

# Planktonic foraminiferal biostratigraphy of Cretaceous strata, Indus Basin, Pakistan, Eastern Tethys: Implication for oceanic anoxic events

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## Supplementary paper

Appendix A. Taxonomic list of the Planktonic Foraminiferal species

Appendix B. Plates

## Appendix A. Taxonomic list of the Planktonic Foraminiferal species

In this section taxonomic list of species are given, including the type reference and in some cases, the most important synonym is given to highlight its latest name change.

### ***Hedbergella delrioensis* (Carsey), Plate 1, figures 11–15; Plate 24, figures 1–3**

Type reference: *Globigerina cretacea* d'Orbigny var. *delrioensis* Carsey, 1926, p. 43

*Hedbergella delrioensis* Loeblich & Tappan, 1961, p. 275, plate 2, figures 11a–13c

### ***Hedbergella sigali* Moullade, Plate 1, figure 1**

Type reference: *Hedbergella sigali* Moullade, 1966, p. 87, plate 7, figures 24–25

### ***Hedbergella hispaniae* Longoria, Plate 1, figure 18**

Type reference: *Hedbergella hispaniae* Longoria, 1974, p. 58, plate 19, figures 4–8, 19–20

### ***Hedbergella trocoidea* (Gandolfi), Plate 1, figures 3–10**

Type reference: *Anomalina lorneiana* d'Orbigny var. *trocoidea* Gandolfi, 1942, p. 98, plate 2, figures la–c; plate 4, figures 2–3; plate 13, figures 2a, b and 5a, b.

*Hedbergella trocoidea* Brönnimann & Brown, 1958, p. 16, figure la–c

### ***Hedbergella gorbachikae* Longoria, Plate 1, figures 19–21**

Type reference: *Hedbergella gorbachikae* Longoria, 1974, p. 58, plate 15, figures 11–13

### ***Hedbergella rischi* Moullade, Plate 4, figures 17, 19–20**

Type reference: *Hedbergella rischi* Moullade, 1974, p. 1816

### ***Hedbergella planispira* (Tappan), Plate 5, figures 1–4; Plate 24, figures 4–5**

Type reference: *Globigerina planispira* Tappan, 1940, p. 122, plate 19, figure 12

*Hedbergella planispira* Loeblich & Tappan, 1961, p. 276, plate 5, figures 4–11 (c)

### ***Globigerinelloides ferreolensis* (Moullade), Plate 2, figures 1–11**

Type reference: *Biticinella ferreolensis* Moullade, 1961, p. 214, plate 1, figures 1–5

*Globigerinelloides ferreolensis* Moullade, 1966, p. 123, plate 9, figures 1–3

### ***Globigerinelloides algerianus* (Cushman & Ten Dam), Plate 2, figures 12–13; Plate 3, figures 1–9; Plate 24, figures 6–7**

Type reference: *Globigerinelloides algeriana* Cushman & Ten Dam, 1948, p. 43, plate 8, figures 4–6

*Globigerinelloides algerianus* Moullade, 1966, p. 125, plate 9, figure 15

### ***Planomalina cheniourensis* (Sigal), Plate 3, figures 11–13**

Type reference: *Planulina cheniourensis* Sigal, 1952, p. 21, figure 17

*Planomalina cheniourensis* Moullade, 1966, p. 130–131, text figure 3

### ***Globigerinelloides barri* (Bolli, Loeblich & Tappan), Plate 1, figures 16–17**

Type reference: *Biglobigerinella barri* Bolli, Loeblich & Tappan, 1957, p. 25, plate 1, figures 13–18

*Globigerinelloides barri* Longoria, 1974, p. 80–82, plate 4, figures 1–3, 8, 14; plate 5, figures 9–16; plate 27, figure 19

### ***Ticinella primula* Luterbacher, Plate 4, figure 9; Plate 5, figures 8–10**

Type reference: *Ticinella primula* Luterbacher in Renz *et al.*, 1963, p. 1085, figure 4

### ***Ticinella roberti* (Gandolfi), Plate 4, figures 6–8; Plate 5, figures 5–7; Plate 24, figure 9**

Type reference: *Anomalina roberti* Gandolfi, 1942, p. 100–101, figure 22, plate 2, figure 2; plate 4, figures 5–7; plate 13, figures 3, 6

*Ticinella roberti* Moullade, 1966, p. 99–100, plate 9, figures 9–11

***Ticinella raynaudi* (Sigal), Plate 6, figures 14–15; Plate 24, figure 11**

Type reference: *Ticinella raynaudi* var. *raynaudi* Sigal, 1966, p. 201–202, plate 5, figure 10; plate 6, figures 1–5

***Ticinella madecassiana* Sigal, Plate 6, figure 12; Plate 7, figures 3–4; Plate 24, figure 12**

Type reference: *Ticinella madecassiana* Sigal, 1966, p. 197, plate 3, figures 7a, b

***Ticinella bejaouaensis* Sigal, Plate 4, figures 1–4**

Type reference: *Ticinella bejaouaensis* Sigal, 1966, p. 103, plate 9, figures 4–5

***Biticinella breggiensis* (Gandolfi), Plate 6, figures 8–11**

Type reference: *Anomalina breggiensis* Gandolfi, 1942, p. 102–103, plate 3, figure 6, plate 5, figure 3; plate 9, figure 1; plate 13, figures 7–8

*Biticinella breggiensis* Sigal, 1956, p. 35

***Hedbergella simplex* (Morrow), Plate 6, figures 1–6; Plate 24, figure 8**

Type reference: *Hastigerinella simplex* Morrow, 1934, p. 198, plate 30, figure 6

*Hedbergella simplex* Robaszynski & Caron, 1979, p. 145, plate 29, figures 1–3; plate 30, figures 1–2

***Globigerinellodites bentonensis* (Morrow), Plate 4, figure 16; Plate 5, figures 12–15**

Type reference: *Anomalina bentonensis* Morrow, 1934, p. 201 plate 30, figures 4a, b

*Globigerinelloides bentonensis* Loeblich & Tappan, 1961, p. 267, plate 2, figure 8–10

***Ticinella praeticinensis* Sigal, Plate 4, figure 18**

Type reference: *Ticinella praeticinensis* Sigal, 1966, p. 19; plate 2, figures 3–8; plate 3, figures 1–6

***Rotalipora subticinensis* (Gandolfi), Plate 6, figure 16**

Type reference: *Globotruncana (Thalmanninella) ticinensis subticinensis* Gandolfi, 1957, p. 59; plate 8, figure 1a–c

*Rotalipora subticinensis* Caron, 1985, p. 73, plate 33, figures 1–2

***Rotalipora ticinensis* (Gandolfi), Plate 6, figure 17; Plate 7, figures 1–2**

Type reference: *Globotruncana ticinensis* Gandolfi, 1942, p. 113, plate 2, figure 3a–c

*Rotalipora ticinensis* Caron & Luterbacher, 1969, p. 25, plate 8, figure 6a–c

***Planomalina buxtorfi* (Gandolfi), Plate 7, figures 7–13; Plate 24, figure 13**

Type reference: *Planulina buxtorfi* Gandolfi, 1942, p. 103, plate 3, figure 7; plate 5, figures 3–6; plate 6, figures 1–3; plate 8, figure 8; plate 9, figure 2; plate 12, figure 2; plate 13, figures 13, 15; plate 35, figures 1–11

*Planomalina buxtorfi* Loeblich & Tappan, 1961, p. 269, plate 2, figures 1–2

***Praeglobotruncana delrioensis* (Plummer), Plate 7, figures 14–15; Plate 24, figure 14**

Type reference: *Globorotalia delrioensis* Plummer, 1931, p. 199–200, plate 13, figures 2a–c

*Praeglobotruncana delrioensis* Bermudez, 1952, p. 52, plate 7, figure 1

***Rotalipora appenninica* (Renz), Plate 8, figures 1–6; Plate 25, figures 4–5**

Type reference: *Globotruncana appenninica* Renz, 1936, p. 20, plate 6, figures 1–11; plate 7, figure 1; plate 8, figure 4

*Rotalipora appenninica* Caron & Luterbacher, 1969, p. 26, plate 8, figure 8

***Hedbergella libyca* Barr, Plate 25, figures 1–3**

Type reference: *Hedbergella libyca* Barr, 1972, p. 14, plate 10, figures 5a–c

***Heterohelix moremani* (Cushman), Plate 4, figure 15; Plate 7, figures 16–17**

Type reference: *Guembelina moremani* Cushman, 1938, p. 10, plate 2, figures 1–3

*Heterohelix moremani*, Pessagno, 1967, p. 260–261, plate 48, figures 10–11; plate 89, figures 1–2

***Globigerinelloides ultramicrus* (Subbotina), Plate 4, figures 12–14; Plate 7, figure 18**

Type reference: *Globigerinella ultramicra* Subbotina, 1949, p. 33, plate 1, figures 17–18

*Globigerinelloides ultramicrus* Leckie, 1984, p. 614, plate 11, figures 10–11

***Rotalipora balernaensis* (Gandolfi), Plate 7, figures 19–20**

Type reference: *Globotruncana appenninica balernaensis* Gandolfi 1957, p. 60, plate 8, figures 3a–c

*Rotalipora balernaensis* Sigal 1969, p. 635, plate 2, figures 2, 4, 5–8

***Praeglobotruncana stephani* (Gandolfi), Plate 8, figures 7–13; Plate 26, figure 2**

Type reference: *Globotruncana stephani* Gandolfi, 1942, p. 130, plate 3, figure 4a–c

*Praeglobotruncana stephani* Bolli et al., 1957, p. 39, plate 9, figure 2

***Globigerinelloides caseyi* (Bolli, Loeblich & Tappan), Plate 8, figures 15–16**

Type reference: *Planomalina caseyi* Bolli et al., 1957, p. 24, plate 1, figures 4–5

*Globigerinelloides caseyi* Low, 1964, p. 122–123

***Rotalipora gandolfi* (Luterbacher & Premoli-Silva), Plate 9, figures 1–3; Plate 25, figure 8**

Type reference: *Rotalipora appenninica gandolfi* Luterbacher & Premoli-Silva, 1962, p. 267

*Rotalipora gandolfi* Caron & Luterbacher, 1969, p. 26–27, plate 9, figure 9

***Rotalipora brotzeni* (Sigal), Plate 9, figures 4–7, 16; Plate 25, figures 6–7**

Type reference: *Thalmaninella brotzeni* Sigal, 1948, p. 102, plate 1, figure 5a–c

*Rotalipora brotzeni* Robaszynski & Caron, 1979, p. 65, plate 6, figures 1–2

***Rotalipora montsalvensis* (Mornod), Plate 9, figures 8–10**

Type reference: *Globotruncana (Rotalipora) montsalvensis* Mornod, 1949, p. 584–5, figure 4 (I a–c)

*Rotalipora montsalvensis* Caron, 1976, p. 329–330, figure 1a–c

***Praeglobotruncana gibba* (Klaus), Plate 9, figures 11–14; Plate 26, figure 3**

Type reference: *Praeglobotruncana stephani* var. *gibba* Klaus, 1960, p. 304

*Praeglobotruncana gibba*, Caron, 1985, p. 68–69, figure 30 (5–6)

***Rotalipora reicheli* Mornod, Plate 9, figure 15**

Type reference: *Globotruncana (Rotalipora) reicheli* Mornod, 1949, p. 583–584, figures 5 (IV a–c)

***Rotalipora greenhornensis* (Morrow), Plate 9, figures 17–21; Plate 25, figure 12; Plate 26, figure 1**

Type reference: *Globorotalia greenhornensis* Morrow, 1934, p. 199–200, plate 31, figure 1

*Rotalipora greenhornensis* Pessagno, 1967, p. 295–297, plate 51, figures 13–21

***Rotalipora cushmani* (Morrow), Plate 10, figures 1–17; Plate 25, figures 9–11**

Type reference: *Globorotalia cushmani* Morrow, 1934, p. 199, plate 31, figures 2, 4

*Rotalipora cushmani* Sigal, 1948, p. 96, plate 1, figure 2; plate 2, figure 1

***Dicarinella algeriana* (Caron), Plate 11, figures 12–21**

Type reference: *Praeglobotruncana algeriana* Caron, 1966, p. 74–75, for figures See Reichel, 1950, plate 16, figure 8; plate 17, figure 8

*Dicarinella algeriana* Robaszynski & Caron, 1979, p. 57, plate 50, figures 1–2

***Dicarinella imbricata* (Mornod), Plate 12, figures 1–2; Plate 26, figures 4–5**

Type reference: *Globotruncana imbricata* Mornod, 1949, p. 581, figure 5 (III a–d)

*Dicarinella imbricata* Caron, 1976, p. 332–333, figure 3

***Rotalipora deekei* (Franke), Plate 12, figures 3–6**

Type reference: *Rotalia deekei* Franke, 1925 p. 90, plate 8, figure 7a–c

Robaszynski & Caron, 1979, p. 75, plate 9, figures 1a–e and 2a–c; plate 10, figures 1a–e and 2a–c

***Rotalipora globotruncanoides* Sigal, Plate 12, figures 7–8**

Type reference: *Rotalipora globotruncanoides* Sigal, 1948, p. 100, plate 1, figure 4a–c

***Whiteinella praehelvetica* (Trujillo), Plate 11, figures 4–6**

Type reference: *Rugoglobigerina praehelvetica* Trujillo, 1960, p. 340, plate 49, figure 6.

*Whiteinella praehelvetica* Peryt, 1983, p. 477, plate 31, figure 2

***Whiteinella aumalensis* (Sigal), Plate 11, figures 1–3**

Type reference: *Globigerina aumalensis* Sigal, 1952, p. 28, figure 29

*Whiteinella aumalensis*: Premoli-Silva, 1994, p. 55, plate 11, figures 4–5

***Whiteinella paradubia* (Sigal), Plate 12, figures 9–10**

Type reference: *Globigerina paradubia* Sigal, 1952, p. 28, figure 28

*Whiteinella paradubia*, Robaszynski & Caron, 1979, p. 181–184, plate 39, figures 1a and 2c

***Whiteinella archaeocretacea* (Pessagno), Plate 12, figures 11–13; Plate 26, figures 8–9**

Type reference: *Whiteinella archaeocretacea* Pessagno, 1967, p. 298, plate 54, figures 22–24

***Helvetoglobotruncana helvetica* (Bolli), Plate 12, figures 14–22; Plate 26, figures 10–12**

Type reference: *Globotruncana helvetica* Bolli, 1945, p. 226, plate 9, figure 6

*Helvetoglobotruncana helvetica* Caron, 1985, p. 68–69, figure 30 (7–8)

***Whiteinella baltica* Douglas & Rankin, Plate 11, figures 8–11**

Type reference: *Whiteinella baltica* Douglas & Rankin, 1969, p. 198, figures 9a–c

***Whiteinella aprica* (Loeblich & Tappan), Plate 13, figures 1–2**

Type reference: *Ticinella aprica* Loeblich & Tappan, 1961, p. 292, plate 4, figures 14–16

*Whiteinella aprica* Eicher & Worstell, 1970, p. 314, plate 11, figures 7a–c; plate 12, figures 1–2

***Whiteinella brittonensis* (Loeblich & Tappan), Plate 13, figures 3–4**

Type reference: *Hedbergella brittonensis* Loeblich & Tappan, 1961, p. 274–275, plate 4, figures 1–8

*Whiteinella brittonensis* Robaszynski & Caron, 1979, p. 175, plate 37, figure 1; plate 38, figures 1, 2

***Whiteinella inornata* (Bolli), Plate 13, figures 12–13**

Type reference: *Globotruncana inornata* Bolli, 1957, p. 57 plate 13 figures 5a–c

*Whiteinella inornata* Caron, 1985, p. 78, figures 37 (6–7)

***Dicarinella canaliculata* (Reuss), Plate 13, figures 5–7**

Type reference: *Rosalina canaliculata* Reuss, 1854, p. 70, plate 26, figures 4a, b

*Dicarinella canaliculata* Caron, 1985, p. 44, figures 17 (5–6)

***Dicarinella hagni* (Scheibnerova), Plate 13, figures 8–10**

Type reference: *Praeglobotruncana hagni* Scheibnerova, 1962, p. 219, figure 6a–c

*Dicarinella hagni* Robaszynski & Caron, 1979, p. 79, plate 56, figures 1–2; plate 57, figures 1–2; plate 57, figures 1–2

***Marginotruncana sigali* (Reichel), Plate 14, figures 1–4; Plate 27 figure 3**

Type reference: *Globotruncana (Globotruncana) sigali* Reichel, 1950, p. 610, figures 5a–c

*Marginotruncana sigali* Caron, 1985, p. 63–64, figure 27 (7–8)

***Marginotruncana pseudolinneiana* (Pessagno), Plate 14, figures 10–11; Plate 27, figures 7–9**

Type reference: *Marginotruncana pseudolinneiana* Pessagno, 1967, p. 310, plate 65, figures 24–27

***Marginotruncana sinuosa* Porthault, Plate 15, figure 3; Plate 27, figures 4–5**

Type reference: *Marginotruncana sinuosa* Porthault, 1970, p. 81–82, plate 11, figures 11–13

***Marginotruncana renzi* (Gandolfi), Plate 14, figures 9, 18; Plate 27, figure 10**

Type reference: *Globoatruncana renzi* Gandolfi, 1942, p. 124–125 plate 3 figure 1; plate 4 figure 16

*Marginotruncana renzi* Caron, 1985, p. 63–64, figure 27 (1–2)

***Marginotruncana coronata* (Bolli), Plate 14, figures 13–17, 19–21**

Type reference: *Globoatruncana lapparenti coronata* Bolli, 1945, p. 233, plate 9, figure 15

*Marginotruncana coronata* Pessagno, 1967, p. 305–306, plate 65, figures, 11–13, plate 100, figure 6

***Marginotruncana marianosi* (Douglas), Plate 14, figure 12**

Type reference: *Globoatruncana marianosi* Douglas, 1969, p. 183, figures 5a–c

*Marginotruncana marianosi* Caron, 1985, p. 62, figures 26 (5–6)

***Marginotruncana marginata* (Reuss), Plate 14, figure 22**

Type reference: *Rosalina marginata* Reuss, 1845, p. 36, plate 8, figures 54a, b and 74a, b; plate 13, figure 68a, b

*Marginotruncana marginata* Pessagno, 1967, p. 307–310, plate 54, figures 7–12, 16–18; plate 56, figure 10; plate 99, figures 5–7

***Marginotruncana schneegansi* (Sigal), Plate 14, figures 5–8**

Type reference: *Globoatruncana schneegansi* Sigal, 1952, p. 33, figure 34

*Marginotruncana schneegansi* Caron, 1985, p. 63–64, figure 27 (3–4)

***Hedbergella flandrini* Porthault, Plate 14, figures 23–25**

Type reference: *Hedbergella flandrini* Porthault, 1970, p. 64, plate 10, figures 1–3

***Heterohelix reussi* (Cushman), Plate 13, figures 14–21; Plate 29, figures 10–12**

Type reference: *Guembelina reussi* Cushman, 1938, p. 11, plate 2, figure 6a, b

*Heterohelix reussi* Pessagno, 1967, p. 263, plate 85, figures 1–9; plate 86, figures 1 and 2

***Archaeoglobigerina cretacea* (D'Orbigny), Plate 15, figures 8–9**

Type reference: *Globigerina cretacea* D'Orbigny, 1840, p. 34, plate 3, figures 12–14

*Archaeoglobigerina cretacea* Rodriguez, 1977, p. 72–77, plate 4, figures 1–2

***Dicarinella concavata* (Brotzen), Plate 15, figures 10–13**

Type reference: *Rotalia concavata* Brotzen, 1934, p. 66, plate 3, figure b

*Dicarinella concavata* Caron, 1985, p. 45, figures 17 (7–8)

***Contusotruncana fornicata* (Plummer), Plate 15, figures 14, 17–18; Plate 21, figures 1, 13; Plate 28, figures 9–11; Plate 29, figures 1–2**

Type reference: *Globoatruncana fornicata* Plummer, 1931, p. 130, plate 13, figure 4a–c

*Contusotruncana fornicata* Loeblich & Tappan, 1988, p. 468; plate 503, figures 4–7

***Dicarinella primitiva* (Dalbiez), Plate 15, figures 4–7; Plate 27, figure 2**

Type reference: *Globoatruncana (Globoatruncana) ventricosa primitiva* Dalbiez, 1955, p. 171, figure 6

*Dicarinella primitiva* Robaszynski & Caron, 1979, p. 96, plate 60, figure 1a–c

***Pseudoguembelina costulata* (Cushman), Plate 15, figures 15–16; Plate 29, figure 9**

Type reference: *Guembelina costulata* Cushman, 1938, p. 16, plate 3, figure 7a, b

*Pseudoguembelina costulata* Douglas, 1969, p. 160, plate 11, figure 6

***Dicarinella asymerica* (Sigal), Plate 15, figures 19–20; Plate 27, figure 6**

Type reference *Globoatruncana asymerica* Sigal, 1952, p. 34–35, figure 35

*Dicarinella asymetrica* Caron, 1985, p. 43, figures 17 (3–4)

***Globotruncana linneiana* (D'Orbigny), Plate 16, figures 1–3, 5–6; Plate 27, figures 11–12**

Type reference: *Rosalina linneiana* D'Orbigny, 1839, p. 101, plate 15, figures 10–12

*Globotruncana linneiana* Bronnimann & Brown, 1956, p. 542, plate 20, figures 13–15

***Globotruncanita elevata* (Brotzen), Plate 16, figures 7–12; Plate 22, figure 12; Plate 23, figures 4–5**

Type reference: *Rotalia elevata* Brotzen, 1934, p. 66, plate 3, figure c

*Globotruncanita elevata* Robaszynski et al., 1984, p. 228, 230, plate 27, figures 1–3; plate 28, figures 1–3

***Globotruncana leupoldi* Bolli, Plate 21, figure 4**

Type reference: *Globotruncana leupoldi*, Bolli, 1945, p. 235

***Globotruncana orientalis* El Nagggar, Plate 22, figure 2**

Type reference: *Globotruncana orientalis*, El Nagggar, 1966, p. 125, plate 12, figure 4a–d

***Globotruncana dupeublei* Caron et al., Plate 22, figure 3**

Type reference *Globotruncana dupeublei* Caron in Robaszynski et al., 1984; p. 188, plate 1, figures 1 and 5; p. 190, plate 7, figures 1 and 2; plate 8, figures 1–3

***Globotruncana lapparenti* Brotzen Plate 16, figures 13–14; Plate 21, figure 3; Plate 28, figure 8**

Type reference: *Globotruncana lapparenti* Brotzen, 1936, p. 175–176, plate 5, figure 2a, d, m, n

