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HONOLULU FORAMS FROM THE *CHALLENGER* EXPEDITION 1875 "REST STOP"

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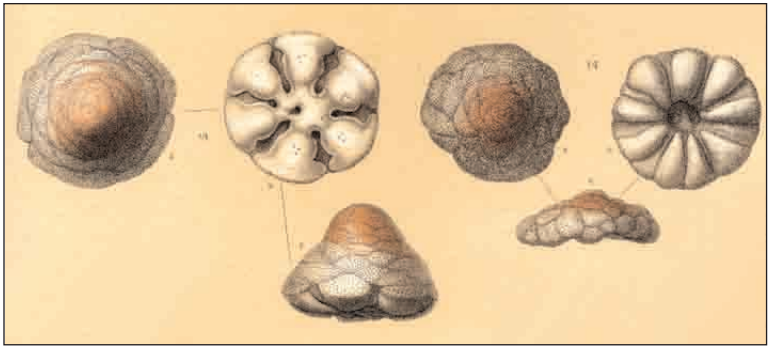

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Cover: Illustration of *Cymbalopora poeyi* (d'Orbigny) from Brady, 1884, pl. 102, figs. 13–14.

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Honolulu Forams from the *Challenger* Expedition 1875 "Rest Stop"

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The steam corvette HMS *Challenger* interrupted its three-and-a-half year round-the-world expedition with a "rest stop" from 27 July to 11 August 1875 in Honolulu, Hawai'i. Naturalist oceanographer Dr. John Murray "rested" by using the *Challenger's* 37-foot steam pinnace to collect surface plankton from Pearl Harbor and to dredge in 40 fathoms off Honolulu (Murray, 1885, 1895). Part of the study on biodiversity at the Bishop Museum in Honolulu, Hawai'i is comparing the names used by H.B. Brady (1884) for the forams collected by Murray from off Honolulu (*Challenger* Station 260A) with names used by Hans E. Thalmann (1932, 1933, 1937, 1942), R. Wright Barker (1960), and Robert W. Jones (1994) for specimens of the same species illustrated by Brady in 1884.

The British Government's HMS *Challenger* Expedition was organized to explore world–wide deep ocean basins. The biological part of the cruise was organized under the direction of Sir C. Wyville Thomson who retired because of ill health when the three-and-a-half year cruise was over. Dr. (later Sir) John Murray became not only the editor of fifty scientific reports by 76 authors but utilized information obtained during the expedition on calcium phosphate rock of Christmas Island, Indian Ocean to obtain a long–time lease for mining the phosphatic rock used as fertilizer in agriculture by Australia and New Zealand (Murray, 1891; Andrews, 1900; Williams & MacDonald, 1985). The taxes and royalties Murray paid the British Government from his mining operations amounted to more than the entire cost of the expedition and publication of the reports (Linklater, 1972). Both Linklater (1972) and Jones (1994) said that Murray spent his own money to finance the publication of the fifty volumes of the *Challenger Reports*. It is not clear whether this was by direct payment or indirectly through the taxes and royalties mentioned above. However, Murray did use his own money to publish various expedition log letters and cruise accounts by officers and scientists (Crane, 1897). Moseley's *Notes By A Naturalist, An Account of Observations Made During The Voyage Of H.M.S. "Challenger" Round The World In The Years 1872–1876*, for example, was published by John Murray in 1892.

Brady's scientific results on the forams from this world–wide expedition were published in 1884 in two volumes: one volume of text and one volume of illustrations. On pages 756–764 Brady (1884) compared the forams he observed in 18 different stations with various substrates ranging from *Globigerina* ooze to coral mud. Brady listed 88 species from *Challenger* station 260A from 40 fathoms off Honolulu which was one of two stations representing volcanic mud. (Murray, 1895, referring to station 260A states that "the deposit off the reefs at Honolulu in 20 to 40 fathoms was a coral sand.") The list of forams reported by Brady from off Honolulu was included by Murray in his 1895 Summary of the Scientific Results of the cruise (VI: 1002–1003). The only change in this list from the list that Brady reported was that Murray indicated which species were pelagic. This is significant since Murray was the first to prove during the *Challenge*r Expedition

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that some forams collected in the benthos actually lived as surface plankton, as shown in the progress reports by Thomson to the Admiralty during the expedition (Murray & Renard, 1891; Murray, 1897).

It is interesting that the 88 species of Foraminifera reported by Brady from 20 to 40 fathoms off Honolulu were also reported by Brady from many parts of the world—from the surface down to more than 2,000 fathoms.

Brady omitted specific locality information for the more than 2,000 forams that he illustrated. About half of the figured forams were at the British Museum (Natural History) (BMNH) and most of the rest were at Cambridge University (Nuttall, 1927). Transfer of the Brady Foraminifera Collection from Cambridge University to the BMNH was interrupted by World War II and not completed until 1959 (Joysey, 1960). Fortunately, BMNH catalog numbers were written on the slides containing Brady's forams, and Nuttall, a professor at Cambridge University, used the BMNH catalog numbers to locate and publish the localities from where most of the forams illustrated by Brady were obtained (Nuttall, 1927, 1931). Nuttall did not obtain localities for all specimens illustrated by Brady, but he did note two species illustrated from Hawaii [*Gypsina globulus* (Reuss, 1848) and *Heterostegina curva* Moebius, 1880] that Brady had omitted from his list of forams from Honolulu.

Brady had a wide interpretation of what constitutes a species and frequently lumped into one species what others have since considered to be more than one species (Nuttall, 1927; Buzas, 1995). H.E. Thalmann (1932, 1933, 1937, 1942) and R.W. Barker (1960) revised the names used by Brady (1884) based entirely on Brady's 1884 illustrations while R.W. Jones (1994) examined the actual specimens upon which Brady had based his identifications. Referring specifically to the 88 foram species reported by Brady from Honolulu plus the two additional species noted by Nuttall in 1927, Thalmann, Barker, and Jones revised the taxa that Brady (1884) used in keeping with their views and those of various foram authorities. Thalmann increased the total number of species reported from Honolulu to 118, Barker increased them to 126 and Jones to 131. The types of changes are summarized in Table 1 and given in detail in Table 2. Only the last name applied by Thalmann to one of Brady's figures is used in Tables 1 and 2.

Table 1. Changes in names of Brady's 90 Honolulu foram species by Thalmann, 1932, 1933, 1937; and 1942; Barker, 1960; and Jones, 1994.

Author	Same genus same species	Same genus diff. Species	Diff. genus same species	Diff. genus diff. species	Total species
Thalmann, latest	35	19	37	25	116
Barker, 1960	22	22	35	43	122
Jones, 1994	20	23	35	50	128
Combined	39	44	65	82	230

Thalmann and Barker based their reviews on Brady's illustrations, but Jones examined the specimens that Brady actually illustrated. Jones examined specimens of all 90 species reported from Honolulu, but since Brady illustrated only 27 of the 90 species from

Honolulu, Jones only examined specimens of 27 of species that Brady reported from Honolulu. The other 63 species that he examined may have been from anyplace else in the world such as *Miliolina bicornis* (Walker & Boys, 1798), which Brady reported from Honolulu but illustrated with specimens from off Skye, Scotland. Since in this and in many other examples in Table 2, Jones did not examine specimens from Honolulu, and neither Thalmann nor Barker examined illustrations of specimens of 63 of the Honolulu species, it is impossible to know how they would have identified them, if they had seen them. We feel that it is important when studying forams from Hawai'i, or anywhere for that matter, to consider all names that have been applied to a species regardless of where the specimens may have been found and even if previous workers have indicated that the name was a misidentification.

The "progress" in the taxonomy of Foraminifera from Hawai'i is shown by the increased number of names used for the 90 species reported as having been collected from off Honolulu in 1875. Thalmann (1932, 1933, 1937, 1942) increased the number by 29 percent, Barker (1960) by 36 percent, and Jones (1994) by 42 percent. The three authors combined increased the numbers by 155 percent.

Table 2. **Forams reported from Honolulu by Brady (1884) with names used by Thalmann (1932, 1933, 1937, or 1942), Barker (1960), and Jones (1994) for figured specimens regardless of where collected** (Localities are given with original spelling; Hawaiian localities are listed in boldface).

***Alveolina boscii* (Defrance, 1820)** by Brady, pp. 222–223, 757, pl. 17, figs. 7–12
- Locality not given pl. 17, figs. 7–8
- Admiralty Islands, Pacific 16–25 fm, pl. 17, figs. 9–12

Alveolinella quoyi (d'Orbigny, 1826) by Thalmann, 1933, p. 251, pl. 17, figs. 7–12; Barker, p. 34, pl. 17, figs. 7–12

Alveolinella quoyii (d'Orbigny, 1826) by Jones, p. 30–31, pl. 17, fig. 7–12

***Alveolina melo* (Fichtel & Moll, 1798)** by Brady [Brady had the date incorrectly as "1803"], pp. 223–224, 757, pl. 17, figs. 13–15
- Locality not given pl. 17, fig. 13
- Bermuda, Atlantic pl. 17, fig. 14
- Ascension, Atlantic pl. 17, fig. 15

Borelis bradyi (Silvestri, 1927) by Thalmann, 1933, p. 251, pl. 17, figs. 13–15

Borelis melo (Fichtel & Moll, 1798), by Jones, p. 31, pl. 17, figs. 13–15

Neoalveolina melo (Fichtel & Moll, 1798) by Barker, p. 34, pl. 17, figs. 13–15

***Amphistegina lessonii* "d'Orbigny, 1826"** by Brady [*nomen nudum* per Jones, 1994, p. 110], pp. 740–741, 764, pl. 111, figs. 1–7
- Admiralty Islands, Pacific 16–25 fm, pl. 111, fig. 1
- Bermuda, Atlantic 435 fm, pl. 111, fig. 2
- Fiji, Pacific 12 fm pl. 111, fig. 3
- Cape Verde Islands, Atlantic 11 fm, pl. 111, figs. 4, 7
- Admiralty Islands, Pacific 16–25 fm, pl. 111, fig. 5
- Friendly Islands, Pacific 18 fm, pl. 111, fig. 6

