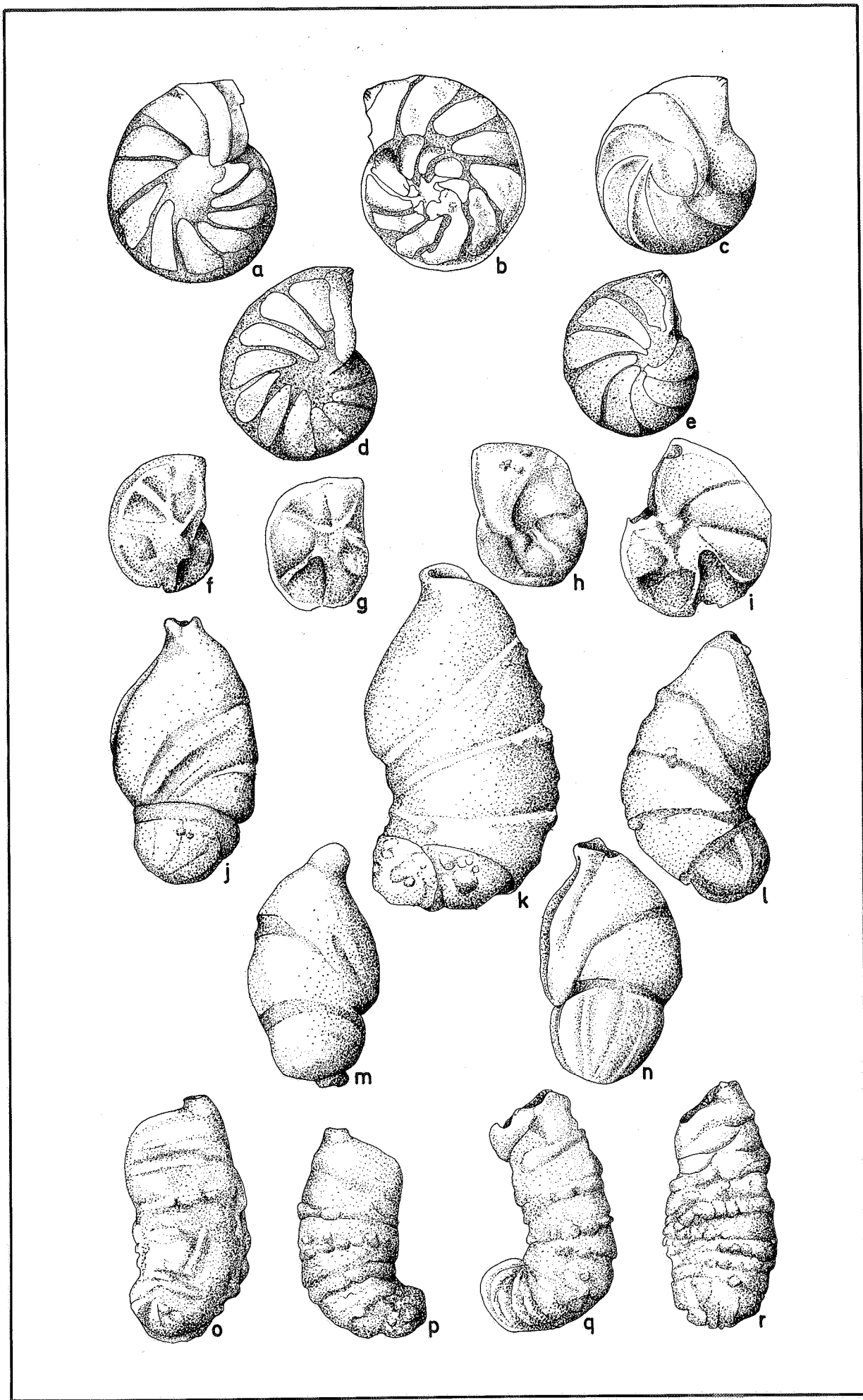


PLATE 21

- Fig. a-e : *Guttulina parisiensis* LE CALVEZ (1950); $\times 128$; Ka - 252m; different growth stades.
- Fig. f-i : *Glandulina ? tumida* (BOWEN, 1954); $\times 128$; Ka - 254m.
- Fig. j-k : *Stilostomella ? sp.*; $\times 128$; Ka - 318,5m.
- Fig. l-o : *Eurycheilostoma ? globospira n. sp.*; $\times 300$; Ka - 315,9m; different growth stades; specimens with a globular initial part (l,o); specimens with a pointed initial part (m,n).
- Fig. p-q : *Pijpersia kolloensis n. sp.*; $\times 300$; Ka - 292,5m; variation in number of chambers.