***Ventilabrella glabrata* Cushman, Plate 18, figure 3; Plate 23, figure 15**

Type reference: *Ventilabrella eggeri* var. *glabrata* Cushman, 1938, p. 26, plate 4, figures 15–17

***Ventilabrella eggeri* Cushman, Plate 22, figure 7; Plate 29, figure 8**

Type reference: *Ventilabrella eggeri*, Cushman, 1928, p. 2, plate 1, figures 10–12

***Ventilabrella multicamerata* de Klasz, Plate 16, figure 16**

Type reference: *Ventilabrella multicamerata* de Klasz, 1953, p. 230, plate 5, figure L (a, b)

***Globotruncana bulloides* (Vogler), Plate 17, figures 1–4; Plate 28, figures 1–3**

Type reference: *Globotruncana linnei bulloides* Vogler, 1941, p. 287, plate 23, figures 32–39

*Globotruncana bulloides* Pessagno, 1967, p. 325, figure 33

***Globotruncana arca* (Cushman), Plate 17, figures 5–10; Plate 29, figures 3–6**

Type reference: *Pulvinulina arca* Cushman, 1926, p. 23, plate 3, figures 1 (a–c)

*Globotruncana arca* Robaszynski et al., 1984, p. 182–184, plate 1, figures 2–3; plate 4, figures 1–3

***Globotruncanita stuartiformis* (Dalbiez), Plate 20, figure 2; Plate 23, figure 8; Plate 28, figures 4–7**

Type reference: *Globotruncana elevata stuartiformis* Dalbiez, 1955, p. 169, figure 10a–c

*Globotruncanita stuartiformis* Caron, 1985, p. 55–56, figures 23 (4–5)

***Heterohelix striata* (Ehrenberg), Plate 30, figures 3–5**

Type reference: *Textularia striata* Ehrenberg, 1840, p. 135, plate 4, figures 1a, 2a and 3a

*Heterohelix striata* Olvera, 1959, p. 71–72, plate 2, figures 4 and 8

***Heterohelix globulosa* (Ehrenberg), Plate 17, figures 11–17**

Type reference: *Textularia globulosa* Ehrenberg, 1840, p. 135, plate 4, figures 2–8

*Heterohelix globulosa* Montanaro Gallitelli, 1957, p. 137, plate 31, figures 12–15

***Heterohelix planata* (Cushman), Plate 18, figures 1–2**

Type reference: *Guembelina planata* Cushman, 1938, p. 2, plate 2, figures 13–14

*Heterohelix planata* Huber, 1990, plate 1, figures 5–6

***Heterohelix carinata* (Cushman), Plate 21, figure 9**

Type reference: *Gümbelina carinata* Cushman, 1938, p. 18, plate 3, figure 10

Premoli-Silva & Sliter, 1994, p. 81, plate 24, figures 13–14

***Laeviheterohelix glabrans* (Cushman), Plate 16, figure 15; Plate 20, figure 17; Plate 21, figures 8, 11**

Type reference: *Guembelina glabrans* Cushman, 1938, p. 15, plate 3, figures 1 and 2

*Laeviheterohelix glabrans* Nederbragt, 1991, p. 353, plate 5, figure 6a, b

***Globotruncana hilli* Pessagno, Plate 18, figures 4–7**

Type reference: *Globotruncana hilli* Pessagno, 1967, p. 343, plate 64, figures 9–14; p. 21–2, plate 94, figure 1

***Pseudotextularia elegans* (Rzehak), Plate 20, figures 4–6; Plate 30, figure 7**

Type reference: *Cuneolina elegans* Rzehak, 1891, p. 4

*Pseudotextularia elegans* Caron, 1985, p. 55–56, figure 24 (20–21)

***Rugoglobigerina rugosa* (Plummer), Plate 18, figure 8**

Type reference: *Globigerina rugosa* Plummer, 1926, p. 38, plate 2, figure 10a–d

*Rugoglobigerina rugosa* Caron, 1985, p. 74, figures 34.9–10

***Rugoglobigerina milamensis* Smith & Pessagno, Plate 23, figure 10**

Type reference: *Rugoglobigerina milamensis* Smith & Pessagno, 1973, p. 56, plate 24, figures 4–7

***Globotruncana ventricosa* (White), Plate 19, figures 1–9**

Type reference: *Globotruncana canaliculata* (Reuss) var. *ventricosa* White, 1928, p. 284, plate 38, figures 3a–c

*Globotruncana ventricosa* Robaszynski et al., 1984, p. 214–16, plate 20, figures 1–3; plate 21, figures 1–4

***Globotruncana carinata* Dalbiez Plate 18, figures 9–16**

Type reference: *Globotruncana (Globotruncana) ventricosa carinata* Dalbiez, 1955, p. 168, figure 8

***Globigerinelloides prairiehillensis* Pessagno, Plate 19, figures 11–15; Plate 29, figure 7**

Type reference: *Globigerinelloides prairiehillensis* Pessagno, 1967, p. 267, plate 83, figure 1; plate 90, figures 1–2, 4; plate 97, figures 3–4

***Contusotruncana plummerae* Gandolfi, Plate 19, figure 16**

Type reference: *Globotruncana fornicata plummerae* Gandolfi, 1955, p. 42, plate 2, figure 3a–c

*Contusotruncana plummerae* Robaszynski et al., 2000, p. 481, p. 20, figure 6

***Contusotruncana patelliformis* Gandolfi, Plate 19, figure 18; Plate 21, figure 2**

Type reference: *Contusotruncana patelliformis*, Gandolfi, 1955, p. 54, plate 4, figure 2a–c

***Contusotruncana contusa* Cushman, Plate 20, figure 3; Plate 23, figure 1**

Type reference: *Pulvinulina arca* Cushman var. *contusa* Cushman, 1926, p. 23

*Contusotruncana contusa* Premoli-Silva & Sliter, 1994, plate 17, figure 6; plate 23, figure 8

***Globigerinelloides volutus* (White), Plate 21, figure 6**

Type reference: *Globigerina voluta* White, 1928, p. 197–198, plate 28, figure 5a, b

*Globigerinelloides volutus* Pessagno, 1967, p. 403, plate 62, figures 9–11; plate 100, figure 9

***Globotruncanita subspinosa* (Pessagno), Plate 20, figure 7**

Type reference: *Globotruncana (Globotruncana) subspinosa* Pessagno, 1960, p. 101, plate 1, figures 4–6

*Globotruncanita subspinosa* Caron, 1985, p. 55–56, figure 22 (5–8)



***Globotruncana rosetta* (Carsey), Plate 20, figure 8; Plate 21, figure 12**

Type reference: *Globigerina rosetta* Carsey, 1926, p. 44, plate 5, figure 3a–c

*Globotruncana rosetta* Brönniman & Brown, 1956, p. 545, plate 21, figures 11–13

***Globotruncanita conica* White, Plate 16, figure 4; Plate 20, figures 9–10; Plate 23, figures 2–3, 14**

Type reference: *Globotruncana conica* White, 1928, p. 280, plate 38, figure 7a–c

***Planoglobulina acervulinoides* (Egger), Plate 20, figures 12, 19; Plate 22, figure 10; Plate 30, figure 6**

Type reference: *Guembelina acervulinoides* Egger, 1899, p. 35, plate 14, figures 20–22

*Planoglobulina acervulinoides* Cushman, 1946, p. 111, plate 47: 12,13

***Globotruncana stephensoni* Pessagno, Plate 22, figure 1**

Type reference: *Globotruncana stephensoni* Pessagno, 1967, p. 408, plate 69, figures 1–3, 7; p. 437, plate 96, figures 5–6

***Globotruncanita calcarata* (Cushman), Plate 20, figures 13–14; Plate 23, figures 11–13**

Type reference: *Globotruncana calcarata* Cushman, 1927, p. 115, plate 23, figures 10a, b

*Globotruncanita calcarata* Robaszynski et al., 1984, p. 224, plate 22, figure 4; plate 25, figures 1–3

***Globotruncana aegyptiaca* Nakkady, Plate 20, figure 16**

Type reference: *Globotruncana aegyptiaca* Nakkady, 1950, p. 690, plate 90, figure 20

***Globotruncanella havanensis* (Voorwijk), Plate 22, figure 5**

Type reference: *Globotruncana havanensis* Voorwijk, 1937, p. 195, plate 1, figures 25, 26, 29

*Globotruncanella havanensis* Caron, 1985, p. 52, figure 21 (3–4)

***Globigerinelloides messinae* (Brönnimann), Plate 20, figure 20**

Type reference: *Globigerinella messinae*, Brönnimann, 1952, p. 42, plate 1, figures 6–7

*Planomalina (Globigerinelloides) messinae* Berggren, 1962, p. 44, plate 8, figures 4–8

***Globigerinelloides bollii* Pessagno, Plate 15, figures 1–2; Plate 21 figure 7**

Type reference: *Globigerinelloides bollii* Pessagno, 1967, p. 403, plate 62, figure 5; p. 420, plate 81, figures 7–8; p. 436, plate 97, figures 1–2; p. 441, plate 100, figure 3

***Sigalia carpathica* Salaj & Samuel, Plate 30, figures 1–2**

Type reference: *Sigalia carpathica* Salaj & Samuel, 1966, plate 37, figure 2

***Globotruncanita stuarti* (De Lapparent), Plate 23, figures 6–7**

Type reference: *Rosalina stuarti* De Lapparent 1918, p. 11–13, plate 1, figures 5–7

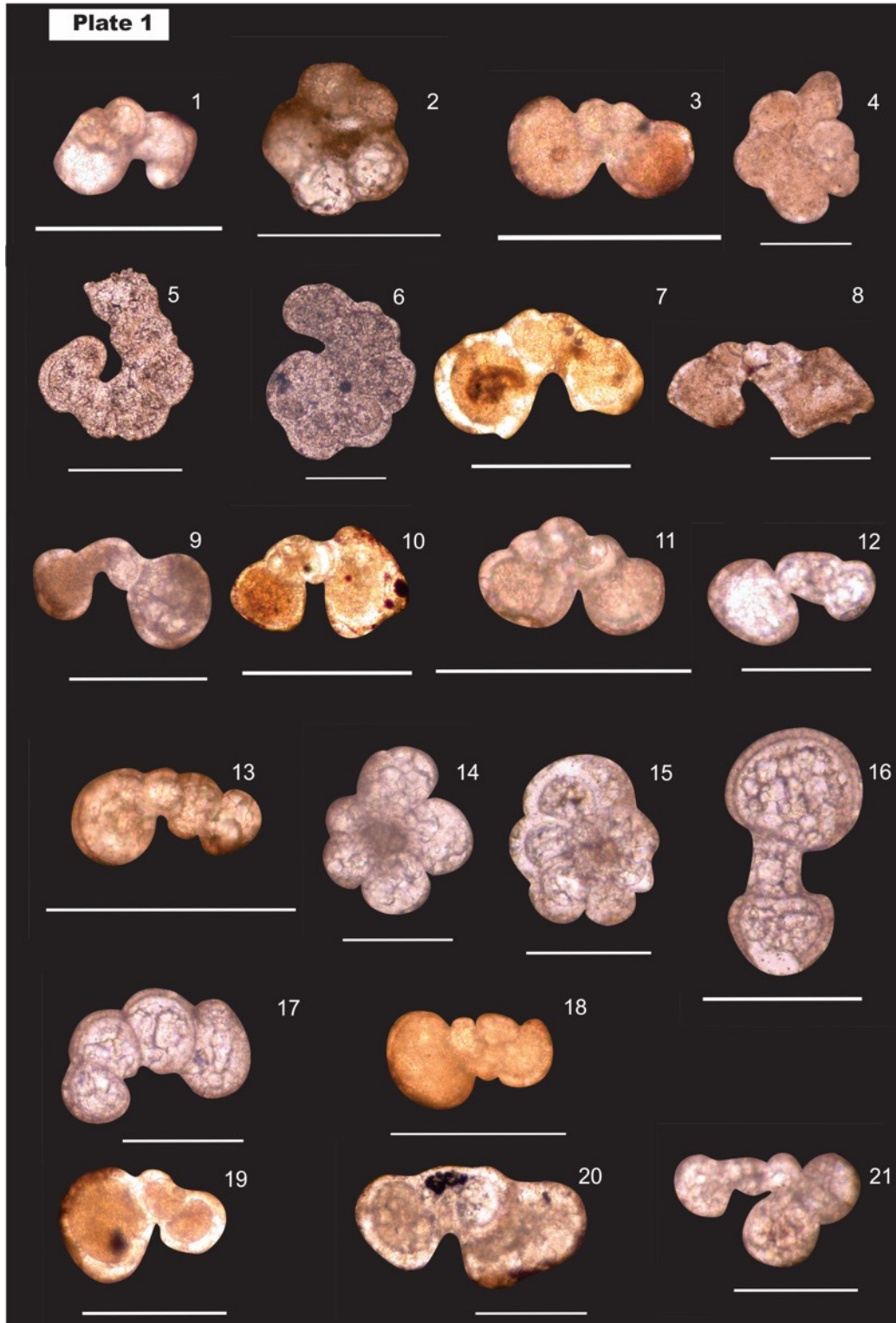
*Globotruncanita stuarti* Caron, 1985, p. 54, figure 23 (1–3)

***Planoglobulina carseyae* (Plummer), Plate 22, figure 9**

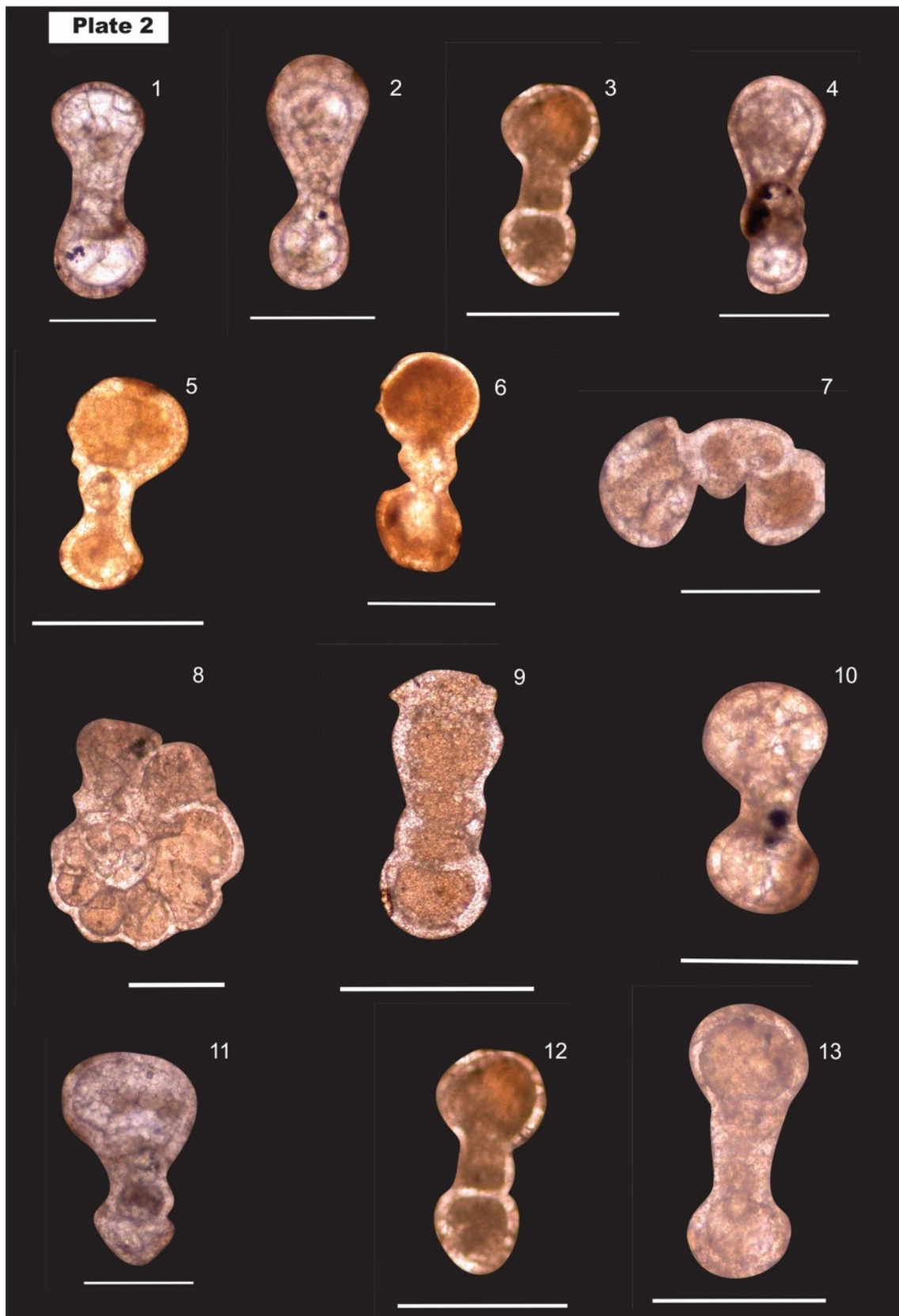
Type reference: *Ventilabrella carseyae* Plummer, 1931, p. 178–179, plate 9, figures 7–10

*Planoglobulina carseyae* Keller, 1988, p. 250, plate 1, figure 16

Appendix B. Plates

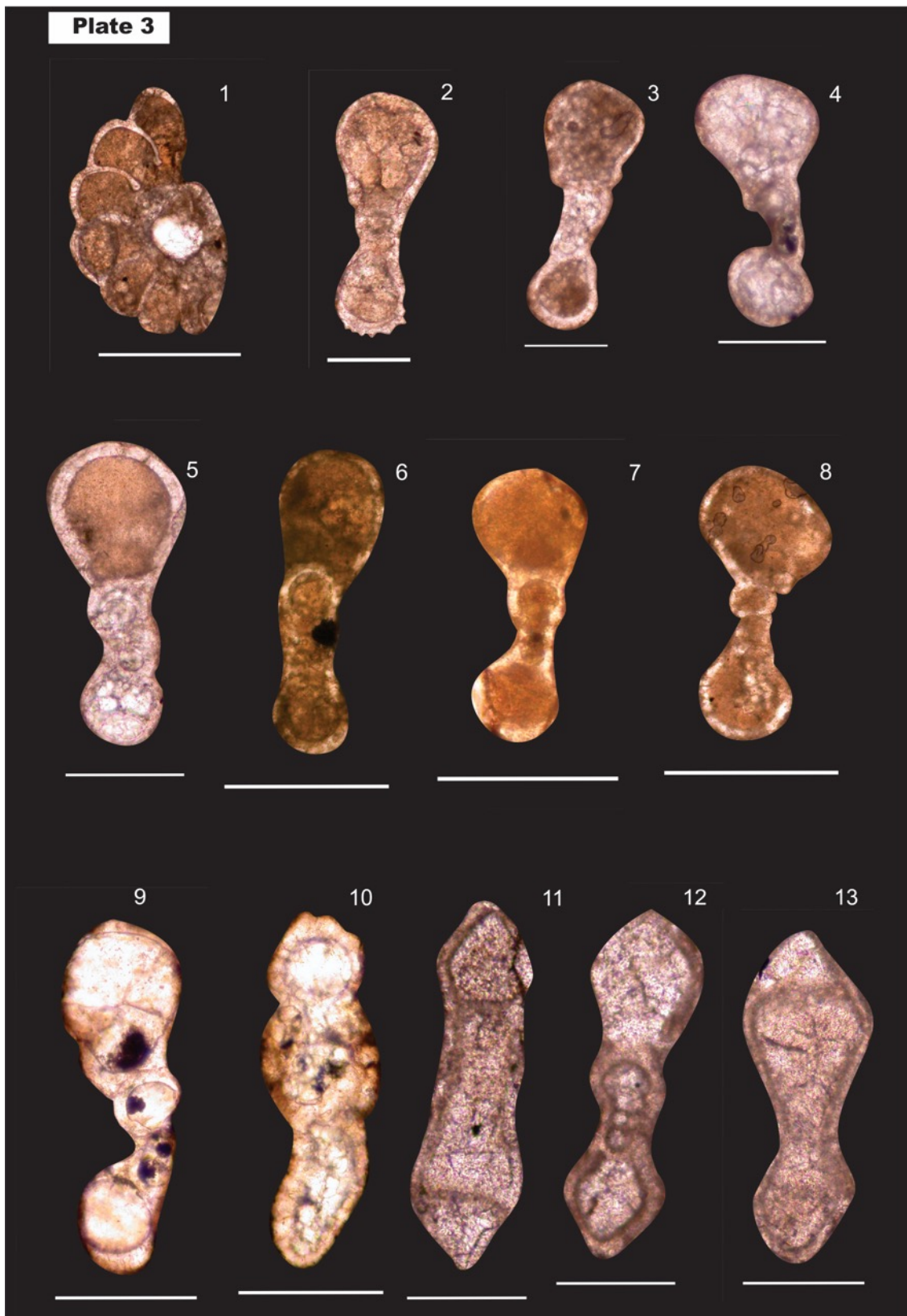


**Plate 1.** 1, *Hedbergella sigali* (Moullade), Sample MP 10; 2, *Hedbergella praetrocoidea* (Kretchmar & Gorbachik), Sample MP 9; 3, *Hedbergella trocoidea* (Gandolfi), Sample MP 3; 4, *Hedbergella trocoidea* (Gandolfi), Sample MP 30; 5, *Hedbergella trocoidea* (Gandolfi), Sample MP 40; 6 *Hedbergella trocoidea* (Gandolfi), Sample MP 42; 7, *Hedbergella trocoidea* (Gandolfi), Sample MP 44; 8, *Hedbergella trocoidea* (Gandolfi), Sample MP 44; 9, *Hedbergella trocoidea* (Gandolfi), Sample MP 31; 10, *Hedbergella trocoidea* (Gandolfi), Sample MP 3; 11, *Hedbergella delrioensis* (Carsey), Sample MP 9; 12 *Hedbergella delrioensis* (Carsey), Sample MP 127; 13, *Hedbergella delrioensis* (Carsey), Sample MP 9; 14, *Hedbergella delrioensis* (Carsey), Sample MP 123; 15, *Hedbergella delrioensis* (Carsey), Sample MP 118; 16, *Globigerinelloides barri* (Bolli, Loeblich & Tappan), Sample MP 72; 17, *Globigerinelloides barri* (Bolli, Loeblich & Tappan), Sample MP 72; 18, *Hedbergella hispaniae*, (Longoria), Sample MP 9; 19, *Hedbergella gorbachikae* (Longoria), Sample MP 133; 20, *Hedbergella gorbachikae* (Longoria), Sample MP 32; and 21, *Hedbergella gorbachikae* (Longoria), Sample MP 114. Scale for all figures = 125  $\mu$ m. 2, 4–6, 14–15, transverse sections; all others are axial to subaxial sections. All samples from the Moghal Kot section.