Amphistegina bicirculata Larsen, 1976 by Jones, p. 109, pl. 111, fig. 1

Amphistegina gibbosa d'Orbigny, 1839 by Barker, p. 228, pl. 111, figs. 2, 4, 7

Amphistegina lessonii "d'Orbigny, 1826" by Barker [*nomen nudum* per Jones, 1994, p. 110], p. 230, pl. 111, figs. 5–6
Amphistegina lessonii sensu Parker, Jones, & Brady, 1865 by Jones, pp. 109–110, pl. 111, figs. 2, 4–7
Amphistegina quoyii d'Orbigny, 1826(?) by Barker, p. 228, pl. 111, fig. 1, 3
Amphistegina radiata (Fichtel & Moll, 1798) by Thalmann, 1932, p. 311, pl. 111, figs. 1–7; Jones, p. 110, pl. 111, fig. 3

***Articulina conico–articulat*a (Batsch, 1791)** by Brady, pp. 185, 757, pl. 12, figs. 17–18; pl. 13, figs. 1–2
West Indies 390 fm, pl. 12, figs. 17–18
Bermuda, Atlantic 435 fm, pl. 13, figs. 1–2
Articulina conico–articulata (Batsch, 1791) by Thalmann, 1932, p. 297, pl. 12, figs. 17–18; pl. 13, figs. 1–2
Articulina mayori Cushman, 1944 by Barker, p. 26, pl. 13, figs. 1–2; Jones, p. 28, pl. 13, figs. 1–2
Articulina sagra d'Orbigny, 1839 by Barker, p. 24, pl. 12, figs. 17–18; Jones, p. 28, pl. 12, figs. 17–18

***Articulina sagra* d'Orbigny, 1839** by Brady, pp. 184, 757, pl. 12, figs. 22–24
Friendly Islands, Pacific 18 fm, pl. 12, fig. 22
Honolulu, HI 40 fm, pl. 12, figs. 23–24
Articulina pacifica Cushman, 1944 by Barker, p. 24, pl. 12, figs. 22–24; Jones, p. 28, pl. 12, figs. 22–24
Articulina sagra d'Orbigny, 1839 by Thalmann, 1932, p. 297, pl. 12, figs. 22–24

***Articulina sulcata* Reuss, 1849** by Brady, pp. 183, 757, pl. 12, figs. 12–13.
Honolulu, HI 40 fm, pl. 12, figs. 12–13
Articulina pacifica Cushman, 1924 by Barker, p. 24, pl. 12, figs. 12–13; Jones, p. 28, pl. 12, figs. 12–13.
Articulina sulcata Reuss, 1849 by Thalmann, 1932, p. 297, pl. 12, figs. 12–13

***Biloculina ringens denticulata* Brady, 1884** by Brady, pp. 143, 756, pl. 3, figs. 4–5
Friendly Islands, Pacific 18 fm, pl. 3, fig. 4a
Honolulu, HI 40 fm, pl. 3, figs. 4b–5
Pyrgo denticulata (Brady, 1884) by Thalmann, 1932, p. 295, pl. 3, figs. 4–5; Barker, p. 6, pl. 3, figs. 4–5; Jones, p. 19, pl. 3, figs. 4–5

***Bolivina limbata* Brady, 1881** by Brady, pp. 419, 760, pl. 52, figs. 26–28
Honolulu, HI 40 fm, pl. 52, fig. 26
Admiralty Islands, Pacific 16–25 fm, 17 fm, pl 52, figs. 27–28
Loxostomina limbata (Brady, 1881) by Jones, p. 57, pl. 52, figs. 26–28
Loxostomum limbatum (Brady, 1881) by Thalmann, 1942 p. 464, pl. 52, figs. 26–28; Barker, p. 108, pl. 52, figs. 26–28

***Bolivina textilarioides* Reuss, 1862** by Brady, pp. 419, 760, pl. 52, figs. 23–25
Fiji, Pacific, 610 fm, pl. 52, fig. 23
West of Ireland, Atlantic 183 fm, pl. 52, figs. 24–25
Bolivina sp. nov. Thalmann, 1933 by Barker, p. 108, pl. 52, fig. 23
Bolivina subspinescens Cushman, 1922 by Thalmann, 1942, p. 464, pl. 52, figs. 23–25; Barker, p. 108, pl. 52, figs. 24–25

Brizalina sp. nov. by Jones, p. 57, pl. 52, fig. 23
Brizalina subspinescens (Cushman, 1922) by Jones, p. 57, pl. 52, figs. 24–25

***Carpenteria monticularis* Carter, 1877** by Brady, pp. 677, 763, pl. 99, figs. 1–5
Philippines, Pacific 102 fm, pl. 99, figs. 1–5
Carpenteria monticularis Carter, 1877 by Barker, p. 204, pl. 99, figs. 1–5; Jones, p. 101, pl. 99, figs. 1–5
Carpenteria uticularis Carter, 1877 by Thalmann, 1932, p. 310, pl. 99, figs. 1–5

***Cassidulina crassa* d'Orbigny, 1839** by Brady, pp. 429–430, 760, pl. 54, figs. 4–5
Heard Island, Pacific 75 fm, pl. 54, fig. 4
West of Ireland, Atlantic 1630 fm, pl. 54, fig. 5
Cassidulina crassa d'Orbigny, 1839 by Thalmann, 1932, p. 302, pl. 54, fig. 5; Barker, p. 110, pl. 54, figs. 4–5; Jones, p. 60, pl. 54, fig. 4
Cassidulina oblonga Reuss, 1850 by Thalmann, 1932, p. 302, pl. 54, fig. 4
Cassidulina obtusa Williamson, 1858 by Jones, p. 60, pl. 54, fig. 5

***Chrysalidina dimorpha* Brady, 1881** by Brady, pp. 388, 759, pl. 46, figs. 20–21
Hong Kong, Pacific 7 fm, pl. 46, fig. 20
Honolulu, HI 40 fm, pl. 46, fig. 21
Chrysalidinella dimorpha (Brady, 1881) by Thalmann, 1932, p. 301, pl. 46, figs. 20–21; Barker, p. 94, pl. 46, figs. 20–21; Jones, p. 51, pl. 46, figs. 20–21

***Cristellaria crepidula* (Fichtel & Moll, 1798)** by Brady [Brady used Fichtel & Moll, 1803], pp. 542–543, 761, pl. 67, figs. 17, 19–20, pl. 68, figs. 1–2
Ki Islands, Pacific 129 fm, pl. 67, fig. 17,
Azores, Atlantic 450 fm, pl. 67, fig. 19
West Indies 450 fm, pl. 67, fig. 20a
Bermuda, Atlantic 435 fm, pl. 67, fig. 20b
No locality given pl. 68, figs. 1–2
Astacolus crepidula (Fichtel & Moll, 1798) by Thalmann, 1933, p. 252, pl. 67, fig. 17, pl. 68, figs. 1–2; Barker, p. 142, pl. 68, figs. 1–2
Astacolus crepidulus (Fichtel & Moll, 1798) by Barker, p. 142, pl. 67, figs. 20a, 20b; Jones, p. 79, pl. 67, figs. 20a, 20b, pl. 68, figs. 1–2
Astacolus insolitus (Schwager, 1866) by Barker, p. 142, pl. 67, fig. 17; Jones, p. 79, pl. 67, fig. 17
Astacolus n. sp. aff. *Cristellaria crepidulus* (sensu Brady) non (Fichtel & Moll) by Thalmann, 1933 p. 252, pl. 67, fig. 19; Barker, p. 142, pl. 67, fig. 19
Astacolus sp. nov. by Jones, p. 79, pl. 67, fig. 19
Astacolus subarcuatulus (Williamson, 1858) by Thalmann, 1933, p. 252, pl. 67, fig. 20

***Cymbalopora bulloides* (d'Orbigny, 1839)** by Brady, pp. 638–640, 763, pl. 102, fig. 7–12
Pacific Ocean, surface, pl. 102, fig. 7
Honolulu, HI 40 fm, pl. 102, figs. 8–9
Bermuda, Atlantic 435 fm, pl. 102, figs. 10–11
Torres Strait, Pacific 155 fm, pl. 102, fig. 12
Cymbaloporetta atlantica (Cushman, 1934) by Jones, p. 102, pl. 102, figs. 10–11
Cymbaloporetta plana (Cushman, 1924) by Jones, p. 102, pl. 102, fig. 7, 8, 12
Millettiana millettii (Heron–Allen & Earland, 1915) by Jones, p. 102, pl. 102, fig. 9
Tretomphalus atlanticus Cushman, 1934 by Thalmann, 1937, p. 342, pl. 102, figs. 10–11; Barker, p. 210, pl. 102, figs. 10–11

Tretomphalus millettii (Heron–Allen & Earland, 1915) by Thalmann, 1937, p. 342, pl. 102, fig. 9; Barker, p. 210, pl. 102, fig. 9
Tretomphalus planus Cushman, 1924 by Thalmann, 1937, p. 342, pl. 102, figs. 7, (8, 12?); Barker, p. 210; pl. 102, fig. 7, 8, 12

***Cymbalopora poeyi* (d'Orbigny, 1839)** by Brady, p. 636–637, 763, pl. 102, fig. 13
Admiralty Islands, Pacific 17 fm, pl. 102, fig. 13
Cymbalopora squamosa (d'Orbigny, 1839) by Thalmann, 1933, p. 254, pl. 102, fig. 13
Cymbaloporetta squammosa (d'Orbigny, 1839) by Barker, p. 210, pl. 102, fig. 13; Jones, p. 102, pl. 102, fig. 13

