

List of Recent Benthic Foraminifera Reported from the Seas around the Japanese Islands, 1982-1997

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Abstract

In the last 15 years from 1982 to 1997, Japanese foraminiferologists have made a significant contribution to the ecological researches of recent benthic foraminifera around the Japanese Islands. Nine genera and 36 species have been proposed within this period of time.

This is an alphabetic list of benthic foraminiferal taxa reported after the publication of Nomura (1982, 1983).

Key Words: benthic foraminifera, Recent, bibliography

1. Introduction

Nomura (1982, 1983) published a check list and bibliography of the Japanese recent benthic foraminifera around the Japanese Islands. A total of 1426 taxa reported by Japanese researchers of the first and second generations (e.g., Asano, Uchio, Ishiwada, Takayanagi) were listed alphabetically in the publication, including synonymies.

After the publication of Nomura (1982, 1983), Japanese foraminiferologists have studied the ecology of recent benthic foraminifera. Their fields are mainly distributed in the followings: description of foraminiferal species (e.g., Ujiié, 1990; Hatta and Ujiié, 1992a, b); microhabitats analyses of foraminifera and their living modes; foraminiferal assemblages related to particular environmental characters and their geographic and depth distribution (e.g., Inoue, 1989a; Oki, 1989a; Akimoto, 1990). Foraminifera living near hydrothermal vents were reported in relation to the water chemistry of sediments (e.g., Akimoto et al., 1992). These basic studies contribute to paleoenvironmental analyses and more data base should be needed to better understand foraminifera in future works. Most recently, changes of foraminiferal assemblage within the recent several decades have been reported in shallow water region, used with comparative analysis of past and present data (e.g., Kamemaru, 1996). Such a study is important to evaluate shallow water environment in relation to human activities.

Foraminiferal systematics have revised by Loeblich and Tappan (1987) within this period of time. Some confusion of generic systematics may appear in foraminiferal identification. However, no changes of generic

allocation were made for the taxa identified by original authors. Because of limited pages, reported taxa without figures were omitted in this list.

2. Benthic foraminiferal taxa reported in 1982–1997

Abditodentrix pseudothalmanni (Boltovskoy and Guissani de Khan). Ujiié, 1990, p. 29, pl. 12, figs. 2a, b; Xu and Ujiié, 1994, p. 516, figs. 6–6–8; Ujiié, 1995, p. 60, pl. 4, figs. 7a, b, 8a, b.

Acervulina inhaerens Schultze. Hatta and Ujiié, 1992b, p. 192, pl. 41, figs. 5a–c.

Adercotryma glomerata (Brady). Hasegawa, 1988, pl. 1, figs. 1a–c; Inoue, 1989b, pl. 2, fig. 9; Inoue, 1989a, pl. 24, fig. 12; Akimoto, 1990, p. 190, pl. 11, fig. 1; Hatta and Ujiié, 1992a, p. 56, pl. 1, figs. 5a, b, pl. 19, fig. 3: *A. glomerata* (Brady) var. Matoba and Honma, 1989, p. 61, pl. 2, figs. 4a–c Matoba and Fukasawa, 1992, p. 221, figs. 7–5a–c: *A. sp.* Ujiié, 1995, p. 57, pl. 2, figs. 3, 4a, b.

Alabamina tubulifera (Heron-Allen and Earland). Akimoto, 1990, p. 190, pl. 15, fig. 17 ; pl. 24, fig. 2: *A. ? rugosa* (Phleger and Parker). Ujiié, 1990, p. 49, pl. 29, figs. 1a–c, 2a–c; Xu and Ujiié, 1994, p. 518, fig. 10– 3.

Allomorphina pacifica Cushman and Todd. Inoue, 1989a, pl. 32, figs. 17a, b; Ujiié, 1990, p. 41, pl. 22, figs. 7–11.

Alveolinella quoyi (d'Orbigny). Hatta and Ujiié, 1992a, p. 77, pl. 14, figs. 11, 12.

Alveolophragmium orbiculatum Stschedrina. Matoba and Honma, 1986, p. 61, pl. 2, figs. 8a, b; Matoba and Fukasawa, 1992, p. 221, figs. 7–8a, b: *A. ringens* (Brady). Akimoto, 1990, p. 190, pl. 11, fig. 9: *A. scitulum* (Brady). Matoba and Honma, 1986, p. 61, pl. 2, figs. 9a, b: *A. subglobosa* (G.O.Sars). Akimoto, 1990, p. 190, pl. 11, fig. 3; pl. 13, fig. 10; pl. 14, fig. 2; Akimoto et al., 1990, p. 107, p. 112, figs. 1a, b: “*A. crassimargo* (Norman)”. Matoba and Honma, 1986, p. 62, pl. 2, figs. 7a, b: *A. aff. subglobosa* (G.O.Sars). Akimoto et al., 1990, p. 107, p. 112, figs. 2a–c: *A. wiesneri* (Parr). Inoue, 1989a, pl. 25, figs. 16a, b.

Ammobaculites agglutinans (d'Orbigny). Akimoto, 1990, p. 190, pl. 12, fig. 4: *A. agglutinans filiformis* Earland. Akimoto, 1990, p. 191, pl. 12, fig. 3: *A. exiguius* Cushman and Bronnimann. Nomura and Yoshikawa, 1995, p. 43, pl. 1, fig. 1; Scott et al., 1995, p. 292, fig. 6–1: *A. filiformis* Earland. Inoue, 1989a, pl. 15, fig. 3: *A. sp.* Inoue, 1989a, pl. 25, fig. 12: *A. ? sp.* Ujiié, 1990, p. 12, pl. 1, figs. 3a, b: *A. sp.* Matoba and Fukasawa, 1992, p. 221, figs. 7–2a, b: *A. sp.* B. Matoba and Fukasawa, 1992, p. 221, figs. 7–3a, b.

Ammodiscoides catinus (Höglund). Matoba and Honma, 1986, p. 61, pl. 1, figs. 9a, b.

Ammodiscus gullmarenensis Höglund. Matoba and Honma, 1986, p. 61, pl. 1, figs. 8a, b: *A. incertus* (d'Orbigny). Oki, 1989a, p. 68, pl. 1, fig. 4: *A. minimus* Höglund. Oki, 1989a, p. 68, pl. 1, fig. 5: *A. pacifica* Cushman and Valentine. Akimoto, 1990, p. 191, pl. 13, fig. 4

Ammomarginulina catenulata (Cushman and McCulloch). Oki, 1989a, p. 74, pl. 2, fig. 6.

Ammomassilina alveoliniformis (Millett). Hatta and Ujiié, 1992a, p. 65, pl. 6, figs. 1, b.

Ammonia beccarii (Linné). Inoue, 1989a, pl. 30, figs. 1a–c; Nomura and Seto, 1992.p. 239, fig. 14, nos. 6a–c; Hatta and Ujiié, 1992b, p. 199, pl. 44, figs. 1a–2c: *A. beccarii* (Linné) forma 1. Matsushita and Kitazato, 1989, pl. 1, figs. 10a–c; Matoba and Fukasawa, 1992, p. 221, figs. 11–1a–c; Kosugi et al., 1991, figs. 5–1–5; Kamemaru, 1996, p. 7, fig. 19, nos. 7–9: *A. beccarii* (Linné) forma 2. Matsushita and Kitazato, 1989, pl. 1, figs. 9a–c; Matoba and Fukasawa, 1992, p. 221, figs. 11–2a–c; Kamemaru, 1996, p. 7, fig. 19, nos. 11–13: *A. beccarii* (Linné) “forma A”. Konda, 1987, pl. 1, figs. 1a–c, 2a–c, 3a–c: *A. beccarii* (Linné) forma A. Oki, 1989a, p. 131, pl. 15, figs. 5a, b: *A. beccarii* (Linné) forma B. Oki, 1989a, p. 132, pl. 15, fig. 6: *A. beccarii* (Linné) type 1. Nomura and Yoshikawa, 1995, p. 43, pl. 1, figs. 5a, b, 9: *A. beccarii* (Linné) type 2. Nomura and Yoshikawa, 1995, p. 43, pl. 1, figs. 4a, b, 8: *A. beccarii tepida* (Cushman). Oki and Yamamoto, 1992, p. 199, figs. 5–4a, b: *A. inflata* (Seguenza). Ujiié and Rifardi, 1993, p. 126, pl. 5, figs. 3a–c: *A. cf. japonica* (Hada). Nomura and Seto, 1992.p. 239, fig. 14, nos. 7a–c: *A. japonica* (Hada). Takayanagi and Hasegawa, 1986, pl. 2, figs. 1a–c; Konda, 1987, pl. 1, figs. 14a, b; ; Oki, 1989a, p. 132, pl. 15, figs. 7a–c; Matoba and Fukasawa, 1992, p. 221, figs. 11–3a–c; Kosugi et al., 1991, figs. 6–1–3: *A. ketienziensis*

angulata (Kuwano). Inoue, 1989a, pl. 20, figs. 4a-c, pl. 23, figs. 3a-c, pl. 30, figs. 7a-c; Oki, 1989a, p. 132, pl. 15, figs. 8a-c; Akimoto, 1990, p. 191, pl. 21, fig. 1; Matoba and Fukasawa, 1992, p. 221, figs. 11-4a-c: *A. takanabensis* (Ishizaki). Takayanagi and Hasegawa, 1986, pl. 2, figs. 2a-c; Inoue, 1989a, pl. 30, figs. 3a-c; Akimoto, 1990, p. 191, pl. 15, fig. 15: *A. tepida* (Cushman). Nomura and Seto, 1992, p. 239, fig. 14, nos. 8a-c.

Ammoscalaria tenuimargo (Brady). Matoba and Fukasawa, 1992, p. 219, figs. 6-15a, b, 16a, b: *A. cf. tenuimargo* (Brady). Matoba and Fukasawa, 1992, p. 219, figs. 6-17a, b.

Ammotium aff. catenulata (Cushman and McCulloch). Matoba and Fukasawa, 1992, p. 221, figs. 7-4a, b.

Amphicoryna sagamiensis (Asano). Inoue, 1989a, pl. 22, figs. 8a, b: *A. scalaris* (Batsch). Takayanagi and Hasegawa, 1986, pl. 1, fig. 2; Oki, 1989a, p. 92, pl. 6, figs. 3a, b; Inoue, 1989a, pl. 22, figs. 7a, b; Akimoto, 1990, p. 191, pl. 17, fig. 7; Hatta and Ujiié, 1992b, p. 166, pl. 21, figs. 8a, b: *A. scalaris sagamiensis* (Asano). Takayanagi and Hasegawa, 1986, pl. 1, fig. 1; Akimoto, 1990, p. 191: *A. spicata* (Cushman and McCulloch). Oki, 1989a, p. 93, pl. 6, figs. 4a, b.

Amphisorus hemprichii Ehrenberg. Hatta and Ujiié, 1992a, p. 80, pl. 17, figs. 3a-4b, pl. 18, figs. 3, 4.

Amphistegina cf. gibbosa d'Orbigny. Oki, 1989a, p. 138, pl. 17, figs. 4a-c: *A. lessonii* d'Orbigny. Hatta and Ujiié, 1992b, p. 195, pl. 42, figs. 4a, b, text-fig. 1, nos. 1a, b; Ujiié, 1995, p. 68, pl. 11, figs. 3a-c: *A. papillosa* Said. Hatta and Ujiié, 1992b, p. 196, pl. 42, figs. 3a, b: *A. radiata* (Fichtel and Moll). Hatta and Ujiié, 1992b, p. 196, pl. 42, figs. 5a, b, text-figs 1, nos. 2a., b.

Angulodiscorbis corrugata (Millett). Hatta and Ujiié, 1992b, p. 184, pl. 33, figs. 5a, b.

Angulogerina angulosa (Williamson). Ujiié, 1995, p. 63, pl. 6, figs. 9a, b: *A. cf. lepida* (Brady). Hatta and Ujiié, 1992b, p. 176, pl. 27, fig. 8: *A. kokozuraensis* Asano. Kato, 1992, p. 390, pl. 2, figs. 12a, b, 13a, b.

Anomalina glabrata Cushman. Oki, 1989a, p. 151, pl. 21, figs. 4a-c.

Anomalinella rostrata (Brady). Hatta and Ujiié, 1992b, p. 197, pl. 43, figs. 3a, b.

Anomalinooides globulosus (Chapman and Parr). Inoue, 1989a, pl. 27, figs. 8a, b; Akimoto, 1990, p. 192, pl. 20, fig. 6; Hatta and Ujiié, 1992b, p. 197, pl. 43, figs. 4a-c.

Articulina alticostata Cushman. Hatta and Ujiié, 1992a, p. 76, pl. 14, fig. 2: *A. pacifica* Cushman. Hatta and Ujiié, 1992a, p. 76, pl. 14, figs. 3a-4b; *A. sp.* Hatta and Ujiié, 1992a, p. 77, pl. 14, fig. 5.

Asanonella tubulifera (Heron-Allen and Earland). Hatta and Ujiié, 1992b, p. 193, pl. 42, figs. 1a-c.

Ashbrookia tuberculata Ujiié, in Hatta and Ujiié, 1992b, p. 177, pl. 29, figs. 1a-c, 2, 3a-c. (n. sp.)

Astacolus insolitus (Schwager). Hatta and Ujiié, 1992b, p. 166, pl. 21, figs. 9a-c, 10: *A. sublegmen* (Parr). Hatta and Ujiié, 1992b, p. 166, pl. 22, figs. 1, 2a, b; *A. ? sp.* Ujiié, 1990, p. 20, pl. 5, figs. 15a, b.

Astrononion hamadaensis Asano. Inoue, 1989b, pl. 1, figs. 8a, b: *A. hanyudaense* Matsunaga. Oki, 1989a, p. 145, pl. 19, figs. 6a, b: *A. novozealandicum* Cushman and Edwards. Ujiié, 1990, p. 42, text-figs. 3a, b; Xu and Ujiié, 1994, p. 518, fig. 9-3: *A. stellatum* Cushman and Edwards. Akimoto, 1990, p. 192, pl. 15, fig. 9: *A. stelligerum* (d'Orbigny). Oki, 1989a, p. 145, pl. 19, figs. 7a-d; Akimoto, 1990, p. 192, pl. 15, fig. 1: *A. umbilicatum* Uchio. Inoue, 1989a, pl. 32, figs. 18a, b.

Baculogypsina sphaerulata (Parker and Jones). Hatta and Ujiié, 1992b, p. 199, pl. 44, figs. 3, 4a-5b.

Baculogypsinoides spinosus Yabe and Hanzawa. Hatta and Ujiié, 1992b, p. 199, pl. 44, figs. 6a, b, 7, 8.

Bathysiphon macilentus Zheng. Ujiié, 1995, p. 54, pl. 1, figs. 2a, b: *B. (?) sp.* Matoba and Honma, 1986, pl. 1, fig. 1: *B. sp.* Akimoto et al., 1990, p. 107, p. 112, fig. 9.

Biarritzina proteiformis (Goës). Hatta and Ujiié, 1992b, p. 191, pl. 41, figs. 1a, b.

Bigenerina sinensis (Zheng). Hatta and Ujiié, 1992a, p. 57, pl. 2, figs. 1, b, pl. 19, figs. 5a, b.