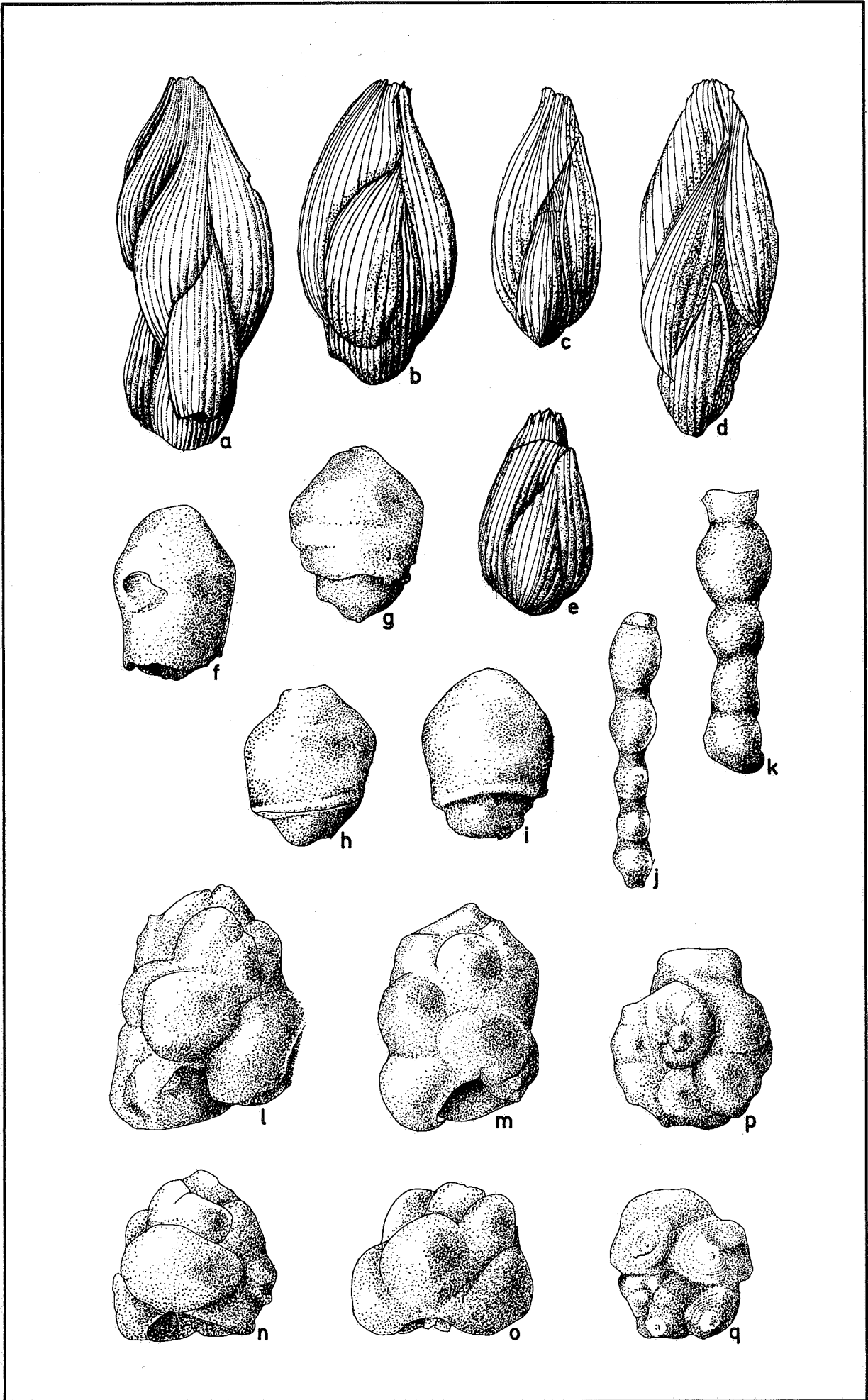


PLATE 22

- Fig. a-i : *Asterigerina bartoniana kaasschieteri* ZANEVA, 1972; $\times 64$; Ka - 310,8m; a-c, convex spiral side, flat umbilical side; d-f, flat spiral side, convex umbilical side; g-i, bi-convex specimen.
- Fig. j-n : *Cibicides ex gr. carinata* (TERQUEM, 1882); $\times 200$, Ka - 254,5m.