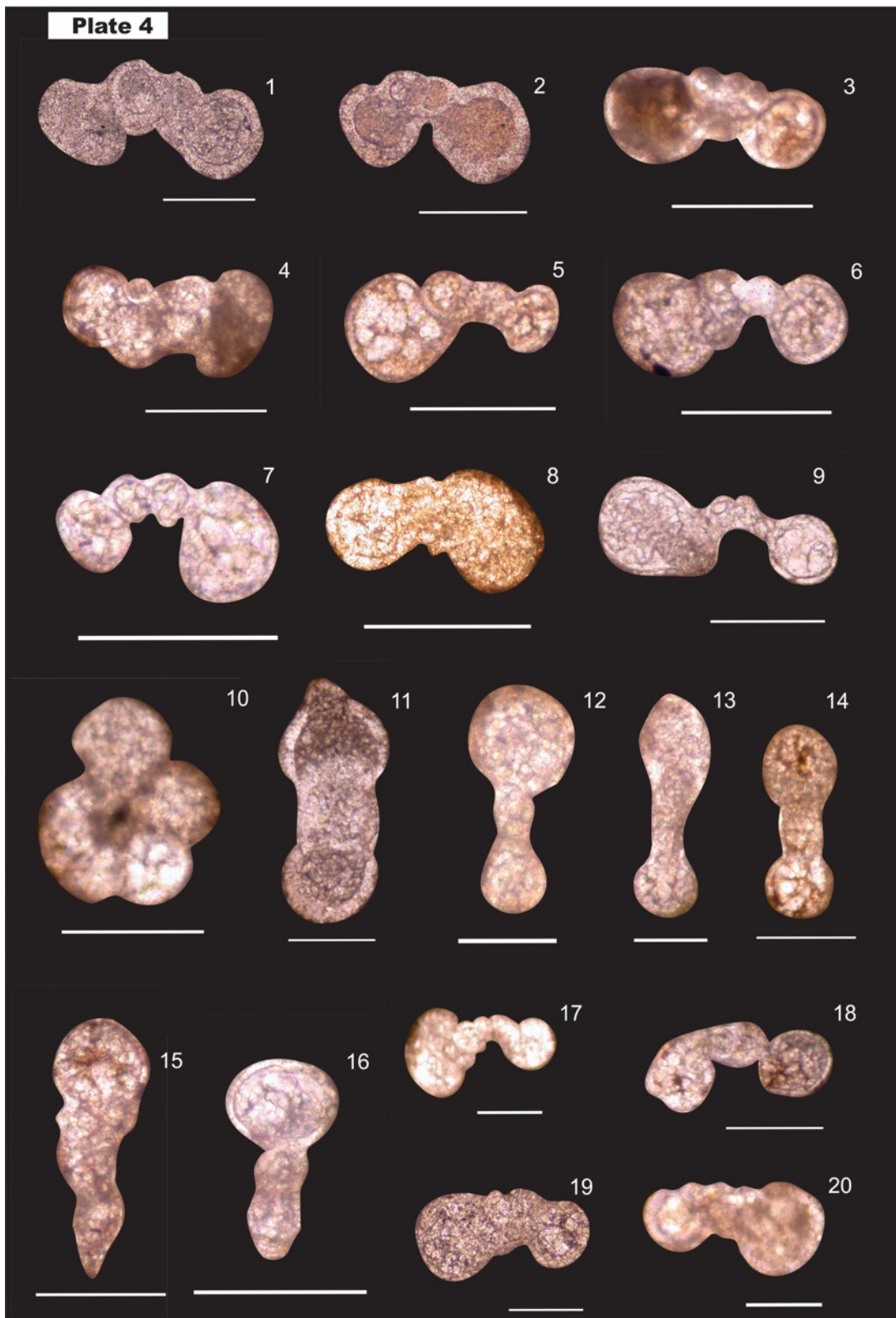


**Plate 2.** 1, *Globigerinelloides ferreolensis* (Moullade), Sample MP 26; 2, *Globigerinelloides ferreolensis* (Moullade), Sample MP 28; 3, *Globigerinelloides ferreolensis* (Moullade), Sample MP 28; 4, *Globigerinelloides cf. ferreolensis* (Moullade), Sample MP 28; 5, *Globigerinelloides ferreolensis* (Moullade), Sample MP 24; 6, *Globigerinelloides ferreolensis* (Moullade), Sample MP 24; 7, *Globigerinelloides ferreolensis* (Moullade), Sample MP 31; 8, *Globigerinelloides ferreolensis* (Moullade), Sample MP 30; 9, *Globigerinelloides ferreolensis* (Moullade), Sample MP 33; 10, *Globigerinelloides ferreolensis* (Moullade), Sample MP 23; 11, *Globigerinelloides cf. ferreolensis* (Moullade), Sample MP 26; 12, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 30; and 13, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 30. Scale for all figures = 125  $\mu\text{m}$ . 8, transverse section; all others are axial to subaxial sections. All samples are from the Moghal Kot section.





**Plate 3.** 1, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 30; 2, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 30; 3, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 28; 4, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 26; 5, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 30; 6, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 28; 7, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 24; 8, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 29; 9, *Globigerinelloides algerianus* (Cushman & Ten Dam), Sample MP 32; 10, Transitional between *Globigerinelloides algerianus* and *Planomalina cheniourensis*, Sample MP32; 11, *Planomalina cheniourensis* (Sigal), Sample MP 37; 12, *Planomalina cheniourensis* (Sigal), Sample MP 37; and 13, *Planomalina cheniourensis* (Sigal), Sample MP 37. Scale for all figures = 125  $\mu\text{m}$ . 1, transverse section; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.

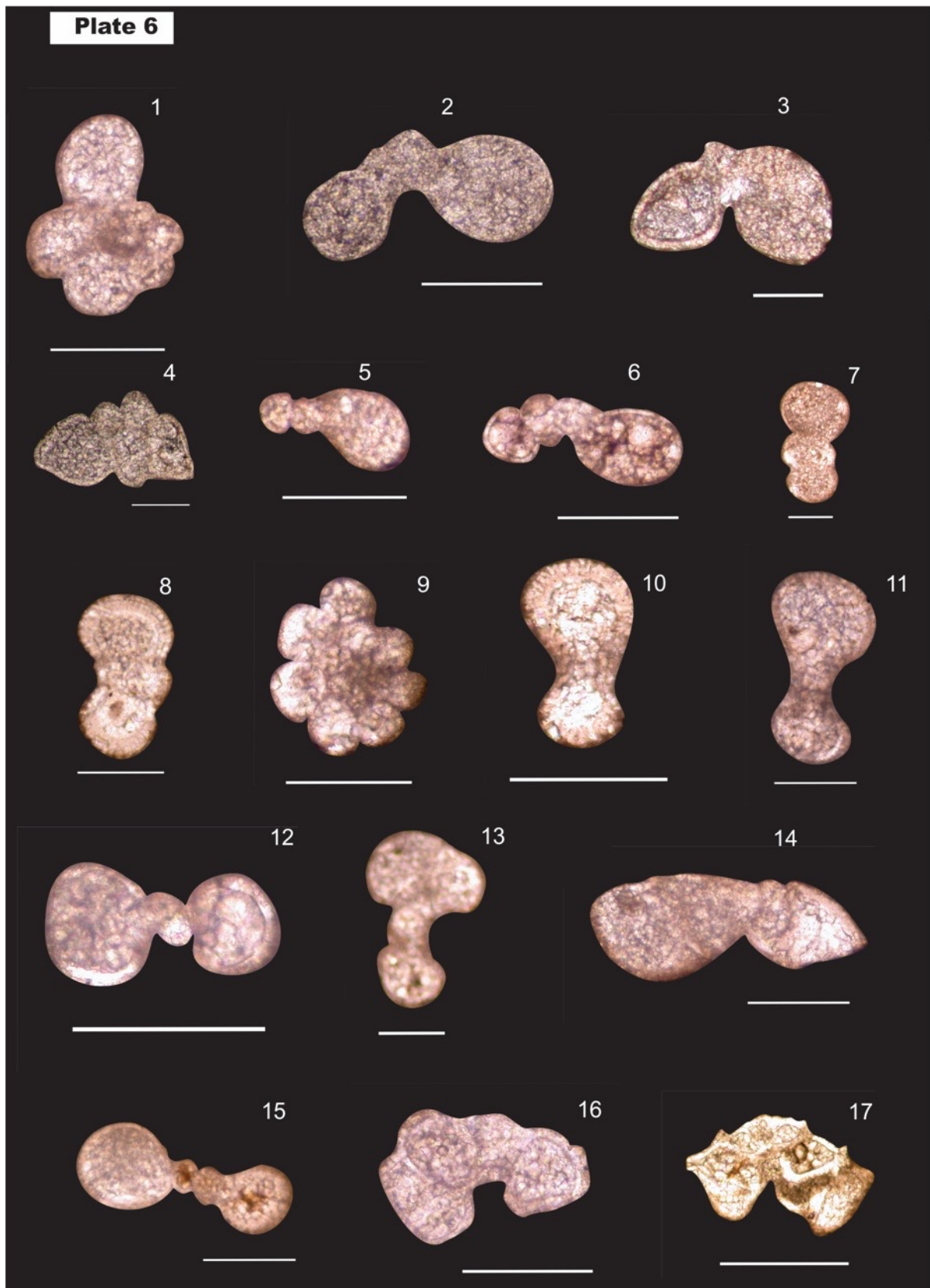


**Plate 4.** 1, *Ticinella bejaouaensis* (Sigal), Sample MP 42; 2, *Ticinella bejaouaensis* (Sigal), Sample MP 42; 3, *Ticinella bejaouaensis* (Sigal), Sample MP 89; 4, *Ticinella bejaouaensis* (Sigal), Sample MP 89; 5 *Ticinella* sp. in Sample MP 96; 6, *Ticinella roberti* (Gandolfi), Sample MP 127; 7, *Ticinella roberti* (Gandolfi), Sample MP 125; 8, *Ticinella roberti* (Gandolfi), Sample MP 102; 9, *Ticinella primula* (Luterbacher), Sample MP122; 10, *Hedbergella rhinoceros* (Coccinoni & Cocon), Sample MP 77; 11, *Planomalina praebuxtorfi* (Wonders), Sample MP 127; 12, *Globigerinelloides ultramicrus* (Subbotina), Sample MP 120; 13, *Globigerinelloides ultramicrus* (Subbotina), Sample MP 119; 14, *Globigerinelloides ultramicrus* (Subbotina), Sample MP 121; 15, *Heterohelix moremani* (Cushman), Sample MP 127; 16, *Globigerinelloides bentonensis* (Morrow), Sample MP 118; 17, *Hedbergella rischi* (Moullade), Sample MP 73; 18, *Ticinella praeticinensis* (Sigal), Sample MP 118; 19, *Hedbergella rischi* (Moullade), Sample MP 110; and 20, *Hedbergella rischi* (Moullade), Sample MP 89. Scale for all figures = 125  $\mu$ m. 10, transverse section; 15, edge section; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.

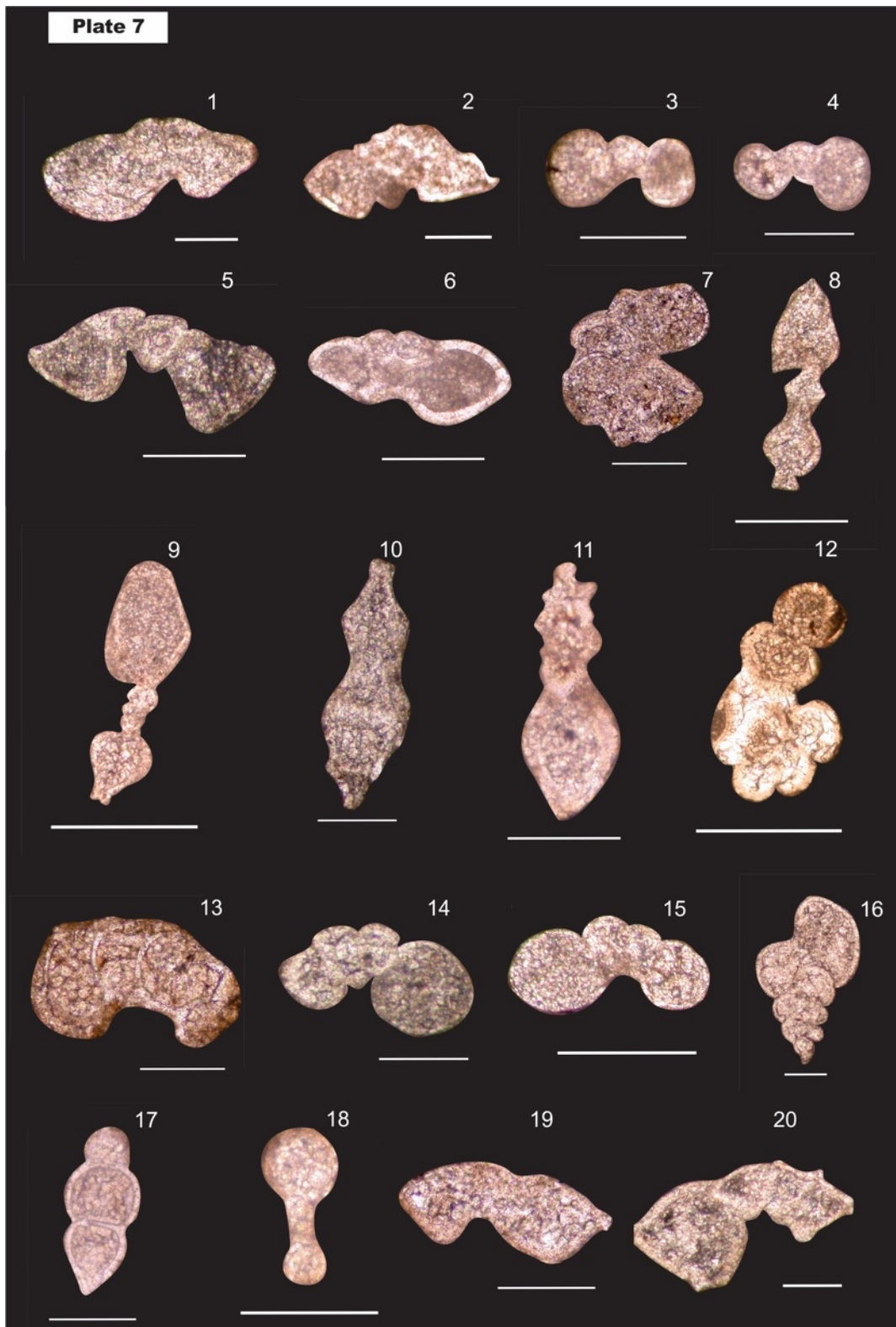


**Plate 5.** 1, *Hedbergella planispira* (Tappan), Sample MP 109; 2, *Hedbergella planispira* (Tappan), Sample MP 121; 3, *Hedbergella planispira* (Tappan), Sample MP 109; 4, *Hedbergella planispira* (Tappan), Sample MP 107; 5, *Ticinella roberti* (Gandolfi), Sample MP 101; 6, *Ticinella roberti* (Gandolfi), Sample MP 111; 7, *Ticinella roberti* (Gandolfi), Sample MP 109; 8, *Ticinella primula* (Luterbacher), Sample MP 125; 9, *Ticinella primula* (Luterbacher), Sample MP 123; 10, *Ticinella primula* (Luterbacher), Sample MP 120; 11, *Ticinella cf. roberti*, Sample MP 119; 12, *Globigerinelloides bentonensis*, Sample MP 139; 13, *Globigerinelloides bentonensis*, Sample MP 140; 14, *Macroglobigerinelloides bentonensis*, Sample MP 120; 15, *Globigerinelloides bentonensis* (Morrow), Sample MP 137; and 16, *Macroglobigerinelloides bentonensis* (Morrow), Sample MP 119. Scale for all figures = 125  $\mu\text{m}$ . 8, 9, transverse sections; all others. are axial to subaxial sections. All samples are from Moghal Kot Section.



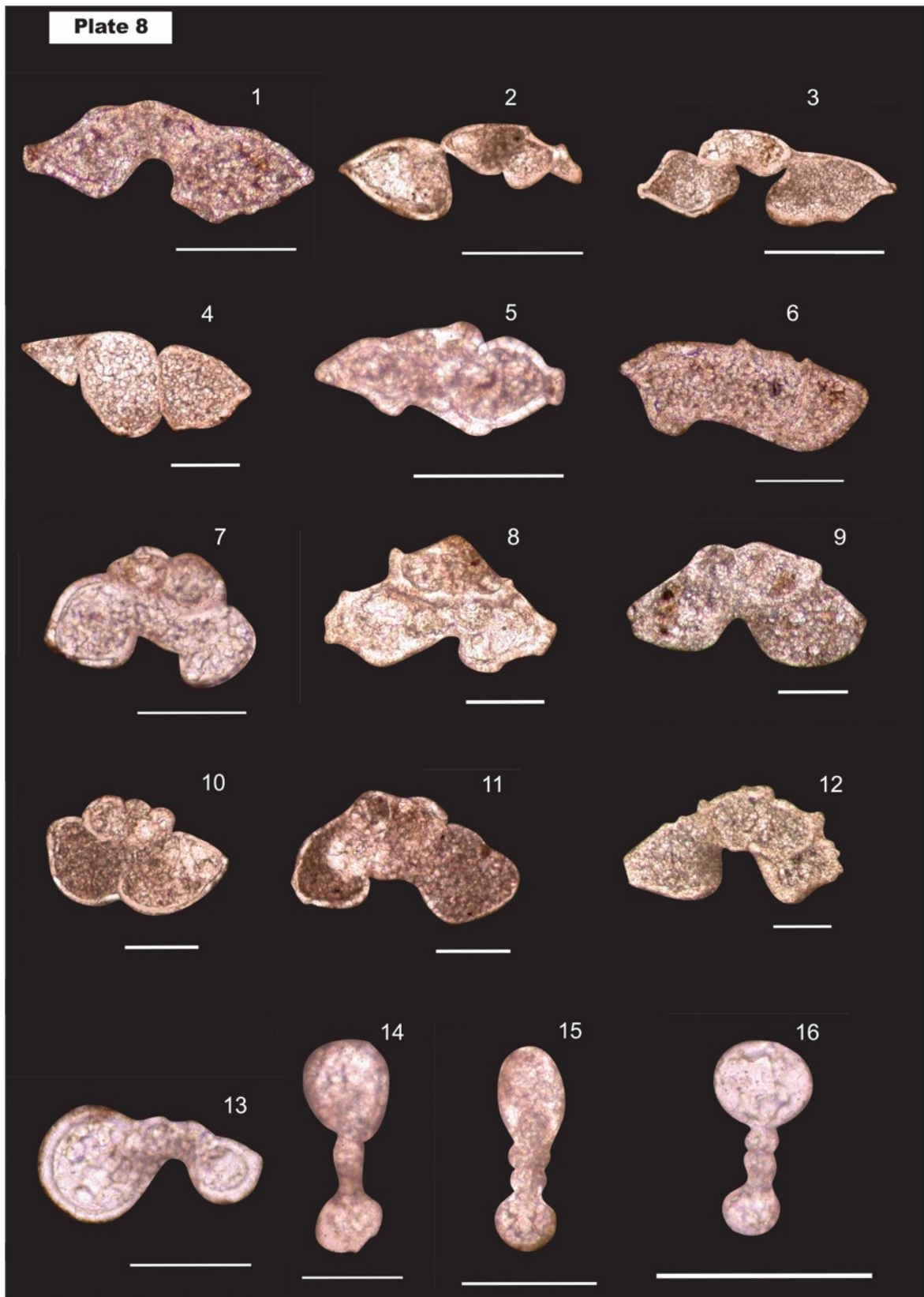


**Plate 6.** 1, *Hedbergella simplex* (Morrow), Sample MP 122; 2, *Hedbergella simplex* (Morrow), Sample MP 196; 3, *Hedbergella simplex* (Morrow), Sample MM 23; 4, *Hedbergella cf. simplex* (Morrow), Sample MM 25; 5, *Hedbergella simplex* (Morrow), Sample MP 113; 6, *Hedbergella simplex* (Morrow), Sample MP 124; 7, *Ticinella* sp. Sample MP 113; 8, *Biticinella breggiensis* (Gandolfi), Sample MP 111; 9, *Biticinella breggiensis* (Gandolfi), Sample MP 113; 10, *Biticinella breggiensis* (Gandolfi), Sample MP 125; 11, *Biticinella breggiensis* (Gandolfi), Sample MP 126; 12, *Ticinella madecassiana* (Sigal), Sample MP 123; 13, *Biticinella subbreggiensis* (Sigal), Sample MP 125; 14, *Ticinella raynaudi* (Sigal), Sample MP 121; 15, *Ticinella raynaudi* (Sigal), Sample MP 121; 16, *Rotalipora cf. subticinensis* (Gandolfi), Sample MP 127; and 17, *Rotalipora ticinensis* (Gandolfi), Sample MP 122. Scale for all figures = 125  $\mu\text{m}$ . 9, transverse section; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.