Bolivina abbreviata Heron-Allen and Earland. Oki, 1989a, p. 106, pl. 8, figs. 12a, b: *B. alata* (Seguenza). Inoue, 1989a, pl. 33, figs. 5a, b: *B. albatrossi* Cushman. Oki, 1989a, p. 106, pl. 8, figs. 13a-c: *B. decussata* Brady. Hasegawa, 1988, pl. 2, figs. 2a, b; Inoue, 1989b, pl. 1, fig. 5; Kato, 1992, p. 389, pl. 1, fig. 14; Xu and Ujiié, 1994, p. 516, figs. 6-2, 3; Ujiié, 1995, p. 60, pl. 4, figs. 1a, b: *B. durrandii* Millett. Oki, 1989a, p. 107, pl. 8, figs. 14a-c; Oki and

Yamamoto, 1992, p. 195, fig. 4-7a, b: *B. ? fimbriata* Collins. Hatta and Ujiié, 1992b, p. 171, pl. 25, figs. 5a-c, 6, 7a, b: *B. hadai* Uchio. Oki, 1989a, p. 107, pl. 9, fig. 1; Matoba and Fukasawa, 1992, p. 221, figs. 9-2a, b: *B. humilis* Cushman and McCulloch. Oki, 1989a, p. 107, pl. 9, figs. 2a-f: *B. hantkeniana* Brady. Ujiié and Hatta, 1994, p. 13, pl. 2, figs. 4a, b: *B. karreriana* Brady. Oki, 1989a, p. 108, pl. 9, figs. 3a, b: *B. kiiensis* Asano. Oki, 1989a, p. 108, pl. 9, figs. 4a-d; Inoue, 1989a, pl. 32, fig. 11: *B. lowmani* Phleger and Parker. Oki and Yamamoto, 1992, p. 195, fig. 4-8: *B. ordinaria* Phleger and Parker. Oki, 1989a, p. 108, pl. 9, figs. 5a-d: *B. pacifica* Cushman and McCulloch. Matoba and Honma, 1986, p. 62; Oki, 1989a, p. 109, pl. 9, figs. 6a-c; Inoue, 1989a, pl. 32, fig. 4; pl. 33, fig. 16; Inoue, 1989b, pl. 1, fig. 4; Kato, 1992, p. 389, pl. 1, fig. 15: *B. pusilla* Schwager. Ujiié, 1990, p. 29, pl. 12, fig. 1.; Xu and Ujiié, 1994, p. 516, fig. 6-4; Ujiié, 1995, p. 60, pl. 4, figs. 4a, b: *B. retia* Oki, 1989a, p. 109, pl. 9, figs. 7a-f; Ujiié, 1995, p. 60, pl. 4, figs. 2a, b, 3a, b: *B. robusta* Brady. Hasegawa, 1988, pl. 2, figs. 1a, b; Oki, 1989a, p. 110, pl. 10, figs. 1a-c; Inoue, 1989a, pl. 20, fig. 6, pl. 23, fig. 1, pl. 31, fig. 5; Ujiié and Rifardi, 1993, p. 123, pl. 2, figs. 7a, b; Matoba and Fukasawa, 1992, p. 221, figs. 9-1a, b: *B. seminuda humilis* Cushman and McCulloch. Inoue, 1989a, pl. 33, figs. 4a, b: *B. sp. A.* Ujiié, 1995, p. 60, pl. 4, figs. 6a, b: *B. spinea* Cushman. Oki, 1989a, p. 110, pl. 10, figs. 2a, b: *B. spissa* Cushman. Inoue, 1989a, pl. 33, figs. 2a, b; Kato, 1992, p. 389, pl. 1, figs. 16a, b: *B. striatula* Cushman. Oki, 1989a, p. 111, pl. 10, figs. 3a, b; Oki and Yamamoto, 1992, p. 195, fig. 4-9; Matoba and Fukasawa, 1992, p. 221, figs. 9-3a, b: *B. subangularis ogasaensis* Asano. Inoue, 1989a, pl. 31, figs. 9a, b: *B. subexcavata* Cushman and Wickenden. Hatta and Ujiié, 1992b, p. 171, pl. 25, figs. 2, 3a, b: *B. subreticulata* Parr. Inoue, 1989a, pl. 20, figs. 11a, b; Oki, 1989a, p. 111, pl. 10, figs. 4a-c; Hatta and Ujiié, 1992b, p. 171, pl. 25, figs. 4a, b: *B. subspinescens* Cushman. Inoue, 1989a, pl. 32, figs. 15a, b; Oki, 1989a, p. 111, pl. 10, figs. 5a, b: *B. tokikawai* Uchio. Matoba and Fukasawa, 1992, p. 221, figs. 9-4a, b; Kosugi et al., 1991, figs. 7-2: *B. variabilis* (Williamson). Oki, 1989a, p. 112, pl. 10, figs. 6a-f; Ujiié, 1995, p. 60, pl. 4, figs. 5a, b.

Bolivinita quadrilatera (Schwager). Takayanagi and Hasegawa, 1986, pl. 1, fig. 5: Inoue, 1989a, pl. 28, fig. 8; Akimoto, 1990, p. 193, pl. 16, fig. 3; Kato, 1992, p. 389, pl. 1, figs. 17a, b.

Borelis pulchra (d'Orbigny). Hatta and Ujiié, 1992a, p. 77, pl. 15, fig. 1.

Brizalina abbreviata (Heron-Allen and Earland). Hatta and Ujiié, 1992b, p. 172, pl. 25, figs. 8a, b: *B. bradyi* (Asano). Akimoto, 1990, p. 193, pl. 15, fig. 11: *B. capitata* (Cushman). Hatta and Ujiié, 1992b, p. 172, pl. 25, figs. 9a, b, 10, 11: *B. karreriana* (Brady). Akimoto, 1990, p. 193, pl. 16, fig. 2: *B. aff. ligularia* (Schwager). Ujiié, 1990, p. 30, pl. 12, figs. 3, 4: *B. pacifica* (Cushman and McCulloch). Hasegawa, 1988, pl. 2, figs. 3a, b; Akimoto, 1990, p. 193, pl. 16, fig. 16: *B. ? rhomboidalis* (Millett). Hatta and Ujiié, 1992b, p. 172, pl. 26, figs. 2a, b: *B. spinea* (Cushman). Hatta and Ujiié, 1992b, p. 172, pl. 26, figs. 1a, b: *B. viscistriata* Belford. Akimoto et al., 1990, p. 108, p. 114, figs. 2a, b.

Buccella frigida (Cushman). Konda, 1987, pl. 1, figs. 4a, b; Nomura and Seto, 1992, p. 239, fig. 16, nos. 7a-c; Kosugi et al., 1991, figs. 6-10, 11: *B. frigida* (Cushman) forma A. Matoba and Fukasawa, 1992, p. 221, figs. 10-12a-c: *B. inusitata* Takayanagi and Hasegawa, 1986; Inoue, 1989a, pl. 23, fig. 7: *B. makiyamae* Chiji. Matoba and Fukasawa, 1992, p. 221, figs. 10-11a-c: *B. sp. A.* Takayanagi and Hasegawa, 1986, pl. 2, fig. 12.

Buchnerina okinawaensis Ujiié, in Hatta and Ujiié, 1992b, p. 167, pl. 23, figs. 1a, b, (n. sp.): *B. wrightana* (Brady). Hatta and Ujiié, 1992b, p. 167, pl. 23, figs. 7-10, 11a, b.

Bulimina aculeata d'Orbigny. Inoue, 1989a, pl. 22, figs. 5a, b, pl. 28, fig. 2, pl. 32, figs. 2a, b; Ujiié, 1990, p. 30, pl. 12, figs. 5, 6; Akimoto, 1990, p. 193, pl. 16, fig. 5; pl. 22, fig. 9; Xu and Ujiié, 1994, p. 516, fig. 6-9: *B. denudata* Cushman and Parker. Oki, 1989a, p. 114, pl. 11, fig. 1; Oki and Yamamoto, 1992, p. 196, fig. 4-11: *B. exilis enuata* (Cushman). Ujiié, 1990, p. 30, pl. 12, fig. 7: *B. cf. gibba* Fornasini. Oki and Yamamoto, 1992, p. 196, fig. 4-12: *B. kochiensis* Takayanagi. Oki, 1989a, p. 114, pl. 11, figs. 2a-c: *B. marginata* d'Orbigny. Hasegawa, 1988, pl. 2, figs. 5a, b; Inoue, 1989a, pl. 20, figs. 12a, b, pl. 23, fig. 2, pl. 28, figs. 4a, b; Oki, 1989a, p. 114, pl. 11, figs. 3a-e; Akimoto, 1990, p. 194, pl. 16, fig. 6; Ujiié, 1995, p. 62, pl. 6, figs. 3a, b; Oki and Yamamoto, 1992, p. 196, fig. 4-13a, b; Matoba and Fukasawa, 1992, p. 221, figs. 9-7: *B. rostrata* Brady. Inoue, 1989a, pl. 32, figs. 9a, b; Akimoto, 1990, p. 194, pl.

16, fig. 7: *B. spinosa* (Heron-Allen and Earland). Oki, 1989a, p. 115, pl. 11, figs. 4a, b: *B. striata* d'Orbigny. Inoue, 1989a, pl. 22, figs. 6a, b, pl. 28, fig. 1, pl. 32, figs. 1a, b; Ujiié, 1990, p. 31, pl. 16, figs. 9, 10; Akimoto, 1990, p. 194, pl. 16, fig. 8; pl. 22, fig. 11; Kato, 1992, p. 390, pl. 2, fig. 7; Ujiié, 1995, p. 62, pl. 6, figs. 4a, b: *B. subornata* Brady. Inoue, 1989a, pl. 32, figs. 10a, b: *B. subulata* Cushman. Takayanagi and Hasegawa, 1986, pl. 1, fig. 4: *B. truncana* Gümbel. Ujiié, 1990, p. 30, pl. 12, fig. 8; Ujiié, 1995, p. 62, pl. 6, figs. 5a, b.

Buliminella elegantissima (d'Orbigny). Takayanagi and Hasegawa, 1986, pl. 1, fig. 3; Oki, 1989a, p. 105, pl. 8, figs. 8a-c; Kosugi et al., 1991, figs. 7-3: *B. milletti* Cushman. Oki, 1989a, p. 105, pl. 8, fig. 9: *B. tenuata* Cushman. Kato, 1992, p. 390, pl. 2, fig. 8.

Buliminoides milletti (Cushman). Hatta and Ujiié, 1992b, p. 186, pl. 34, figs. 4a, b, 5: *B. williamsonianus* (Brady). Hatta and Ujiié, 1992b, p. 186, pl. 34, figs. 6a, b, 7.

Burseolina pacifica (Cushman). Ujiié, 1990, p. 40, pl. 22, fig. 2.

Calcarina calcar d'Orbigny. Hatta and Ujiié, 1992b, p. 200, pl. 45, figs. 1a-4c, 5: *C. defrancii* d'Orbigny. Hatta and Ujiié, 1992b, p. 200, pl. 45, fig. 6, pl. 46, figs. 1a-2c, 4-6: *C. gaudichaudii* d'Orbigny. Hatta and Ujiié, 1992b, p. 201, pl. 47, figs. 1-4, 5a-6c: *C. hispida* Brady. Hatta and Ujiié, 1992b, p. 201, pl. 47, figs. 7a-c: *C. "spengleri"* (Gmelin). Hatta and Ujiié, 1992b, p. 202, pl. 48, figs. 1a-3c, 4, 5.

Cancris auriculus (Fichtel and Moll). Oki, 1989a, p. 128, pl. 14, figs. 8a-c; Inoue, 1989a, pl. 30, figs. 6a-c; Hatta and Ujiié, 1992b, p. 179, pl. 29, figs. 4a-c; Matoba and Fukasawa, 1992, p. 221, figs. 9-12a-c.

Caribearella ogiensis (Matsunaga). Inoue, 1989a, pl. 22, figs. 12a-c: *C. cf. polystoma* Bermudez. Oki, 1989a, p. 140, pl. 18, figs. 3a-d.

Carinomelonis helena Ujiié, 1995, p. 70, pl. 12, figs. 3a, b, 4, 5. (n. gen. et n. sp.)

Carterina spiculotesta (Carter). Ujiié and Hatta, 1994, p. 12, pl. 2, figs. 1a-c.

Carpenteria monticularis Carter. Akimoto, 1990, p. 194, pl. 23, fig. 1.

Cassidulina carinata Silvestri. Takayanagi and Hasegawa, 1986, pl. 1, fig. 8; Inoue, 1989a, pl. 22, figs. 3a, b, pl. 28, fig. 11; Akimoto, 1990, p. 194, pl. 17, fig. 3: *C. cf. neocarinata* Thalmann. Ujiié, 1990, p. 38, pl. 18, figs. 6a, b; Xu and Ujiié, 1994, p. 518, figs. 8-2, 3: *C. delicata* Cushman. Inoue, 1989a, pl. 33, figs. 12a, b: *C. japonica* Asano and Nakamura. Kato, 1992, p. 389, pl. 1, figs. 18a, b: *C. norcrossi* Cushman. Inoue, 1989b, pl. 1, figs. 6a, b; Kato, 1992, p. 390, pl. 2, figs. 1a, b; Xu and Ujiié, 1994, p. 518, fig. 8-4: *C. norvangi* Thalmann. Takayanagi and Hasegawa, 1986, pl. 1, fig. 9; Oki, 1989a, p. 143, pl. 19, figs. 1a-f; Ujiié, 1990, p. 38, pl. 18, figs. 4a, b, 5a, b; Kato, 1992, p. 390, pl. 2, figs. 2a, b; Xu and Ujiié, 1994, p. 518, fig. 8-5; Ujiié, 1995, p. 60, pl. 4, figs. 10a, b: *C. sp. A*. Kato, 1992, p. 390, pl. 2, figs. 3a, b: *C. teretis* Tappan. Ujiié, 1995, p. 61, pl. 5, figs. 8a, b, 9a, b: *C. yabei* Asano and Nakamura. Inoue, 1989a, pl. 23, figs. 11a, b.

Cassidulinoides tenuis Phleger and Parker. Kato, 1992, p. 390, pl. 2, fig. 4.

Cellanthus craticulatus (Fichtel and Moll). Hatta and Ujiié, 1992b, p. 203, pl. 49, figs. 7a, b.

Centropyxis aculeata (Ehrenberg). Scott et al., 1995, p. 292, fig. 6-9.

Ceratobulimina pacifica Cushman and Harris. Akimoto, 1990, p. 194, pl. 15, fig. 3.

Chilostomella cushmani Chapman. Ujiié, 1990, p. 41, pl. 22, figs. 3a, b, 4: *C. oolina* Schwager. Inoue, 1989a, pl. 32, fig. 12; Ujiié, 1990, p. 41, pl. 22, figs. 5, 6; Akimoto, 1990, p. 194, pl. 16, fig. 17; Kato, 1992, p. 392, pl. 4, fig. 7; Ujiié, 1995, p. 71, pl. 12, fig. 10: *C. ovoidea* Reuss. Kato, 1992, p. 392, pl. 4, fig. 8: *C. cf. fimbriata* Cushman. Inoue, 1989a, pl. 33, figs. 13a, b: *C. fimbriata* Cushman. Inoue, 1989a, pl. 33, figs. 15a, b; Kato, 1992, p. 392, pl. 4, fig. 6.

Chrysaldinella dimorpha (Brady). Inoue, 1989a, pl. 31, fig. 7.

Cibicides aknerianus (d'Orbigny). Takayanagi and Hasegawa, 1986, pl. 2, figs. 7a, b: Akimoto, 1990, p. 194, pl. 20, fig. 1: *C. aknerianus subdepressa* (Asano). Takayanagi and Hasegawa, 1986, pl. 2, figs. 8, 9: *C. asanoi* Matsunaga. Inoue, 1989a, pl. 24, figs. 9a, b; Inoue, 1989b, pl. 1, figs. 10a-c: *C. cf. refulgens* Montfort. Inoue, 1989a, pl. 31, figs. 4a-c: *C. ? aff. io* Cushman. Ujiié, 1990, p. 36, pl. 31, figs. 2a-c, 3a-c, 4a, c: *C. inagawaensis* Matsunaga. Inoue, 1989a, pl. 20, figs. 8a-c, pl. 23, figs. 6a-c; Oki, 1989a, p. 140, pl. 18, figs. 2a-c: *C. lobatulus* (Walker and

Jacob). Kitazato, 1986, pl. 1, figs. 7-9; Kitazato, 1988a, p. 824, pl. 2, figs. 13-15, 24; Hatta and Ujiié, 1992b, p. 188, pl. 37, figs. 4a-5c; Matoba and Fukasawa, 1992, p. 221, figs. 10-1a-c: *C. praecinctus* (Karrer). Akimoto, 1990, p. 195, pl. 23, fig. 4: *C. pseudoungerianus* (Cushman). Konda, 1987, pl. 2, figs. 5a-c; Hasegawa, 1988, pl. 2, figs. 10a-c: *C. refulgens* de Montfort. Akimoto, 1990, p. 195, pl. 23, fig. 5; Kosugi et al., 1991, figs. 7-12-14; Ujiié and Rifardi, 1993, p. 126, pl. 4, figs. 2a-c; Ujiié, 1995, p. 68, pl. 11, figs. 1a-c: *C. robertsonianus* (Brady). Inoue, 1989a, pl. 18, fig. 14a, b; C. sp. A. Ujiié, 1995, p. 68, pl. 11, figs. 2a-c: *C. subhaidingerii* Parr. Konda, 1987, pl. 2, figs. 4a-c; Inoue, 1989a, pl. 21, figs. 1a-c, pl. 31, figs. 1a-c: *C. tenuimargo* (Brady). Akimoto, 1990, p. 195, pl. 23, fig. 6: *C. wuellerstorfi* (Schwager). Akimoto, 1990, p. 195, pl. 23, fig. 7: *C. ? subhaidingerii* (Parr). Oki, 1989a, p. 152, pl. 22, figs. 1a-c: *C. cf. subhaidingeri* (Parr). Hatta and Ujiié, 1992b, p. 187, pl. 35, figs. 6a-c, pl. 36, figs. 1a-c.

Cibicidoides cicariocosus (Schwager). Ujiié, 1990, p. 51, pl. 29, figs. 3a-c: *C. mediocris* (Finlay). Akimoto, 1990, p. 195, pl. 20, fig. 3; pl. 23, fig. 2: *C. mundulus* (Brady, Parker and Jones). Ujiié, 1990, p. 51, pl. 30, figs. 1a-c, 2a-c, 3a, c; Ujiié, 1995, p. 66, pl. 9, figs. 2a-c, 3a-c: *C. pachyderma* (Rzehak). Hatta and Ujiié, 1992b, p. 187, pl. 35, figs. 5a-c; Ujiié, 1995, p. 67, pl. 9, figs. 5a-c: *C. pseudoungerianus* (Cushman). Oki, 1989a, p. 151, pl. 21, figs. 5a-f; Ujiié and Rifardi, 1993, p. 125, pl. 4, figs. 1a-c: *C. robertsonianus* (Brady). Ujiié, 1990, p. 52, pl. 30, figs. 4a-c, 5a-c, pl. 31, figs. 1a-c: C. sp. Oki, 1989a, p. 152, pl. 22, figs. 2a, b.

Clavulina difformis Brady. Hatta and Ujiié, 1992a, p. 60, pl. 3, figs. 6a, b: *C. pacifica* Cushman. Hatta and Ujiié, 1992a, p. 61, pl. 3, figs. 7a, b: *C. cf. parisiensis* d'Orbigny. Oki, 1989a, p. 84, pl. 4, figs. 8a, b: *C. yabei akiensis* Asano. Inoue, 1989a, pl. 19, fig. 8.