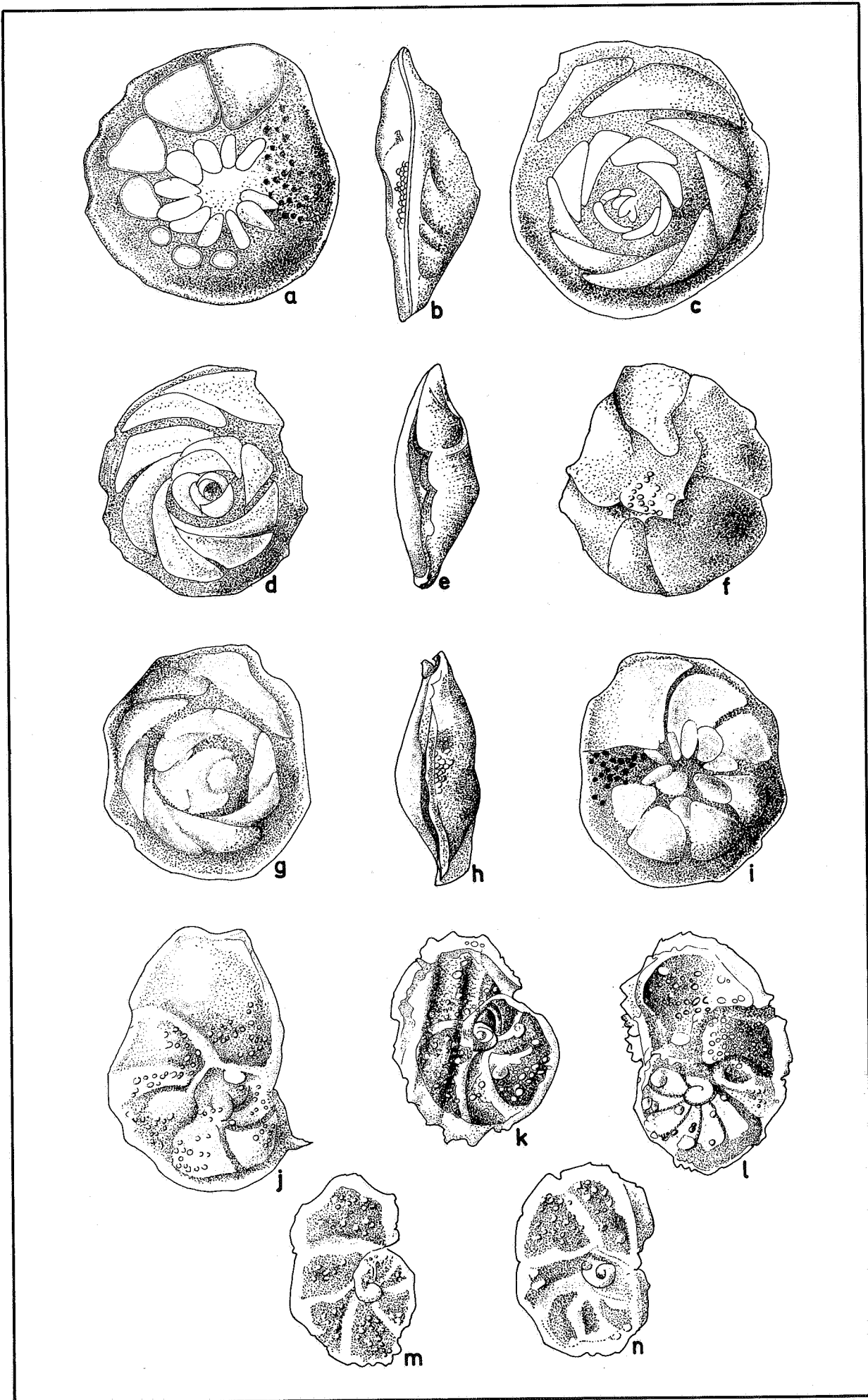


PLATE 23

- Fig. a-h : *Floribus communis* (d'ORBIGNY, 1846); × 200; Ka - 245m (a-b, c-d); Ka - 323,5m (g-h).
Fig. i-n : *Pullenia quinqueloba* (REUSS, 