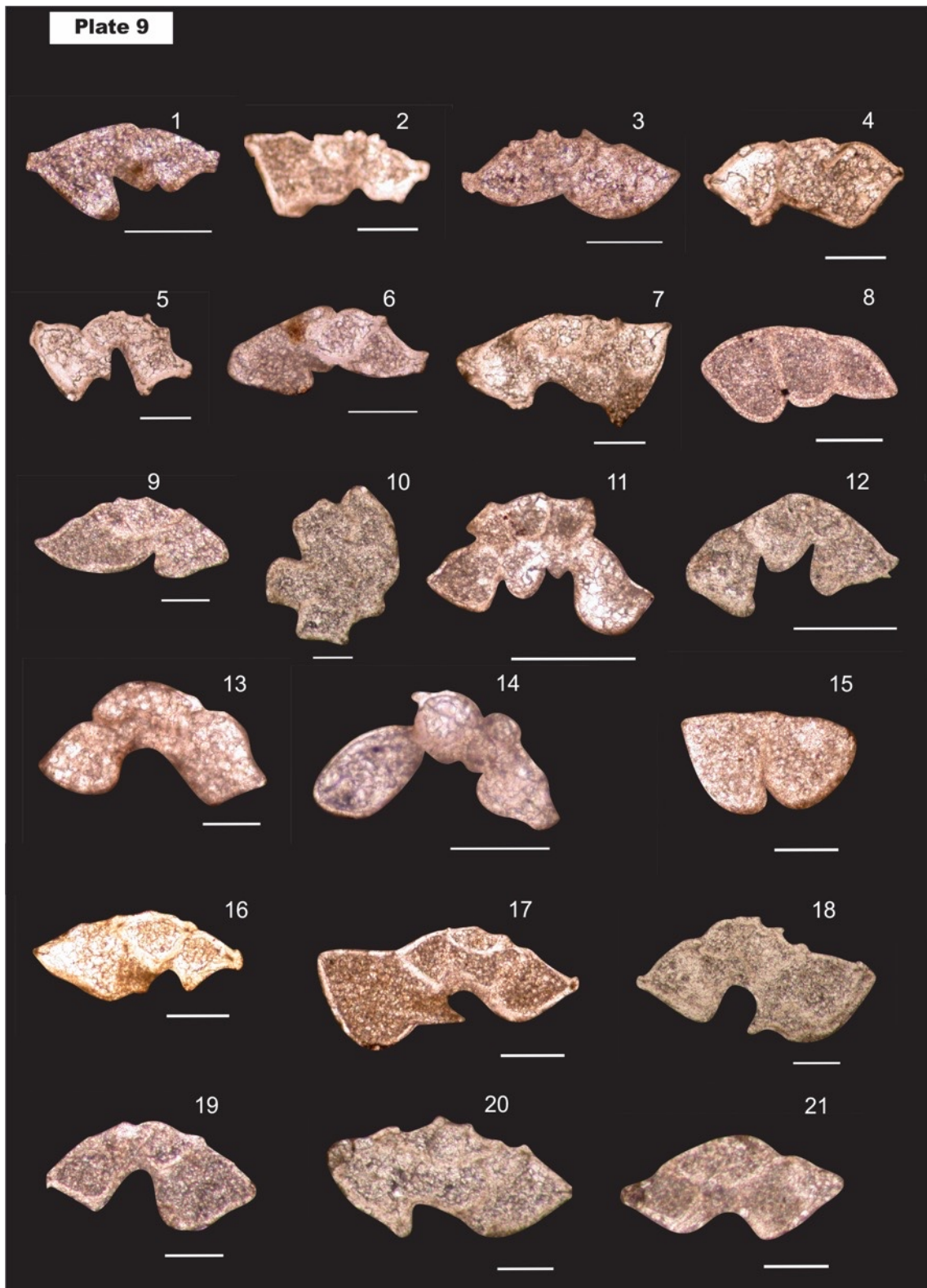


**Plate 7.** 1, *Rotalipora ticinensis* (Gandolfi), Sample MM 23; 2, *Rotalipora ticinensis* (Gandolfi), Sample MP 124; 3, *Ticinella madecassiana* (Sigal), Sample MP 119; 4, *Ticinella madecassiana* (Sigal), Sample MP 117; 5, *Rotalipora praeappenninica* (Sigal), Sample MM 24; 6, *Rotalipora praeappenninica?* (Sigal), Sample MP 127; 7, *Planomalina buxtorfi* (Gandolfi), Sample MP 129; 8, *Planomalina buxtorfi* (Gandolfi), Sample MM 23; 9, *Planomalina buxtorfi* (Gandolfi), Sample MP 130; 10, *Planomalina buxtorfi* (Gandolfi), Sample MM 23; 11, *Planomalina buxtorfi* (Gandolfi), Sample MP 128; 12, *Planomalina buxtorfi* (Gandolfi), Sample MP 128; 13, *Planomalina buxtorfi* (Gandolfi), Sample MP 129; 14, *Praeglobotruncana delrioensis* (Plummer), Sample MM 25; 15, *Praeglobotruncana delrioensis* (Plummer), Sample MM 23; 16, *Heterohelix moremani* (Cushman), Sample MP 203; 17, *Heterohelix moremani* (Cushman), Sample MP 127; 18, *Globigerinelloides ultramicrus* (Subbotina), Sample MP 120; 19, *Rotalipora balernaensis* (Gandolfi), Sample MP 132; and 20, *Rotalipora balernaensis* (Gandolfi), Sample MM 24. Scale for all figures = 125  $\mu\text{m}$ . 7, 12, transverse sections; 16, lateral section; 17, edge section; all others are axial to subaxial sections. All samples are from Moghal Kot Section.



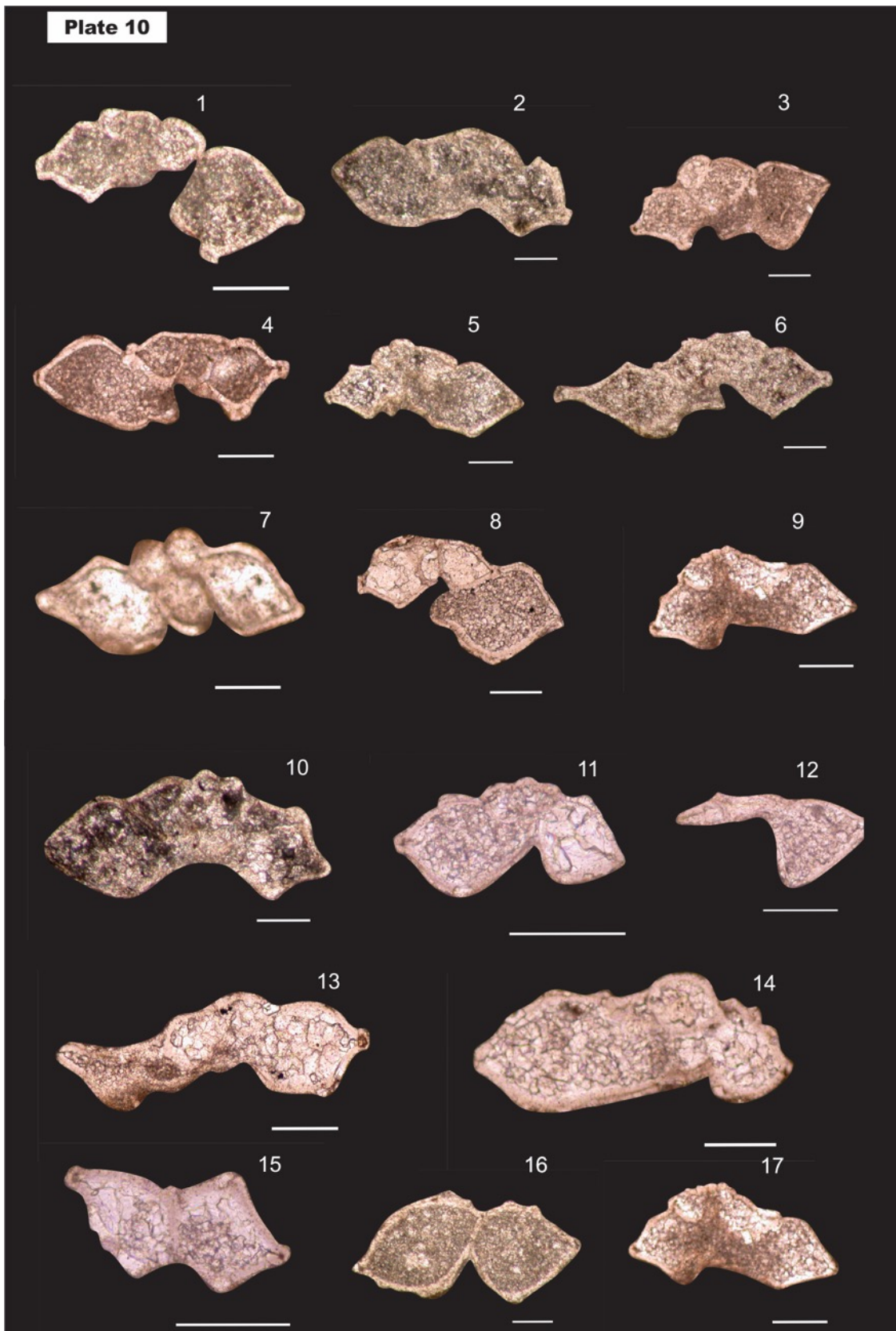


**Plate 8.** 1, *Rotalipora appenninica* (Renz), Sample MP 129; 2, *Rotalipora appenninica* (Renz), Sample MP 140; 3, *Rotalipora appenninica* (Renz), Sample MP 137; 4, *Rotalipora appenninica* (Renz), Sample MP 137; 5, *Rotalipora appenninica* (Renz), Sample MP 127; 6, *Rotalipora appenninica* (Renz), Sample MP 129; 7, *Praeglobotruncana stephani* (Gandolfi), Sample MP 137; 8, *Praeglobotruncana stephani* (Gandolfi), Sample MP 140; 9, *Praeglobotruncana stephani* (Gandolfi), Sample MM 23; 10, *Praeglobotruncana stephani* (Gandolfi), Sample MP 138; 11, *Praeglobotruncana stephani* (Gandolfi), Sample MP 139; 12, *Praeglobotruncana stephani* (Gandolfi), Sample MM 25; 13, *Praeglobotruncana stephani* (Gandolfi), Sample MP 191; 14, *Globigerinelloides ultramicrus* (Subbotina), Sample MP 126; 15, *Globigerinelloides caseyi* (Bolli, Loeblich & Tappan), Sample MP 124; and 16. *Globigerinelloides caseyi* (Bolli, Loeblich & Tappan), Sample MP 126. Scale for all figures = 125  $\mu\text{m}$ . All are axial to subaxial sections. All samples are from Moghal Kot Section.

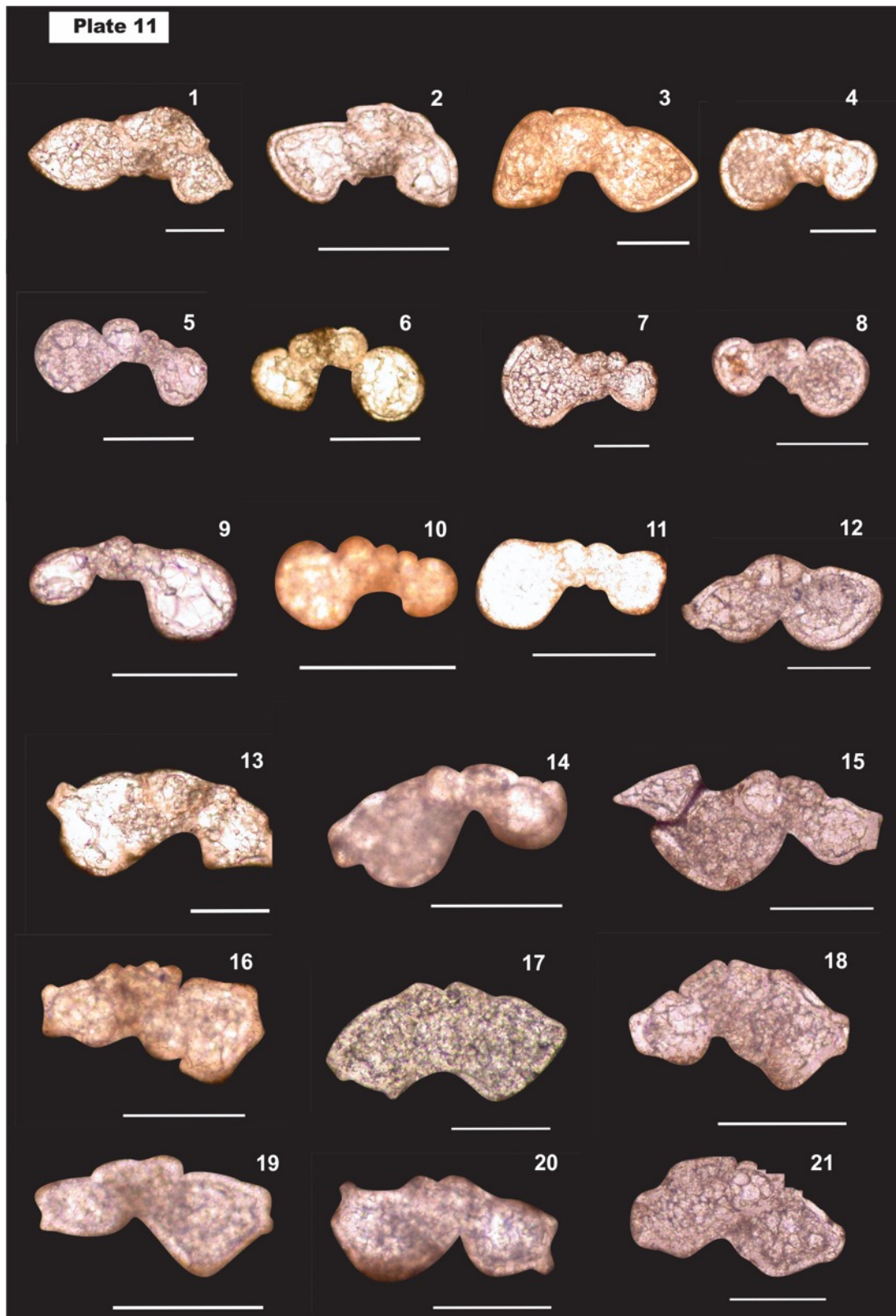


**Plate 9.** 1, *Rotalipora gandolfi* (Luterbacher & Premoli-Silva), Sample MP 129; 2, *Rotalipora gandolfi* (Luterbacher & Premoli-Silva), Sample MP 137; 3, *Rotalipora gandolfi* (Luterbacher & Premoli-Silva), Sample MP 132; 4, *Rotalipora brotzeni* (Sigal), Sample MP 139; 5, *Rotalipora brotzeni* (Sigal), Sample MP 138; 6, *Rotalipora brotzeni* (Sigal), Sample MP 137; 7, *Rotalipora brotzeni* (Sigal), Sample MP 137; 8, *Rotalipora montsalvensis* (Mornod), Sample MP 130; 9, *Rotalipora montsalvensis* (Mornod), Sample MM 23; 10, *Rotalipora montsalvensis* (Mornod), Sample MM 25; 11, *Praeglobotruncana gibba* (Klaus), Sample MP 182; 12, *Praeglobotruncana gibba* (Klaus), Sample MP 182; 13, *Praeglobotruncana gibba* (Klaus), Sample MP 193; 14, *Praeglobotruncana gibba* (Klaus), Sample MP 183; 15, *Rotalipora reicheli* (Mornod), Sample MP 132; 16, *Rotalipora brotzeni* (Sigal), Sample MP 137; 17, *Rotalipora greenhornensis* (Morrow), Sample MP 137; 18, *Rotalipora greenhornensis* (Morrow), Sample MP 137; 19, *Rotalipora greenhornensis* (Morrow), Sample MM 23; 20, *Rotalipora greenhornensis* (Morrow), Sample MP 137; and 21, *Rotalipora greenhornensis* (Morrow), Sample MM24. Scale for all figures = 125  $\mu\text{m}$ . 10, transverse section, all others are axial to subaxial sections. All samples are from Moghal Kot Section.



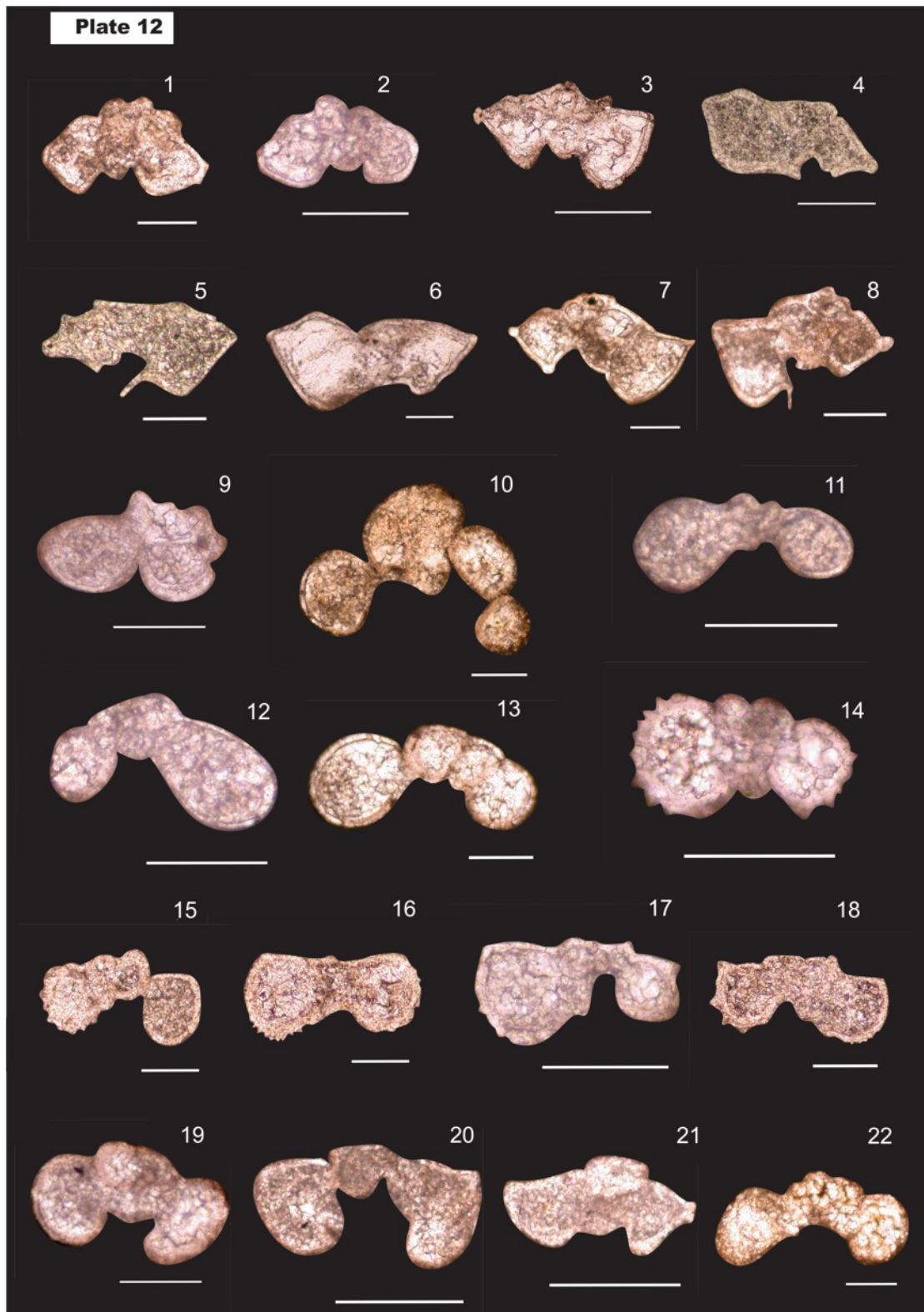


**Plate 10.** 1, *Rotalipora cushmani* (Morrow), Sample MM25; 2, *Rotalipora cushmani* (Morrow), Sample MM 25; 3 *Rotalipora cushmani* (Morrow), Sample MP 139; 4, *Rotalipora cushmani* (Morrow), Sample MP 139; 5, *Rotalipora cushmani* (Morrow), Sample MM 25; 6, *Rotalipora cushmani* (Morrow), Sample MM 25; 7, *Rotalipora cushmani* (Morrow), Sample MP 140; 8, *Rotalipora cushmani* (Morrow), Sample MP 138; 9, *Rotalipora cushmani* (Morrow), Sample MP 139; 10, *Rotalipora cushmani* (Morrow), Sample MM 25; 11, *Rotalipora cushmani* (Morrow), Sample MP138; 12, *Rotalipora cushmani* (Morrow), Sample MP138; 13, *Rotalipora cushmani* (Morrow), Sample MP138; 14, *Rotalipora cushmani* (Morrow), Sample MP138; 15, *Rotalipora cushmani* (Morrow), Sample MP138; 16, *Rotalipora cushmani* (Morrow), Sample MM 25; and 17, *Rotalipora cushmani* (Morrow), Sample MP139. Scale for all figures = 125  $\mu\text{m}$ . All are axial to subaxial sections. All samples are from Moghal Kot Section.

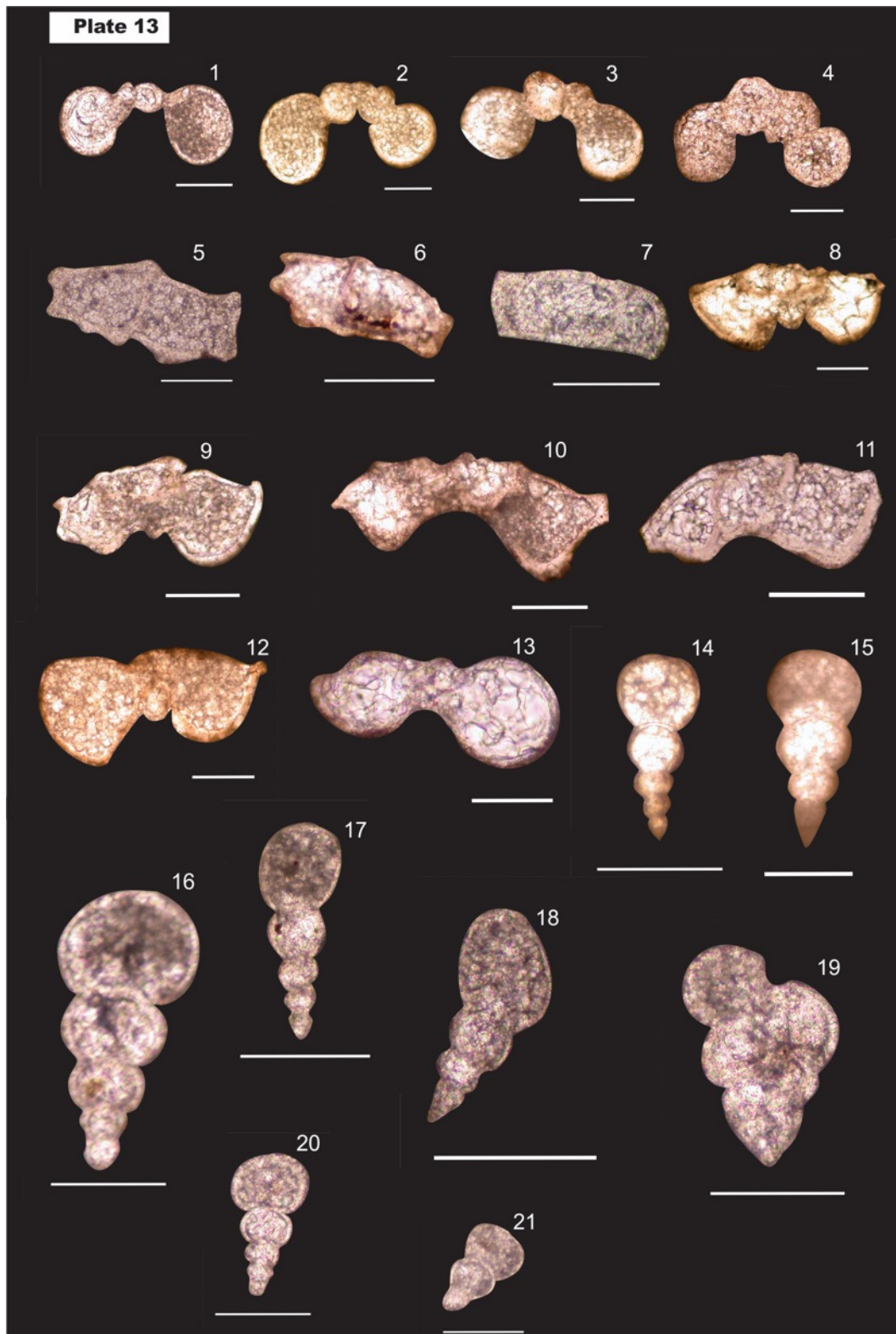


**Plate 11.** 1, *Whiteinella aumalensis* (Sigal), Sample MP 181; 2, *Whiteinella aumalensis* (Sigal), Sample MP 179; 3, *Whiteinella aumalensis* (Sigal), Sample MP 189; 4, *Whiteinella praeaelvetica* (Trujillo), Sample MP 195; 5, *Whiteinella praeaelvetica* (Trujillo), Sample MP 138; 6, *Whiteinella praeaelvetica* (Trujillo), Sample MP 181; 7, Transitional form between *Whiteinella baltica* and *Whiteinella praeaelvetica*, Sample MP 191; 8, *Whiteinella baltica* (Douglas & Rankin), Sample MP 137; 9, *Whiteinella baltica* (Douglas & Rankin), Sample MP 181; 10, *Whiteinella baltica* (Douglas & Rankin), Sample MP 180; 11, *Whiteinella baltica* (Douglas & Rankin), Sample MP 194; 12, *Dicarinella algeriana* (Caron), Sample MP 137; 13, *Dicarinella algeriana* (Caron), Sample MP 181; 14, *Dicarinella algeriana* (Caron), Sample MP 193; 15, *Dicarinella algeriana* (Caron), Sample MP 138; 16, *Dicarinella algeriana* (Caron), Sample MP 194; 17, *Dicarinella algeriana* (Caron), Sample MM 25; 18, *Dicarinella algeriana* (Caron), Sample MP 137; 19, *Dicarinella algeriana* (Caron), Sample MP 179; 20, *Dicarinella algeriana* (Caron), Sample MP 191; and 21, *Dicarinella algeriana* (Caron), Sample MP 138. Scale for all figures = 125  $\mu\text{m}$ . All are axial to subaxial sections. All samples are from Moghal Kot Section.