Clavulinoides aff. *indiscreta* (Bady). Hatta and Ujiié, 1992a, p. 60, pl. 3, figs. 3a, b.

Conicospirillinoidea *semidecoratus* (Heron-Allen and Earland). Hatta and Ujiié, 1992b, p. 163, pl. 51, figs. 6a-c.

Conorbella pulvinata (Brady). Hatta and Ujiié, 1992b, p. 184, pl. 34, figs. 1a-c.

Cornuspira involvens (Reuss). Hatta and Ujiié, 1992a, p. 61, pl. 4, figs. 1a-c.

Coronatoplanulina okinawaensis Ujiié, 1990, p. 36, pl. 17, figs. 6a-c, text-figs. 2a, c. (n. gen. et n. sp.)

Cribrobaggina reniformis (Heron-Allen and Earland). Hatta and Ujiié, 1992b, p. 179, pl. 29, figs. 5a-c.

Criboelphidium aff. *articulatum* (d'Orbigny). Hatta and Ujiié, 1992b, p. 202, pl. 49, figs. 1a, b: *C. okinawaense* Ujiié and Rifardi, 1993, p. 126, pl. 6, figs. 1-7. (n. sp.): *C. ? reticulosum* (Cushman). Hatta and Ujiié, 1992b, p. 202, pl. 49, figs. 2a, b.

Cribromiliolinella milletti (Cushman). Hatta and Ujiié, 1992a, p. 69, pl. 9, figs. 4a-5c.

Cribrorobulina serpens (Seguenza). Akimoto, 1990, p. 195, pl. 22, fig. 2; Akimoto et al., 1990, p. 108, p. 114, fig. 5.

Cribrostomoides canariensis (d'Orbigny). Nomura and Seto, 1992, p. 229, fig. 14, nos. 1a-c: *C. columbiense* (Cushman). Inoue, 1989a, pl. 29, figs. 1a, b: *C. crassimargo* (Norman). Nomura, 1988, p. 867, pl. 2, fig. 2; Inoue, 1989b, pl. 2, figs. 11a, b: *C. evoluta* (Natland). Inoue, 1989a, pl. 29, figs. 9a, b; Matoba and Fukasawa, 1992, p. 219, figs. 6-14a, b: *C. jeffreysii* (Williamson). Matoba and Honma, 1986, p. 62, pl. 2, figs. 1a, b; Inoue, 1989b, pl. 2, figs. 12a, b; Oki, 1989a, p. 72, pl. 1, figs. 14a, b: *C. kosterensis* (Högglund). Oki, 1989a, p. 73, pl. 2, figs. 1a, b: *C. satsumaensis* Oki, 1989a, p. 73, pl. 2, figs. 2a, b (n. sp.): *C. scitulum* (Brady). Inoue, 1989b, pl. 2, fig. 3a: *C. cf. subglobosum* (G.O.Sars). Inoue, 1989a, pl. 25, figs. 7a-c: C. sp. 1. Oki, 1989a, p. 73, pl. 2, figs. 3a, b: *C. sp. 2*. Oki, 1989a, p. 73, pl. 2, fig. 4: *C. sp. 3*. Oki, 1989a, p. 74, pl. 2, fig. 5: *C. subglobosum* (G.O.Sars). Inoue, 1989a, pl. 29, figs. 3a, b.

Cushmanina ? sp. A. Hatta and Ujiié, 1992b, p. 168, pl. 23, figs. 2, 3.

Cyclammina bradyi Cushman. Akimoto, 1990, p. 195, pl. 13, fig. 7: *C. cancellata* Brady. Kato, 1992, p. 389, pl. 1, figs. 3a, b.

Cycloclypeus carpenteri Brady. Hatta and Ujiié, 1992b, p. 204, pl. 50, figs. 2, 3a, b.

Cyclogyra planorbis (Schultze). Kitazato et al., 1982; Oki, 1989a, p. 85, pl. 4, fig. 9.

Cylindroclavulina bradyi (Cushman). Hatta and Ujiié, 1992a, p. 61, pl. 3, figs. 8a, b, pl. 19, fig. 8.

Cymbaloporella tabellaeformis (Brady). Hatta and Ujiié, 1992b, p. 190, pl. 39, figs. 2a-3c.

Cymbaloporella bradyi (Cushman). Hatta and Ujiié, 1992b, p. 190, pl. 39, figs. 4a-c, pl. 40, figs. 1a-c; Nomura and Seto, 1992, p. 239, fig. 16, nos. 8a-c: *C. hemisphaerica* Accordi and Selmi. Oki, 1989a, p. 141, pl. 18, figs. 4a-f: *C. plana* (Cushman). Hatta and Ujiié, 1992b, p. 190, pl. 40, figs. 2a-c, 5, 6: *C. squammosa* (d'Orbigny). Hatta and Ujiié, 1992b, p. 190, pl. 40, figs. 3a-c.

Cystammina galeata (Brady). Akimoto, 1990, p. 196, pl. 11, fig. 10: *C. pauciloculata* (Brady). Ujiié, 1990, p. 13, pl. 2, figs. 1, b.

Dendritina striata Hofker. Hatta and Ujiié, 1992a, p. 78, pl. 15, figs. 4a-6b: *D. zhengae* Ujiié, in Hatta and Ujiié, 1992a, p. 78, pl. 15, figs. 2a-3b (new name).

Dendrophyra arborescens (Norman). Ujiié, 1995, p. 54, pl. 1, figs. 11, 12.

Dentalina communis d'Orbigny. Ujiié, 1990, p. 17, pl. 4, figs. 8a, b, 9: *D. curta* Ujiié, 1990, p. 17, pl. 4, figs. 10, 11a, b. (n. sp.): *D. emaciata* Reuss. Oki, 1989a, p. 93, pl. 6, fig. 5: *D. vertebralis* (Batsch). Oki, 1989a, p. 94, pl. 6, fig. 6.

Discammina compressa (Goës). Matoba and Honma, 1986, p. 61, pl. 2, figs. 3a, b; Inoue, 1989a, pl. 29, figs. 2a, b; Matoba and Fukasawa, 1992, p. 221, figs. 7-1a, b: *D. sp.* Inoue, 1989a, pl. 18, fig. 11a, b.

Discanomalina semipunctata (Bailey). Inoue, 1989a, pl. 21, figs. 6a-c.

Discorbinella bertheloti (d'Orbigny). Oki, 1989a, p. 123, pl. 13, figs. 2a-c: *D. convexa* (Takayanagi). Oki, 1989a, p. 124, pl. 13, figs. 3a-h; Akimoto, 1990, p. 196, pl. 18, fig. 4.

Discorbinoides minogasaformis Ujiié, in Hatta and Ujiié, 1992b, p. 185, pl. 34, figs. 2a-3c. (n. sp.): *D. minogasaformis* Ujiié, var. Ujiié and Rifardi, 1993, p. 125, pl. 3, figs. 7a-c

Discorbis candeiana (d'Orbigny). Oki, 1989a, p. 122, pl. 12, figs. 12a-d: *D. mira* Cushman. Oki, 1989a, p. 122, pl. 13, figs. 1a-h.

Dorothia scabra (Brady). Matoba and Honma, 1986, p. 61, pl. 3, figs. 7a, b; Hasegawa, 1988, pl. 1, figs. 7a, b; Inoue, 1989, pl. 29, fig. 11; Matoba and Fukasawa, 1992, p. 221, figs. 8-6a, b: *D. sp.* Inoue, 1989a, pl. 25, figs. 15a, b; Ujiié, 1990, p. 13, pl. 2, figs. 2a-c, 9: "D. exilis" Cushman". Matoba and Honma, 1986, p. 61, pl. 3, figs. 8a, b: *D. cf. exilis* Cushman. Matoba and Fukasawa, 1992, p. 221, figs. 8-5a, b.

Dyocibicides biserialis Cushman and Valentine. Inoue, 1989a, pl. 20, fig. 3.

Echigoina hataii Matsunaga. Kato, 1992, p. 392, pl. 4, figs. 11a, b.

Edentostomina cultrata (Brady). Hatta and Ujiié, 1992a, p. 63, pl. 5, figs. 2a-c.

Eggerella advena (Cushman). Matoba and Honma, 1986, p. 60, pl. 3, figs. 10a, b; Inoue, 1989a, pl. 23, fig. 5; Oki, 1989a, p. 83, pl. 4, fig. 5; Inoue, 1989b, pl. 2, fig. 5; Matoba and Fukasawa, 1992, p. 221, figs. 8-10: *E. bradyi* (Cushman). Inoue, 1989a, pl. 26, figs. 8a, b; Ujiié, 1990, p. 13, pl. 2, figs. 3a, b, 4a, b, 5a, b; Ujiié, 1995, p. 58, pl. 3, figs. 4a, b: *E. media* (Höglund). Matoba and Honma, 1986, p. 61, pl. 3, figs. 9a, b; Matoba and Fukasawa, 1992, p. 221, figs. 8-9: *E. minuta* Oki, 1989a, p. 84, pl. 4, fig. 6. (n. sp.): *E. propinqua* (Brady). Matoba and Fukasawa, 1992, p. 221, figs. 8-11: *E. scabra* (Williamson). Konda, 1987, pl. 1, figs. 11, 12; Oki, 1989a, p. 84, pl. 4, figs. 7a, b; Inoue, 1989a, pl. 29, figs. 12a, b; Kamemaru, 1996, p. 6, fig. 19, nos. 11, 14: *E. sp.* B. Matoba and Fukasawa, 1992, p. 221, figs. 8-7a, b, 8a, b.

Ehrenbergina carinata Eade. Ujiié, 1990, p. 40, pl. 20, figs. 1a-c, 2a-c: *E. cf. decorata* Takayanagi. Ujiié, 1990, p. 41, pl. 20, figs. 6a-c: *E. hystrix* Brady. Akimoto, 1990, p. 197, pl. 15, fig. 7; pl. 19, fig. 4: *E. notoensis* Asano. Ujiié, 1990, p. 40, pl. 20, figs. 3a-c, 4a-c, 5a-c: *E. pacifica* Cushman. Inoue, 1989a, pl. 22, figs. 11a, b; Akimoto, 1990, p. 197, pl. 19, fig. 7.

Eilohedra levicula (Resig). Oki, 1989a, p. 126, pl. 14, figs. 2a-e; Ujiié, 1995, p. 67, pl. 10, figs. 2a-c: *E. nipponica* (Kuwano). Hasegawa, 1988, pl. 2, figs. 7a-c; Inoue, 1989b, pl. 1, figs. 11a-c; Nomura and Seto, 1992, p. 239, fig. 16, nos. 6a, b: *E. rotunda* (Husezima and Maruhasi). Kato, 1992, p. 391, pl. 3, figs. 1a-c: *E. weddellensis* (Earland). Inoue, 1989a, pl. 27, figs. 10a-c.

Elphidium advenum (Cushman). Inoue, 1989a, pl. 20, figs. 5a, b; Oki, 1989a, p. 133, pl. 16, figs. 2a, b; Akimoto, 1990,

p. 197, pl. 17, fig. 1; Hatta and Ujiié, 1992b, p. 203, pl. 49, figs. 3a-4b; Oki and Yamamoto, 1992, p. 200, fig. 5-5; Matoba and Fukasawa, 1992, p. 221, figs. 11-10a, b: *E. articulatum* (d'Orbigny). Oki, 1989a, p. 134, pl. 16, figs. 3a, b: *E. batialis* Saidova. Inoue, 1989a, pl. 33, figs. 6a, b: *E. cf. selseyensis* (Heron-Allen and Earland). Oki, 1989a, p. 136, pl. 16, figs. 9a-c: *E. cf. subarcticum* Cushman. Nomura and Yoshikawa, 1995, p. 43, pl. 1, fig. 6: *E. clavatum* Cushman. Kato, 1992, p. 392, pl. 4, figs. 12a, b; Oki and Yamamoto, 1992, p. 200, figs. 5-6a, b; Matoba and Fukasawa, 1992, p. 221, figs. 11-7a, b: *E. crispum* (Linné). Matoba and Honma, 1986; Kitazato, 1986, pl. 1, figs. 5, 6; Kitazato, 1988a, p. 824, pl. 2, figs. 8, 9; Inoue, 1989a, pl. 30, figs. 5a, b; Oki, 1989a, p. 134, pl. 16, figs. 4a, b; Ujiié, 1990, p. 34, pl. 32, figs. 5a, b; Kosugi et al., 1991, figs. 7-15, 16; Nomura and Seto, 1992, p. 239, fig. 16, no. 1; Hatta and Ujiié, 1992b, p. 203, pl. 49, figs. 5a, b; Kamemaru, 1996, p. 7, fig. 20, nos. 11, 12; Matoba and Fukasawa, 1992, p. 221, figs. 11-9a, b: *E. depressulum* Cushman. Oki, 1989a, p. 135, pl. 16, fig. 5: *E. excavatum* (Terquem). Nomura and Seto, 1992, p. 239, fig. 15, nos. 11a, b: *E. excavatum excavata* (Terquem). Kosugi et al., 1991, figs. 6-6, 7: *E. excavatum selseyensis* (Heron-Allen and Earland). Takayanagi and Hasegawa, 1986, pl. 1, fig. 12: *E. hispidulum* Cushman. Oki and Yamamoto, 1992, p. 200, fig. 5-7: *E. incertum* (Williamson). Oki and Yamamoto, 1992, p. 200, fig. 5-8: *E. jensei* (Cushman). Inoue, 1989a, pl. 30, figs. 2a, b; Oki, 1989a, p. 135, pl. 16, figs. 6a-c; Nomura and Seto, 1992, p. 239, fig. 16, nos. 5a, b; Hatta and Ujiié, 1992b, p. 203, pl. 49, figs. 6a, b: *E. kaneharai*. Ishiwada. Kosugi et al., 1991, figs. 5-12, 13: *E. kusiroense* Asano. Nomura and Seto, 1992, p. 239, fig. 16, nos. 4a, b: *E. matsukawauraense* Takayanagi. Nomura and Seto, 1992, p. 239, fig. 16, no. 3: *E. oceanicum* Cushman. Oki, 1989a, p. 135, pl. 16, figs. 7a, b; Oki and Yamamoto, 1992, p. 201, figs. 5-9a, b: *E. pacificum* (Ujiié). Ujiié and Rifardi, 1993, p. 127, pl. 6, figs. 1a, b: *E. poeyanum* (d'Orbigny). Oki, 1989a, p. 136, pl. 16, fig. 8: *E. somaense* (Takayanagi). Nomura and Seto, 1992, p. 237, fig. 16, nos. 2a, b; Kamemaru, 1996, p. 7, fig. 20, nos. 5, 6; Oki and Yamamoto, 1992, p. 201, figs. 5-10a, b: *E. sp. 1*. Oki, 1989a, p. 136, pl. 16, figs. 11a, b: *E. sp. 2*. Oki, 1989a, p. 137, pl. 16, figs. 12a, b: *E. striatopunctatum* (Fichtel and Moll). Ujiié and Rifardi, 1993, p. 127, pl. 5, figs. 4a, b: *E. subarcticum* Cushman. Kato, 1992, p. 392, pl. 4, figs. 13a, b; Kamemaru, 1996, p. 7, fig. 20, nos. 7, 8; Oki and Yamamoto, 1992, p. 201, figs. 5-11a, b: *E. subgranulosum* Asano. Kamemaru, 1996, p. 7, fig. 20, nos. 9, 10; Matoba and Fukasawa, 1992, p. 221, figs. 11-8a, b: *E. subgranulosum aureum* Aoki. Oki and Yamamoto, 1992, p. 201, fig. 5-12: *E. subincertum* Asano. Konda, 1987; Oki, 1989a, p. 136, pl. 16, fig. 10.

Entomorphinoides ? aff. *separata* McCulloch. Ujiié, 1990, p. 21, pl. 7, figs. 1a, b, 2.

Eoeponidella sp. 1. Oki, 1989a, p. 124, pl. 13, figs. 4a-c; E. sp. 3. Oki, 1989a, p. 124, pl. 13, figs. 5a-f.

Epistomaroides polystomelloides (Parker and Jones). Hatta and Ujiié, 1992b, p. 194, pl. 42, figs. 2a-c.

Epistominella exigua (Brady). Inoue, 1989a, pl. 18, fig. 12a, b, pl. 26, figs. 2a-c; Ujiié, 1990, p. 32, pl. 14, figs. 1a-c; Xu and Ujiié, 1994, p. 518, figs. 7-1, 2; Ujiié, 1995, p. 67, pl. 10, figs. 3a-c: *E. kuwanoi* Oki, 1989a, p. 125, pl. 14, figs. 1a-g. (n. sp.): *E. levicula* Resig. Xu and Ujiié, 1994, p. 518, fig. 7-3: *E. naraensis* (Kuwano). Inoue, 1989b, pl. 1, figs. 7a-c: *E. pulchella* Husezima and Maruhasi. Inoue, 1989a, pl. 33, figs. 14a, b; Kato, 1992, p. 391, pl. 3, figs. 2a-c, 3a-c, 4a-c: *E. pulchra* (Cushman). Hatta and Ujiié, 1992b, p. 187, pl. 36, figs. 2a-c: *E. sp.* Ujiié, 1990, p. 32, pl. 14, figs. 2a-c.