1851); × 200; Ka - 323,5m (i-k); Ka - 318,5m (l); × 128; Ka - 358,5m (m).

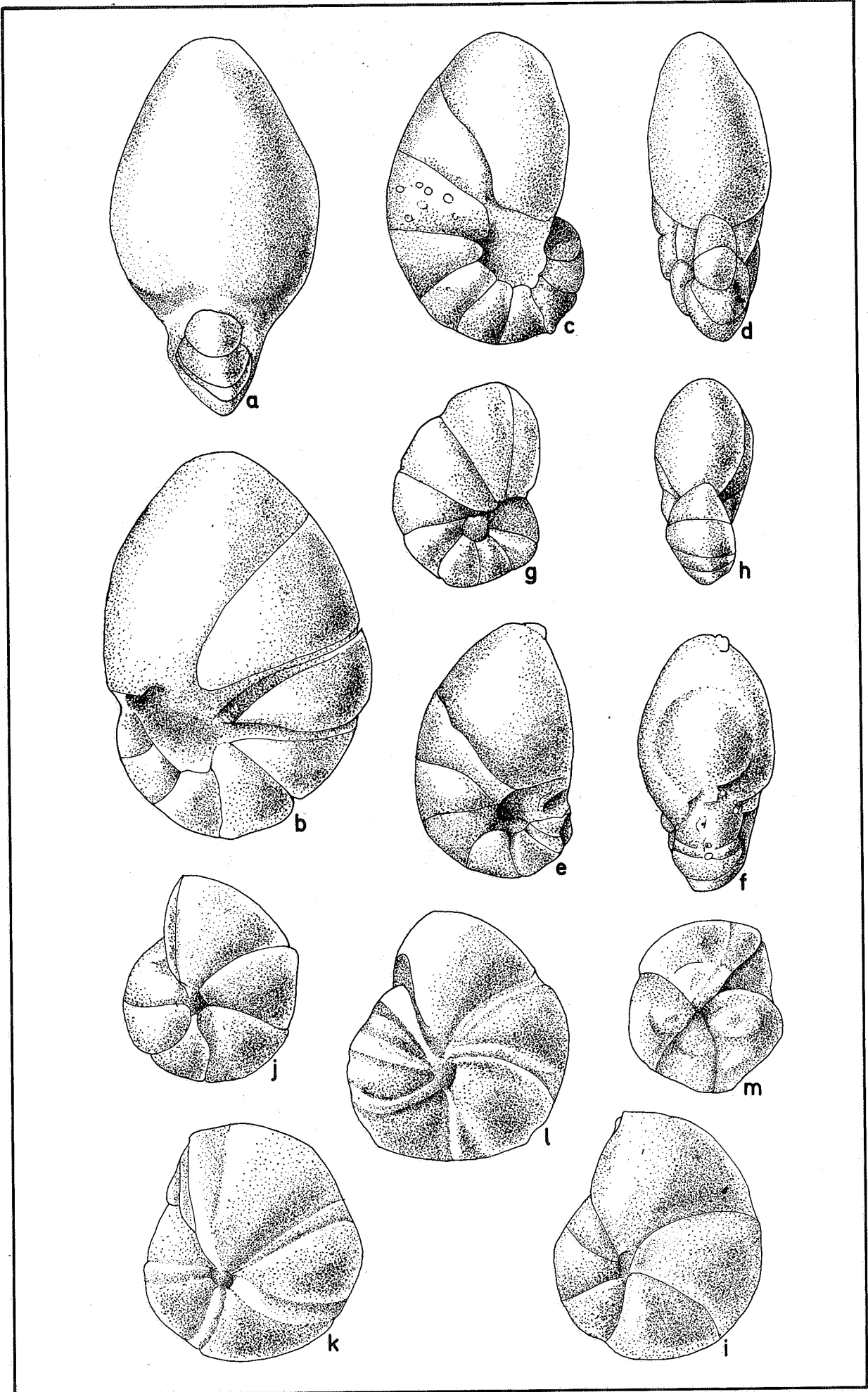
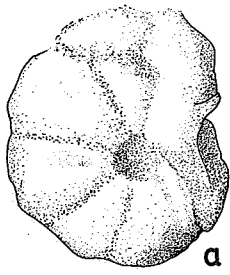
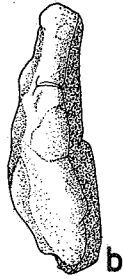