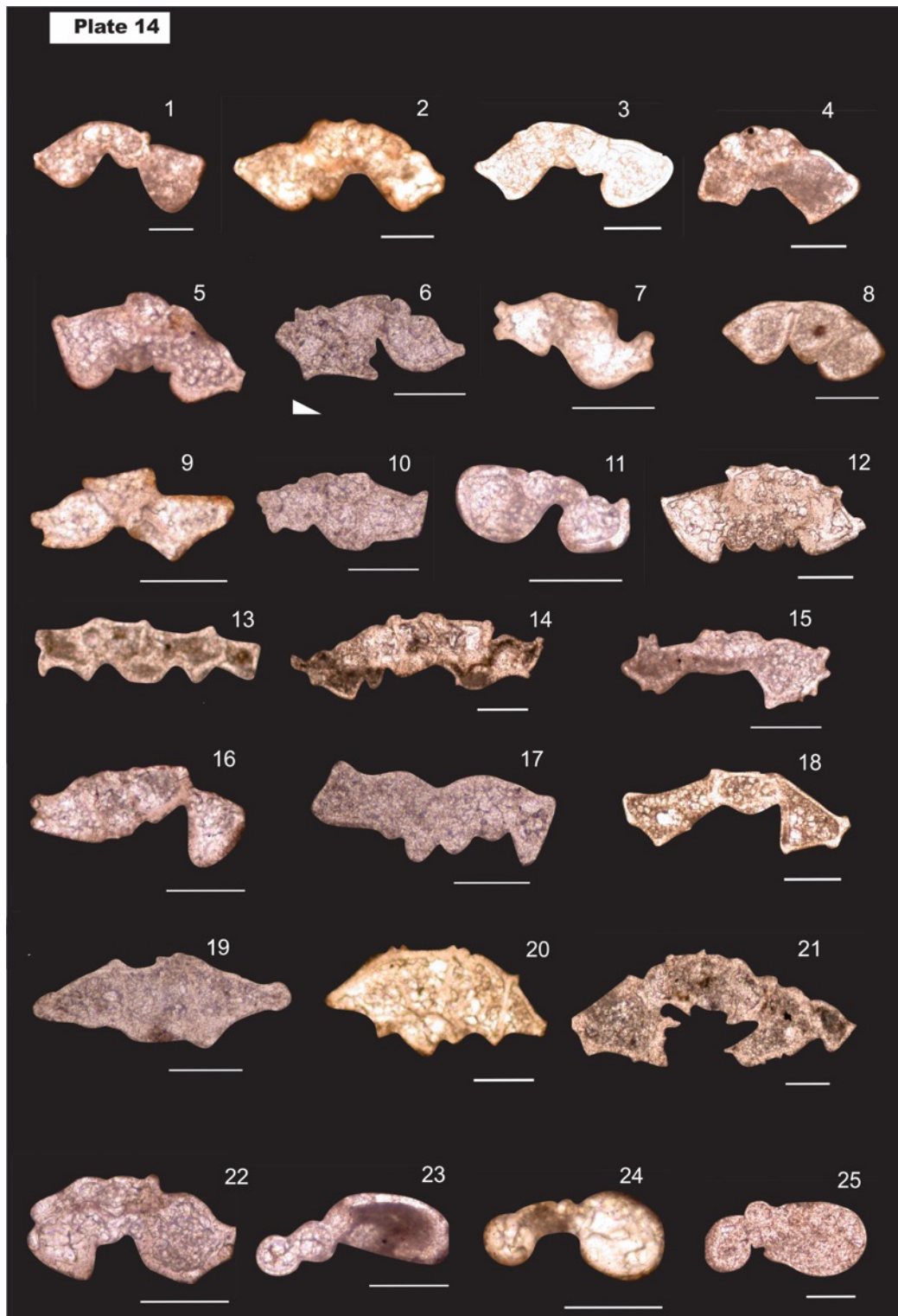


**Plate 12.** 1, *Dicarinella imbricata* (Mornod), Sample MP 140; 2, *Dicarinella imbricata* (Mornod), Sample MP 182; 3, *Rotalipora deekei* (Franke), Sample MP 138; 4, *Rotalipora deekei* (Franke), Sample MP 137; 5, *Rotalipora deekei* (Franke), Sample MM 25; 6, *Rotalipora deekei* (Franke), Sample MP 14; 7, *Rotalipora globotruncanoides* (Sigal), Sample MP 140; 8, *Rotalipora globotruncanoides* (Sigal), Sample MP 140; 9, *Whiteinella paradubia* (Sigal), Sample MP 179; 10, *Whiteinella paradubia* (Sigal), Sample MP 189; 11, *Whiteinella archaeocretacea* (Pessagno), Sample MP 182; 12, *Whiteinella archaeocretacea* (Pessagno), Sample MP 182; 13, *Whiteinella archaeocretacea* (Pessagno), Sample MP 191; 14, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 181; 15, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 197; 16, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 196; 17, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 179; 18, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 196; 19, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 187; 20, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 182; 21, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 182; and 22, *Helvetoglobotruncana helvetica* (Bolli), Sample MP 195. Scale for all figures = 125  $\mu\text{m}$ . All are axial to subaxial sections. All samples are from Moghal Kot Section.

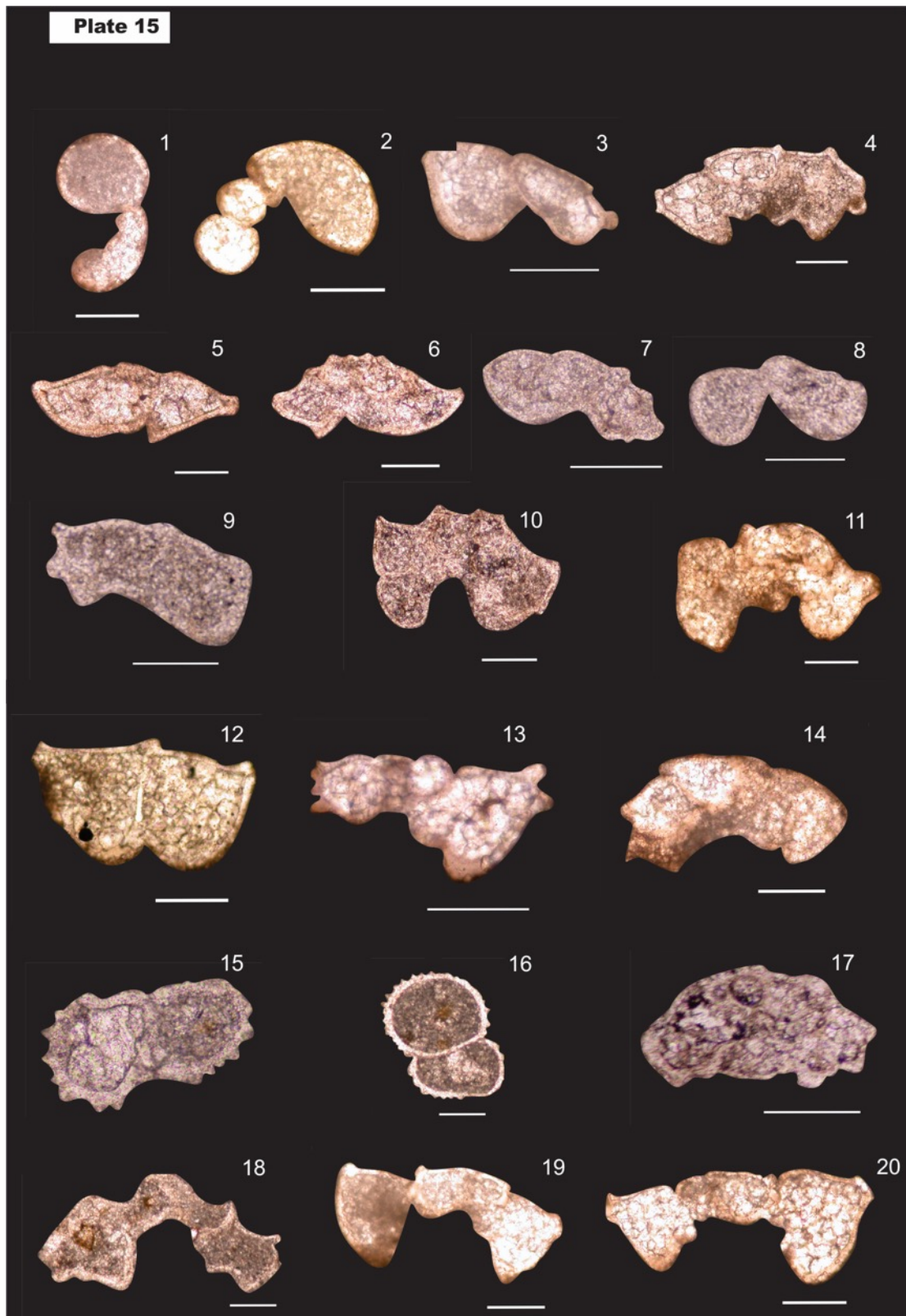


**Plate 13.** 1, *Whiteinella aprica* (Loeblich & Tappan), Sample MP 188; 2, *Whiteinella aprica* (Loeblich & Tappan), Sample MP 185; 3, *Whiteinella brittonensis* (Loeblich & Tappan), Sample MP 185; 4, *Whiteinella brittonensis* (Loeblich & Tappan), Sample MP 132; 5, *Dicarinella canaliculata* (Reuss), Sample MP 196; 6, *Dicarinella canaliculata* (Reuss), Sample MP 185; 7, *Dicarinella canaliculata* (Reuss), Sample MP 137; 8, *Dicarinella hagni* (Scheibnerova), Sample MP 194; 9, *Dicarinella hagni* (Scheibnerova), Sample MP 182; 10, *Dicarinella hagni* (Scheibnerova), Sample MP 195; 11, *Dicarinella hagni/imbricata*, Sample MP 181; 12, *Whiteinella* (?) *inornata* (Bolli), Sample MP 193; 13, *Whiteinella* (?) *inornata* (Bolli) Sample MP 181; 14, *Heterohelix reussi* (Cushman), Sample MP 201; 15, *Heterohelix reussi* (Cushman), Sample MP 193; 16, *Heterohelix reussi* (Cushman), Sample MP 203; 17, *Heterohelix reussi* (Cushman), Sample MP 205; 18, *Heterohelix reussi* (Cushman), Sample MP 206; 19, *Heterohelix reussi* (Cushman), Sample MP 203; 20, *Heterohelix reussi* (Cushman), Sample MP 203; and 21, *Heterohelix reussi* (Cushman), Sample MP 207. Scale for all figures = 125  $\mu\text{m}$ . 14–18, 20–21, edge sections; 19, lateral section; all others are axial to subaxial sections. All samples are from Moghal Kot Section.



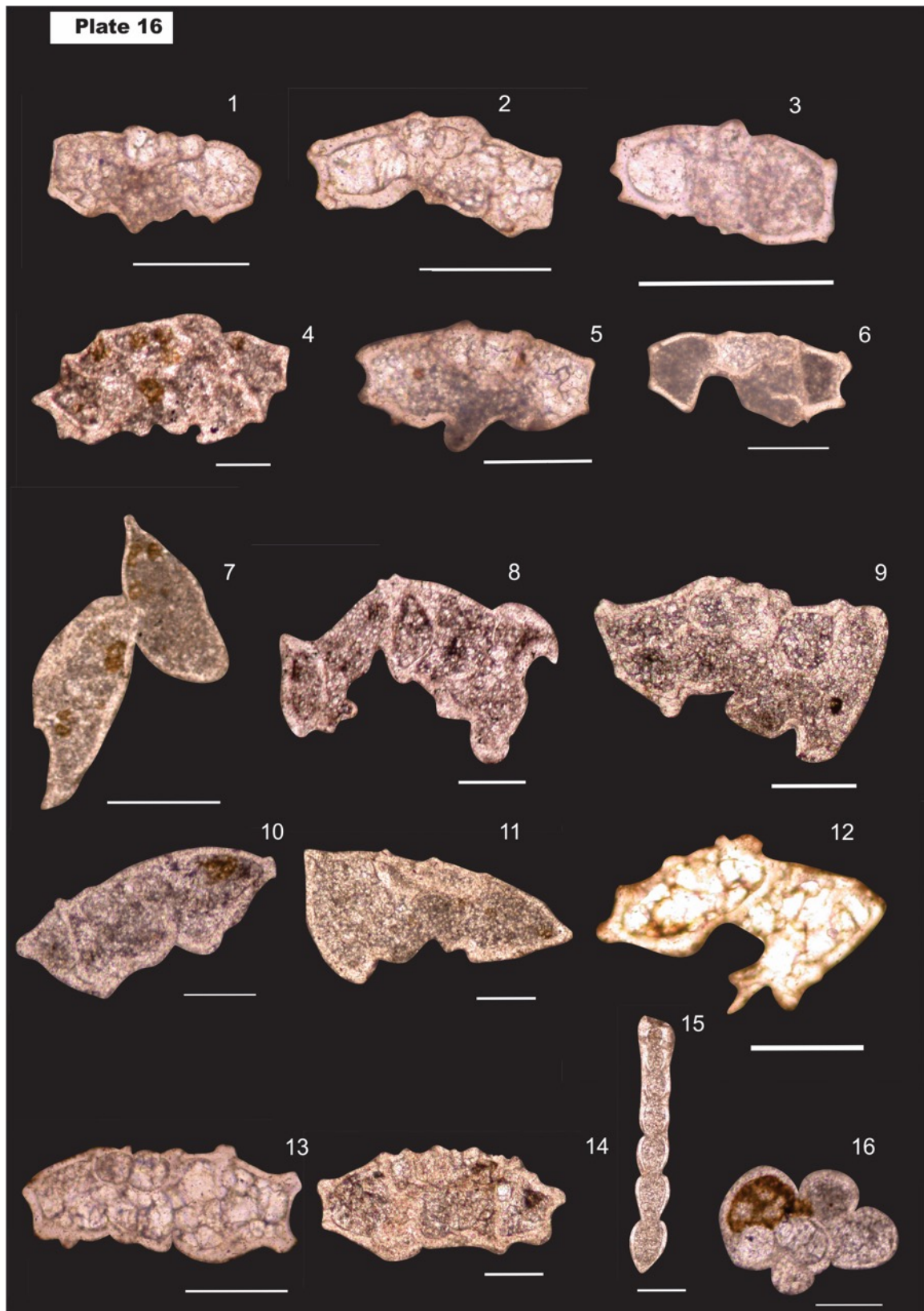


**Plate 14.** 1, *Marginotruncana sigali* (Reichel), Sample MP 195; 2, *Marginotruncana sigali* (Reichel), Sample MP 194; 3, *Marginotruncana sigali* (Reichel), Sample MP 187; 4, *Marginotruncana sigali* (Reichel), Sample MP 194; 5, *Marginotruncana schneegansi* (Sigali), Sample MP 187; 6, *Marginotruncana schneegansi* (Sigali), Sample MP 196; 7, *Marginotruncana schneegansi* (Sigali), Sample MP 186; 8, *Marginotruncana schneegansi* (Sigali), Sample MP 180; 9, *Marginotruncana renzi* (Gandolfi), Sample MP 185; 10, *Marginotruncana pseudolinneiana* (Pessagno), Sample MP 196; 11, *Marginotruncana pseudolinneiana* (Pessagno), Sample MP 198; 12, *Marginotruncana marianosi* (Douglas), Sample MP 191; 13, *Marginotruncana coronata* (Bolli), Sample MP 204; 14, *Marginotruncana coronata* (Bolli), Sample MP 205; 15, *Marginotruncana coronata* (Bolli), Sample MP 181; 16, *Marginotruncana coronata* (Bolli), Sample MP 181; 17, *Marginotruncana coronata* (Bolli), Sample MP 196; 18, *Marginotruncana renzi* (Bolli), in Sample MP 202; 19, *Marginotruncana coronata* (Bolli), Sample MP 196; 20, *Marginotruncana coronata* (Bolli), Sample MP 209; 21, *Marginotruncana coronata* (Bolli), Sample MP 204; 22, *Marginotruncana marginata* (Reuss) Sample MP 191; 23, *Hedbergella flandrini* (Porthault), Sample MP 192; 24, *Hedbergella flandrini* (Porthault), Sample MP 195; and 25, *Hedbergella flandrini* (Porthault), Sample MP 198. Scale for all figures = 125  $\mu$ m. All are axial to subaxial sections. All samples are from the Moghal Kot Section.

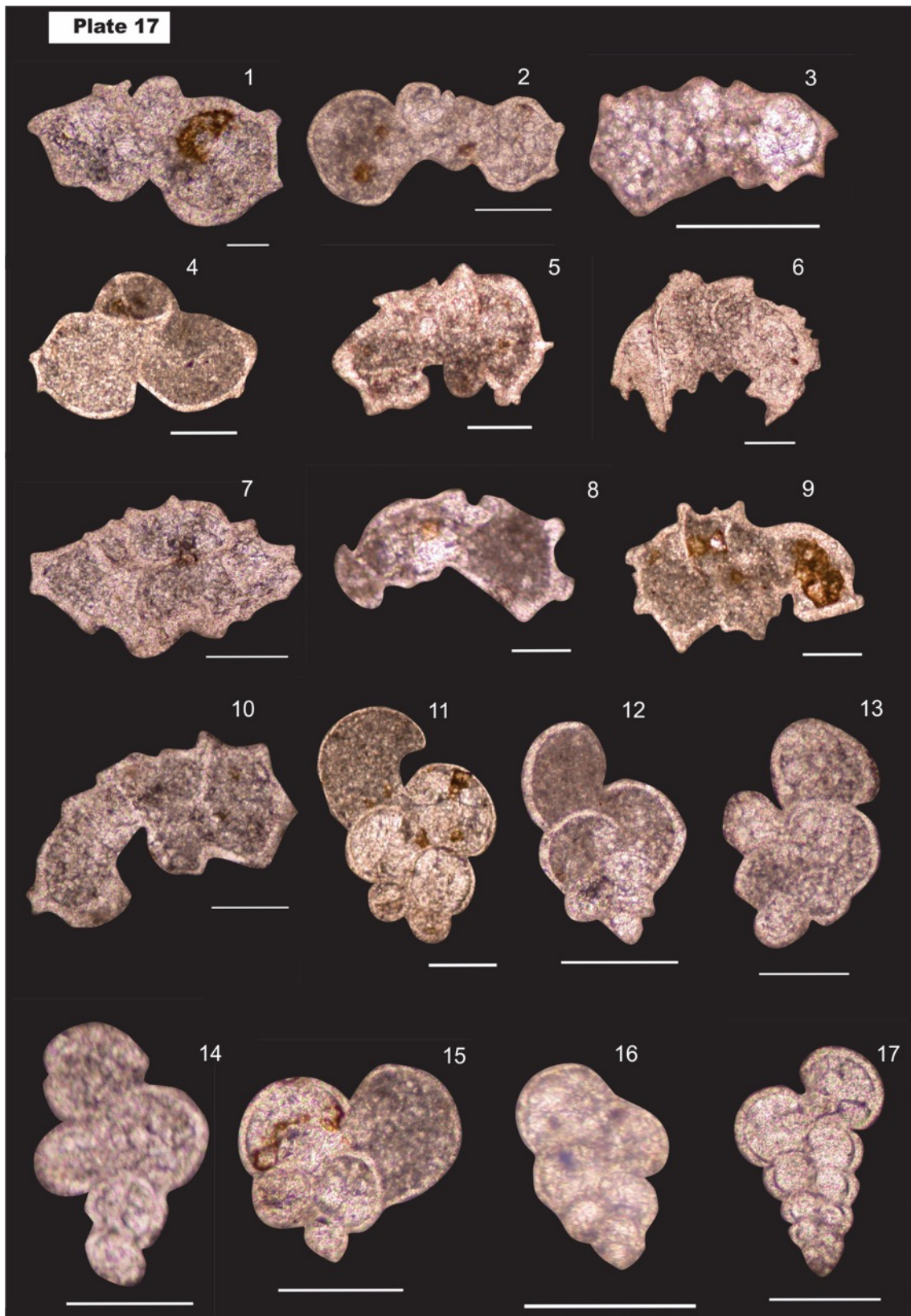


**Plate 15.** 1, *Globigerinelloides bollii* (Pessagno) Sample MP 195; 2, *Globigerinelloides bollii* (Pessagno), Sample MP 194; 3, *Marginotruncana sinouosa* (Porthault), Sample MP 185; 4, *Dicarinella primitiva* (Dalbiez), Sample MP 195; 5, *Dicarinella primitiva* (Dalbiez), Sample MP 197; 6, *Dicarinella primitiva* (Dalbiez), Sample MP 196; 7, *Dicarinella primitiva* (Dalbiez), Sample MP 196; 8, *Archaeoglobigerina cretacea* (D'Orbigny), Sample MP 196; 9, *Archaeoglobigerina cretacea* (D'Orbigny), Sample MP 196; 10, *Dicarinella concavata* (Brotzen), Sample MP 196; 11, *Dicarinella concavata* (Brotzen), Sample MP 193; 12, *Dicarinella concavata* (Brotzen), Sample MP 191; 13, *Dicarinella concavata* (Brotzen), Sample MP 193; 14, *Contusotruncana fornicata* (Plummer), Sample MP 193; 15, *Pseudoguembelina costulata* (Cushman), Sample MP 203; 16, *Pseudoguembelina costulata* (Cushman), Sample MP 203; 17, *Contusotruncana fornicata* (Plummer), Sample MP 200; 18, *Contusotruncana fornicata* (Plummer), Sample MP 204; 19, *Dicarinella cf. asymetrica* (Sigal), Sample MP 195; and 20, *Dicarinella asymetrica* (Sigal), Sample MP 195. Scale for all figures = 125  $\mu\text{m}$ . All are axial to subaxial sections. All samples are from the Moghal Kot Section.