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Euloxostomum bradyi (Asano). Ujiié and Rifardi, 1993, p. 123, pl. 2, figs. 6a, b.

Eupatellinella bullata Hatta, in Hatta and Ujiié, 1992b, p. 178, pl. 28, figs. 4a, b, 5a-c, 6a, b, 7, 8. (n. gen. et n. sp.)

Eusphaeroidina inflata Ujiié, 1990, p. 29, pl. 11, figs. 6, 7a, b, 8a, b, 9a, b, 10, 11a, b, 12 (n. gen. et n. sp.); Ujiié,

1995, p. 66, pl. 9, fig. 1.

Euuvigerina cf. *yabei* Asano. Takayanagi and Hasegawa, 1986, pl. 1, fig. 6.

Evolvocassidulina bradyi (Norman). Ujiié, 1990, p. 38, pl. 18, figs. 7a, b, 8a, b, 9a, b: *E. brevis* (Aoki). Akimoto, 1990, p. 197, pl. 17, fig. 5; Xu and Ujiié, 1994, p. 518, figs. 9-1, 2; Ujiié, 1995, p. 61, pl. 5, fig. 3: *E. sp. A*. Ujiié, 1990, p. 38, pl. 19, figs. 1a, b: *E. tenuis* (Phleger and Parker). Ujiié, 1990, p. 38, pl. 18, figs. 10a, b, 11a, b, 12b, c, 13, 14. *Favocassidulina favus* (Brady). Nomura, 1984, pts. 1, 2; Ujiié, 1990, p. 39, pl. 21, figs. 6a, b, 7a, b, 8a, b; Xu and Ujiié, 1994, p. 518, fig. 8-10.

Favolina hexagona (Williamson). Hatta and Ujiié, 1992b, p. 168, pl. 23, figs. 4a, b.

Fijiella simplex (Cushman). Hatta and Ujiié, 1992b, p. 176, pl. 28, figs. 1a-c; Ujiié, 1995, p. 64, pl. 7, figs. 1a, b.

Fischerina pellucida Millett. Hatta and Ujiié, 1992a, p. 61, pl. 4, figs. 2a-c, pl. 18, fig. 9.

Fissurina agassizi Todd and Bronnimann. Oki, 1989a, p. 102, pl. 8, fig. 1: *F. alveolata* (Brady) var. A. Ujiié, 1990, p. 23, pl. 7, figs. 11a, b: *F. alveolata* (Brady). Ujiié, 1990, p. 23, pl. 7, figs. 10a, b: *F. alveolata semisculpta* Parr. Ujiié, 1990, p. 23, pl. 8, figs. 1a, b: *F. annectens* (Burrows and Holland). Oki and Yamamoto, 1992, p. 193, fig. 4-5: *F. barkeri* Ujiié, 1990, p. 23, pl. 7, figs. 12a, b. (n. sp.): *F. biconica* Silvestri. Kato, 1992, p. 389, pl. 1, figs. 12a, b: *F. cf. collifera* Buchner. Ujiié, 1990, p. 25, pl. 9, figs. 2a, b: *F. crebra* (Matthes). Ujiié, 1990, p. 26, pl. 9, figs. 5a, b: *F. cucullata* (Silvestri). Ujiié, 1995, p. 59, pl. 3, figs. 9a, b: *F. cucurbitasema* Loeblich and Tappan. Ujiié, 1990, p. 24, pl. 8, figs. 4a, b; Kosugi et al., 1991, figs. 7-5, 6; Oki and Yamamoto, 1992, p. 193, fig. 4-6a, b: *F. echigoensis* (Asano and Inomata). Kato, 1992, p. 389, pl. 1, figs. 13a, b: *F. exsculpta* (Brady). Ujiié, 1990, p. 24, pl. 8, figs. 5a, b: *F. fimbriata* (Brady). Ujiié, 1990, p. 24, pl. 8, figs. 6a, b: *F. flintiana* (Cushman). Ujiié, 1990, p. 25, pl. 9, figs. 1a, b: *F. lacunata* Burrows and Holland. Hatta and Ujiié, 1992b, p. 168, pl. 23, figs. 5a, b, 6: *F. laevigata* Reuss. Oki, 1989a, p. 103, pl. 8, figs. 2a, b; Ujiié, 1990, p. 25, pl. 8, figs. 9a, b: *F. longifimbriata* Ujiié, 1997, p. 126, pl. 1, figs. 7-10. (n. sp.): *F. marginata* (Montagu). Ujiié, 1995, p. 59, pl. 3, figs. 8a, b: *F. marginato-perforata* (Seguenza). Hatta and Ujiié, 1992b, p. 169, pl. 23, figs. 7a, b: *F. orbignyana* Seguenza. Oki, 1989a, p. 103, pl. 8, figs. 3a, b: *F. palliolata* (Earland). Ujiié, 1990, p. 24, pl. 8, figs. 2a, b, 3a, b: *F. periperforata* Ujiié, 1990, p. 25, pl. 8, figs. 10a, b. (n. sp.): *F. quadricarinata* (Sidebottom). Ujiié, 1990, p. 26, pl. 9, figs. 7a, b: *F. radiata* Seguenza. Ujiié, 1990, p. 25, pl. 8, figs. 7, 8: *F. semimarginata* (Reuss). Oki, 1989a, p. 104, pl. 8, fig. 4: *F. sp. A*. Ujiié, 1990, p. 26, pl. 9, figs. 6a, b: *F. sp. B*. Ujiié, 1990, p. 27, pl. 9, figs. 8a, b: *F. sp. Oki*, 1989a, p. 104, pl. 8, fig. 5: *F. sp. Matsushita* and *kitazato*, 1989, pl. 1, figs. 6a, b: *F. sp. Ujiié*, 1990, p. 23, pl. 7, figs. 13a, b: *F. wiesneri* Barker. Oki, 1989a, p. 104, pl. 8, figs. 6a-d; Ujiié, 1990, p. 26, pl. 9, figs. 3a, b, 4a, b: *F. yoshikae* Ujiié, 1997, p. 126, pl. 2, figs. 1a, b, 2. (n. sp.)

Flintinoides labiosa (d'Orbigny). Hatta and Ujiié, 1992a, p. 70, pl. 9, figs. 6a, b.

Florilus japonicus (Asano). Konda, 1987; Oki, 1989a, p. 146, pl. 20, figs. 1a-c: *F. manpukuziense* (Otuka). Oki, 1989a, p. 146, pl. 20, figs. 2a, b: *F. ? pauperatus* (Balkwill and Wright). Oki, 1989a, p. 147, pl. 20, figs. 3a-d.

Fontbotia wuellerstorfi (Schwager). Ujiié, 1990, p. 35, pl. 17, figs. 1a-c, 2a-c, 3a-c, 4a-c, 5a-c.

Francesita advena (Cushman). Ujiié, 1990, p. 37, pl. 18, figs. 1a, b, 2a, b, 3a, b.

Fursenkoina cedrosensis (McCulloch). Xu and Ujiié, 1994, p. 518, fig. 8-1; Ujiié, 1995, p. 64, pl. 7, figs. 2a, b: *F. mexicana* (Cushman). Inoue, 1989a, pl. 28, fig. 5: *F. cf. rorundata* (Parr). Matoba and Fukasawa, 1992, p. 221, figs. 9-11a, b: *F. schreibersiana* (Czjzek). Oki, 1989a, p. 142, pl. 18, fig. 5; Ujiié, 1995, p. 64, pl. 7, figs. 3a, b; Oki and Yamamoto, 1992, p. 196, fig. 4-10; *F. sp.* Inoue, 1989a, pl. 33, figs. 11a, b.

Gaudryina exilis Cushman and Bronnimann. Oki, 1989a, p. 82, pl. 4, figs. 3a-c: *G. nitida* Haque. Oki, 1989a, p. 83, pl. 4, figs. 4a, b: *G. pauperata* Earland. Ujiié, 1995, p. 58, pl. 3, figs. 3a, b: *G. sp.* Hatta and Ujiié, 1992a, p. 57, pl. 1, figs. 9a-10b.

Gavelinopsis praegeri (Heron-Allen and Earland). Konda, 1987, pl. 1, figs. 13a, b; Ujiié, 1990, p. 33, pl. 14, figs. 6a-c; Ujiié and Rifardi, 1993, p. 125, pl. 3, figs. 6a-c.

Geminospira bradyi Bermúdez. Hatta and Ujiié, 1992b, p. 170, pl. 24, figs. 6a-c, 7.

Glabratella milletti (Wright). Kitazato, 1986, pl. 2, figs. 7, 8: *G. opercularis*. Kosugi et al., 1991, figs. 7-7-9: *G.*

patelliniformis (Brady). Oki, 1989a, p. 129, pl. 15, figs. 2a-d: *G. sp.* 1. Oki, 1989a, p. 130, pl. 15, figs. 3a-f: *G. sp.* 2. Oki, 1989a, p. 130, pl. 15, figs. 4a-c: *G. subopercularis* (Asano). Kitazato, 1986, pl. 2, figs. 9-13; Kitazato, 1988a, p. 824, pl. 2, figs. 10-12, 23.

Glandulonodosaria calomorpha (Reuss). Ujiié, 1995, p. 58, pl. 3, figs. 6a, b.

Globobulimina auriculata (Bailey). Inoue, 1989a, pl. 32, figs. 8a, b; Kato, 1992, p. 390, pl. 2, figs. 9a, b: *G. hanzawai* Asano. Matoba and Fukasawa, 1992, p. 221, figs. 9-9: *G. pacifica* Cushman. Ujiié, 1990, p. 31, pl. 16, fig. 11; Akimoto, 1990, p. 199, pl. 16, fig. 9; Kato, 1992, p. 390, pl. 2, fig. 10: *G. subaffinis* (Cushman). Kato, 1992, p. 390, pl. 2, figs. 11a, b: *G. turgida* (Bailey). Oki, 1989a, p. 116, pl. 11, figs. 5a-c; Matoba and Fukasawa, 1992, p. 221, figs. 9-8: *G. ? sp.* Hatta and Ujiié, 1992b, p. 173, pl. 26, fig. 5.

Globocassidulina bisecta Nomura. Takayanagi and Hasegawa, 1986, pl. 1, figs. 7a, b; Xu and Ujiié, 1994, p. 518, fig. 8-9; Ujiié, 1995, p. 61, pl. 5, figs. 4a, b: *G. brocha* (Poag). Akimoto, 1990, p. 199, pl. 18, fig. 7: *G. elegans* (Sidebottom). Akimoto, 1990, p. 200, pl. 18, fig. 5; Ujiié, 1995, p. 61, pl. 5, figs. 5a, b: *G. gemma* (Todd). Akimoto, 1990, p. 200, pl. 18, fig. 3: *G. mucronata* Nomura. Akimoto et al., 1990, p. 109, p. 114, figs. 3a, b: *G. murrhyna* (Schwager). Ujiié, 1995, p. 61, pl. 5, fig. 6: *G. oriangulata* Belford. Oki, 1989a, p. 143, pl. 18, figs. 7a-d; Akimoto, 1990, p. 200, pl. 18, fig. 2: *G. paratortuosa* (Kuwano). Akimoto, 1990, p. 200, pl. 18, fig. 8: *G. parva* (Asano and Nakamura). Akimoto, 1990, p. 200, pl. 18, fig. 4: *G. parviapertura* Nomura. Akimoto, 1990, p. 200, pl. 18, fig. 1: *G. sp.* A. Ujiié, 1990, p. 40, pl. 21, figs. 8a, b: *G. sp.* B. Ujiié, 1990, p. 40, pl. 21, figs. 9a, b, 10a, b: *G. subglobosa* (Brady). Ujiié, 1990, p. 39, pl. 21, figs. 4, 5a, b, 6a, b, 7a, b, pl. 22, figs. 1a, b; Inoue, 1989a, pl. 22, figs. 9a, b; Xu and Ujiié, 1994, p. 518, fig. 8-6; Ujiié, 1995, p. 62, pl. 5, fig. 7; Ujiié and Hatta, 1994, p. 13, pl. 2, fig. 5: *G. venustas* Nomura. Oki, 1989a, p. 143, pl. 18, figs. 8a-b.

Glomospira charoides (Jones and Parker). Matoba and Honma, 1986, p. 62, pl. 1, fig. 10; Inoue, 1989a, p. 146, pl. 25, fig. 8; Akimoto, 1990, p. 201, pl. 11, fig. 7; pl. 13, fig. 6; Akimoto et al., 1990, p. 107, p. 112, fig. 8: *G. cf. charoides* (Jones and Parker). Ujiié, 1990, p. 12, pl. 1, figs. 1a-c: *G. gordialis* (Jones and Parker). Inoue, 1989a, pl. 25, figs. 4a, b; Oki, 1989a, p. 68, pl. 1, figs. 6a, b; Akimoto, 1990, p. 201, pl. 11, fig. 8; pl. 13, fig. 5; Akimoto et al., 1990, p. 107, p. 112, fig. 7.

Goesella iizukae Takayanagi. Matsushita and Kitazato, 1989, pl. 1, figs. 4a, b.

Guttulina communis (d'Orbigny). Oki, 1989a, p. 99, pl. 7, figs. 7a, b: *G. regina* (Brady, Parker and Jones). Oki, 1989a, p. 100, pl. 7, fig. 8.

Gypsina galapagosensis McCulloch. Hatta and Ujiié, 1992b, p. 192, pl. 41, figs. 6a-c.

Gyroidina altiformis R.E. and K.C. Stewart. Inoue, 1989a, pl. 22, figs. 1a-c: *G. cushmani* Boomgaart. Akimoto, 1990, p. 201, pl. 21, fig. 3: *G. orbicularis* d'Orbigny. Inoue, 1989a, pl. 22, figs. 2a-c, pl. 28, figs. 14a, b; Akimoto et al., 1990, p. 109, p. 114, figs. 4a-c: *G. soldanii* d'Orbigny. Akimoto, 1990, p. 201, pl. 24, fig. 5: *G. cf. subtenera* (Galloway and Wissler). Inoue, 1989a, pl. 28, figs. 15a, b: *G. sp.* A. Ujiié, 1990, p. 47, pl. 27, figs. 3, 4b, c, 5, 6b, c, 7a-c: *G. sp.* A. Xu and Ujiié, 1994, p. 518, fig. 9-9.

Gyroidinoides acuta Boomgaart. Oki, 1989a, p. 149, pl. 21, figs. 1a-c: *G. altispira* (Cushman and Stainforth). Inoue, 1989a, pl. 18, fig. 13a, b: *G. kawagatai* Ujiié, 1995, p. 73, pl. 14, figs. 3a-c, 4. (n. sp.): *G. kuwanoi* Oki, 1989a, p. 150, pl. 21, figs. 2a-c. (n. sp.): *G. neosoldanii* (Brotzen). Inoue, 1989a, pl. 26, figs. 4a-c; Ujiié, 1990, p. 46, pl. 25, figs. 6a, c, pl. 26, figs. 1b, c, 2: *G. nipponicus* (Ishizaki). Oki, 1989a, p. 150, pl. 21, figs. 3a-c; Inoue, 1989a, pl. 31, figs. 11a, b; Ujiié, 1990, p. 47, pl. 27, figs. 1a-c; Akimoto, 1990, p. 201, pl. 21, fig. 4; Matoba and Fukasawa, 1992, p. 221, figs. 10-9a-c: *G. orbicularis* (d'Orbigny). Ujiié, 1990, p. 46, pl. 26, figs. 3, 4a-c, 5a-c, 6, 7a-c: *G. soldanii* (d'Orbigny). Ujiié, 1990, p. 45, pl. 25, figs. 1a-c, 2, 3a, c, 4a-c, 5a-c: *G. sp.* A. Ujiié, 1990, p. 47, pl. 27, figs. 2a-c: *G. sp.* B. Ujiié, 1990, p. 47, pl. 27, figs. 8a-c.

Hansenisca soldanii (d'Orbigny). Ujiié, 1995, p. 73, pl. 14, figs. 5a-c.

Hanzawaia nipponica Asano. Konda, 1987, pl. 2, figs. 8a, b; Inoue, 1989a, pl. 20, figs. 10a-c; Oki, 1989a, p. 152, pl. 22, figs. 3a-d; Akimoto, 1990, p. 201, pl. 20, fig. 4; Matoba and Fukasawa, 1992, p. 221, figs. 10-10a-c.