***Cymbalopora tabellaeformis* Brady, 1884** by Brady, pp. 637–638, 763, pl. 102, figs. 15–18
Fiji, Pacific 210 fm, pl. 102, figs. 15, 18
Ki Islands, Pacific 129 fm, pl. 102, fig. 16
Philippines, Pacific 95–100 fm, pl. 102, fig. 17
Cymbaloporella tabellaeformis (Brady, 1884) by Thalmann, 1932, p. 310, pl. 102, figs. 15–18; Barker, p. 210, pl. 102, figs. 15–18; Jones, p. 102, pl. 102, figs. 15–18

***Discorbina patelliformis* Brady, 1884** by Brady, pp. 647–648, 763, pl. 88, fig. 3; pl. 89, fig. 1
Admiralty Islands, Pacific 17 fm, pl. 88, fig. 3
South of Papua, Pacific 6 fm, pl. 89, fig. 1
Conorbina patelliformis (Brady, 1884) by Thalmann, 1937, p. 342, pl. 88, fig, 3
Discorbis patelliformis (Brady, 1884) by Thalmann, 1932, p. 308, pl. 89, fig. 1
Glabratella patelliformis (Brady, 1884) by Jones, p. 94, pl. 88, fig. 3, pl. 89, fig. 1
Pileolina (?) *patelliformis* (Brady, 1884) by Barker, p. 182, pl. 88, fig. 3, pl. 89, fig. 1

***Discorbina rosacea* (d'Orbigny, 1826)** by Brady, pp. 644–645, 763, pl. 87, figs. 1, 4
Admiralty Islands, Pacific 16–25 fm, pl. 87, fig. 1
Bass Strait, Pacific 38–40 fm, pl. 87, fig. 4
Conorboides advena (Cushman, 1922) by Barker, p. 180, pl. 87, fig. 1
Discorbis advena Cushman, 1922) by Thalmann, 1932, p. 308, pl. 87, fig. 1
Discorbis rosacea (d'Orbigny, 1826) by Thalmann, 1932, p. 308, pl. 87, fig. 4
Discorbis sp. nov. by Barker, p. 180, pl. 87, fig. 4; Jones, p. 93–94, pl. 87, fig. 4
Strebloides advenus (Cushman, 1922) by Jones, p. 93, pl. 87, fig. 1

***Discorbina tabernacularis* Brady, 1881** by Brady, pp. 648, 763, pl. 89, figs. 5–7
South of Papua, Pacific 6 fm, pl. 89, figs. 5–6
Admiralty Islands, Pacific 17 fm, pl. 89, fig. 7
Discorbis tabernacularis (Brady, 1881) by Thalmann, 1932, p. 308, pl. 89, figs. 5–7
Glabratella tabernacularis (Brady, 1881) by Jones, p. 95, pl. 89, figs. 5–7
Pileolina (?) *tabernacularis* (Brady, 1881) by Barker, p. 184, pl. 89, figs. 5–7

***Frondicularia robusta* Brady, 1884** by Brady, pp. 523, 761, pl. 66, figs. 1–2
Ki Islands, Pacific 129 fm, pl. 66 fig. 1
Honolulu, HI, p. 761, pl. 66, fig. 2
Frondicularia robusta Brady, 1884 by Thalmann, 1932, p. 304, pl. 66, figs. 1–2; Barker, p. 138, pl. 66, figs. 1–2; Jones, p. 77, pl. 66, figs. 1–2

***Globigerina aequilateralis* Brady, 1879** by Brady, pp. 592, 605–606, 762, pl. 80, figs. 18–21

Bermuda, Atlantic 435 fm, pl. 80, fig. 18
North Pacific 1850 fm, pl. 80, fig. 19
Pacific, surface pl. 80, fig. 20
Locality not given pl. 80, fig. 21

Globigerinella aequilateralis (Brady, 1879) by Thalmann, 1932, p. 307, pl. 80, figs. 18–21; Jones, p. 89, pl. 80, figs. 18–21

Hastigerina aequilateralis (Brady, 1879) by Barker, p. 166, pl. 80, figs. 18–21

***Globigerina bulloides* d'Orbigny, 1826** by Brady, pp. 592, 593–595, 762, pl. 77, fig. 1; pl. 79, figs. 3–7

Locality not given pl. 77, fig. 1
Shetland 40–60 fm, pl. 79, figs. 3–5
Locality not given pl. 79, fig. 6
South of Japan 345 fm, pl. 79, fig. 7

Globigerina bulloides d'Orbigny, 1826 by Thalmann, 1932, p. 307, pl. 77, fig. 1; pl. 79, figs. 3–7; Barker, p. 160, pl. 77, fig. 1; pl. 79, figs. 3–7; Jones, p. 88, pl. 77, fig. 1; pl. 79, figs. 3–7

***Globigerina conglobata* Brady, 1879** by Brady, pp. 592, 603, 762, pl. 80, figs. 1–5; pl. 82, fig. 5

South Atlantic 1990 fm, pl. 80, figs. 1, 3
North Atlantic 2750 fm, pl. 80, fig. 2
NE of Australia surface pl. 80 fig. 4
Challenger sta. 224 1850 fm, pl. 80 fig. 5
No locality, surface pl. 82, fig. 5

Globigerinoides conglobata (Brady, 1879) by Barker, pp. 166, 170, pl. 80, figs. 1–5; pl. 82, fig. 5

Globigerinoides conglobatus (Brady, 1879) by Thalmann, 1932, p. 307, pl. 80, figs. 1–5, pl. 82, fig. 5; Jones, p. 89, 90, pl. 80, figs. 1–5; pl. 82, fig. 5

***Globigerina rubra* d'Orbigny, 1839** by Brady, pp. 592, 602–603, 762, pl. 79, figs. 11–16

South Atlantic 1990 fm, pl. 79, fig. 11
Ascension Island, South Atlantic 420 fm, pl. 79, fig. 12
South Atlantic 1990 fm, pl. 79, figs. 13–15
South Atlantic 2350 fm, pl. 79, fig. 16

Globigerina rubra d'Orbigny, 1839 by Thalmann, 1932, p. 307, pl. 79, figs. 11–16

Globigerinoides pyramidalis (van den Broeck, 1876) by Jones, p. 89, pl. 79, figs. 13–15

Globigerinoides ruber (d'Orbigny, 1839) by Jones, p. 89, pl. 79, figs. 11–12, 16

Globigerinoides rubra (d'Orbigny, 1839) by Barker, p. 164, pl. 79, figs. 11–16

***Gypsina globulus* (Reuss, 1848)** by Brady, p. 717 [not in table I], pl. 101, fig. 8

Honolulu, HI 40 fm, pl. 101 fig. 8 [in Nuttall, 1927]

Sphaerogypsina globulus (Reuss, 1848) by Thalmann, 1933, p. 254, pl. 101, fig. 8; Barker, p. 208, pl. 101, fig. 8; Jones, p. 102, pl. 101, fig. 8

***Gypsina vesicularis* (Parker & Jones, 1860)** by Brady, pp. 718, 764, pl. 101, figs. 9–12

Friendly Islands 18 fm, pl. 101 figs. 9–11
Wednesday Island, Pacific, pl. 101, fig. 12

Discogypsina vesicularis (Parker & Jones, 1860) by Jones, p. 102, pl. 101, figs. 9–12

Gypsina vesicularis (Parker & Jones, 1860) by Thalmann, 1932, p. 310, pl. 101, figs. 9–12; Barker, p. 208, pl. 101, figs. 9–12

***Haplophragmium canariense* (d'Orbigny, 1839)** by Brady, pp. 310, 758, pl. 35, figs. 1–5
South Atlantic 100–150 fm, pl. 35, fig. 1
Scotland, N. Atlantic 100–150 fm, pl. 35, figs. 2, 5
Prince Edward Island, S. Pacific 50–150 fm, pl. 35, fig. 3
Dogger Bank, North Sea 40–50 fm, pl. 35, fig. 4
Alveolophragmium crassimargo (Norman, 1892) by Barker, 1960 p. 72, pl. 35, fig. 4
Haplophragmoides canariensis (d'Orbigny, 1839) by Thalmann, 1932, p. 300, pl. 35, figs. 1–5; Barker, p. 72, pl. 35, figs. 1–3, 5
Veleroninoides crassimargo (Norman, 1892) by Jones, p. 41, pl. 35, fig. 4
Veleroninoides jeffreysii (Williamson, 1858) by Jones, p. 41, pl. 35, figs. 1–3, 5

***Heterostegina curva* Moebius, 1880** [not in Brady's index or text; only in plate caption]
Honolulu, HI 40 fm, pl. 112, figs. 19–20 [reported by Nuttall, 1927]
Heterostegina cf. curva Moebius, 1880 by Thalmann, 1932, p. 311, pl. 112, figs. 19–20; Barker, p. 232, pl. 112, figs. 19–20
Heterostegina curva Moebius, 1880 by Jones, p. 111, pl. 112, figs. 19–20

***Heterostegina depressa* d'Orbigny, 1826** by Brady, pp. 746, 764, pl. 112, figs. 14–18
Admiralty Islands, pl. 112, fig. 14
Honolulu, HI 40 fm, pl. 112, fig. 15
Friendly Islands, pl. 112, fig. 16
Tahiti, pl. 112, figs. 17–18
Heterostegina antillarum d'Orbigny, 1839 by Thalmann, 1932, p. 311, pl. 102, figs. 14–16
Heterostegina costata d'Orbigny, 1846 by Thalmann, 1932, p. 311, pl. 102, figs. 17–18
Heterostegina depressa d'Orbigny, 1826 by Barker, p. 232, pl. 112, fig. 14–16; Jones, p. 111, pl. 112, figs. 14–16, ?17–18
Heterostegina sp. juv. by Barker, p. 232, pl. 112, figs. 17–18