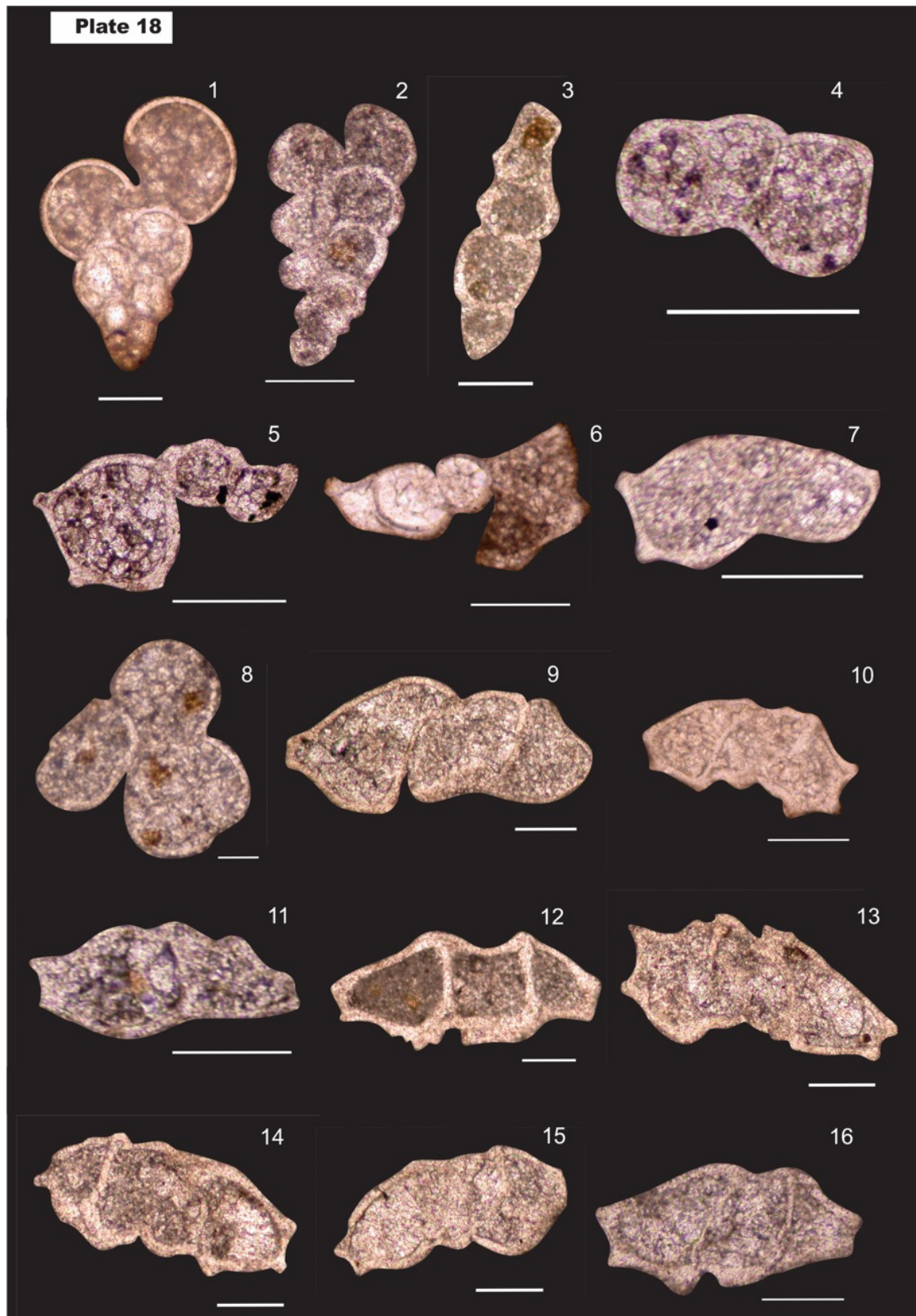


**Plate 16.** 1, *Globotruncana linneiana* (D'Orbigny), Sample MP 209; 2, *Globotruncana linneiana* (D'Orbigny), Sample MP 202; 3, *Globotruncana linneiana* (D'Orbigny), Sample MP 200; 4, *Globotruncanita conica* (White), Sample MP 204; 5, *Globotruncana linneiana* (D'Orbigny), Sample MP 209; 6, *Globotruncana linneiana* (D'Orbigny), Sample MP 209; 7, *Globotruncanita elevata* (Brotzen), Sample MP 207; 8, *Globotruncanita elevata* (Brotzen), Sample MP 200; 9, *Globotruncanita elevata* (Brotzen), Sample MP 200; 10, *Globotruncanita elevata* (Brotzen), Sample MP 204; 11, *Globotruncanita elevata* (Brotzen), Sample MP 207; 12, *Globotruncanita elevata* (Brotzen), Sample MP 201; 13, *Globotruncana lapparenti* (Brotzen), Sample MP 201; 14, *Globotruncana lapparenti* (Brotzen), Sample MP 204; 15, *Laeviheterohelix glabrans* (Cushman), Sample MP 206; and 16, *Ventilabrella multicamerata* (Klasz), Sample MP 204. Scale for all figures = 125  $\mu$ m. 15, edge section, 16, lateral section; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.

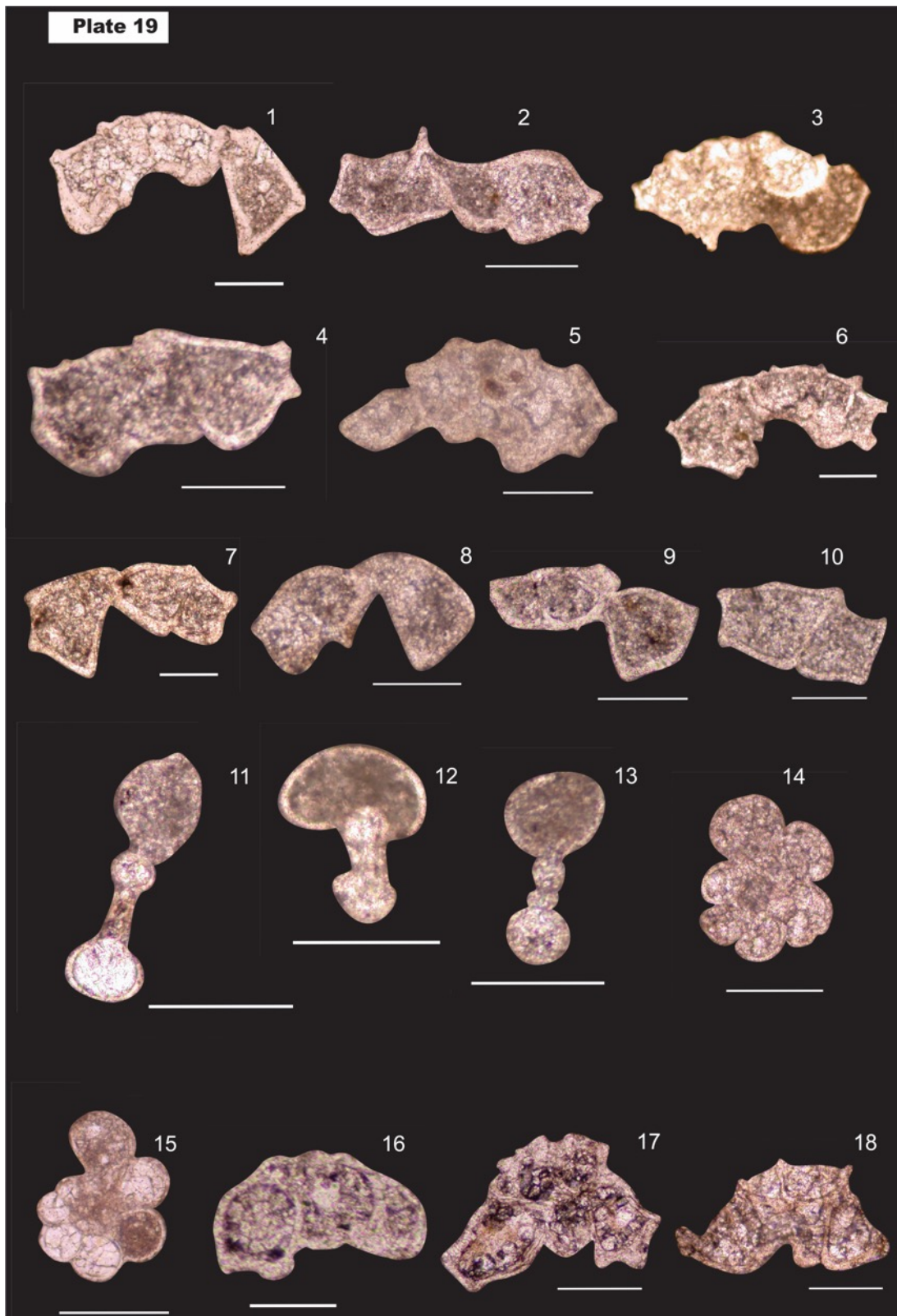


**Plate 17.** 1, *Globotruncana bulloides* (Vogler), Sample MP 204; 2, *Globotruncana bulloides* (Vogler), Sample MP 207; 3, *Globotruncana bulloides* (Vogler), Sample MP 206; 4, *Globotruncana bulloides* (Vogler), Sample MP 207; 5, *Globotruncana arca* (Cushman), Sample MP 203; 6, *Globotruncana arca* (Cushman), Sample MP 203; 7, *Globotruncana arca* (Cushman), Sample MP 206; 8, *Globotruncana arca* (Cushman), Sample MP 206; 9, *Globotruncana arca* (Cushman), Sample MP 204; 10, *Globotruncana arca* (Cushman), Sample MP 203; 11, *Heterohelix globulosa* (Ehrenberg), Sample MP 207; 12, *Heterohelix globulosa* (Ehrenberg), Sample MP 206; 13, *Heterohelix globulosa* (Ehrenberg), Sample MP 203; 14, *Heterohelix globulosa* (Ehrenberg), Sample MP 203; 15, *Heterohelix globulosa* (Ehrenberg), Sample MP 204; 16, *Heterohelix globulosa* (Ehrenberg), Sample MP 207; and 17, *Heterohelix globulosa* (Ehrenberg), Sample MP 203. Scale for all figures = 125  $\mu\text{m}$ . 11–17, lateral sections; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.



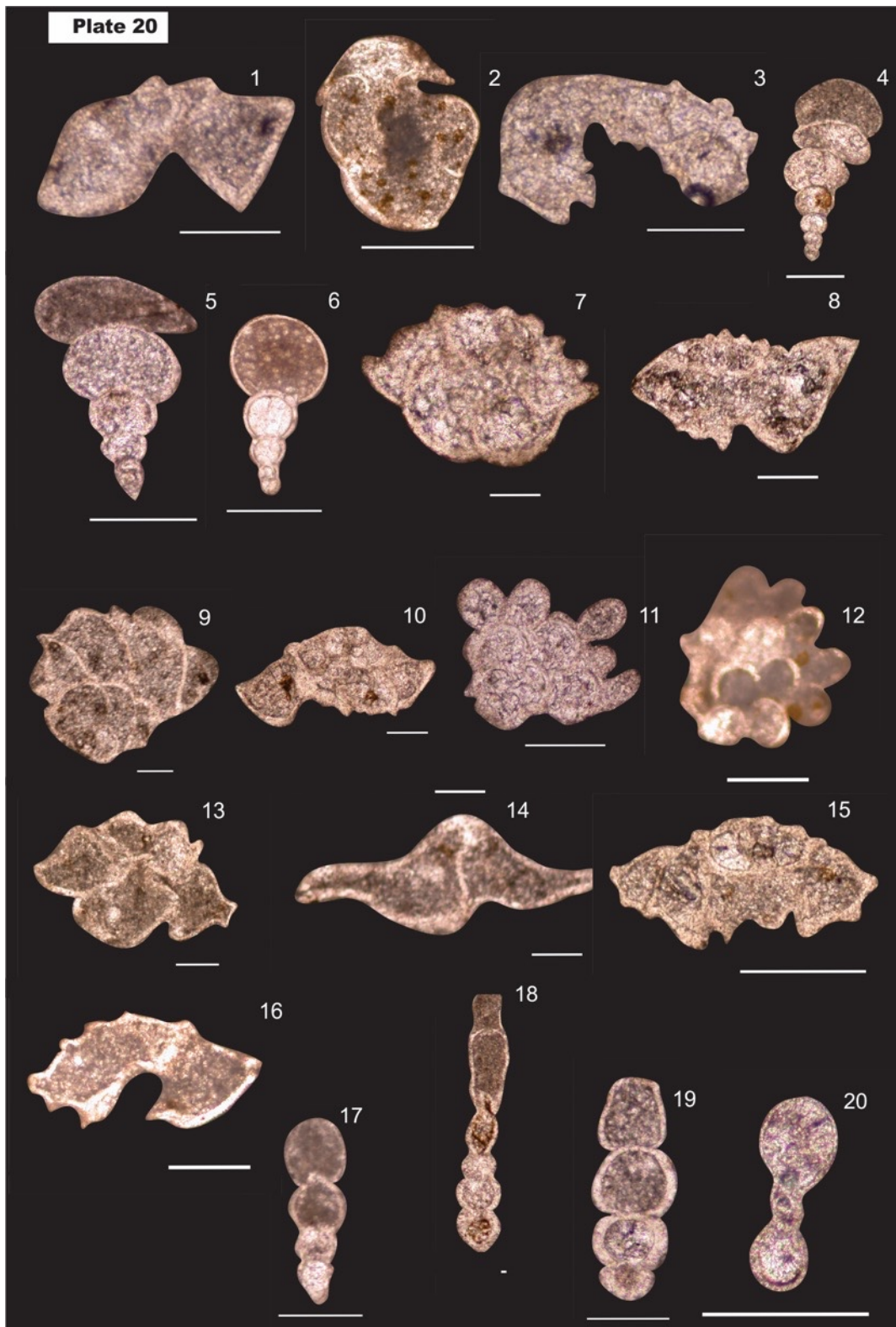


**Plate 18.** 1, *Heterohelix planata* (Cushman), Sample MP 202; 2, *Heterohelix planata* (Cushman), Sample MP 203; 3, *Ventilabrella glabrata* (Cushman), Sample MP 204; 4, *Globotruncana hilli* (Pessagno), Sample MP 200; 5, *Globotruncana hilli* (Pessagno), Sample MP 200; 6, *Globotruncana hilli* (Pessagno), Sample MP 200; 7, *Globotruncana hilli* (Pessagno), Sample MP 206; 8, *Rugoglobigerina rugosa* (Plummer), Sample MP 207; 9, *Globotruncana carinata* (Dalbiez), Sample MP 204; 10, *Globotruncana carinata* (Dalbiez), Sample MP 201; 11, *Globotruncana carinata* (Dalbiez), Sample MP 200; 12, *Globotruncana carinata* (Dalbiez), Sample MP 204; 13, *Globotruncana carinata* (Dalbiez), Sample MP 204; 14, *Globotruncana carinata* (Dalbiez), Sample MP 204; 15, *Globotruncana carinata* (Dalbiez), Sample MP 204; and 16 *Globotruncana carinata* (Dalbiez), Sample MP 204. Scale for all figures = 125  $\mu\text{m}$ . 1–2 lateral sections; 3, edge section; all others are axial to sub axial sections. All samples are from the Moghal Kot Section.

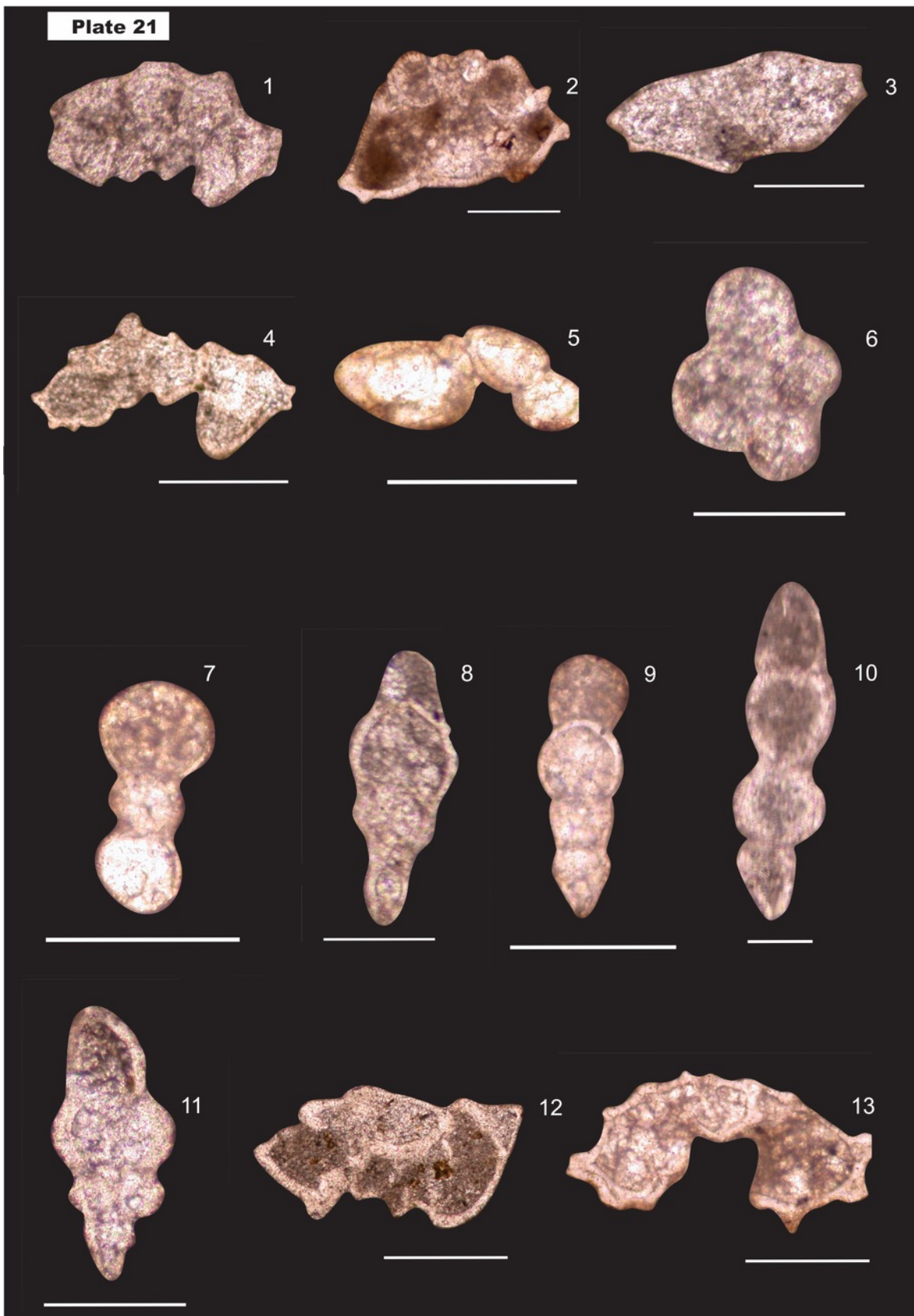


**Plate 19.** 1, *Globotruncana ventricosa* (White), Sample MP 202; 2, *Globotruncana ventricosa* (White), Sample MP 206; 3, *Globotruncana ventricosa* (White), Sample MP 200; 4, *Globotruncana ventricosa* (White), Sample MP 203; 5, *Globotruncana ventricosa* (White), Sample MP 207; 6, *Globotruncana ventricosa* (White), Sample MP 203; 7, *Globotruncana ventricosa* (White), Sample MP 204; 8, *Globotruncana ventricosa* (White), Sample MP 207; 9, *Globotruncana ventricosa* (White), Sample MP 204; 10, *Globotruncana* sp. Sample MP 204; 11, *Globigerinelloides prairiehillensis* (Pessagno), Sample MP 206; 12, *Globigerinelloides prairiehillensis* (Pessagno), Sample MP 205; 13, *Globigerinelloides prairiehillensis* (Pessagno), Sample MP 205; 14, *Globigerinelloides prairiehillensis* (Pessagno), Sample MP 198; 15, *Globigerinelloides prairiehillensis* (Pessagno), Sample MP 202; 16, *Contusotruncana plummerae* (Gandolfi), Sample MP 200; 17, Transitional between *Contusotruncana patelliformis* and *Contusotruncana contusa*, Sample MP 200; and 18, *Contusotruncana patelliformis* (Gandolfi), Sample MP 199. Scale for all figures = 125  $\mu\text{m}$ . 14–15, transverse sections; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.