- Haplophragmoides bradyi** (Robertson). Inoue, 1989a, pl. 23, figs. 8a, b, pl. 29, figs. 10a, b: *H. bradyi niigataensis* Uchio. Matoba and Fukasawa, 1992, p. 219, figs. 6-13a, b: *H. canariensis* (d'Orbigny). Nomura and Yoshikawa, 1995, pl. 1, figs. 3a, b, 7: *H. columbiensis* Cushman. Akimoto, 1990, p. 201, pl. 11, fig. 2; pl. 13, fig. 8: *H. manilaensis* Andersen. Scott et al., 1995, p. 292, figs. 6-3, 4: *H. rotulatum* (Brady). Inoue, 1989a, pl. 25, figs. 5a, b: *H. sphaeriloculum* Cushman. Matoba and Honma, 1986, p. 62, pl. 2, figs. 2a, b; Akimoto et al., 1990, p. 107, p. 112, figs. 3a-c; Ujiié, 1995, p. 56, pl. 2, figs. 1a, b: *H. sp. D*. Matoba and Fukasawa, 1992, p. 219, fig. 6-12a, b.
- Hauerina diversa** Cushman. Hatta and Ujiié, 1992a, p. 65, pl. 6, figs. 3a, b: *H. pacifica* Cushman. Hatta and Ujiié, 1992a, p. 65, pl. 6, figs. 4a, b.
- Haynesina germanica** (Ehrenberg) Takayanagi and Hasegawa, 1986, pl. 1, figs. 11a, b: *H. sp. A*. Hasegawa, 1988, pl. 2, figs. 11a, b: *H. sp. Kosugi et al.*, 1991, figs. 5-10, 11.
- Heronallenia** ? sp. Ujiié, 1990, p. 34, pl. 16, figs. 9a-c.
- Heterillina guespellensis** Schlumberger. Nomura and Seto, 1992, p. 239, fig. 15, nos. 7a, b.
- Heterolepa margaritifera** (Brady). Oki, 1989a, p. 153, pl. 22, figs. 4a-c: *H. subhaidingeri* (Parr). Akimoto, 1990, p. 201, pl. 23, fig. 3.
- Heterostegina depressa** d'Orbigny. Hatta and Ujiié, 1992b, p. 204, pl. 50, figs. 4a, b: *H. longisepta* Zheng. Hatta and Ujiié, 1992b, p. 204, pl. 50, figs. 5a, b, 6.
- Hoeglundina elegans** (d'Orbigny). Takayanagi and Hasegawa, 1986, pl. 2, fig. 11; Inoue, 1989a, pl. 21, figs. 5a, b, pl. 31, figs. 13a, b; Oki, 1989a, p. 153, pl. 22, figs. 7a-c; Ujiié, 1990, p. 53, pl. 32, figs. 3a-c, 4a-c; Akimoto, 1990, p. 202, pl. 21, fig. 7; pl. 24, fig. 6; Hatta and Ujiié, 1992b, p. 170, pl. 24, figs. 3a-c.
- Homalohedra costata** (Williamson). Ujiié, 1995, p. 59, pl. 3, figs. 7a, b.
- Hopkinsina glabra** (Millett). Oki, 1989a, p. 120, pl. 12, fig. 6; Oki and Yamamoto, 1992, p. 197, figs. 5-3a, b: *H. kuwanoi* Oki, 1989a, p. 120, pl. 12, figs. 7a-c. (n. sp.)
- Hormosinella guttifera** (Brady). Ujiié, 1995, p. 55, pl. 1, figs. 19a, b.
- Hyalinea balthica** (Schroeter). Inoue, 1989a, pl. 28, fig. 9, pl. 31, fig. 12; Oki, 1989a, p. 139, pl. 17, figs. 6a-d; Akimoto, 1990, p. 202, pl. 20, fig. 5; Ujiié, 1995, p. 68, pl. 10, figs. 4a, b, 6a, b: *H. inflata* Ujiié and Kusukawa. Oki, 1989a, p. 139, pl. 18, figs. 1a-d.
- Hyperammina elongata** Brady. Matoba and Honma, 1986, pl. 1, figs. 5, 6: *H. friabilis* Brady. Matoba and Honma, 1986, p. 62, pl. 1, fig. 4: *H. laevigata* Wright. Matoba and Honma, 1986, pl. 1, fig. 7: *H. rugosa* Verdenius and van Hinte. Ujiié, 1995, p. 55, pl. 1, figs. 13a, b: *H. squamosa* Ujiié, 1995, p. 55, pl. 1, figs. 9, 10a, b. (n. sp.).
- Ioanella tumidula** (Brady). Ujiié, 1995, p. 66, pl. 8, figs. 5a-c.
- Islandiella elegans** (Sidebottom). Ujiié, 1990, p. 37, pl. 19, figs. 9a, b, 10a, b: *I. norvangi* Thalmann. Inoue, 1989a, pl. 23, figs. 10a, b, pl. 32, figs. 14a, b, pl. 33, figs. 10a, b; Inoue, 1989b, pl. 1, figs. 9a, b: *I. sp. A*. Ujiié, 1995, p. 62, pl. 5, figs. 1a, b, 2a, b: *I. sp.* Inoue, 1989a, pl. 22, figs. 10a, b.
- Karreriella apicularis** (Cushman). Ujiié, 1990, p. 14, pl. 1, figs. 2a, b; Akimoto, 1990, p. 202, pl. 12, fig. 2: *K. baccata* (Schwager). Inoue, 1989a, pl. 24, figs. 8a, b: *K. baccata japonica* Asano. Inoue, 1989b, pl. 2, figs. 2a, b; Kato, 1992, p. 389, pl. 1, figs. 4a, b: *K. hanzawai* (Takayanagi). Ujiié, 1990, p. 13, pl. 2, figs. 6a, b, 7a, b, 8a, b; Xu and Ujiié, 1994, p. 516, fig. 6-1.
- Labrospira jeffreysi** (Williamson). Ujiié, 1995, p. 56, pl. 2, figs. 2a, b: *L. kosterense* Höglund. Hatta and Ujiié, 1992a, p. 55, pl. 1, figs. 4a, b.
- Lagena alticostata** Cushman. Ujiié, 1990, p. 19, pl. 5, figs. 12a, b: *L. amphora* Reuss. Oki, 1989a, p. 94, pl. 6, fig. 7: *L. apiopleura* Loeblich and Tappan. Ujiié, 1990, p. 20, pl. 7, fig. 3: *L. distoma* Parker and Jones. Oki, 1989a, p. 95, pl. 6, fig. 8: *L. elongata* (Ehrenberg). Oki, 1989a, p. 95, pl. 6, fig. 9: *L. gibbera* Buchner. Ujiié, 1990, p. 18, pl. 5, fig. 1: *L. gracilis* Williamson var. Ujiié, 1990, p. 17, pl. 4, fig. 13: *L. gracilis* Williamson. Inoue, 1989a, pl. 33, figs. 9a, b: *L. gracillima* (Seguenza). Ujiié, 1990, p. 17, pl. 4, fig. 14: *L. hispida* Reuss. Ujiié, 1990, p. 18, pl. 5, fig. 2: *L. hispidula* Cushman. Oki, 1989a, p. 95, pl. 6, fig. 10; Ujiié, 1990, p. 18, pl. 5, fig. 3: *L. laevis* (Montagu). Akimoto, 1990,

p. 202, pl. 19, fig. 17; Kato, 1992, p. 389, pl. 1, fig. 10: *L. nebulosa* Cushman. Ujiié, 1990, p. 18, pl. 5, fig. 5: *L. ornata* Reuss. Oki and Yamamoto, 1992, p. 193, fig. 4-1: *L. paradoxa* Sidebottom. Ujiié, 1990, p. 18, pl. 5, fig. 6: *L. quadricostata* Ujiié, 1990, p. 17, pl. 4, fig. 12. (n. sp.): *L. semilineata satsumaensis* Oki and Yamamoto, 1992, p. 193, fig. 4-3a, b (n. subsp.): *L. setigera* Millett. Oki, 1989a, p. 95, pl. 6, fig. 11; Oki and Yamamoto, 1992, p. 193, fig. 4-4: *L. sp.* 1. Oki, 1989a, p. 96, pl. 7, fig. 2: *L. sp.* A. Hatta and Ujiié, 1992b, p. 167, pl. 22, figs. 4a, b: *L. sp.* Ujiié, 1990, p. 18, pl. 5, fig. 4: *L. cf. spinigera* (Earland). Ujiié, 1990, p. 19, pl. 5, fig. 13: *L. stelligera* Brady. Ujiié, 1990, p. 19, pl. 5, fig. 11: *L. strumosa* Reuss. Hatta and Ujiié, 1992b, p. 167, pl. 22, figs. 5a, b: *L. substriata* Williamson var. Ujiié, 1990, p. 19, pl. 5, fig. 8: *L. substriata* Williamson. Ujiié, 1990, p. 19, pl. 5, fig. 7: *L. cf. substriata* Williamson. Oki, 1989a, p. 96, pl. 7, fig. 1: *L. sulcata spicata* Cushman and McCulloch. Kosugi et al., 1991, figs. 7-4: *L. tricaritortuosa* Ujiié, Ichikura and Kurihara. Kato, 1992, p. 389, pl. 1, figs. 11a, b: *L. ? sp.* Ujiié, 1990, p. 20, pl. 5, fig. 14.

Lagenammina atlantica (Cushman). Ujiié, 1995, p. 55, pl. 1, figs. 16a, b: *L. kagoshimaensis* Oki, 1989a, p. 66, pl. 1, figs. 2a-c. (n. sp.): *L. tubulata* (Rhumbler). Matoba and Honma, 1986, p. 62, pl. 1, fig. 3: *L. sp.* A. Matoba and Fukasawa, 1992, p. 219, fig. 6-1.

Lamarckina ventricosa (Brady). Inoue, 1989a, pl. 21, figs. 7a, b; Hatta and Ujiié, 1992b, p. 169, pl. 24, figs. 4a-c: *L. sp.* Oki, 1989a, p. 153, pl. 22, fig. 6.

Laticarinina pauperata (Parker and Jones). Ujiié, 1990, p. 33, pl. 14, figs. 3a-c, 4a, c: *L. calcar* (Linné) Oki, 1989a, p. 97, pl. 7, figs. 3a, b.

Lenticulina limbosa (Reuss). Ujiié, 1990, p. 20, pl. 6, figs. 1a, b; Hatta and Ujiié, 1992b, p. 165, pl. 21, figs. 2a-c: *L. sp.* 1. Oki, 1989a, p. 98, pl. 7, fig. 4: *L. sp.* 2. Oki, 1989a, p. 98, pl. 7, figs. 5a, b.

Lernella inflata (LeRoy). Oki, 1989a, p. 144, pl. 19, figs. 2a-c: *L. ogasawarai* Nomura. Oki, 1989a, p. 144, pl. 19, figs. 3a-c: *L. sp.* A. Ujiié, 1990, p. 39, pl. 19, figs. 2a, b, 3a, b, 4a, b: *L. sp.* B. Ujiié, 1990, p. 39, pl. 19, figs. 5a, b.

Linaresia semicibrata (Beckmann). Ujiié, 1990, p. 50, pl. 29, figs. 5a-c, 6a-c.

Lingulina carinata d'Orbigny. Hatta and Ujiié, 1992b, p. 165, pl. 21, figs. 1a, b.

Loxostomina durrandii (Millett). Hatta and Ujiié, 1992b, p. 174, pl. 26, figs. 10a, b: *L. limbatum costulatum* (Cushman). Hatta and Ujiié, 1992b, p. 174, pl. 26, figs. 8, 9.

Loxostomum karrerianum (Brady). Inoue, 1989a, pl. 28, fig. 3, pl. 31, figs. 10a, b.

Marginopora vertebralis Quoy and Gaimard. Hatta and Ujiié, 1992a, p. 80, pl. 17, figs. 7a, b, pl. 18, fig. 7.

Marginulina cf. *obesa* Cushman. Ujiié, 1990, p. 20, pl. 6, figs. 2a, b, 3: *M. ? sp.* Ujiié, 1990, p. 21, pl. 6, figs. 8, 9a, b.

Marsipella cylindrica Brady. Matoba and Honma, 1986, p. 61, pl. 1, fig. 2; Inoue, 1989a, pl. 18, fig. 6; Akimoto et al., 1990, p. 107, p. 112, fig. 11: *M. dextrospiralis* Chapman and Parr. Ujiié, 1995, p. 54, pl. 1, fig. 3: *M. elongata* Norman. Inoue, 1989a, pl. 18, fig. 2; Akimoto et al., 1990, p. 107, p. 112, fig. 13; Akimoto, 1990, p. 203, pl. 12, fig. 9; Ujiié, 1995, p. 54, pl. 1, fig. 4: *M. sp.* Inoue, 1989a, pl. 18, fig. 5.

Martinottiella communis (d'Orbigny). Inoue, 1989a, pl. 28, fig. 7, pl. 29, fig. 7; Kato, 1992, p. 389, pl. 1, fig. 5: *M. milletti* (Cushman). Ujiié, 1990, p. 14, pl. 1, fig. 9: *M. nodulosa* (Cushman). Kato, 1992, p. 389, pl. 1, fig. 6.

Massilina sp. Hatta and Ujiié, 1992a, p. 65, pl. 6, figs. 5a, b.

Melonis barleeanum (Williamson). Kitazato, 1985; Ujiié, 1990, p. 52, pl. 29, figs. 4a-c; Xu and Ujiié, 1994, p. 519, fig. 10-6: *M. nicobarensse* (Cushman). Hatta and Ujiié, 1992b, p. 197, pl. 43, figs. 2a-c; Kato, 1992, p. 392, pl. 4, figs. 2a, b: *M. parkerae* (Uchio). Inoue, 1989a, pl. 27, figs. 2a, b, pl. 32, figs. 19a, b; Akimoto, 1990, p. 204, pl. 17, fig. 2, pl. 18, fig. 9: *M. pomphiloides* (Fichtel and Moll). Inoue, 1989a, pl. 27, fig. 1; Kato, 1992, p. 392, pl. 4, figs. 3a, b: *M. sphaeroides* Voloshinova. Ujiié, 1990, p. 52, pl. 31, figs. 5a, b, 6a, b, 7a, b; Xu and Ujiié, 1994, p. 519, figs. 10-4, 5: *M. sp.* Oki, 1989a, p. 153, pl. 22, figs. 5a, b: *M. ? sp.* Ujiié, 1990, p. 53, pl. 32, figs. 1a, b, 2a, b.

Mesosigmoilina minuta (Zheng). Hatta and Ujiié, 1992a, p. 75, pl. 13, figs. 3a-5b.

Milesina differens (McCulloch). Hatta and Ujiié, 1992b, p. 188, pl. 36, fig. 6, pl. 37, figs. 1a-2c, 3.

Miliammina echigoensis Asano and Inomata. Kato, 1992, p. 389, pl. 1, figs. 1a, b: *M. fusca* (Brady). Kosugi et al., 1991, figs. 5-7-9; Nomura and Yoshikawa, 1995, p. 43, pl. 1, fig. 2.

Miliolinella australis (Parr). Akimoto, 1990, p. 204, pl. 15, fig. 14 ; pl. 22, fig. 5; Hatta and Ujiié, 1992a, p. 70, pl. 9, figs. 7a-8, pl. 19, figs. 9a, b: *M. californica* Rhumbler. Oki, 1989a, p. 91, pl. 5, figs. 11a, b: *M. circularis* (Bornemann). Kitazato, 1986, pl. 1, figs. 12, 13; Kitazato, 1988a, p. 824, pl. 2, figs. 19, 20; Inoue, 1989a, pl. 20, figs. 9a, b; Oki, 1989a, p. 91, pl. 5, figs. 12a-c; Hatta and Ujiié, 1992a, p. 71, pl. 10, figs. 1a-2b: *M. inflata* LeRoy. Akimoto, 1990, p. 204, pl. 15, fig. 13 ; pl. 22, fig. 4: *M. oblonga* (Montagu). Nomura and Seto, 1992, p. 239, fig. 15, nos. 6a, b: *M. oceanica* (Cushman). Hatta and Ujiié, 1992a, p. 71, pl. 10, figs. 3a-4b: *M. sublineata* (Brady). Oki, 1989a, p. 91, pl. 6, figs. 1a-c: *M. webbiana* (d'Orbigny). Hatta and Ujiié, 1992a, p. 71, pl. 10, figs. 5a, b: *M. sp.* Hatta and Ujiié, 1992a, p. 72, pl. 10, fig. 6.

Millettia tessellata (Brady). Ujiié and Hatta, 1994, p. 14, pl. 3, figs. 1-3a, b.

Millettiana milletti (Heron-Allen and Earland). Hatta and Ujiié, 1992b, p. 191, pl. 40, figs. 4a, b, 5, 6, 7a-c.

Mississippina concentrica (Parker and Jones). Inoue, 1989a, pl. 21, figs. 3a, b; Akimoto, 1990, p. 204, pl. 24, fig. 9.

Monalysidium politum Chapman. Hatta and Ujiié, 1992a, p. 78, pl. 15, figs. 7a, b.

Morulaeplecta bulbosa Höglund. Matoba and Fukasawa, 1992, p. 221, figs. 7-11a, b: *M. cf. bulbosa* Höglund. Matoba and Honma, 1986, p. 62, pl. 2, figs. 11a, b.

Murrayinella globosa (Millett). Matoba and Fukasawa, 1992, p. 221, figs. 9-16a-c: *M. minuta* (Takayanagi). Kamemaru, 1996, p. 7, fig. 20, nos. 3, 4; Matoba and Fukasawa, 1992, p. 221, figs. 9-17a-c: *M. takayanagii* (Matoba). Takayanagi and Hasegawa, 1986, pl. 2, figs. 3a-c.

Mychostomina revertens (Rhumbler). Hatta and Ujiié, 1992b, p. 164, pl. 20, figs. 2a-c.

Nebela collaris (Ehrenberg). Scott et al., 1995, p. 292, fig. 6-5.

Neoconorbina communis Ujiié, in Hatta and Ujiié, 1992b, p. 182, pl. 32, figs. 1a-c, 2. (n. sp.): *N. stachi* (Asano). Oki, 1989a, p. 126, pl. 14, figs. 3a-c: *N. tuberocapitata* (Chapman). Hatta and Ujiié, 1992b, p. 183, pl. 32, figs. 3a-c: *N. aff. tuberocapitata* (Chapman). Ujiié and Rifardi, 1993, p. 125, pl. 3, figs. 8a-c.