***Lagena globosa* (Montagu, 1803)** by Brady, pp . 444, 452–453, 760, pl. 56, figs. 1–3
North Pacific 1850 fm, pl. 56, fig. 1
Bass Strait, Pacific 38–40 fm, pl. 56, fig. 2
North Pacific 1375 fm, pl. 56, fig. 3
Lagena globosa (Montagu, 1803) by Thalmann, 1932, p. 303, pl. 56, figs. 1–3
Oolina globosa (Montagu, 1803) by Barker, p. 114, pl. 56, figs. 1–3; Jones, p. 61, pl. 56, figs. 1–3

***Lagena hexagona* (Williamson, 1848)** by Brady, pp. 446, 472, 760, pl. 58, fig. 32–33
Honolulu, HI 40 fm, pl. 58, fig. 32
South Pacific 2425 fm, pl. 58, fig. 33
Lagena hexagona (Williamson, 1848) by Thalmann, 1932, p. 303, pl. 58, figs. 32–33
Oolina hexagona (Williamson, 1848) by Barker, p. 120, pl. 58, figs. 32–33; Jones, p. 66, pl. 58, fig. 33
Oolina squamosa (Montagu, 1803) by Jones, p. 66, pl. 58, fig. 32

***Lagena marginata* (Walker & Boys, 1784)** by Brady, pp. 446, 476, 760, pl. 59, figs. 21–22
North of Juan Fernandez, E. Pacific 1375 fm, pl. 59, figs. 21–22
Fissurina submarginata (Boomgart, 1949) by Barker, p. 124, pl. 59, figs. 21–22; Jones, p. 68, pl. 59, figs. 21–22
Lagena marginata (Walker & Boys, 1784) by Thalmann, 1932, p. 303, pl. 59, figs. 21–22

***Lagena striata* (d'Orbigny, 1839)** by Brady, pp. 444, 460, 761, pl. 57, figs. 19, 22, 24, 28–30

Torres Strait, Pacific 155 fm, pl. 57, fig. 19
Papua, Pacific 37 fm, pl. 57, fig. 22
South of Japan, North Pacific 345 fm, pl. 57, fig. 24
South Pacific 2375 fm, pl. 57, fig. 28
South Atlantic 1990 fm, pl. 57, fig. 29
South Atlantic 2350 fm, pl. 57, fig. 30

Bifarilaminella advena (Cushman, 1923) by Jones, p. 65, pl. 57, figs. 29, 30
Lagena advena Cushman, 1923 by Thalmann, 1932, p. 303, pl. 57, figs. 29–30; Barker, p. 118, pl. 57, figs. 29–30
Lagena sp. by Jones, p. 64, pl. 57, fig. 28
Lagena striata (d'Orbigny, 1839) by Thalmann, 1932, p. 303, pl. 57, figs. 19, 22, 24, 28; Barker, p. 118, pl. 57, figs. 19, 22, 24, 28; Jones, p. 64, pl. 57, figs. 22, 24
Lagena substriata Williamson, 1848 by Jones, p. 64, pl. 57, fig. 19

***Lingulina carinata* d'Orbigny, 1826** by Brady, pp. 517, 761, pl. 65, figs. 16, 17

Ki Islands, Pacific 580 fm, pl. 65, fig. 16
Tristan d'Acunha 100–150 fm, pl. 65, fig. 17

Frondicularia bradii (Silvestri, 1903) by Barker, p. 138, pl. 65, fig. 16; Jones, p. 77, pl. 65, fig. 16
Lingulina carinata d'Orbigny, 1826 by Thalmann, 1932, p. 304, pl. 65, fig. 17
Lingulina sp. nov. by Barker, p. 138, pl. 65, fig. 17; Jones, p. 77, pl. 65, fig. 17
Lingulonodosaria bradii Silvestri, 1903 by Thalmann, 1942, p. 464, pl. 65, fig. 16

***Miliolina alveoliniformis* Brady, 1879** by Brady, pp. 181–182, 756, pl. 8, figs. 15–20

Admiralty Islands, Pacific 16–25 fm, pl. 8, figs. 15–16
Honolulu, HI 40 fm, pl. 8, fig. 17
Tongatabu, Pacific 18 ft pl. 8, figs. 18–20

Schlumbergerina alveoliniformis (Brady, 1879) by Thalmann, 1932, p. 297, pl. 8, figs. 15–20; Barker, p. 16, pl. 8, figs. 15–20; Jones, p. 24, pl. 8, figs. 15–20

***Miliolina bicornis* (Walker & Boys, 1798)** by Brady [Brady used Walker & Boys, 1784], p. 171–173, 756, pl. 6, figs. 9, 11–12

Skye, N. Atlantic 45–60 fm, pl. 6, fig. 9
Skye, Scotland 45–60 fm, pl. 6, figs. 11–12

Adelosina bicornis (Walker & Jacob, 1798) emend. Haynes by Jones, p. 22, pl. 6, fig. 9
Adelosina intricata (Terquem, 1878) by Jones, p. 22, pl. 6, figs. 11–12
Quinqueloculina bicornis (Walker & Boys, 1798) by Thalmann, 1932 [Thalmann used Walker & Boys, 1784], p. 296, pl. 6, fig. 9; Barker, p. 12, pl. 6, fig. 9
Quinqueloculina intricata Terquem, 1878 by Thalmann, 1932, p. 296, pl. 6, figs. 11–12; Barker, p. 12, pl. 6, figs. 11–12

***Miliolina cuvieriana* (d'Orbigny, 1839)** by Brady, pp. 162, 756, pl. 5, fig. 12

Japan, 15 fm, pl. 5, fig. 12

Quinqueloculina lamarckiana d'Orbigny, 1839 by Thalmann, 1932, p. 296, pl. 5, fig. 12; Barker, p. 10, pl. 5, fig. 12; Jones, pp. 21–22, pl. 5, fig. 12

***Miliolina ferussacii* (d'Orbigny, 1826)** by Brady, pp. 175–176, 756, pl. 113, fig. 17

Torres Strait, Pacific 155 fm, pl. 113, fig. 17

Adelosina sp. nov. by Jones, p. 112, pl. 113, fig. 17

Quinqueloculina ferussacii d'Orbigny, 1826 by Thalmann, 1932, p. 312, pl, 113, fig. 17
Quinqueloculina sp. nov. by Barker, p. 234, pl. 113, fig. 17

***Miliolina labiosa* (d'Orbigny, 1839)** by Brady, pp. 170, 756, pl. 6, figs. 3–5
Tristan d'Acunha, Atlantic 100–150 fm, pl. 6, figs. 3, 5
West of Patagonia, Pacific 345 fm, pl. 6, fig. 4
Flintinoides labiosa (d'Orbigny, 1839) by Jones, p. 22, pl. 6, figs. 3–5
Miliolinella labiosa (d'Orbigny, 1839) by Thalmann, 1937, p. 340, pl. 6, figs. 3–5; Barker, p. 12, pl. 6, figs. 3–5

***Miliolina linnaeana* (d'Orbigny, 1839)** by Brady, pp. 174–175, 756, pl. 6, figs. 15–20
Honolulu, HI 40 fm, pl. 6, figs. 15, 17, 19–20
Admiralty Islands, Pacific 16–25 fm, pl. 6, fig. 16
Booby Island, Pacific 8 fm, pl. 6, fig. 18
Adelosina granulocostata (Germeraad, 1946) by Jones, p. 23, pl. 6, figs. 15–20
Quinqueloculina granulocostata Germeraad, 1946 by Barker, p. 12, pl. 6, figs. 15–20
Quinqueloculina linnaeana d'Orbigny, 1839 by Thalmann, 1932, p. 296, pl. 6, figs. 15–20

***Miliolina macilenta* Brady, 1884** by Brady, pp. 167–168, 756, pl. 7, figs. 5–6
Admiralty Islands, Pacific 17 fm, pl. 7, figs. 5–6
Massilina macilenta (Brady, 1884) by Thalmann, 1932, p. 296, pl. 7, figs. 5–6
Pseudomassilina macilenta (Brady, 1884) by Barker, p. 14, pl. 7, figs. 5–6;; Jones, p. 23, pl. 7, figs. 5–6

***Miliolina oblonga* Montagu, 1803** by Brady, pp. 160, 756, pl. 5, fig. 4
Fiji, Pacific 610 fm, pl. 5, fig. 4
Miliolinella(?) *oblonga (*Montagu, 1803) by Barker, p. 10, pl. 5, fig. 4
Triloculina oblonga (Montagu, 1803) by Thalmann, 1932, p. 296, pl. 5, fig, 4
Triloculinella obliquinodus Riccio, 1950 by Jones, p. 21, pl. 5, fig. 4

***Miliolina parkeri* Brady, 1881** by Brady, pp. 177, 756, pl. 7, fig. 14
Honolulu, HI 40 fm, pl. 7, fig. 14
Quinqueloculina parkeri (Brady, 1881) by Thalmann, 1932, p, 296, pl. 7, fig. 14; Barker, p. 14, pl. 7, fig. 14; Jones, p. 23, pl. 7, fig. 14

***Miliolina reticulata* (d'Orbigny, 1826)** by Brady, pp. 177–178, 756, pl. 9, figs. 2–4
New Guinea, Pacific 28 fm, pl. 9, figs. 2–3
West Indies 390 fm, pl. 9, fig. 4
Adelosina reticulata (d'Orbigny, 1826) by Jones, p. 25, pl. 9, fig. 4
Quinqueloculina pseudoreticulata Parr, 1941 by Barker, p. 18, pl. 9, figs. 2–3; Jones, p. 25, pl. 9, figs. 2–3
Quinqueloculina reticulata (d'Orbigny, 1826) by Thalmann, 1932, p. 297, pl. 9, figs. 2–4; Barker, p. 18, pl. 9, fig. 4