PLATE 24

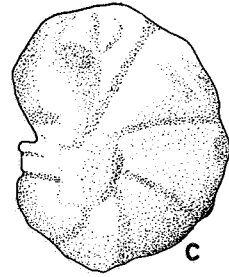
- Fig. a-c : *Anomalinoides sp.*; $\times 192$; Ka - 364m; specimen with compressed chambers.
Fig. d-f : *Cibicidoides proprius* BROTZEN, 1948; $\times 128$; Ka - 318,5m.
Fig. g-i : *Cibicidoides sp.*; $\times 192$; SJ14.
Fig. j-l : *Heterolepa sp.*; $\times 192$; T1 - 24,5m.
Fig. m-o : *Heterolepa sp.*; Km - 8,9m.



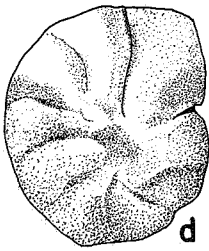
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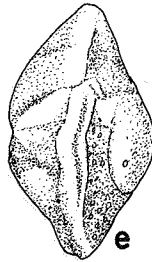
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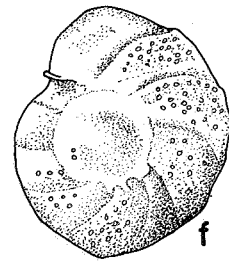
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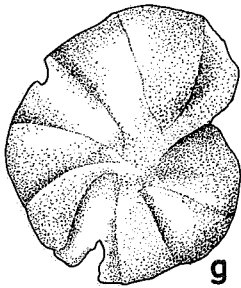
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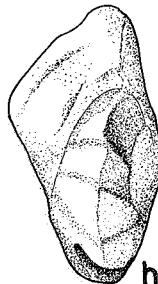
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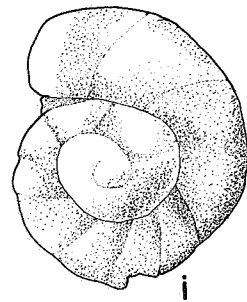
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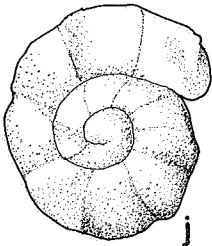
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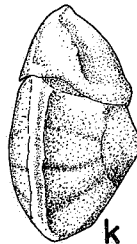
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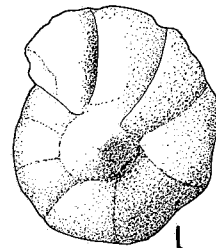
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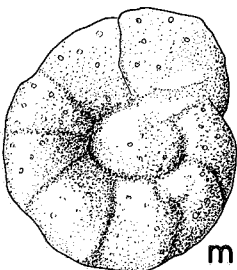
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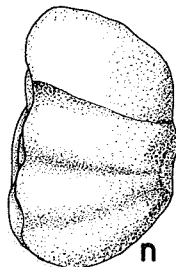
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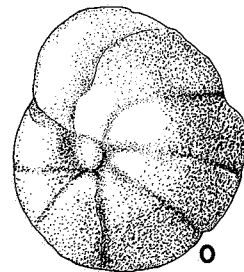
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m



n



o