Neouvigerina ampullacea (Brady). Ujiié, 1990, p. 32, pl. 16, fig. 12; Hatta and Ujiié, 1992b, p. 175, pl. 27, figs. 5a, b.

Nodellum membranaceum (Brady). Akimoto, 1990, p. 204, pl. 12, fig. 8; pl. 13, fig. 1; Akimoto et al., 1990; Ujiié, 1995, p. 51, pl. 1, figs. 1a, b.

Nodobaculariella insignis (Brady). Hatta and Ujiié, 1992a, p. 62, pl. 4, figs. 4a-5b: *N. sp.* Oki, 1989a, p. 86, pl. 4, fig. 12.

Nodophthalmidium tibia (Jones and Parker). Oki, 1989a, p. 86, pl. 4, fig. 13.

Nodosaria radicula glanduliniformis Dervieux. Inoue, 1989a, pl. 32, fig. 16.

Nonion japonicum Asano. Akimoto, 1990, p. 205, pl. 14, fig. 6; Oki and Yamamoto, 1992, p. 201, figs. 5-14; Matoba and Fukasawa, 1992, p. 221, figs. 10-2a, b: *N. cf. japonicum* Asano. Hatta and Ujiié, 1992b, p. 196, pl. 42, figs. 6a-c: *N. manpukuziensis* Otuka. Konda, 1987, pl. 2, figs. 7a, b; Inoue, 1989a, pl. 31, figs. 8a, b; Kosugi et al., 1991, figs. 6-8, 9.

Nonionella globosa Ishiwada. Kato, 1992, p. 391, pl. 3, figs. 7a-c; Matoba and Fukasawa, 1992, p. 221, figs. 10-5a, b: *N. pulchella* Hada. Nomura and Seto, 1992, p. 240, fig. 16, nos. 9a-c; Matoba and Fukasawa, 1992, p. 221, figs. 10-3a-c: *N. stella* Cushman and Moyer. Takayanagi and Hasegawa, 1986, pl. 1, fig. 10; Hasegawa, 1988, pl. 2, figs. 9a-c; Oki, 1989a, p. 148; Kosugi et al., 1991, figs. 6-4, 5; Kato, 1992, p. 391, pl. 3, figs. 8a-c; Matoba and Fukasawa, 1992, p. 221, figs. 10-4a-c: *N. turgida* (Williamson). Oki, 1989a, p. 148, pl. 20, figs. 6a-c.

Nonionellina labradorica (Dawson). Inoue, 1989a, pl. 24, figs. 3a, b, pl. 32, figs. 13a, b, pl. 33, figs. 3a, b; Akimoto, 1990, p. 205, pl. 14, fig. 13; Kato, 1992, p. 391, pl. 3, figs. 9a-c: *N. "scapha* (Fichtel and Moll)". Matoba and Fukasawa, 1992, p. 221, figs. 10-6a, b.

- Nonionoides grateloupi*** (d'Orbigny). Hatta and Ujiié, 1992b, p. 196, pl. 43, figs. 1a-c.
- Normanina*** sp. Inoue, 1989a, pl. 25, fig. 10.
- Nouria tenuis*** Hada. Matoba and Fukasawa, 1992, p. 221, figs. 7-12a, b: *N. textulariformis* Hada. Oki, 1989a, p. 71, pl. 1, fig. 11; *N. ? sp.* Oki, 1989a, p. 71, pl. 1, figs. 12a, b.
- Nummoloculina*** sp. Oki, 1989a, p. 92, pl. 6, figs. 2a-f.
- Nummulites ammonoides*** (Gronovius). Oki, 1989a, p. 137, pl. 17, figs. 2a-c.
- Nuttallides umboniferus*** (Cushman). Inoue, 1989a, pl. 26, figs. 1a-c; Akimoto, 1990, p. 205, pl. 14, fig. 8.
- Oolina desmophora*** (Rymer-Jones). Ujiié, 1990, p. 21, pl. 5, fig. 10: *O. globosa* (Montagu) var. A. Ujiié, 1990, p. 22, pl. 7, fig. 7: *O. globosa* (Montagu) var. B. Ujiié, 1990, p. 22, pl. 7, fig. 8: *O. globosa* (Montagu). Ujiié, 1990, p. 22, pl. 7, fig. 6: *O. gracilis* Ujiié, 1997, p. 125, pl. 1, figs. 1a, b. (n. sp.): *O. hexagona* (Williamson). Oki, 1989a, p. 101, pl. 7, fig. 10; Ujiié, 1990, p. 2, pl. 7, fig. 4: *O. cf. lineata* (Williamson). Ujiié, 1990, p. 22, pl. 7, figs. 5a, b: *O. sp. A.* Ujiié, 1990, p. 22, pl. 7, fig. 9: *O. squamosa* (Montagu). Oki, 1989a, p. 102, pl. 7, fig. 12.
- Operculina ammonoides*** (Gronovius). Akimoto, 1990, p. 205, pl. 15, fig. 11; Hatta and Ujiié, 1992b, p. 205, pl. 50, figs. 7a, b.
- Oridorsalis tener*** (Brady). Oki, 1989a, p. 149, pl. 20, figs. 8a-d; Inoue, 1989a, pl. 26, figs. 5a-c; Akimoto, 1990, p. 206, pl. 21, fig. 5; Kato, 1992, p. 392, pl. 4, figs. 9a-c: *O. umbonatus* (Reuss). Inoue, 1989a, pl. 24, figs. 13a-c; Ujiié, 1990, p. 48, pl. 28, figs. 1a-c, 2a-c, 3, 5a-c, 6, text-fig. 4; Akimoto, 1990, p. 206, pl. 24, fig. 4; Kato, 1992, p. 392, pl. 4, figs. 10a-c; Xu and Ujiié, 1994, p. 518, figs. 10-1, 2: *O. sp.* Inoue, 1989a, pl. 27, figs. 5a-c; pl. 28, figs. 12a, b.
- Osangularia bengalensis*** (Schwager). Ujiié, 1990, pl. 28, figs. 7a-c; Ujiié and Rifardi, 1993, p. 126, pl. 4, figs. 4a-c; Ujiié, 1995, p. 71, pl. 13, figs. 1a-c: *O. culter* (Parker and Jones). Akimoto et al., 1990, p. 109, p. 114, figs. 1a-c.
- Osangularielloides rugosus*** (Phleger and Parker). Ujiié, 1995, p. 72, pl. 13, figs. 2a-c, 3, 4, pl. 14, figs. 1, 2.
- Pacinonion minutus*** Ujiié, 1995, p. 69, pl. 11, figs. 5a, b. (n. sp.): *P. novozealandicum* (Cushman and Edwards). Ujiié, 1995, p. 69, pl. 12, figs. 2a, b.
- Palliolatella*** sp. A. Hatta and Ujiié, 1992b, p. 169, pl. 23, figs. 8a, b, 9.
- Palmula robusta*** (Brady). Hatta and Ujiié, 1992b, p. 165, pl. 21, figs. 3a, b, 4-7.
- Pandaglandulina torrida*** (Cushman). Ujiié, 1990, p. 21, pl. 6, figs. 4a, b, 5, 6.
- Pannellaina earlandi*** (Collins). Ujiié and Hatta, 1994, p. 14, pl. 3, figs. 5a-c, 6a-c: *P. sp. A.* Ujiié and Hatta, 1994, p. 14, pl. 4, figs. 1a-c.
- Paracassidulina minutula*** (Cushman). Oki, 1989a, p. 144, pl. 19, figs. 4a-c; *P. miuraensis* (Higuchi). Akimoto, 1990, p. 206, pl. 15, fig. 4: *P. neocarinata* (Thalmann). Akimoto, 1990, p. 206, pl. 17, fig. 4; Ujiié, 1995, p. 62, pl. 6, figs. 1a, b: *P. nipponensis* (Eade). Akimoto, 1990, p. 206, pl. 19, fig. 2: *P. quasicarinata* Nomura. Oki, 1989a, p. 145, pl. 19, figs. 5a-f; Akimoto, 1990, p. 206, pl. 19, fig. 5: *P. sulcata* (Belford). Akimoto, 1990, p. 206, pl. 19, fig. 1: *P. tomiyensis* (Uchio). Akimoto, 1990, p. 206, pl. 19, fig. 3
- Parafissurina acuticosta***, Ujiié, 1990, p. 28, pl. 11, figs. 1a, b, 2. (n. sp.): *P. buchneri* Ujiié, 1990, p. 28, pl. 10, figs. 8a, b, 9a, b. (n. sp.): *P. curta* Parr. Ujiié, 1990, p. 27, pl. 10, figs. 2a, b, 3: *P. fornasini* Buchner. Ujiié, 1990, p. 27, pl. 9, figs. 9a, b: *P. lata* (Wiesner). Ujiié, 1990, p. 27, pl. 10, figs. 5a, b, 6a, b, 7a, b; Ujiié, 1995, p. 59, pl. 3, fig. 10: *P. lateralis* (Cushman). Ujiié, 1990, p. 27, pl. 10, figs. 1a, b: *P. obsoleta* McCulloch. Ujiié, 1990, p. 28, pl. 10, figs. 10a, b: *P. subcarinata* Parr. Ujiié, 1990, p. 27, pl. 10, figs. 4a, b: *P. sp. Oki*, 1989a, p. 105, pl. 8, figs. 7a, b.
- Pararotalia calcar*** (d'Orbigny). Akimoto, 1990, p. 206, pl. 15, fig. 16: *P. globosa* (Millett). Hatta and Ujiié, 1992b, p. 198, pl. 43, figs. 5a-c: *P. aff. globosa* (Millett). Oki, 1989a, p. 133, pl. 15, figs. 9a-d: *P. nipponica* (Arano). Kitazato, 1986, pl. 1, figs. 1-4; Konda, 1987, pl. 2, figs. 6a, b; Kitazato, 1988a, p. 824, pl. 2, figs. 1-4; Inoue, 1989a, pl. 30, figs. 4a-c; Nomura and Seto, 1992, p. 240, fig. 14, nos. 9a, b; Ujiié and Rifardi, 1993, p. 126, pl. 5, figs. 1a-c, 2a-c; Kamemaru, 1996, p. 7, fig. 20, nos. 1, 2; Matoba and Fukasawa, 1992, p. 221, figs. 11-5a-c.
- Parasorites orbitolitoides*** (Hofker). Hatta and Ujiié, 1992a, p. 80, pl. 17, figs. 1a-2b, pl. 18, figs. 1, 2.

- Paratrochammina** cf. *antarctica wiesneri* (Parr). Ujiié, 1995, p. 57, pl. 2, figs. 6a-c; *P. challengerii* Bronnimann and Whittaker. Ujiié, 1995, p. 57, pl. 2, figs. 5a, b; *P. simplissima* (Cushman and McCulloch). Ujiié, 1995, p. 57, pl. 2, figs. 7a-c.
- Parrellina pacifica** (Collins). Hatta and Ujiié, 1992b, p. 204, pl. 49, figs. 8a, b, pl. 50, figs. 1a-c.
- Parrelloides bradyi** (Trauth). Akimoto, 1990, p. 206, pl. 20, fig. 2; pl. 23, fig. 8.
- Parvicarinina altocamerata** (Heron-Allen and Earland). Ujiié, 1990, p. 33, pl. 14, figs. 5a, b.
- Patellina corrugata** Williamson. Hatta and Ujiié, 1992b, p. 164, pl. 20, figs. 5a-c.
- Patellinella carinata** Collins. Oki, 1989a, p. 127, pl. 14, figs. 4a, b: *P. inconspicua* (Brady). Oki, 1989a, p. 127, pl. 14, figs. 5a-c.
- Paumotua** cf. *terebra* (Cushman). Hatta and Ujiié, 1992b, p. 180, pl. 31, figs. 5a-6c.
- Pegidia dubia** (d'Orbigny). Hatta and Ujiié, 1992b, p. 181, pl. 31, figs. 2a-c, 3.
- Pelosina fusiformis** (Williamson). Oki, 1989a, p. 67, pl. 1, fig. 3: *P. sp.* Nomura and Seto, 1992, p. 239, fig. 14, no. 2.
- Peneroplis pertusus** (Forskål). Hatta and Ujiié, 1992a, p. 78, pl. 16, figs. 1, b: *P. planatus* (Fichtel and Moll). Hatta and Ujiié, 1992a, p. 79, pl. 16, figs. 2a, b.
- Planispirillina tuberculatolimbata** (Chapman). Hatta and Ujiié, 1992b, p. 163, pl. 20, figs. 1a-c.
- Planispirinella exigua** (Brady). Hatta and Ujiié, 1992a, p. 62, pl. 4, figs. 3a, b, pl. 18, fig. 8.
- Planodiscorbis rarescens** (Brady). Ujiié, 1990, p. 33, pl. 13, figs. 12a-c; Hatta and Ujiié, 1992b, p. 183, pl. 32, figs. 4a-c; Ujiié, 1995, p. 66, pl. 8, figs. 6a-c.
- Planoglabratella opercularis** (d'Orbigny). Ujiié and Hatta, 1994, p. 15, pl. 4, figs. 2a-c, 3a, b.
- Planorbulina acervalis** Brady. Hatta and Ujiié, 1992b, p. 189, pl. 38, figs. 1a-c: *P. mediterranensis* d'Orbigny. Hatta and Ujiié, 1992b, p. 189, pl. 38, figs. 2a-c.
- Planorbulinella larvata** (Parker and Jones). Hatta and Ujiié, 1992b, p. 189, pl. 38, 3a-c: *P. ? sublarvata* Hatta, in Hatta and Ujiié, 1992b, p. 189, pl. 38, figs. 4a-c, 5, 6, pl. 39, figs. 1a-c. (n. sp.)
- Planularia asanoi** Ujiié, Ichikura and Kurihara. Kato, 1992, p. 389, pl. 1, figs. 9a, b: *P. perculta* McCulloch, emended, Hatta and Ujiié, 1992b, p. 166, pl. 22, figs. 3a-c.
- Planulina bradii** Tolmachoff. Xu and Ujiié, 1994, p. 518, figs. 7-7, 8: *P. aff. subinflata* Brady. Ujiié, 1990, p. 35, pl. 15, figs. 4a-c, 5a-c, 6a-c: *P. cf. wuellerstorfi* (Schwager). Inoue, 1989a, pl. 22, figs. 4a-c: *P. wuellerstorfi* (Schwager). Inoue, 1989a, pl. 27, fig. 4; pl. 28, figs. 13a, b; Xu and Ujiié, 1994, p. 518, figs. 7-9, 10: *P. ? sp.* Oki, 1989a, p. 138, pl. 17, figs. 5a-c.
- Planulinoides biconcava** (Jones and Parker). Oki, 1989a, p. 127, pl. 14, fig. 6: *P. planoconcavus* (Chapman, Parr and Collins). Hatta and Ujiié, 1992b, p. 188, pl. 36, figs. 3a-4c, 5.
- Pleurostomella** sp. A. Kato, 1992, p. 390, pl. 2, figs. 18a, b.
- Plotnikovina compressa** (Cushman). Ujiié and Hatta, 1994, p. 11, pl. 1, figs. 1a, b, 2a, b, 3.
- Poroeponides cribrorepandus** Asano and Uchio. Konda, 1987, pl. 2, figs., 11a-c; Akimoto, 1990, p. 207, pl. 24, fig. 1: *P. lateralis* (Terquem). Hatta and Ujiié, 1992b, p. 180, pl. 30, figs. 3a-c, 4.
- Porosorotalia makiyamai** (Chiji). Takayanagi and Hasegawa, 1986, pl. 2, figs. 10a, b.
- Protelphidium schmitti** (Cushman and Wickenden). Oki, 1989a, p. 137, pl. 17, figs. 1a, b: *P. sp.* Oki and Yamamoto, 1992, p. 201, fig. 5-13.
- Psammosphaera parva** Flint. Akimoto, 1990, p. 207, pl. 12, fig. 5
- Pseudobolivina torquata** (Parker). Matoba and Honma, 1986, p. 62, pl. 3, figs. 6a, b: *P. ? brevis* Zheng. Hatta and Ujiié, 1992a, p. 57, pl. 1, figs. 8a, b: *P. sp.* Inoue, 1989b, pl. 2, fig. 6.
- Pseudoclavulina serventyi** (Chapman and Parr). Hatta and Ujiié, 1992a, p. 60, pl. 3, figs. 4a, b.
- Pseudofissurina** cf. *pulviniformis* Buchner. Hatta and Ujiié, 1992b, p. 169, pl. 24, figs. 1a, b.
- Pseudohauerina involuta** (Cushman). Hatta and Ujiié, 1992a, p. 77, pl. 14, figs. 8a-9b: *P. orientalis* (Cushman).

Hatta and Ujiié, 1992a, p. 77, pl. 14, figs. 10a, b.

Pseudomassilina australis (Cushman). Ujiié and Rifardi, 1993, p. 123, pl. 2, figs. 2a-c: *P. reticulata* (Heron-Alen and Earland). Hatta and Ujiié, 1992a, p. 72, pl. 11, figs. 7a, b: *P. robusta* Lacroix. Ujiié and Rifardi, 1993, p. 123, pl. 2, figs. 3a-c; Ujiié and Hatta, 1994, p. 12, pl. 1, figs. 4a-c, 5a, b.

Pseudonodosaria sp. Ujiié, 1990, p. 21, pl. 6, figs. 7a, b.