***Miliolina secans* (d'Orbigny, 1826)** by Brady, pp. 167, 756, pl. 6, figs. 1–2
Booby Island, Torres Strait, Pacific 8 fm, pl. 6, figs. 1–2
Massilina secans d'Orbigny, 1826 by Thalmann, 1932, p. 296, pl. 6, figs. 1–2
Pseudomassilina australis (Cushman, 1932) by Barker, p. 12, pl. 6, figs. 1–2; Jones, p. 22, pl. 6, figs. 1–2

***Miliolina seminulum* (Linnaeus, 1758)** by Brady, pp. 157–160, 756, pl. 5, fig. 6
Scotland, N. Atlantic 45–60 & 630 fm, pl. 5, figs. 6a, 6b
Quinqueloculina akneriana d'Orbigny, 1846 by Thalmann, 1932, p. 296, pl. 5, fig. 6
Quinqueloculina seminulum (Linnaeus, 1758) by Barker, p. 10, pl. 5, fig. 6; Jones, p. 21 pl. 5, fig. 6

***Miliolina subrotunda* (Montagu, 1803)** by Brady, pp. 168, 757, pl. 5, figs. 10–11
Bass Strait, Pacific 38–40 fm, pl. 5, figs. 10–11
Miliolinella (?) *australis* (Parr, 1932) by Barker, p. 10, pl. 5, figs. 10–11
Quinqueloculina australis Parr, 1932 by Thalmann, 1932, p. 296 pl. 5, figs. 10–11
Sigmamiliolinella australis (Parr, 1932) by Jones, p. 21, pl. 5, figs. 10–11

***Miliolina trigonula* (Lamarck, 1804)** by Brady, pp. 164, 757, pl. 3, figs. 14–16
Azores, Atlantic 900 fm, pl. 3, fig. 14
Ireland, Atlantic 630 fm, 45–60 fm, pl. 3, figs. 15–16
Pyrgo lucernula (Schwager, 1866) by Barker, p. 6, pl. 3, fig. 14; Jones, p. 19, pl. 3, fig. 14
Triloculina trigonula (Lamarck, 1804) by Thalmann, 1932, p. 296, pl. 3, figs. 14–16; Barker, p. 6, pl. 3, figs. 15–16; Jones, p. 20, pl. 3, figs. 15–16

***Miliolina undosa* (Karrer, 1867)** by Brady, pp. 176–177, 757, pl. 6, figs. 6–8
Bass Strait, Pacific 38–40 fm, pl. 6, figs. 6–7
Honolulu, HI 40 fm, pl. 6, fig. 8
Adelosina pascuaensis Koutsoukos & Falcetta, 1987 var. by Jones, p. 22, pl. 6, fig. 8
Quinqueloculina bradyana Cushman, 1917 by Thalmann, 1932, p. 296, pl. 6, figs. 6–8; Barker, p. 12, pl. 6, figs. 6–8; Jones, p. 22, pl. 6, figs. 6–7

***Nodosaria proxima* Silvestri, 1872** by Brady, pp. 511, 761, pl. 64, fig. 15
Philippines, North Pacific 95–100 fm, pl. 64, fig. 15
Amphicoryna proxima (Silvestri, 1872) by Barker, p. 134, pl. 64, fig. 15; Jones, p. 76, pl. 64, fig. 15
Nodogenerina proxima (Silvestri, 1872) by Thalmann, 1937, p. 341, pl. 64, fig. 15

***Nonionina scapha* (Fichtel & Moll, 1803)** by Brady, pp. 730–731, 764, pl. 109, figs. 14–16
Patagonia, E. Pacific 345 fm, pl. 109, figs. 14–15
Papua, Pacific 37 fm, pl. 109, fig. 16
Nonion commune (d'Orbigny, 1846) by Jones, p. 108, pl. 109, figs. 14–15
Nonion scapha (Fichtel & Moll, 1803) by Thalmann, 1932, p. 311, pl. 109, fig14–15
Nonion scapha bradii Chapman, 1917 by Thalmann, 1937, p. 342, pl. 109, fig. 16
Nonion scaphum (Fichtel & Moll, 1803) by Barker, p. 224, pl. 109, figs. 14–15
Nonionella bradii (Chapman, 1917) by Barker, p. 224, pl. 109, fig. 16; Jones, p. 108, pl. 109, fig. 16

***Nubecularia inflata* Brady, 1884** by Brady, pp. 135, 756, pl. 1, figs. 5–8
Honolulu, HI 40 fm, pl. 1, figs. 5–8
Parrina bradyi (Millett, 1898) by Barker, p. 2, pl. 1, figs. 5–6; Jones, p. 17, pl. 1, figs. 5–8
Parrina bradyi fistulata Rhumbler, 1937 by Thalmann, 1937, p. 340, pl. 1, figs. 5–6
Parrina bradyi sufflata Rhumbler, 1937 by Thalmann, 1937, p. 340, pl. 1, figs. 7–8; Barker, p. 2, pl. 1, figs. 7–8

***Operculina complanata* (Defrance, 1822)** by Brady, pp. 743, 764, pl. 112, figs. 3–5, 8
Amboyna, Pacific 15–20 fm, pl. 112, figs. 3, 8
Admiralty Islands, Pacific 16–25 fm, pl. 112, fig. 4
Friendly Islands, Pacific 18 fm, pl. 112, fig. 5
Operculina ammonoides (Gronovius, 1781)? by Barker, p. 230, pl. 112, figs. 3–5, 8
Operculina complanata (Defrance, 1822) by Thalmann, 1932, p. 311, pl. 112, figs. 3–5, 8; Jones, p. 110, pl. 112, figs. 3–5, 8

***Operculina complanata granulosa* (Leymerie, 1846)** by Brady, pp. 743–745, 764, pl. 112, figs. 6–7, 9–10
Amboyna, Pacific 15–20 fm, pl. 112, figs. 6–7
Flinders Passage, Pacific 7–8 fm, pl. 112, fig. 9
Admiralty Islands, Pacific 16–25 fm, pl. 112, fig. 10
Operculina ammonoides (Gronovius, 1781)? by Barker, p. 230, pl. 112, figs. 6–7, 9
Operculina complanata (Defrance, 1822) by Thalmann, 1932, p. 311, pl. 112, figs. 6–7, 9–10; Jones, p. 110, pl. 112, figs. 6–7, 9
Operculina gaimardi d'Orbigny, 1826? by Barker, p. 230, pl. 112, fig. 10
Operculina gaimardi Deshayes, 1832 by Jones, p. 110, pl. 112, fig. 10

***Orbitolites complanata* Lamarck, 1801** by Brady, pp. 218–220, 757, pl. 16, figs. 1–6; irregular & monstrous specimens, pl. 17, figs. 1–6
Honolulu, HI 40 fm, pl. 16, figs. 1, 4
Loo Choo Islands, Formosa, Pacific pl. 16, figs. 2–3
Friendly Islands, Pacific 18 fm, pl. 16, figs. 5–6
Gulf of Suez 15–20 fm, pl. 17, figs. 1–6
Marginopora vertebralis Quoy & Gaimard, 1830 by Barker [Barker used Blainville, 1834], p. 32, pl. 16, figs. 1–6; pl. 17, figs. 1–6
Marginopora vertebralis Quoy & Gaimard, 1830 by Jones, p. 30, pl. 16, figs. 1–6;, pl. 17, figs. 1–6
Orbitolites complanatus (Lamarck, 1801) by Thalmann, 1932, p. 298, pl. 16, figs. 1–4
Orbitolites duplex Carpenter, 1883 by Thalmann, 1932, p. 298, pl. 16, figs. 5–6; Thalmann, 1933, p. 251, pl. 17 figs. 1–6

***Orbitolites marginalis* Lamarck, 1816** by Brady, pp. 214–215, 757, pl. 15, figs. 1–5
Honolulu, HI 40 fm, pl. 15, figs. 1–3
Bermuda, Atlantic 435 fm, pl. 15, fig. 4
Fiji, Pacific 12 fm, pl. 15, fig. 5.
Parasorites marginalis (Lamarck, 1816) by Jones, p. 30, pl. 15, figs. 1–3, 5
Praesorites orbitolitoides Hofker, 1930 by Thalmann, 1932, p. 298, pl. 15, figs. 1–5; Barker, p. 30, pl. 15, fig. 4; Jones, p. 30, pl. 15, fig. 4
Sorites marginalis (Lamarck, 1816) by Barker, p. 30, pl. 15, figs. 1–3, 5

***Orbulina universa* d'Orbigny, 1839** by Brady, pp. 608–611, 762, pl. 78, pl. 81, figs. 8–26, pl. 82, figs. 1–3
Locality not given pl. 78 (only 1 unnumbered fig.)
North Pacific 2050 fm, pl. 81, fig. 8
West Indies 390 fm, pl. 81, fig. 9
Durham, England 40–48 fm, pl. 81, fig. 10
Shetland. 50–60 fm, pl. 81, fig. 11
Locality not given pl. 81, figs. 12–19, 22–25
South of Ireland 725 fm, pl. 81, fig. 20

Azores, Atlantic 1000 fm, pl. 81, fig. 21
Patagonia, Pacific 1450 fm, pl. 81, fig. 26
Locality not given pl. 82, fig. 1
Pernambuco, Atlantic 675 fm, pl. 82, fig. 2
New Zealand 275 fm, pl. 82, fig. 3

Orbulina universa d'Orbigny, 1839 by Thalmann, 1932, p. 307, pl. 78, pl. 81, figs. 8–26, pl. 82, figs. 1–3; Barker, pp. 162, 168, 170, pl. 78, pl. 81, figs. 8–26; pl. 82, figs. 1–3; Jones, p. 88, 90, pl. 78, pl. 81, figs. 8–26, pl. 82, figs. 1–3