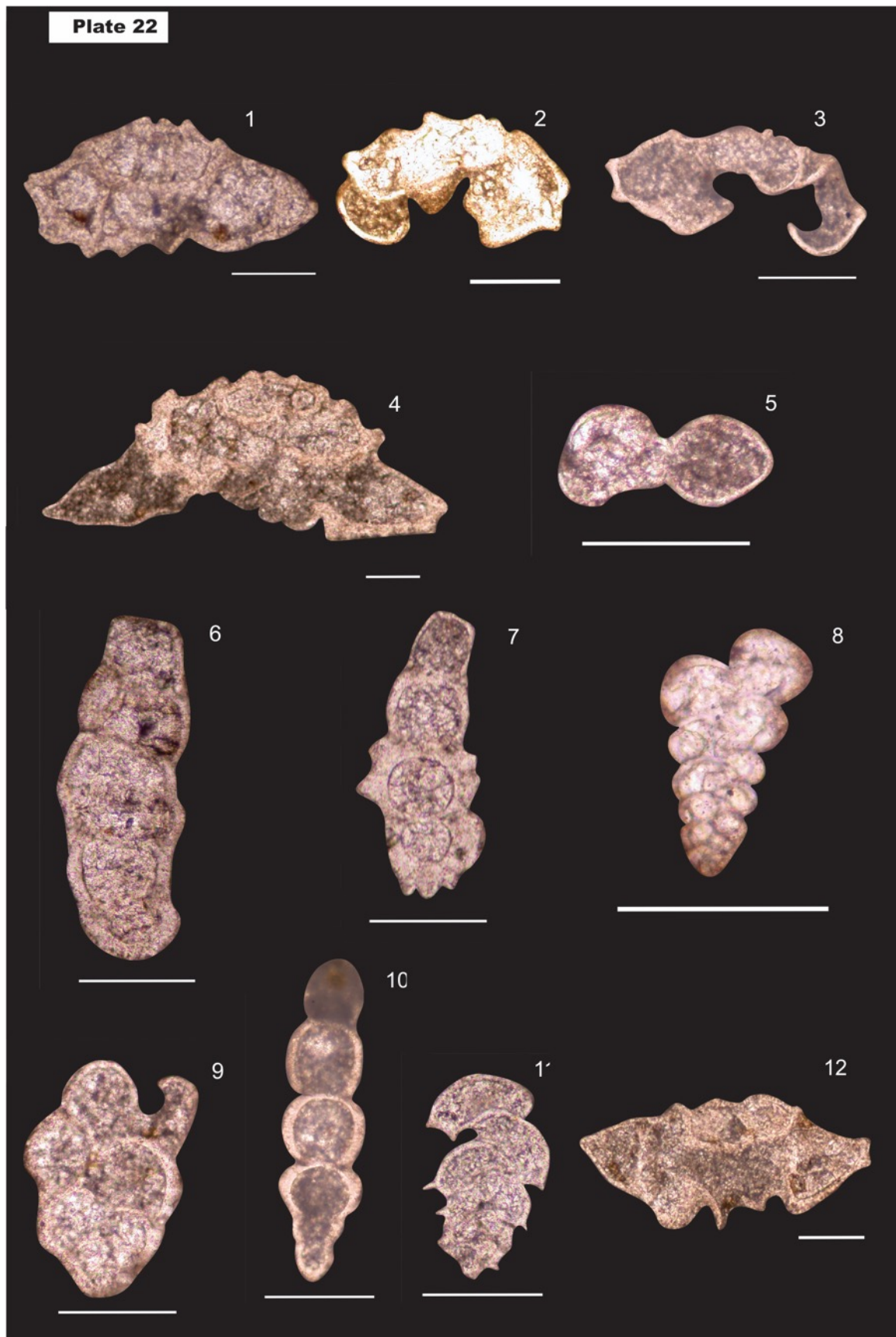


**Plate 20.** 1, *Globotruncanita stuarti* (de Lapparent), Sample MP 207; 2, *Globotruncanita stuartiformis* (Dalbiez), Sample MP 209; 3, *Contusotruncana contusa* (Cushman), Sample MP 207; 4, *Pseudotextularia elegans* (Rezehak), Sample MP 204; 5, *Pseudotextularia elegans* (Rezehak), Sample MP 206; 6, *Pseudotextularia elegans* (Rezehak), Sample MP 202; 7, *Globotruncanita subspinoso* (Pessagno), Sample MP 208; 8, *Globotruncana rosetta* (Carsey), Sample MP 200; 9, *Globotruncanita conica* (White), Sample MP 204; 10, *Globotruncanita conica* (White), Sample MP 204; 11, *Planoglobulina* sp. Sample MP 208; 12, *Planoglobulina acervulinoides* (Egger), Sample MP 209; 13, *Globotruncanita calcarata* (Cushman), Sample MP 204; 14, *Globotruncanita calcarata* (Cushman), Sample MP 204; 15, *Globotruncana arca* (Cushman), Sample MP 207; 16, *Globotruncana* cf. *aegyptiaca* (Nakkady), Sample MP 209; 17, *Laeviheterohelix glabrans* (Cushman), Sample MP 205; 18, *Gublerina* cf. *robusta* (de Clasz), Sample MP 204; 19, *Planoglobulina acervulinoides* (Egger), Sample MP 204; and 20, *Globigerinelloides messinae* (Bronnimann), Sample MP 205. Scale for all figures = 125  $\mu$ m. 4–6, 17–19, edge sections; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.

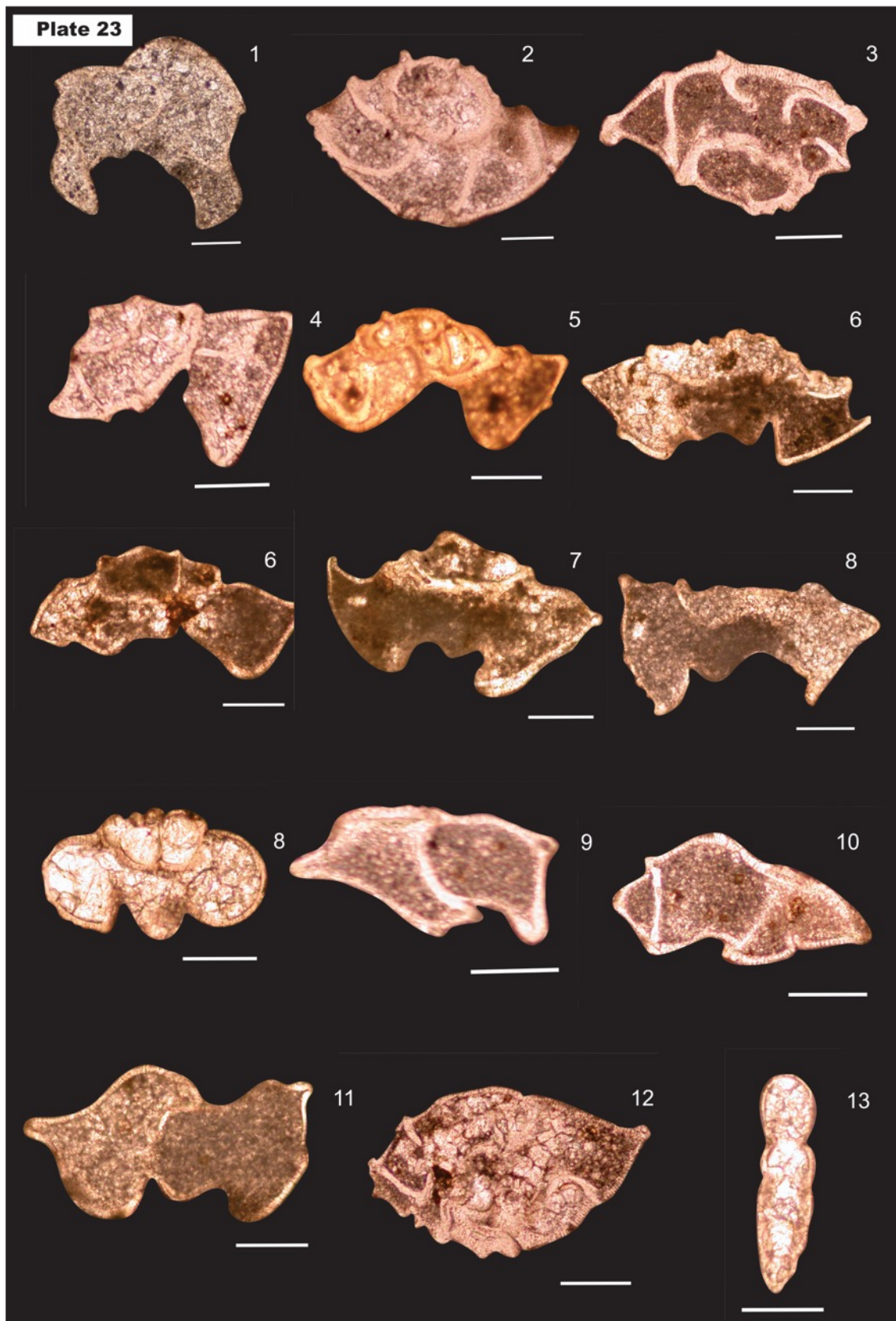


**Plate 21.** 1, *Contusotruncana fornicata* (Plummer), Sample MP 203; 2, *Contusotruncana patelliformis* (Gandolfi), Sample MP 200; 3, *Globotruncana lapparenti* (Brotzen), Sample MP 206; 4, *Globotruncana leupoldi* (Bolli), Sample MP 208; 5, *Globotruncanella* sp., Sample MP 200; 6, *Globigerinelloides volutus* (White), Sample MP 203; 7, *Globigerinelloides bollii* (Pessagno), Sample MP 201; 8, *Laeviheterohelix glabrans*, Sample MP 204; 9, *Heterohelix carinata*, Sample MP 200; 10, *Gublerina* cf. *robusta*, Sample MP 204; 11, *Laeviheterohelix glabrans* (Cushman), Sample MP 208; 12, *Globotruncana rosetta* (Carsey), Sample MP 208; and 13, *Contusotruncana fornicata* (Plummer), Sample MP 200. Scale for all figures = 125  $\mu\text{m}$ . 8, 11, lateral sections; 9–10, edge sections; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.



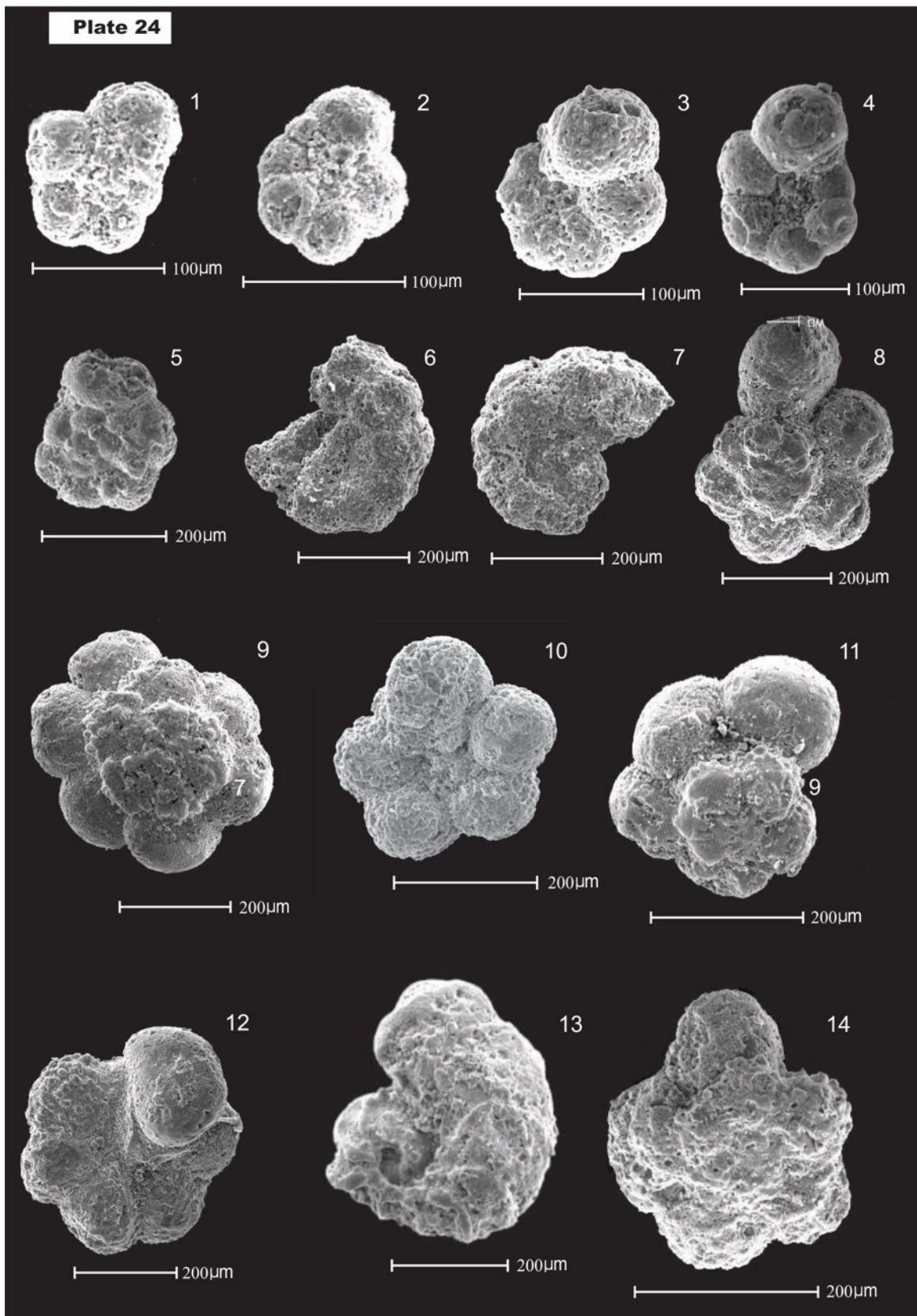


**Plate 22.** 1, *Globotruncana stephensoni* (Pessagno), Sample MP 207; 2, *Globotruncana orientalis* (El Naggari), Sample MP 202; 3, *Globotruncana dupeublei* (Caron), Sample MP 209; 4, *Contusotruncana* sp., Sample MP 204; 5, *Globotruncanella havanensis* (Voorwijk), Sample MP 206; 6, *Sigalia* sp., Sample MP 208; 7, *Ventilabrella eggeri* (Cushman), Sample MP 208; 8, *Heterohelix* sp., Sample MP 202; 9, *Planoglobulina carseyi* (Plummer), Sample MP 208; 10, *Planoglobulina acervulinoides* (Egger), Sample MP 209; 11, *Aragonia* sp., Sample MP 208; and 12, *Globotruncanita elevata* (Brotzen), Sample MP 207. Scale for all figures = 125  $\mu\text{m}$ . 6–7, 10, edge sections; 8–9, 11, lateral sections; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.

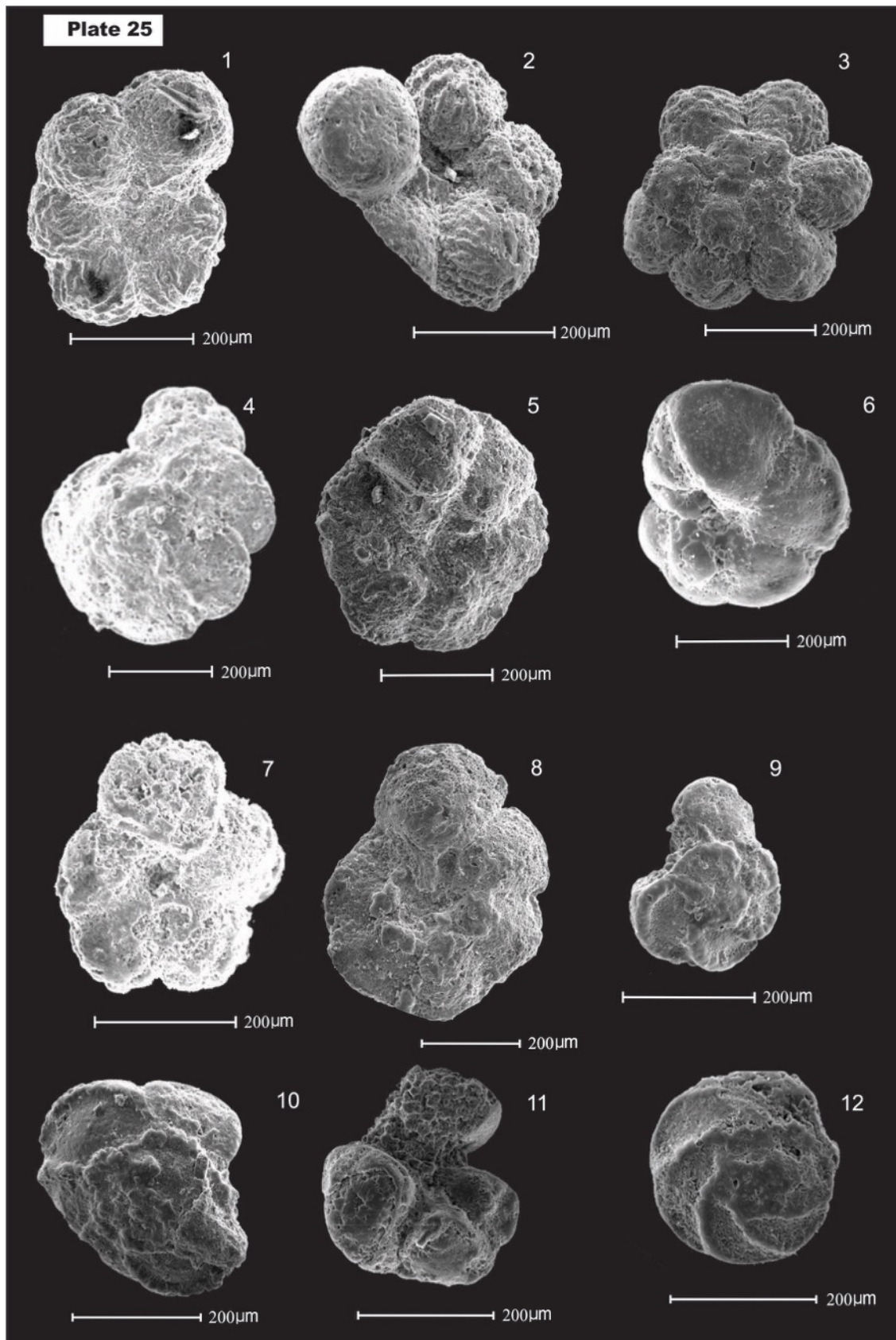


**Plate 23.** 1, *Contusotruncana contusa* (Cushman), Sample, MP 207; 2, 3, *Globotruncanita conica* (White), Sample, MP 210; 4, *Globotruncanita elevata* (Brotzen), Sample, 210; 5, *Globotruncanita elevata* (Brotzen), Sample, 208; 6, *Globotruncanita stuarti* (de Lapparent), Sample, 208; 7, *Globotruncanita stuarti* (de Lapparent), Sample, 208; 8, *Globotruncanita stuartiformis* (Dalbiez), Sample 208; 9, Transitional form between *Globotruncanita subspinoso* and *Globotruncanita calcarata*, Sample MP 208; 10, *Rugoglobigerina milamensis* (Smith & Pessagno), Sample, 208; 11, *Globotruncanita calcarata* (Cushman), Sample MP 209; 12, *Globotruncanita calcarata* (Cushman), Sample MP 209; 13, *Globotruncanita calcarata* (Cushman), Sample 208; 14, *Globotruncanita conica* (White), Sample MP 210; and 15, *Ventilabrella glabrata* (Cushman), Sample MP 209. Scale for all figures = 125  $\mu$ m. 15, lateral sections; all others are axial to subaxial sections. All samples are from the Moghal Kot Section.



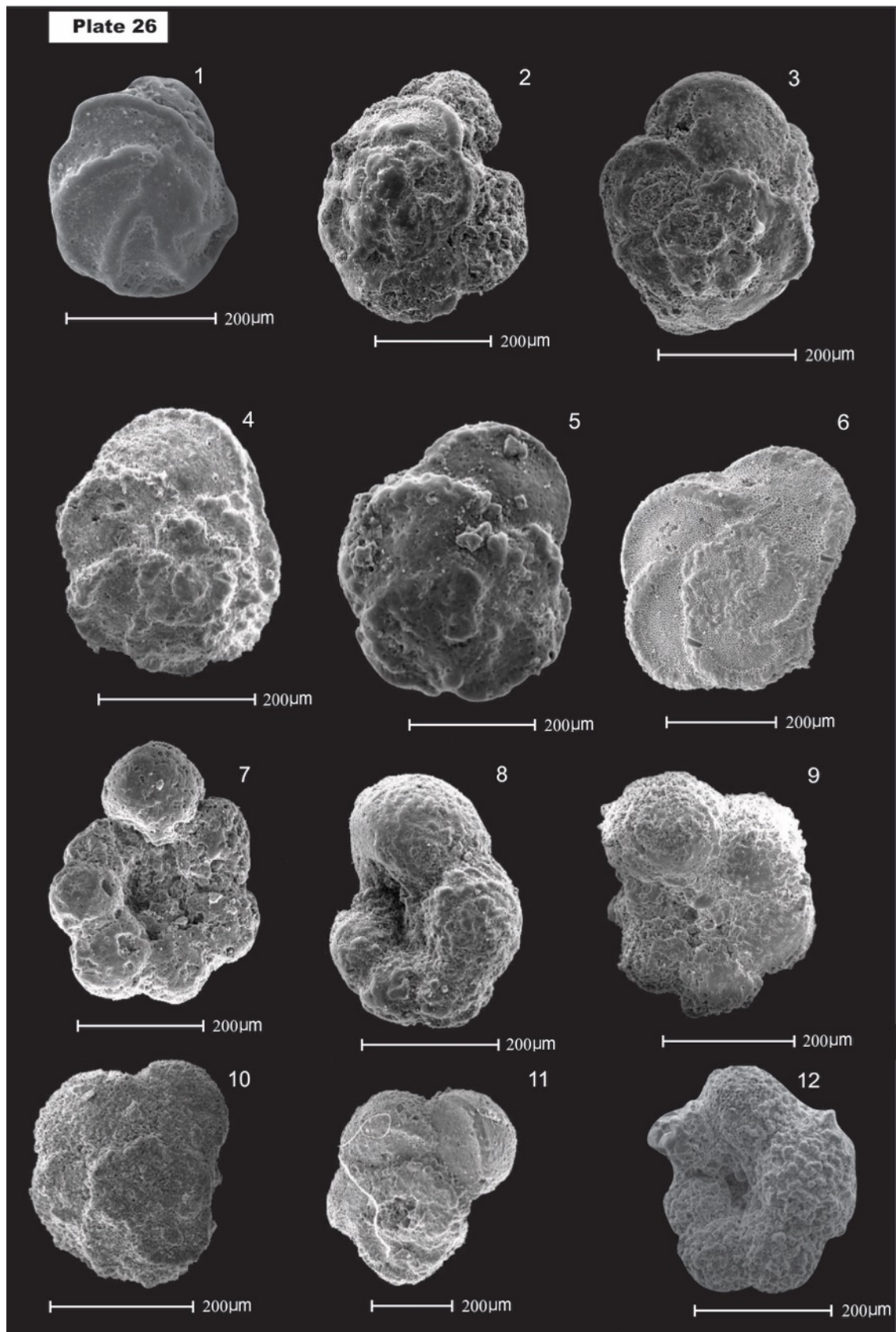


**Plate 24.** 1, *Hedbergella delrioensis* (Carsey), Spiral view, Sample MP 9; 2, *Hedbergella delrioensis* (Carsey), Umbilical view, Sample MP 9; 3, *Hedbergella delrioensis* (Carsey), Umbilical view, Sample MP 95; 4, *Hedbergella planispira* (Tappan), Umbilical view, Sample MP 66; 5, *Hedbergella planispira* (Tappan), Spiral view, Sample MP 66; 6, *Globigerinelloides algerianus* (Cushman & Ten Dam), Umbilical view, Sample MP 28; 7, *Globigerinelloides algerianus* (Cushman & Ten Dam), Spiral view, Sample MP 28; 8, *Hedbergella simplex* (Morrow), Spiral view, Sample MM 23; 9, *Ticinella roberti* (Gandolfi), Spiral view, Sample MM 23; 10, *Praeglobotruncana gibba* (Claus), Umbilical view, Sample 23; 11, *Ticinella raynaudi* (Sigal), Spiral view, Sample MM23; 12, *Ticinella madecassiana* (Sigal), Umbilical view, Sample MM 23; 13, *Planomalina buxtorfi* (Gandolfi), Spiral view, Sample MM 23; and 14, *Praeglobotruncana delrioensis* (Plummer), Spiral View, Sample MM 23. All samples are from the Moghal Kot Section.