Pseudononion grateloupi (d'Orbigny). Oki, 1989a, p. 147, pl. 20, figs. 4a, b; Kato, 1992, p. 392, pl. 4, figs. 1a-c: *P. japonicum* Asano. Takayanagi and Hasegawa, 1986, pl. 1, figs. 13, 14; Oki, 1989a, p. 148, pl. 20, fig. 5; Nomura and Seto, 1992, p. 240, fig. 16, nos. 10a-c; Ujiié and Rifardi, 1993, p. 126, pl. 4, figs. 3a, b; Matoba and Fukasawa, 1992, p. 221, figs. 10-7a-c: *P. japonicum* Asano var. Matoba and Fukasawa, 1992, p. 221, figs. 10-8a-c.

Pseudoparella exigua (Brady). Akimoto, 1990, p. 208, pl. 20, fig. 7; pl. 24, fig. 3: *P. naraensis* Kuwano. Takayanagi and Hasegawa, 1986, pl. 2, fig. 5; Kato, 1992, p. 391, pl. 3, figs. 5a-c; Matoba and Fukasawa, 1992, p. 221, figs. 9-14a-c: *P. takayanagii* (Iwasa). Hasegawa, 1988, pl. 2, figs. 8a-c; Kato, 1992, p. 391, pl. 3, figs. 6a-c: *P. tamana* Kuwano. Takayanagi and Hasegawa, 1986, pl. 2, fig. 4; Kosugi et al., 1991, figs. 6-12-14; Matoba and Fukasawa, 1992, p. 221, figs. 9-15a-c.

Pseudorotalia gaimardii (d'Orbigny). Inoue, 1989a, pl. 20, figs. 1a-c; Takayanagi and Hasegawa, 1986, pl. 2, fig. 6; Konda, 1987, pl. 2, figs. 10a, b; Oki, 1989a, p. 133, pl. 16, figs. 1a, b; Akimoto, 1990, p. 208, pl. 21, fig. 2; Matoba and Fukasawa, 1992, p. 221, figs. 11-6a-c: *P. papillosa* (Brady). Ujiié and Hatta, 1994, p. 15, pl. 4, figs. 4a-c.

Pseudothurammina limnetis (Scott and Medioli). Scott et al., 1995, p. 292, fig. 6-2.

Pullenia apertura Cushman. Inoue, 1989a, pl. 24, figs. 4a, b; Kato, 1992, p. 392, pl. 4, figs. 4a, b: *P. asymmetrica* Ujiié. Xu and Ujiié, 1994, p. 518, figs. 9-6-8: *P. bulloides* (d'Orbigny). Ujiié, 1990, p. 42, pl. 23, figs. 1a, b, 2a, b; Akimoto, 1990, p. 208, pl. 17, figs. 11, 12; pl. 22, fig. 15; Akimoto et al., 1990, p. 110, p. 114, figs. 7a, b; Ujiié, 1995, p. 70, pl. 12, figs. 6a, b: *P. cf. miocenica* Kleinpell. Ujiié, 1990, p. 43, pl. 24, figs. 6a, b, 7a, b: *P. okinawaensis* Ujiié, 1995, p. 70, pl. 12, figs. 7a, b, 8. (n. sp.): *P. osloensis* Feyling-Hanssen. Inoue, 1989a, pl. 26, figs. 7a, b; pl. 27, figs. 6a, b: *P. quadriloba* Reuss. Ujiié, 1990, p. 43, pl. 23, figs. 5a, b, 6a, b, 7a, b: *P. quinqueloba* (Reuss). Oki, 1989a, p. 149, pl. 20, figs. 7a-c; Ujiié, 1990, p. 43, pl. 24, figs. 1a, b, 2, 3a, b, 4, 5; Akimoto, 1990, p. 208, pl. 17, fig. 13: *P. salisburyi* R.E. and K.C. Stewart. Akimoto, 1990, p. 208, pl. 17, fig. 14; Akimoto et al., 1990, p. 110, p. 114, figs. 9a, b; Kato, 1992, p. 392, pl. 4, figs. 5a, b: *P. aff. salisburyi* R.E. and K.C. Stewart. Ujiié, 1990, p. 44, pl. 24, figs. 8a, b, 9a, b: *P. sp. A'*. Ujiié, 1990, p. 44, pl. 23, figs. 9a, b, 10: *P. sp. A*. Ujiié, 1990, p. 44, pl. 23, figs. 8a, b: *P. sp. B*. Ujiié, 1990, p. 44, pl. 22, figs. 12a, b, 13a, b, pl. 24, figs. 10a, b; Xu and Ujiié, 1994, p. 518, figs. 9-4, 5.

Pullenella asymmetrica Ujiié, 1990, p. 45, pl. 23, figs. 3a, b, 4a, b (n. gen. et n. sp.); Ujiié, 1995, p. 70, pl. 12, figs. 9a, b.

Punctobolivinella unca Hayward. Hatta and Ujiié, 1992b, p. 172, pl. 26, figs. 3a, b.

Pyramidulina raphana (Linné). Ujiié and Hatta, 1994, p. 13, pl. 2, figs. 2, 3a, b.

Pyrgo denticulata (Brady). Hatta and Ujiié, 1992a, p. 72, pl. 11, figs. 1a-2b: *P. depressa* (d'Orbigny). Ujiié, 1990, p. 16, pl. 4, figs. 1a, b, 2a, b: *P. lucernulooides* Ujiié, 1990, p. 15, pl. 3, figs. 7a, b, 8a, b. (n. sp.): *P. murrhina* (Schwager). Inoue, 1989a, pl. 27, figs. 7a, b; Ujiié, 1990, p. 16, pl. 4, figs. 3a, b, 4a, b, 5a, b; Kato, 1992, p. 389, pl. 1, figs. 7a, b: *P. oblonga* (d'Orbigny). Ujiié, 1990, p. 16, pl. 3, figs. 9a, b: *P. rasheedi* Hatta, 1996, p. 22, pl. 1, figs. 1a-c, 2a-c, 3a, b. (n. sp.): *P. serrata* (Bailey). Ujiié, 1990, p. 16, pl. 4, figs. 6a, b, 7a, b: *P. cf. vespertilio* (Schlumberger). Hatta and Ujiié, 1992a, p. 72, pl. 11, figs. 3a, b.

Pyrulina angusta (Egger). Ujiié, 1990, p. 21, pl. 6, figs. 10, 11: *P. fusiformis* (Roemer). Ujiié, 1990, p. 21, pl. 6, figs. 12a, b.

Quadrimorphina laevigata (Phleger and Parker). Ujiié, 1990, p. 41, pl. 15, figs. 1a-c; Akimoto, 1990, p. 208, pl. 24, fig. 7.

Quinqueloculina agglutinata Cushman. Oki, 1989a, p. 87, pl. 5, fig. 1: *Q. cf. agglutinata* Cushman. Ujiié and Rifardi, 1993, p. 122, pl. 1, figs. 4a-c: *Q. akneriana* d'Orbigny. Kosugi et al., 1991, figs. 5-14, 15: *Q. arenata* Said. Hatta and

Ujiié, 1992a, p. 66, pl. 6, figs. 6a-7c: *Q. bicarinata* d'Orbigny. Hatta and Ujiié, 1992a, p. 66, pl. 7, figs. 1a-2b: *Q. bidentata* d'Orbigny. Hatta and Ujiié, 1992a, p. 66, pl. 7, figs. 3a, b: *Q. bradyana* Cushman. Hatta and Ujiié, 1992a, p. 66, pl. 7, figs. 4a, b: *Q. cf. costata* d'Orbigny. Oki, 1989a, p. 87, pl. 5, figs. 2a, b: *Q. fusiformis* Zheng. Ujiié and Rifardi, 1993, p. 122, pl. 1, figs. 5a-c: *Q. funafutiensis* (Chapman). Hatta and Ujiié, 1992a, p. 66, pl. 7, figs. 5a, b: *Q. granulocostata* Germeraad. Ujiié and Rifardi, 1993, p. 122, pl. 1, figs. 6a-c: *Q. gualtieriana* d'Orbigny. Hatta and Ujiié, 1992a, p. 67, pl. 7, figs. 6a, b: *Q. laevigata* d'Orbigny. Oki, 1989a, p. 88, pl. 5, fig. 3; Ujiié and Rifardi, 1993, p. 123, pl. 2, figs. 1a, b: *Q. lamarckiana* d'Orbigny. Oki, 1989a, p. 88, pl. 5, figs. 4a, b; Hatta and Ujiié, 1992a, p. 67, pl. 7, figs. 7a, b (= *Q. cuvieriana* d'Orbigny. Hatta and Ujiié, 1992b): *Q. mundula* Ujiié, in Hatta and Ujiié, 1992a, p. 67, pl. 8, figs. 1a, b. (n. sp.): *Q. neostriatula* Thalmann. Hatta and Ujiié, 1992a, p. 68, pl. 8, figs. 2a, b: *Q. parkeri* (Brady) var. Hatta and Ujiié, 1992a, p. 68, pl. 8, figs. 4a, b: *Q. parkeri* (Brady). Hatta and Ujiié, 1992a, p. 68, pl. 8, figs. 3a, b: *Q. polygona* d'Orbigny. Inoue, 1989a, pl. 30, figs. 8a, b; Hatta and Ujiié, 1992a, p. 68, pl. 8, figs. 5a, b: *Q. rugosa* d'Orbigny. Hatta and Ujiié, 1992a, p. 68, pl. 8, figs. 6a, b: *Q. samoensis* Cushman. Hatta and Ujiié, 1992a, p. 69, pl. 8, figs. 7a, b: *Q. seminulum* (Linné). Konda, 1987, pl. 2, figs. 2a-c; Inoue, 1989a, pl. 20, figs. 7a, b, pl. 30, figs. 9a, b; Nomura and Seto, 1992, p. 239, fig. 15, nos. 3a, b; Hatta and Ujiié, 1992a, p. 69, pl. 9, figs. 1a-2b: *Q. sp.* 1. Matsushita and Kitazato, 1989, pl. 1, figs. 7a, b: *Q. sp.* 2. Matsushita and Kitazato, 1989, pl. 1, figs. 8a, b: *Q. sp.* A. Ujiié, 1990, p. 15, pl. 3, figs. 5a, b: *Q. sp.* Hatta and Ujiié, 1992a, p. 69, pl. 9, figs. 3a, b: *Q. stalker* Loeblich and Tappan. Oki, 1989a, p. 88, pl. 5, figs. 5a-c; Ujiié, 1995, p. 58, pl. 3, figs. 5a, b: *Q. venusta* Karrer. Ujiié, 1990, p. 15, pl. 3, figs. 3a, b, 4a, b: *Q. vulgaris* d'Orbigny. Konda, 1987, pl. 2, figs. 3a-c; Takayanagi and Hasegawa, 1986, pl. 1, figs. 15, 16; Oki, 1989a, p. 89, pl. 5, figs. 6a-c; Nomura and Seto, 1992, p. 239, fig. 15, nos. 4a, b: *Q. weaveri* Rau. Ujiié, 1990, p. 14, pl. 3, figs. 1a, b, 2a, b: *Q. yabei* Asano. Kitazato, 1986, pl. 1, figs. 10, 11; Kitazato, 1988a, p. 824, pl. 2, figs. 21, 22.

Radiatobolivina okinawaensis Hatta, in Hatta and Ujiié, 1992b, p. 205, pl. 51, figs. 1a-2c, 3-5. (n. gen. et n. sp.)

Ramulina globulifera Brady. Hatta and Ujiié, 1992b, p. 167, pl. 22, figs. 6a, b.

Rectobolivina bifrons (Brady). Inoue, 1989a, pl. 28, fig. 6: *R. columellaris* (Brady). Hasegawa, 1988, pl. 1, figs. 10a, b: *R. hancocki* (Cushman and McCulloch). Oki, 1989a, p. 112, pl. 10, figs. 7a, b: *R. raphana* (Parker and Jones). Hasegawa, 1988, pl. 1, fig. 11a; Oki, 1989a, p. 113, pl. 10, figs. 8a-d; Akimoto, 1990, p. 209, pl. 15, fig. 6, pl. 16, fig. 4; Hatta and Ujiié, 1992b, p. 174, pl. 26, figs. 11a, b, 12a, b; Matoba and Fukasawa, 1992, p. 221, figs. 9-6: *R. tonohamaensis* (Takayanagi). Oki, 1989a, p. 113, pl. 10, fig. 9.

Recurvoides contortus Earland. Matoba and Honma, 1986, p. 61, pl. 2, figs. 5a, b; Inoue, 1989b, pl. 1, figs. 1a, b; Akimoto et al., 1990, p. 107, p. 112, figs. 6a-c; Matoba and Fukasawa, 1992, p. 221, figs. 7-7a, b: *R. turbinatus* (Brady). Inoue, 1989a, pl. 29, figs. 8a, b; *R. sp.* Inoue, 1989a, pl. 25, figs. 9a-c.

Reophax aduncus Brady. Inoue, 1989a, pl. 25, fig. 6: *R. agglutinatus* Cushman. Inoue, 1989a, p. 146, pl. 19, fig. 12: *R. bacillaris* Brady. Inoue, 1989a, pl. 25, fig. 13: *R. cf. communis* Lacroix. Hasegawa, 1988, pl. 1, figs. 6a, b: *R. curvus* Cushman. Inoue, 1989a, pl. 29, fig. 5: *R. diffugiformis* Brady. Akimoto, 1990, p. 209, pl. 12, fig. 6: *R. cf. dentaliniformis* Brady. Matoba and Honma, 1986, pl. 1, fig. 12: *R. cf. diffugiformis* Brady. Inoue, 1989a, pl. 25, fig. 14: *R. distans* Brady. Akimoto, 1990, p. 209, pl. 12, fig. 7, pl. 13, fig. 2: *R. excentricus* Cushman. Matoba and Honma, 1986, p. 61, pl. 1, fig. 13; Matoba and Fukasawa, 1992, p. 219, fig. 6-3: *R. gracilis* (Kiaer). Oki, 1989a, p. 69, pl. 1, fig. 7: *R. guttifer* Brady. Inoue, 1989a, pl. 18, fig. 3: *R. cf. guttifer* Brady. Matoba and Honma, 1986, pl. 1, fig. 14; Matoba and Fukasawa, 1992, p. 219, figs. 6-8, 9: *R. minimus* Zheng. Ujiié, 1995, p. 56, pl. 1, figs. 20a, b: *R. nanus* Rhumbler. Oki, 1989a, p. 70, pl. 1, fig. 8; Matoba and Fukasawa, 1992, p. 219, figs. 6-10, 11: *R. aff. nodulosus* Brady. Hatta and Ujiié, 1992a, p. 55, pl. 1, figs. 1a, b, pl. 19, fig. 2: *R. pilulifer* Brady. Matoba and Honma, 1986, p. 62, pl. 1, fig. 15; Inoue, 1989a, pl. 24, fig. 11; Matoba and Fukasawa, 1992, p. 219, fig. 6-2: *R. rostratus* Höglund. Matoba and Fukasawa, 1992, p. 219, fig. 6-5: *R. scorpiurus* Montfort. Matoba and Honma, 1986, p. 61, pl. 1, figs. 16, 17; Inoue, 1989a, pl. 19, fig. 2, pl. 29, figs. 6a, b; Oki, 1989a, p. 70, pl. 1, fig. 9; Hatta and Ujiié, 1992a, p. 55, pl. 1, figs. 2a-3b, pl. 19, fig. 1; Ujiié, 1995, p. 56, pl. 1, figs. 17a, b, 18; Matoba and Fukasawa, 1992, p. 219, fig. 6-4: *R. cf.*

scorpiurus Montfort. Matoba and Honma, 1986, pl. 1, fig. 18; *R. scottii* Chaster. Oki, 1989a, p. 70, pl. 1, fig. 10; *R. sp.* B. Matoba and Honma, 1986, pl. 1, fig. 19; *R. sp.* Inoue, 1989a, pl. 18, fig. 8, pl. 19, fig. 7, pl. 25, fig. 11; *R. sp.* Nomura, 1988, p. 867, pl. 2, fig. 1; *R. spiculifer* Brady. Inoue, 1989a, pl. 18, figs. 9a, b; *R. spiculifera* Brady. Akimoto, 1990, p. 210, pl. 13, fig. 3; *R. sp.* B. Matoba and Fukasawa, 1992, p. 219, fig. 6-6; *R. sp.* H. Matoba and Fukasawa, 1992, p. 219, fig. 6-7.

Reussella aculeata Cushman. Oki, 1989a, p. 117, pl. 11, figs. 6a-d; Nomura and Seto, 1992, p. 240, fig. 15, no. 9; Hatta and Ujiié, 1992b, p. 177, pl. 27, figs. 9a, b; Oki and Yamamoto, 1992, p. 197, figs. 4-15, 5-1; *R. aequa* Cushman and McCulloch. Oki, 1989a, p. 117, pl. 11, fig. 7; Ujiié and Rifardi, 1993, p. 124, pl. 2, figs. 5a, b; *R. hayasakai* Oki, 1989a, p. 117, pl. 11, figs. 8a-d. (n. sp.): *R. pacifica* Cushman and McCulloch. Hasegawa, 1988, pl. 2, figs. 4a, b; Hatta and Ujiié, 1992b, p. 177, pl. 27, fig. 10; *R. simplex* (Cushman). Oki, 1989a, p. 118, pl. 11, fig. 9; *R. spinulosa* (Reuss). Oki, 1989a, p. 118, pl. 11, figs. 10a, b; Akimoto, 1990, p. 210, pl. 15, fig. 1; *R. sp.* Oki, 1989a, p. 118, pl. 12, figs. 1a, b.