***Pavonina flabelliformis* d'Orbigny, 1826** by Brady, pp. 374–375, 759, pl. 45, figs. 17–21

Honolulu, HI 40 fm, pl. 45, fig. 17
West Indies 390 fm, pl. 45, fig. 18
Madagascar, Indian Ocean pl. 45, figs. 19–20
Calpentyn, Ceylon 2 fm, pl. 45, fig. 21

Pavonina atlantica Cushman, 1922 by Thalmann, 1932, p. 301, pl. 45, fig. 18; Barker, p. 92, pl. 45, fig. 18

Pavonina flabelliformis d'Orbigny, 1826 by Thalmann, 1932, p. 301, pl. 45, figs. 17, 19–21; Barker, p. 92, pl. 45, figs. 17, 19–21; Jones, p. 50, pl. 45, figs. 17–21

***Peneroplis pertusus pertusus* (Forsskål, 1775)** by Brady, pp. 204, 757, pl. 13, figs. 16–17, 23

Torres Strait, Pacific 3–11 fm, pl. 13, fig. 16
Admiralty Islands, Pacific 16–25 fm, pl. 13, fig. 17
No locality given pl. 13, fig. 23

Peneroplis pertusus (Forsskål, 1775) by Thalmann, 1932, p. 298, pl. 13, figs. 16–17, 23; Barker, p. 26, pl. 13, fig. 16–17, 23; Jones, p. 29, pl. 13, fig. 16–17, 23

***Peneroplis pertusus arietinus* (Batsch, 1791)** by Brady, p. 204 [subspecies not shown in Table 1], pl. 13, figs. 18–19, 22

Admiralty Islands, Pacific 16–25 fm, pl. 13, fig. 18–19
Aegean Sea, Mediterranean pl. 13, fig. 22

Coscinospira arietina (Batsch, 1791) by Jones, p. 29, pl. 13, fig. 18–19, 22

Spirolina arietina (Batsch, 1791) by Thalmann, 1932, p. 298, pl. 13, figs. 18–19, 22; Barker, p. 26, pl. 13, fig. 18–19, 22

***Peneroplis pertusus carinatus* d'Orbigny, 1839** by Brady, p. 205 [subspecies not shown in Table 1], pl. 13, fig. 14

Cape Verde Islands, Atlantic 11 fm, pl. 13, fig. 14

Peneroplis carinatus d'Orbigny, 1839 by Thalmann, 1932, p. 298, pl. 13, fig. 14; Barker, p. 26, pl. 13, fig. 14; Jones, p. 29, pl. 13, fig. 14

***Peneroplis pertusus cylindraceus* (Lamarck, 1804)** by Brady, p. 205 [subspecies not shown in Table 1], pl. 13, figs. 20–21.

Fiji, Pacific 12 fm, pl. 13, figs. 20–21

Peneroplis cylindraceus (Lamarck, 1804) by Thalmann, 1932, p. 298, pl. 13, figs. 20–21

Spirolina acicularis (Batsch, 1791) by Barker, p. 26, pl. 13, figs. 20–21

Spirolina cylindracea (Lamarck, 1804) by Jones, p. 29, pl. 13, figs. 20–21

***Peneroplis pertusus laevigata* Karrer, 1868** by Brady, p. 205 [subspecies not shown in Table 1], pl. 13, figs. 12–13

Bermuda, Atlantic 435 fm, pl. 13, figs. 12–13

Peneroplis bradyi Cushman, 1930 by Jones, p. 28, pl. 13, figs. 12–13
Peneroplis pertusus (Forsskål, 1775) by Thalmann, 1932, p. 298, pl. 13, figs. 12–13
Puteolina bradyi (Cushman, 1930) by Barker, p. 26, pl. 13, figs. 12–13

***Peneroplis pertusus lituus* (Linnaeus & Gmelin, 1788)** by Brady, p. 205 [subspecies not shown in Table 1], pl. 13, figs. 24–25
Cape Verde Islands, Atlantic 11 fm, pl. 13, figs. 24–25
Monalysidium politum Chapman, 1900 by Thalmann, 1932, p. 298, pl. 13, figs. 24, (?)25; Barker, p. 26, pl. 13, figs. 24–25; Jones, p. 29, pl. 13, figs. 24–25

***Peneroplis pertusus planatus* (Fichtel & Moll, 1798)** by Brady, p. 204 [subspecies not shown in Table 1], pl. 13, fig. 15
Admiralty Islands, Pacific 16–25 fm, pl. 13, fig. 15
Peneroplis planatus (Fichtel & Moll, 1798) by Thalmann, 1932, p. 298, pl. 13, fig. 15; Barker, p. 26, pl. 13, fig. 15; Jones, p. 29, pl. 13, fig. 15

***Planorbulina larvata* Parker & Jones, 1860** by Brady, pp. 658, 763, pl. 92, figs. 5–6
Friendly Islands, Pacific 18 fm, pl. 92, figs. 5–6
Planorbulinella larvata (Parker & Jones, 1860) by Thalmann, 1932, p. 309, pl. 92, figs. 5–6; Barker, p. 190, pl. 92, figs. 5–6; Jones, p. 97, pl. 92, figs. 5–6

***Polymorphina regina* Brady, Parker & Jones, 1870** by Brady, pp. 571, 762, pl. 73, figs. 11–13
Port Jackson, Australia 6 fm, pl. 73, figs. 11–12
Torres Strait, Pacific 155 fm, pl. 73, fig. 13
Globulina regina (Brady, Parker & Jones, 1870) by Jones, p. 85, pl. 73, figs. 11–13
Guttulina regina (Brady, Parker, & Jones, 1870) by Thalmann, 1933, p. 253, pl. 73, figs. 11–13; Barker, p. 152, pl. 73, figs. 11–13

***Polystomella craticulata* (Fichtel & Moll, 1798)** by Brady, pp. 739, 764, pl. 110, figs. 16–17
Admiralty Islands, Pacific 16–25 fm, pl. 110, figs. 16–17
Cellanthus craticulatus (Fichtel & Moll, 1798) by Jones, p. 109, pl. 110, figs. 16–17
Elphidium craticulatum (Fichtel & Moll, 1798) by Thalmann, 1932, p. 311, pl. 110, figs. 16–17; Barker, p. 228, pl. 110, figs. 16–17

***Polystomella striatopunctata* (Fichtel & Moll, 1803)** by Brady, pp. 733–734, 764, pl. 109, figs. 22–23
West Indies 390 fm, pl. 109, fig. 22a
Falkland Islands, S. Atlantic 6 fm, pl. 109, fig. 22b
North Atlantic 1350 fm, pl. 109, fig. 23
Cribrononion incertum (Williamson, 1858) by Jones, p. 108, pl. 109, fig. 23
Cribrononion kerguelenense (Parr, 1950) by Jones, p. 108, pl. 109, fig. 22a, 22b
Elphidium angulatum (Egger, 1857) by Thalmann, 1932, p. 311, pl. 109, fig. 23
Elphidium incertum (Williamson, 1858)? by Barker, p. 226, pl. 109, fig. 23
Elphidium cf. *kerguelenense* (Parr, 1950)? by Barker, p. 226, pl. 109, fig. 22b
Elphidium subgranulosum Asano, 1938 by Thalmann, 1942, p. 464, pl. 109, fig. 22
Elphidiononion poeyanum (d'Orbigny, 1839) by Barker, p. 226, pl. 109, fig. 22a

***Polytrema miniaceum* (Linnaeus, 1788)** by Brady [*Polytrema* is a bryozoan and Pallas named *Millepora miniacea* in 1766], pp. 721, 764, pl. 100, figs. 5–9; pl. 101, fig. 1

Admiralty Islands, Pacific 17 fm; 16–25 fm, pl. 100, figs. 5, 8
Friendly Islands, Pacific 18 fm, pl. 100, figs. 6–7
Bermuda, Atlantic 435 fm, pl. 100, fig. 9
No locality given pl. 101, fig. 1.

Miniacina miniacea (Pallas, 1766) by Thalmann, 1933, p. 254, pl. 100, figs. 5–9, pl. 101, fig. 1; Barker, p. 206, pl. 100, figs. 5–9; pl. 101, fig. 1; Jones, p. 101, pl. 100, figs. 5–9; pl. 101, fig. 1

***Pulvinulina menardii* (d'Orbigny, 1826)** by Brady, pp. 627, 690–691, 764, pl. 103, figs. 1–2

North Pacific 1850 fm, pl. 103, figs. 1–2

Globorotalia menardii (d'Orbigny, 1826) by Thalmann, 1932, p. 310, pl. 103, figs. 1–2; Barker, p. 212, pl. 103, figs. 1–2

Globorotalia (*Menardella*) *menardii* (sensu Parker, Jones, & Brady, 1865, not d'Orbigny, 1826) by Jones, p. 103, pl. 103, figs. 1–2

***Pulvinulina repanda* Fichtel & Moll, 1803** by Brady, pp. 627, 684–785, 764, pl. 104, fig. 18

Spain, Atlantic 11 fm, pl. 104, fig. 18

Cribroeponides cribrorepandus (Asano & Uchio, 1951) by Jones, p. 104, pl. 104, fig. 18

Eponides repandus (Fichtel & Moll, 1803) by Thalmann, 1932, p. 310, pl. 104, fig. 18; Barker, p. 214, pl. 104, fig. 18

***Reophax dentaliniformis* Brady, 1881** by Brady, pp. 293, 757, pl. 30, figs. 21–22

Juan Fernandez, E. Pacific 1375 fm, pl. 30, fig. 21
Ireland, N. Atlantic 630 fm, pl. 30, fig. 22