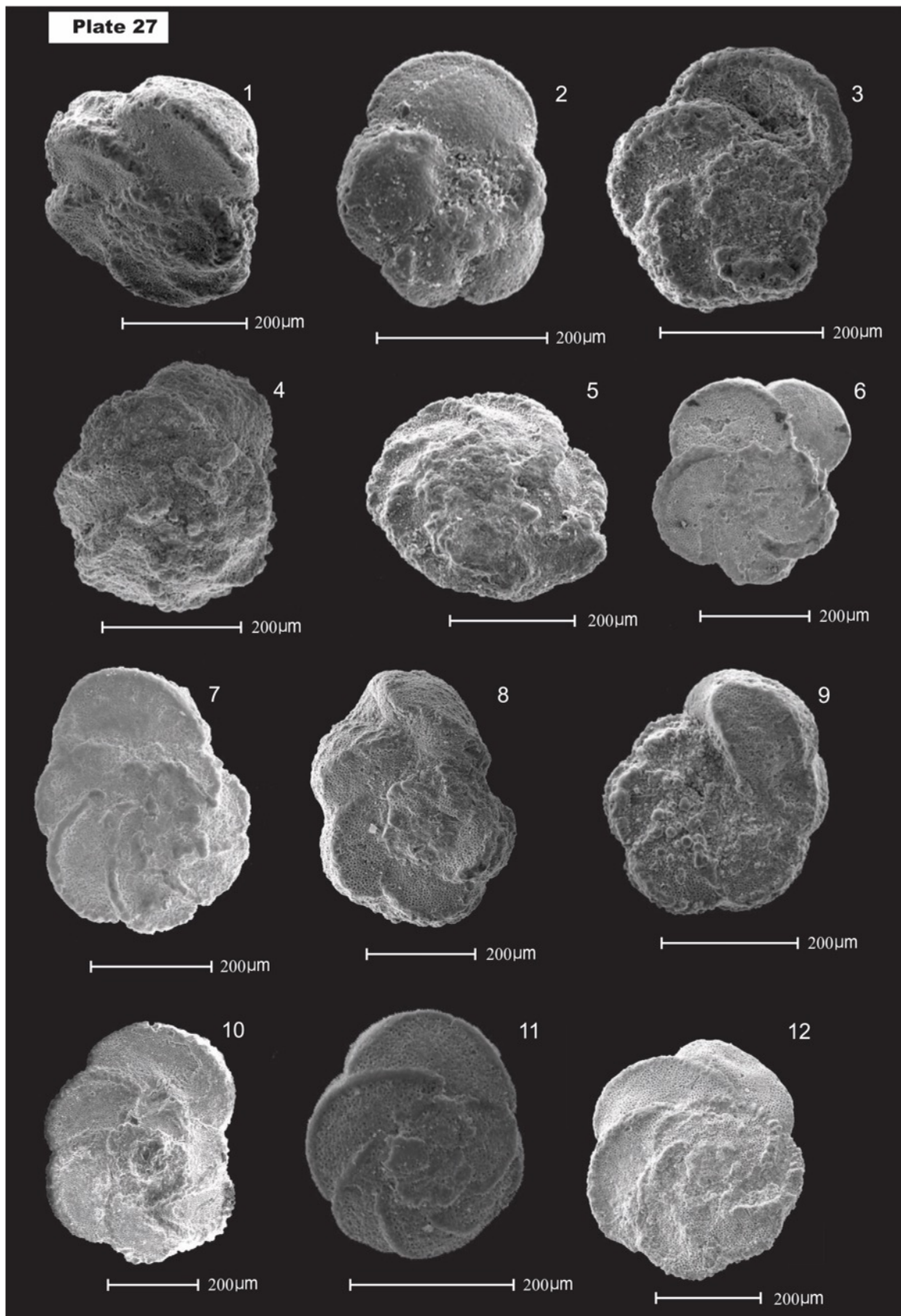


**Plate 25.** 1, *Hedbergella libyca* (Barr), Spiral view, Sample MM 23; 2, *Hedbergella libyca* (Barr), Umbilical view, Sample MM 23; 3, *Hedbergella libyca* (Barr), Top view, Sample MM 23; 4, *Rotalipora appenninca* (Renz), Spiral view, Sample MM 23; 5, *Rotalipora appenninca* (Renz), Umbilical view, Sample MM 23; 6, *Rotalipora brotzeni* (Sigal), Umbilical view, Sample MM 23; 7, *Rotalipora brotzeni* (Sigal), Umbilical view, Sample MM 23; 8, *Rotalipora gandolfi* (Luterbacher & Premoli-Silva), Umbilical view, Sample MM23; 9, *Rotalipora cushmani* (Morrow), Spiral View, Sample MM 25; 10, *Rotalipora cushman* (Morrow), Spiral view, Sample MM 25; 11, *Rotalipora cushmani* (Morrow), Umbilical view, Sample MP 139; and 12, *Rotalipora greenhornensis* (Morrow), Spiral view, Sample MP 139. All samples are from the Moghal Kot Section.



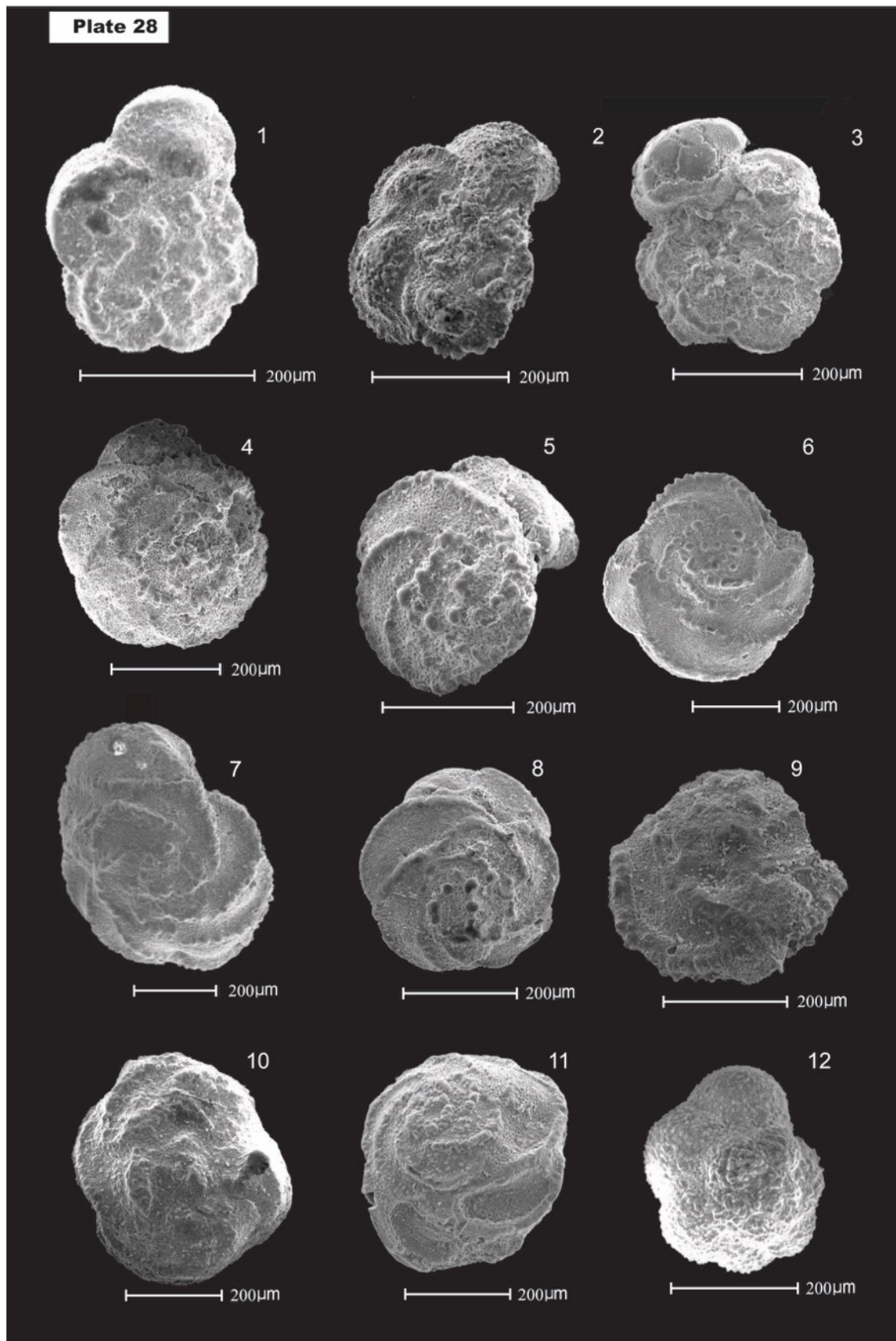


**Plate 26.** 1, *Rotalipora greenhornensis* (Morrow), Spiral view, Sample MP 139; 2, *Praeglobotruncana stephani* (Gandolfi), Spiral view, Sample MP 139; 3, *Praeglobotruncana gibba* (Klaus) Spiral view, Sample MP 139; 4, *Dicarinella imbricata* (Mornod), Spiral view, Sample MM 25; 5, *Dicarinella imbricata* (Mornod), Spiral view, Sample MM 25; 6, *Marginotruncana* sp., Spiral view, Sample MP 200; 7, *Praeglobotruncana* sp., Umbilical view, Sample MM 23; 8, *Whiteinella archaeocretacea* (Pessagno), Umbilical view, Sample MP 196; 9, *Whiteinella archaeocretacea* (Pessagno), Umbilical view, Sample MP 188; 10, *Helvetoglobotruncana helvetica* (Bolli), Spiral view, Sample MP 188; 11, *Helvetoglobotruncana helvetica* (Bolli), Spiral view, Sample MP 196; and 12, *Helvetoglobotruncana helvetica* (Bolli), Umbilical view, in Sample MP 191. All samples are from the Moghal Kot Section.

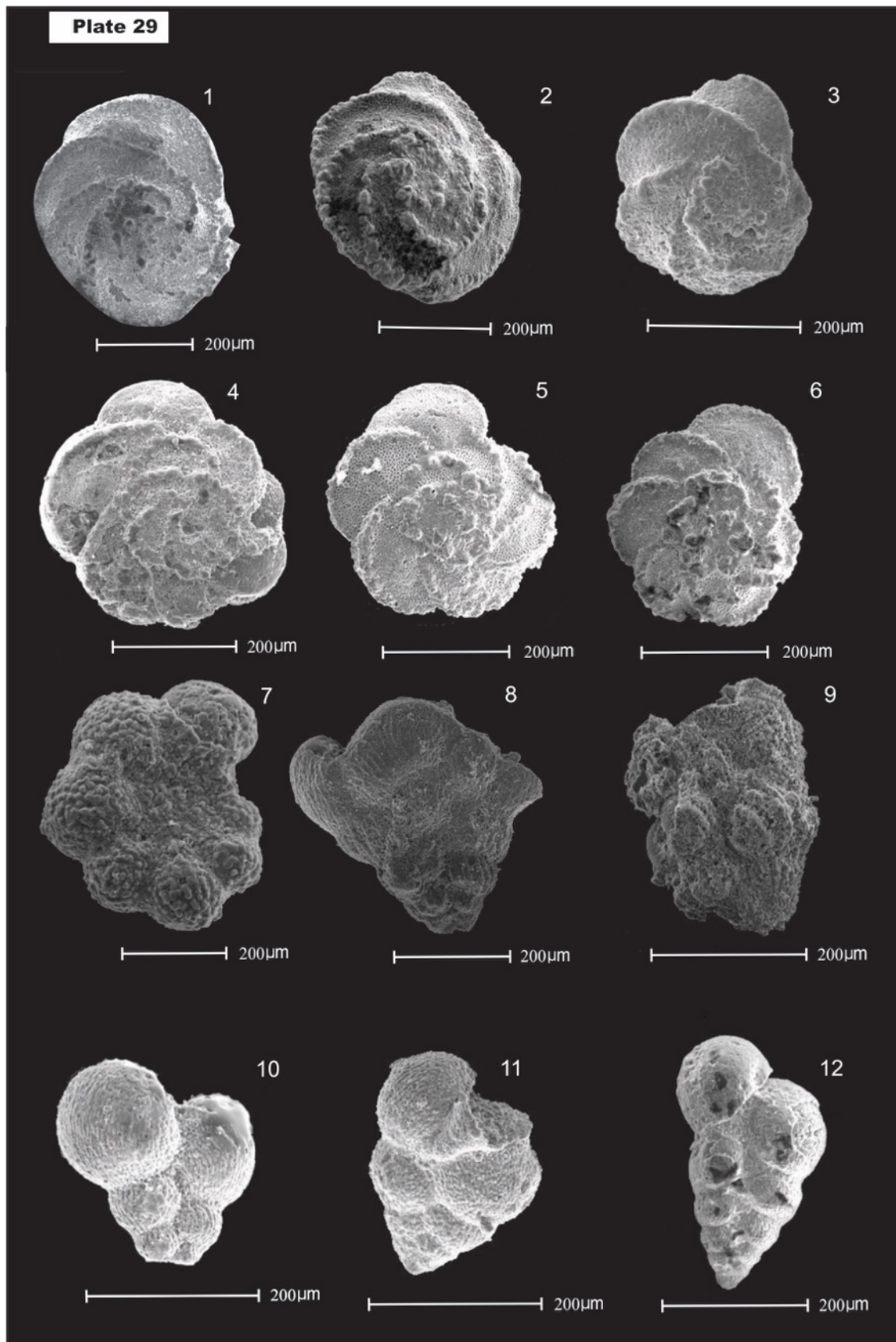


**Plate 27.** 1, *Praeglobotruncana difformis*, Spiral view, Sample MP 196; 2, *Dicarinella primitiva* (Dalbiez), Umbilical view, Sample MP 196; 3, *Marginotruncana sigali* (Reichel), Spiral view, Sample MP 196; 4, *Marginotruncana sinouosa* (Porthault), Spiral view, Sample MP 188; 5, *Marginotruncana sinouosa* (Porthault), Spiral view, Sample MP 196; 6, *Dicarinella cf. asymetrica* (Sigal), Spiral view, Sample MP 200; 7, *Marginotruncana pseudolinneiana* (Pessagno), Spiral view, Sample MP 205; 8, *Marginotruncana pseudolinneiana* (Pessagno), Spiral view, Sample MP 200; 9, *Marginotruncana pseudolinneiana* (Pessagno), Umbilical, Sample MP 200; 10, *Marginotruncana renzi* (Bolli), Spiral, Sample MP 200; 11, *Globotruncana linneiana* (D'Orbigny), Spiral view, Sample MP 205; and 12, *Globotruncana linneiana* (D'Orbigny), Spiral view, Sample MP 200. All samples are from the Moghal Kot Section.

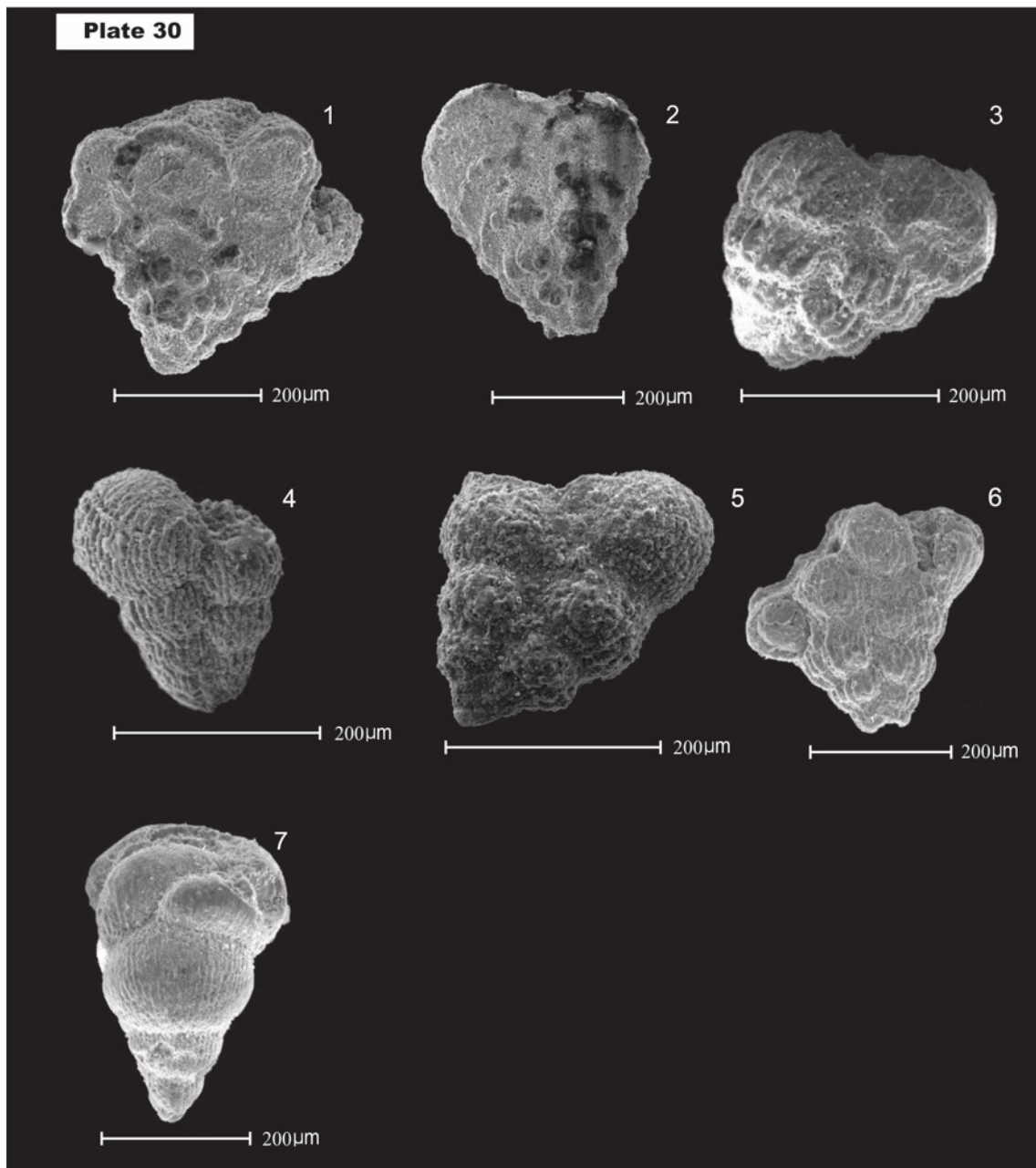




**Plate 28.** 1, *Globotruncana bulloides* (Vogler), Spiral view, Sample MP 205; 2, *Globotruncana bulloides* (Vogler), Spiral view, Sample MP 205; 3, *Globotruncana bulloides* (Vogler), Umbilical view, Sample MP 205; 4, *Globotruncanita stuartiformis* (Dalbiez), Spiral view, Sample MP 205; 5, *Globotruncanita stuartiformis* (Dalbiez), Spiral view, Sample MP 205; 6, *Globotruncanita stuartiformis* (Dalbiez), Spiral view, Sample MP 205; 7, *Globotruncanita stuartiformis* (Dalbiez), Spiral view, Sample MP 205; 8, *Globotruncana lapparenti* (Brotzen), Spiral view, Sample MP 205; 9, *Contusotruncana fornicata* (Plummer), Spiral view, Sample MP 207; 10, *Contusotruncana fornicata* (Plummer), Spiral view, Sample MP 200; 11, *Contusotruncana fornicata* (Plummer), Spiral view, Sample MP 200; and 12, *Rugoglobigerina* sp., Spiral view, Sample MP 200. All samples are from the Moghal Kot Section.



**Plate 29.** 1, *Contusotruncana fornicata* (Plummer), Spiral side, Sample MP 205; 2, *Contusotruncana fornicata* (Plummer) Spiral side, Sample MP 200; 3, *Globotruncana arca* (Cushman), Spiral side, Sample MP 200; 4, *Globotruncana arca* (Cushman), Spiral side, Sample MP 205; 5, *Globotruncana arca* (Cushman), Spiral side, Sample MP 200; 6, *Globotruncana arca* (Cushman), Spiral side, Sample MP 200; 7, *Globigerinelloides prairiehillensis* (Pessagno), Spiral side, MP 200; 8, *Ventilabrella eggeri* (Cushman), Side view, Sample MP 206; 9, *Pseudoguembelina costulata* (Cushman), Side view, Sample MP 207; 10, *Heterohelix reussi* (Cushman), Side view, Sample MP 200; 11, *Heterohelix reussi* (Cushman), Side view, Sample MP 200; and 12, *Heterohelix reussi* (Cushman), Side view, Sample MP 200. All samples are from the Moghal Kot Section.



**Plate 30.** 1, *Sigalia carpathica* (Salaj & Samuel) Side view, Sample MP 200; 2, *Sigalia cf. carpathica* (Salaj & Samuel), Side view, Sample MP 200; 3, *Heterohelix striata* (Ehrenberg), Side view, Sample MP 205; 4, *Heterohelix striata* (Ehrenberg), Side view, Sample MP 203; 5, *Heterohelix striata* (Ehrenberg), Side view, Sample MP 200; 6, *Planoglobulina acervulinoides* (Egger), Side View, Sample MP 205; and 7, *Pseudotextularia elegans* (Rezehak), Side view, Sample MP 205. All samples are from the Moghal Kot Section. 8-12 are benthic foraminiferal taxa.