Rhabdammina abyssorum M.Sars. Inoue, 1989a, pl. 25, figs. 1, 2, pl. 18, fig. 4; Akimoto, 1990, p. 210, pl. 12, fig. 10, pl. 14, fig. 4; Ujiié, 1995, p. 54, pl. 1, figs. 5, 6; *R. sp.* Inoue, 1989a, pl. 19, fig. 11.

Rhizammina algaeformis Brady. Akimoto et al., 1990, p. 112, fig. 12; Ujiié, 1995, p. 54, pl. 1, fig. 7.

Robertinoides charlottensis (Cushman). Hatta and Ujiié, 1992b, p. 170, pl. 25, fig. 1.

Robulus calcar (Linné). Akimoto, 1990, p. 210, pl. 15, fig. 10, pl. 17, fig. 6; *R. orbicularis* d'Orbigny. Akimoto, 1990, p. 210, pl. 22, fig. 1.

Rosalina (*Tretomphalus*) *bulloides* d'Orbigny. Kitazato, 1986, pl. 2, figs. 1-3; Kitazato, 1988a, p. 824, pl. 2, figs. 16-18; *R. bradyi* (Cushman). Inoue, 1989a, pl. 31, figs. 2a-c; Ujiié and Hatta, 1994, p. 14, pl. 3, figs. 4a-c; Matoba and Fukasawa, 1992, p. 221, figs. 9-13a-c; *R. globularis* d'Orbigny. Kitazato, 1986, pl. 2, figs. 4-6; Kitazato, 1988a, p. 824, pl. 2, figs. 5-7; Kosugi et al., 1991, figs. 7-17-19; Nomura and Seto, 1992, fig. 15, nos. 10a-c; *R. orientalis* (Cushman). Hatta and Ujiié, 1992b, p. 183, pl. 32, figs. 5a-c; *R. petasiformis* Cheng and Zheng. Hatta and Ujiié, 1992b, p. 183, pl. 33, figs. 1a-2c; *R. vilardeboana* d'Orbigny. Inoue, 1989a, pl. 31, figs. 3a-c; Oki, 1989a, p. 128, pl. 14, figs. 7a-c; Akimoto, 1990, p. 211, pl. 22, fig. 16.

Rotaliammina chitinosa (Collins). Ujiié, 1995, p. 57, pl. 3, figs. 1, 2a, b.

Rotamorphina minuta (Schubert). Ujiié, 1990, p. 42, pl. 15, figs. 2a-c, 3a-c.

Rugobolivinella elegans (Parr). Hatta and Ujiié, 1992b, p. 173, pl. 26, figs. 4a, b.

Rupertina pustulosa Hatta, in Hatta and Ujiié, 1992b, p. 192, pl. 41, figs. 2a-c, 3, 4. (n. sp.)

Rutherfordoides mexicanus (Cushman). Akimoto, 1990, p. 211, pl. 19, fig. 9; *R. rotundiformis* (McCulloch). Ujiié, 1995, p. 64, pl. 7, figs. 4a, b; *R. sp.* Akimoto et al., 1990, p. 110, p. 114, figs. 6a-c.

Saccammina atlantica (Cushman). Oki, 1989a, p. 65, pl. 1, figs. 1a, b; *S. sphaerica* M.Sars. Akimoto, 1990, p. 211, pl. 12, fig. 1; *S. sp.* Nomura, 1988, p. 865, pl. 1, fig. 1.

Saccorhiza ramosa Brady. Inoue, 1989a, pl. 18, fig. 1; Akimoto et al., 1990, p. 108, p. 112, fig. 10; Akimoto, 1990, p. 211, pl. 12, fig. 11, pl. 14, fig. 1; Ujiié, 1995, p. 55, pl. 1, figs. 14, 15.

Sagrinella strigosa (Brady). Hatta and Ujiié, 1992b, p. 175, pl. 27, figs. 1a, b, 2.

Sagrinopsis fimbriata (Millett). Hatta and Ujiié, 1992b, p. 175, pl. 27, figs. 3a, b, 4.

Sahulina barkeri (Hofker). Hatta and Ujiié, 1992, p. 57, pl. 2, figs. 2a-c, pl. 19, fig. 6.

Saracenaria latifrons (Brady). Oki, 1989a, p. 99, pl. 7, fig. 6.

Schlumbergerina alveoliniformis (Brady). Hatta and Ujiié, 1992a, p. 65, pl. 6, figs. 2a, b.

Scurciatoforamen lageniformis Ujiié, 1997, p. 126, pl. 1, figs. 2a, b, 3-5. (n. gen. et n. sp.)

Seabrookia pellucida Brady. Oki, 1989a, p. 101, pl. 7, figs. 9a, b; Hatta and Ujiié, 1992b, p. 169, pl. 24, figs. 2a, b; Ujiié, 1995, p. 59, pl. 3, figs. 11a, b.

Sigmavirgulina tortuosa (Brady). Oki, 1989a, p. 142, pl. 18, figs. 6a-c; Hatta and Ujiié, 1992b, p. 177, pl. 28, figs. 3a, b.

Sigmoihauerina bradyi (Cushman). Hatta and Ujiié, 1992a, p. 75, pl. 13, figs. 6a, b: *S. fragilissima* (Brady). Hatta and Ujiié, 1992a, p. 75, pl. 13, figs. 7a–8b.

Sigmoilinella tortuosa Zheng. Hatta and Ujiié, 1992a, p. 75, pl. 13, figs. 9a–10b.

Sigmoilopsis schlumbergeri (Silvestri). Nomura, 1988, p. 865, pl. 1, fig. 4; Oki, 1989a, p. 89, pl. 5, figs. 7a, b; Akimoto, 1990, p. 212, pl. 17, fig. 8; pl. 22, fig. 8, Ujiié, 1990, p. 16, pl. 3, figs. 10a, b: *S. sp.* Oki, 1989a, p. 89, pl. 5, fig. 8.

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Siphoniferoidea siphonifera (Brady). Hatta and Ujiié, 1992a, p. 60, pl. 3, figs. 5a, b.

Siphonina tubulosa Cushman. Inoue, 1989a, pl. 21, figs. 4a, b; Hatta and Ujiié, 1992b, p. 186, pl. 35, figs. 1a–2b.

Siphoninoides echinatus (Brady). Hatta and Ujiié, 1992b, p. 186, pl. 35, figs. 4a, b: *S. laevigata* (Howchin). Hatta and Ujiié, 1992b, p. 186, pl. 35, figs. 4a, b.

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Sorites orbiculus (Forskål). Hatta and Ujiié, 1992a, p. 80, pl. 17, figs. 5a, b, 6a, b, pl. 18, figs. 5, 6.

Sphaerogypsina globulus (Reuss). Hatta and Ujiié, 1992b, p. 192, pl. 41, figs. 7, 8.

Sphaeroidina bulloides d'Orbigny. Inoue, 1989a, pl. 27, figs. 9a, b; Akimoto et al., 1990, p. 110, p. 114, fig. 8; Ujiié, 1990, p. 28, pl. 11, figs. 3a, b, 4, 5a, b; Hatta and Ujiié, 1992b, p. 184, pl. 33, figs. 4a–c; Kato, 1992, p. 390, pl. 2, figs. 21a, b: *S. cf. bulloides* d'Orbigny. Oki, 1989a, p. 106, pl. 8, figs. 10a, b; *S. sp.* Oki, 1989a, p. 106, pl. 8, figd. 11a, b.

Spirillina limbata Brady. Akimoto, 1990, p. 212, pl. 23, fig. 9: *S. planoconcava* Zheng. Hatta and Ujiié, 1992b, p. 164, pl. 20, figs. 4a–c: *S. vivipara* Ehrenberg. Hatta and Ujiié, 1992b, p. 164, pl. 20, figs. 3a–c.

Spirolina acicularis (Batsch). Hatta and Ujiié, 1992a, p. 79, pl. 16, figs. 3a–c: *S. arietina* (Batsch). Hatta and Ujiié, 1992a, p. 79, pl. 16, figs. 4a, b: *S. okinawaensis* Ujiié and Hatta, 1994, p. 12, pl. 1, figs. 7a, b, 8a, b. (n. sp.): *S. sp.* Hatta and Ujiié, 1992a, p. 79, pl. 16, figs. 5a–c.

Spiroloculina acescata Cushman. Nomura and Seto, 1992, p. 239, fig. 15, nos. 2a–c: *S. clara* Cushman. Hatta and Ujiié, 1992a, p. 63, pl. 5, figs. 3a, b: *S. communis* Cushman and Todd. Nomura and Seto, 1992, p. 239, fig. 15, nos. 1a–c; Hatta and Ujiié, 1992a, p. 63, pl. 5, figs. 4a–c: *S. corrugata* Cushman and Todd. Hatta and Ujiié, 1992a, p. 64, pl. 5, figs. 5a, b: *S. depressa* d'Orbigny. Oki, 1989a, p. 86, pl. 4, figs. 11a, b: *S. hadai* Thalmann. Nomura and Seto, 1992, p. 239, fig. 15, no. 5; Hatta and Ujiié, 1992a, p. 64, pl. 5, figs. 6a–c: *S. laevigata* Cushman and Todd. Ujiié and Rifardi, 1993, p. 122, pl. 1, figs. 2a, b: *S. manifesta* Cushman and Todd. Hatta and Ujiié, 1992a, p. 64, pl. 5, figs. 7a, b: *S. rugosa* Ujiié and Rifardi, 1993, p. 122, pl. 1, figs. 3a, b: *S. cf. venusta* Cushman and Todd. Hatta and Ujiié, 1992a, p. 65, pl. 5, figs. 8a, b.

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Spirosigmoilina speciosa (Karrer). Hatta and Ujiié, 1992a, p. 76, pl. 14, figs. 1a, b.

Spirosigmoilinella compressa Matsunaga. Kato, 1992, p. 389, pl. 1, figs. 2a, b: *S. sp.* Oki, 1989a, p. 72, pl. 1, figs.

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- Spirotextrularia fistulosa*** (Brady). Hatta and Ujiié, 1992a, p. 56, pl. 1, figs. 7a, b, pl. 19, fig. 4.
- Stainforthia complanata*** (Egger). Matoba and Honma, 1986; Kato, 1992, p. 390, pl. 2, fig. 5: *S. exilis* (Bray). Inoue, 1989b, pl. 1, fig. 3: *S. exilis tenuata* (Cushman). Inoue, 1989a, pl. 32, figs. 3a, b, pl. 33, figs. 7a, b: *S. fusiformis* (Williamson). Kato, 1992, p. 390, pl. 2, figs. 6a, b: *S. spinosa* (Heron-Allen and Earland). Matoba and Fukasawa, 1992, p. 221, figs. 9-5: *S. sp.* Inoue, 1989a, pl. 33, figs. 8a, b.
- Stilostomella lepidula*** (Schwager). Kato, 1992, p. 390, pl. 2, fig. 19.
- Stilostomelloides virgulus*** (Brady). Ujiié and Rifardi, 1993, p. 124, pl. 3, figs. 1-5. (n. gen.)
- Stomatorbina concentrica*** (Parkr and Jones). Hatta and Ujiié, 1992b, p. 180, pl. 30, figs. 5a-c: *S. sp.* A. Hatta and Ujiié, 1992b, p. 181, pl. 30, figs. 6a-c.
- Strebloides pesudotepidus*** Ujiié, in Hatta and Ujiié, 1992b, p. 181, pl. 31, figs. 4a-c. (n. sp.)
- Takayanagia delicata*** (Cushman). Xu and Ujiié, 1994, p. 518, figs. 8-7, 8; Ujiié and Hatta, 1994, p. 13, pl. 2, figs. 6a, b, 7a, b; Ujiié, 1995, p. 62, pl. 6, figs. 2a, b: *T. quasisulcata* (Belford). Hatta and Ujiié, 1992b, p. 173, pl. 26, figs. 7a-c.
- Testulosiphon indivisus*** (Brady). Ujiié, 1995, p. 54, pl. 1, fig. 8.
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- Tiphotrocha kelletiae*** (Thalmann). Oki, 1989a, p. 82, pl. 4, figs. 2.
- Tosaia hanzawai*** Takayanagi. Inoue, 1989a, pl. 18, figs. 7a, b, pl. 27, figs. 3a, b; Akimoto, 1990, p. 214, pl. 22, fig. 10.
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and Ujiié, 1992a, p. 74, pl. 12, figs. 6a, b: *T. rotunda* d'Orbigny. Konda, 1987, pl. 2, figs. 1a-c: *T. subgranulata* Cushman. Hatta and Ujiié, 1992a, p. 74, pl. 12, figs. 7a, b: *T. transversestriata* (Brady). Ujiié and Hatta, 1994, p. 12, pl. 1, figs. 6a, b: *T. tricarinata* d'Orbigny. Oki, 1989a, p. 90, pl. 5, fig. 9a-c; Ujiié, 1990, p. 15, pl. 3, figs. 6a, b; Akimoto, 1990, p. 214, pl. 22, fig. 7; Kato, 1992, p. 389, pl. 1, figs. 8a, b; Hatta and Ujiié, 1992a, p. 74, pl. 12, figs. 8a, b: *T. trigonula* (Lamarck). Oki, 1989a, p. 90, pl. 5, fig. 10; Akimoto, 1990, p. 214, pl. 17, fig. 10; Nomura and Seto, 1992, p. 239, fig. 15, nos. 8a, b.

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Trimosina ? *takayanagii* Oki, 1989a, p. 118, pl. 12, figs. 2a-g. (n. sp.): *T. sp.* Oki and Yamamoto, 1992, p. 197, fig. 5-2.

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Trochammina advena Cushman. Hasegawa, 1988, pl. 1, figs. 2a-c: *T. charlottensis* Cushman. Inoue, 1989a, pl. 24, figs. 10a-c; Oki, 1989a, p. 79, pl. 3, figs. 7a-d; Matoba and Fukasawa, 1992, p. 221, figs. 7-13a-c: *T. conglobata* Brady. Akimoto et al., 1990, p. 108, p. 112, figs. 5a, b: *T. globigeriniformis* (Parker and Jones). Inoue, 1989a, pl. 19, figs. 10a-c; Akimoto, 1990, p. 214, pl. 11, fig. 6; pl. 13, fig. 9; Akimoto et al., 1990, p. 108, p. 112, figs. 4a-c: *T. hadai* Uchio. Konda, 1987, pl. 1, figs. 5a-c, 6a-c, 7a-c; Matsushita and Kitazato, 1989, pl. 1, figs. 1a-2c, pl. 2, figs. 1a-4c; Nomura and Seto, 1992, p. 239, fig. 14, nos. 3a, b, 4a-c; Kamemaru, 1996, p. 6, fig. 19, nos. 1-3: *T. inflata* (Montagu) var. Matoba and Honma, 1986, p. 62, pl. 3, figs. 4a-c: *T. inflata* (Montagu). Akimoto, 1990, p. 214, pl. 11, fig. 4; Scott et al., 1995, p. 294, figs. 6-10-17: *T. japonica* Ishiwada. Matoba and Honma, 1986, p. 62, pl. 3, figs. 1a-c; Hasegawa, 1988, pl. 1, figs. 3a-c; Nomura, 1988, p. 867, pl. 3, fig. 3; Inoue, 1989a, pl. 24, figs. 5a-c; Inoue, 1989b, pl. 2, figs. 8a, b: *T. cf. japonica* Ishiwada. Konda, 1987, pl. 1, figs. 8a-c, 9a-c, 10a-c; Kamemaru, 1996, p. 6, fig. 19, nos. 4-6: *T. macrescens* Brady. Scott et al., 1995, p. 294, figs. 6-6-8: *T. nitida* Brady. Oki, 1989a, p. 80, pl. 3, figs. 8a, b: *T. osumiensis* Oki, 1989a, p. 80, pl. 3, figs. 9a, b. (n. sp.): *T. pacifica* Cushman. Matoba and Honma, 1986, p. 60, pl. 3, figs. 5a-c; Inoue, 1989a, pl. 23, figs. 9a-c; Akimoto, 1990, p. 214, pl. 11, fig. 5; Nomura and Seto, 1992, p. 239, fig. 14, nos. 5a-c; Matoba and Fukasawa, 1992, p. 221, figs. 7-14a-c: *T. pacifica simplex* Cushman and McCulloch. Oki, 1989a, p. 80, pl. 3, figs. 10a, b: *T. pygmaea* Höglund. Oki, 1989a, p. 81, pl. 3, figs. 11a-c; Matoba and Fukasawa, 1992, p. 221, figs. 8-2a-c, 3a, b: *T. pygmaea* Höglund var. Matoba and Honma, 1986, p. 62, pl. 3, figs. 2a-c: *T. quadriloba* Höglund. Matoba and Honma, 1986, p. 61, pl. 3, figs. 3a-c; Hasegawa, 1988, pl. 1, figs. 4a-c; Matoba and Fukasawa, 1992, p. 221, figs. 8-4a-c: *T. rotaliformis* Wright. Hasegawa, 1988, pl. 1, figs. 5a-c: *T. sp.* 2. Oki, 1989a, p. 82, pl. 4, figs. 1a-c: *T. sp.* 1. Matoba and Fukasawa, 1992, p. 221, figs. 8-1a-c.

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