Reophax dentaliniformis Brady, 1881 by Jones, p. 37, pl. 30, figs. 21–22

Reophax scorpiurus (Montfort, 1808) by Thalmann, 1932, p. 299, pl. 30, figs. 21–22

Rheophax dentaliniformis Brady, 1881 by Barker, p. 62, pl. 30, figs. 21–22

***Reophax scorpiurus* Montfort, 1808** by Brady, pp. 291–292, 758, pl. 30, figs. 12–17

Scotland, N. Atlantic pl. 30, fig. 12
No locality given pl. 30, fig. 13
S. Atlantic 1900 fm, pl. 30, fig. 14
Honolulu, HI 40 fm, pl. 30, fig. 15
Torres Strait, Pacific 155 fm, pl. 30, figs. 16–17

Reophax agglutinatus Cushman, 1913 by Thalmann, 1932, p. 288, pl. 30, fig. 14; Barker, p. 62, pl. 30, fig. 13; Jones, p. 37, pl. 30, fig. 13

Reophax bradyi Brönnimann & Whittaker, 1980 by Jones, p. 37, pl. 30, fig. 12

Reophax scorpiurus Montfort, 1808 by Thalmann, 1932, p. 299, pl. 30, figs. 12–13, 15–17; Barker, p. 62, pl. 30, figs. 12, 14–17

Reophax sp. nov. (1) by Jones, p. 37, pl. 30, fig. 14

Reophax sp. nov. (2) by Jones, p. 37, pl. 30, fig. 15–17

***Rotalia beccarii* (Linnaeus, 1767)** by Brady, pp. 627, 704–705, 764, pl. 107, figs. 2–3

Booby Island, Torres Strait, Pacific 8 fm, pl. 107, fig. 2
No locality given pl. 107, fig. 3

Challengerella bradyi Billman, Hottinger, & Oesterle, 1980 by Jones, p. 106, pl. 107, fig. 2

Rotalia beccarii (Linnaeus, 1767) by Thalmann, 1932, p. 311, pl. 107, figs. 2–3

Rotalinoides compressiusculus (Brady, 1884) by Jones, p. 106, pl. 107, fig. 3
Streblus beccarii koeboeensis (LeRoy, 1944) by Barker, p. 220, pl. 107, fig. 2
Streblus cf. *catesbyanus* (d'Orbigny, 1839) by Barker, p. 220, pl. 107, fig. 3

***Sagrina annulata* Brady, 1884** by Brady, pp. 586, 762, pl. 76, figs. 20–21
Honolulu, HI 40 fm, pl. 76, figs. 20–21
Glandulonodosaria annulata (Brady, 1884) by Jones, p. 88, pl. 76, figs. 20–21
Siphogenerina(?) *annulata* (Brady, 1884) by Thalmann, 1932, p. 307, pl. 76, figs. 20–21; Barker, p. 158, pl. 76, figs. 20–21

***Sagrina raphanus* Parker & Jones, 1865** by Brady, pp. 585, 762, pl. 75, figs. 21–24
Bass Strait, Pacific 38–40 fm, pl. 75, fig. 21
Admiralty Islands, Pacific 16–25 fm, pl. 75, fig. 22
No locality given pl. 75, fig. 23a
Philippines, Pacific 95–100 fm, pl. 75, fig. 23b.
Tahiti, Pacific 420 fm, pl. 75, fig. 24
Siphogenerina indica Leroy, 1941 by Jones, p. 87, pl. 75, figs. 23–24
Siphogenerina raphanus (Parker & Jones, 1865) by Thalmann, 1932, p. 307, pl. 75, figs. 21–24; Barker, p. 156, pl. 75, fig. 21–24; Jones, p. 87, pl. 75, figs. 21–22

***Spirillina inaequalis* Brady, 1879** by Brady, pp. 631, 763, pl. 85, figs. 8–11
Honolulu, HI 40 fm, pl. 85, figs. 8, 10
Admiralty Islands, Pacific 17 fm, pl. 85, figs. 9, 11
Spirillina inaequalis Brady, 1879 by Thalmann, 1932, p. 308, pl. 85, figs. 8–11; Barker, p. 176, pl. 85, figs. 8–11; Jones, p. 92, pl. 85, figs. 8–11

***Spirillina tuberculata* Brady, 1878** by Brady, pp. 631–632, 763, pl. 85, figs. 12–16
Kerguelen Islands, S. Pacific 20–60 fm, pl. 85, figs. 12–16
Spirillina tuberculata Brady, 1878 by Thalmann, 1932, p. 308, pl. 85, figs. 12–16; Barker, p. 176, pl. 85, figs. 12–16; Jones, p. 92, pl. 85, figs. 12–16

***Spirillina vivipara* Ehrenberg, 1841** by Brady, pp. 630, 763, pl. 85, figs. 1–5
Prince Edward Island, S. Pacific 50–150 fm, pl. 85, fig. 1
Honolulu, HI 40 fm, pl. 85, fig. 2a
Kerguelen Islands, S. Pacific 120 fm, pl. 85, fig. 2b
Admiralty Islands, Pacific 17 fm, pl. 85, fig. 3
Tahiti, Pacific 620 fm, pl. 85, fig. 4
Admiralty Islands, Pacific 17 fm, pl. 85, fig. 5
Mychostomina revertens (Rhumbler, 1906) by Jones, p. 92, pl. 85, fig. 5
Spirillina vivipara Ehrenberg, 1841 by Thalmann, 1932, p. 308, pl. 85, figs. 1–4; Barker, p. 176, pl. 85, fig. 1–4; Jones, p. 92, pl. 85, figs. 1–4
Spirillina vivipara revertens Rhumbler, 1906 by Thalmann, 1932, p. 308, pl. 85, fig. 5; Barker, p. 176, pl. 85, fig. 5

***Spiroloculina convexiuscula* Brady, 1884** by Brady, pp. 155–156, 756, pl. 10, figs.18–20
Torres Strait, Pacific 155 fm, pl. 10, figs. 18–20
Nodobaculariella convexiuscula (Brady, 1884) by Barker, p. 20, pl.10, figs.18–20; Jones, p. 26, pl.10, figs.18–20
Quinqueloculina convexiuscula (Brady, 1884) by Thalmann, 1932, p. 297, pl. 10, figs. 18–20

***Spiroloculina crenata* Karrer, 1868** by Brady, pp. 156, 756, pl. 10, figs. 24–26
Admiralty Islands, Pacific 16–25 fm, pl. 10, fig. 24
Honolulu, HI 40 fm, pl. 10, figs. 25–26
Hauerina speciosa (Karrer, 1868) by Barker, p. 20, pl. 10, figs. 24–26
Massilina crenata (Karrer, 1868) by Thalmann, 1932, p. 297, pl. 10, figs. 24–26
Spirosigmoilina bradyi Collins, 1958 by Jones, p. 26, pl. 10, figs. 24–26

***Spiroloculina excavata* d'Orbigny, 1846** by Brady, pp. 151, 756, pl. 9, figs. 5–6
Admiralty Islands, Pacific 16–25 fm, pl. 9, figs. 5–6
Spiroloculina communis Cushman & Todd, 1944 by Barker, p. 18, pl. 9, figs. 5–6; Jones, p. 25, pl. 9, figs. 5–6
Spiroloculina grateloupi d'Orbigny, 1846 by Thalmann, 1932, p. 297, pl. 9, figs. 5–6

***Spiroloculina grata* Terquem, 1878** by Brady, pp. 155, 756, pl. 10, figs. 16–17, 22–23
Friendly Islands, Pacific 16–25 fm, pl. 10, fig. 16
Admiralty Islands, Pacific 16–25 fm, pl. 10, fig. 17
Port Jackson, Australia pl. 10 fig. 22
Booby Island, Torres Strait, Pacific 8 fm, pl. 10 fig. 23
Spiroloculina angulata Cushman, 1917 by Barker, p. 20, pl. 10, figs. 16–17, 22–23; Jones, p. 26, pl. 10, figs. 16–17, 22–23
Spiroloculina antillarum angulata Cushman, 1917 by Thalmann, 1932, p. 297, pl. 10, figs. 22–23
Spiroloculina grata Terquem, 1878 by Thalmann, 1932, p. 297, pl. 10, figs. 16–17

***Spiroloculina nitida* d'Orbigny, 1826** by Brady, pp. 149, 756, pl. 9, figs. 9–10
Japan, Pacific 15 fm, pl. 9, fig. 9
Torres Strait, Pacific 8 fm, pl. 9, fig. 10
Massilina carinata (Fornasini, 1903) by Jones, p. 25, pl. 9, figs. 9–10
Massilina milletti (Wiesner, 1912) by Barker, p. 18, pl. 9, figs. 9–10
Spiroloculina milletti Wiesner, 1912 by Thalmann, 1932, p. 297, pl. 9, figs. 9–10

***Spiroloculina planulata* (Lamarck, 1805)** by Brady, pp. 148–149, 756, pl. 9, fig. 11
Skye, Scotland 45–60 fm, pl. 9, fig. 11
Spiroloculina henbesti Thalmann, 1955 by Barker [Barker used Petri], p. 18, pl. 9, fig. 11
Spiroloculina henbesti Thalmann, 1955 by Jones, p. 25, pl. 9, fig. 11
Spiroloculina planulata (Lamarck, 1805) by Thalmann, 1932, p. 297, pl. 9, fig. 11

***Textularia folium* Parker & Jones, 1865** by Brady, pp. 357, 758, pl. 42, figs. 1–5
Bass Strait, Pacific 38–40 fm, pl. 42, fig. 1–2
Fiji, Pacific 235 fm, pl. 42, fig. 3
Torres Strait, Pacific 155 fm, pl. 42, fig. 4
Torres Strait, Pacific 155 fm, pl. 42, fig. 5
Bolivinella elegans Parr, 1932 by Thalmann, 1932, p. 300, pl. 42, figs. 3–5;
Bolivinella folia (Parker & Jones, 1865) by Jones, p. 46, pl. 42, figs. 1–2
Bolivinella folium (Parker & Jones, 1865) by Thalmann, 1932, p. 300, pl. 42, figs. 1–2; Barker, p. 86, pl. 42, figs. 1–2
Bolivinella philippinensis McCulloch, 1977 by Jones, p. 46, pl. 42, figs. 3, 5

***Textularia gramen* d'Orbigny, 1846** by Brady, pp. 365, 759, pl. 43, figs. 9–10
Bass Strait, Pacific 38–40 fm, pl. 43, fig. 9
Honolulu, HI 40 fm, pl. 43, fig. 10
Textularia gramen d'Orbigny, 1846 by Thalmann, 1932, p. 301, pl. 43, figs. 9–10

Textularia pseudogramen Chapman & Parr, 1937 by Barker, p. 88, pl. 43, figs. 9–10 ; Jones, p. 48, pl. 43, figs. 9–10

***Textularia siphonifera* Brady, 1881** by Brady, pp. 362, 759, pl. 42, figs. 25–29
Honolulu, HI 40 fm, pl. 42, figs. 25, 28a, 29
Admiralty Islands, Pacific 16–25 fm, 17 fm, pl. 42, fig. 26, 27, 28b
Gaudryina siphonifera (Brady, 1881) by Thalmann, 1932, p. 300, pl. 42, figs. 25–29
Gaudryina (Siphogaudryina) siphonifera (Brady, 1881) by Barker, p. 86, pl. 42, figs. 25–29
Siphoniferoides siphoniferus (Brady, 1881) by Jones, p. 47, pl. 42, figs. 25–29

***Truncatulina echinata* Brady, 1879** by Brady, pp. 670–671, 763, pl. 96, figs. 9–14
Torres Strait, Pacific 155 fm, pl. 96, fig. 9
Honolulu, HI 40 fm, pl. 96, figs. 10, 13–14
Admiralty Islands, Pacific 17 fm, pl. 96, figs. 11–12
Siphoninoides echinata (Brady, 1879) by Barker, p. 198, pl. 96, figs. 9–14
Siphoninoides echinatus (Brady, 1879) by Thalmann, 1932, p. 309, pl. 96, figs. 9–14; Jones, p. 100, pl. 96, figs. 9–14

***Truncatulina lobatula* (Walker & Jacob, 1798)** by Brady, pp. 627, 660–661, 763, pl. 92, fig. 10; pl. 93, figs. 1, 4–5, pl. 115, figs. 4–5
Friendly Islands, Pacific 18 fm, pl. 92, fig. 10
Vigo Harbor, Spain, Atlantic 11 fm, pl. 93, fig. 1
North Pacific 2050 fm, pl. 93, fig. 4
Juan Fernandez, Pacific 1375 fm, pl. 93, fig. 5
Cibicides lobatulus (Walker & Jacob, 1798) by Thalmann, 1932, p. 309, pl. 92, fig. 10, pl. 93, figs. 1, 4–5, p. 312, pl. 115, figs. (?)4–5; Barker, p. 190, 192, 238, pl. 92, fig. 10; pl. 93, figs. 1, 4–5, pl. 115, figs. 4–5; Jones, p. 97, 114, pl. 92, fig. 10; pl. 93, figs. 1, 4–5, pl. 115, figs. 4–5

***Truncatulina variabilis* d'Orbigny, 1826** by Brady, pp. 661–662, 763, pl. 93, figs. 6–7
New Zealand 275 fm, pl. 93, fig. 6
West coast of Patagonia 120 fm, pl. 93, fig. 7
Dyocibicides biserialis Cushman & Valentine, 1930 by Thalmann, 1932, p. 309, pl. 93, fig. 6; Barker, p. 192, pl. 93, fig. 6; Jones, p. 97, pl. 93, fig. 6
Dyocibicides uniserialis Thalmann, 1933 by Thalmann, 1933, p. 254, pl. 93, fig. 7; Barker, p. 192, pl. 93, fig. 7
Karreria uniserialis (Thalmann, 1933) by Jones, p. 97, pl. 93, fig. 7

***Uvigerina asperula* Czjzek, 1847** by Brady, pp. 578–579, 762, pl. 75, figs. 6–8
Ki Islands, Pacific 580 fm, pl. 75, fig. 6–7
South Atlantic 1900 fm, pl. 75, fig. 8
Uvigerina asperula Czjzek, 1847 by Thalmann, 1932, p. 307, pl. 75, figs. 6–8; Barker, p. 156, pl. 75, figs. 6–8
Uvigerina auberiana d'Orbigny, 1839 by Jones, p. 86, pl. 75, figs. 6–8

***Uvigerina pygmaea* d'Orbigny, 1826** by Brady, pp. 575, 762, pl. 74, figs. 11–12; elongate var. figs. 13–14
West Indies 390 fm, pl. 74, figs. 11–12
South of Japan 345 fm, pl. 74, figs. 13–14
Euuvigerina peregrina (Cushman, 1923) by Barker, p. 154, pl. 74, figs. 11–12
Uvigerina bifurcata d'Orbigny, 1839 by Thalmann, 1932, p. 306, pl. 74, figs. 13–14; Barker, p. 154, pl. 74, figs. 13–14; Jones, p. 86, pl. 74, figs. 13–14

Uvigerina mediterranea Hofker, 1932 by Thalmann, 1932, p. 306, pl. 74, figs. 11–12; Jones, p. 86, pl. 74, figs. 11–12

***Verneuilina spinulosa* Reuss, 1850** by Brady [date incorrectly cited as "1849" by Brady], pp. 384, 759, pl. 47, figs. 1–3
Admiralty Islands, Pacific 17 fm, pl. 47, fig. 1
Papua, Pacific 37 fm, pl. 47, figs. 2–3
Reussella aculeata Cushman, 1945 by Barker, p. 96, pl. 47, figs. 2?, 3
Reussella simplex (Cushman, 1929)? by Barker, p. 96, pl. 47, figs. 1
Reussella spinulosa (Reuss, 1850) by Thalmann, 1933, p. 252, pl. 47, figs. 1–3; Jones, p. 51, pl. 47, figs. 1–3

***Vertebralina striata* d'Orbigny, 1826** by Brady, pp. 187, 757, pl. 12, figs. 14–16
New Guinea, Pacific 6 fm, pl. 12, fig. 14
Torres Strait, Pacific pl. 12, figs. 15–16
Vertebralina striata d'Orbigny, 1826 by Thalmann, 1932, p. 297, pl. 12, figs. 14–16; Barker, p. 24, pl. 12, figs. 14–16; Jones, p. 28, pl. 12, figs. 14–16

GEOGRAPHIC NOTE

According to Nuttall, 1927 or Jones, 1994 the locality for plate 6, fig. 4 was from west of Patagonia; and plate 81, fig. 26; plate 93, fig. 7; and plate 109, figs. 14, 15 was from the west coast of Patagonia. At the time of the *Challenger* Expedition, Patagonia, which now is confined to Argentina, extended into Chile and reached the Pacific Ocean (Munro, 1988).

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LITERATURE CITED

Andrews, C.W. 1900. *A monograph on Christmas Island (Indian Ocean).* Physical features and geology with description of the fauna and flora by numerous contributors. Longmans & Co., W. Kegan Paul & Co, and British Museum (Natural History), London. xiii + 391 p., 21 illustrations.

Anonymous. 1965. Report of the Scientific Results of the Voyage of H.M.S. *Challenger* during the years 1873–76. Advertising brochure of Johnson Reprints. 12 p.

Barker, **R**.**W**. 1960. Taxonomic notes on the species figured by H. B. Brady in his Report on the Foraminifera dredged by H.M.S. *Challenger* during the years 1873–1876. *Society of Economic Paleontologists and Mineralogists, Special Publication* **9**, xxiv + 238 pp., 115 pls.

Brady, **H**.**B**. 1884. Report on the Foraminifera dredged by the H.M.S. *Challenger* during the years 1873–1876, Report of the scientific results of the voyage of H.M.S. *Challenger*, 1873–1876, Zoology 9:22, text vol. 1, xxi, 814 pp., vol. 2, 115 plates.

Buzas, **M**.**A**. 1995. Book Review: The *Challenger* Foraminifera by Robert Wynn Jones, Oxford University Press, New York, 1994. *Science* **268**: 268–269.

Crane, **W**. 1897. *Portraits of the contributors reproduced from the photographs presented by them to Sr. John Murray, Naturalist on the "*Challenger*" expedition and editor of the "*Challenger*" reports*. Dulau, London, 17 pp.

Jones, **R**.**W**. 1994. *The* Challenger *Foraminifera*. The Natural History Museum, London & Oxford University Press, Oxford. 149 pp, 115 pls., 4 pls. of "text figs," 2 supplementary pls.

Joysey, **K**.**A**. 1960. Note on the Brady Collection of Foraminifera. *Micropaleontology* **6**: 416.

Linklater, **E**. 1972. *The voyage of the* Challenger. Doubleday & Co., New York. 288 pp., illustrated.

Munro, **D**. 1988. *Chambers world gazetteer: an A–Z of geographical information*. Fifth edition. Chambers, Ltd. & Cambridge University Press, Cambridge.

Moseley, **H**.**N**. 1892. *Notes by a naturalist, an account of observations made during the voyage of H.M.S. "*Challenger*" round the world in the years 1872–1876*. J. Murray, London. 540 pp., illustrated.

Murray, **J**. 1885. *Report of the scientific results of the voyage of H.M.S.* Challenger *during the years 1873–76.* Narrative vol. I. liv + 1110 pp.

———. 1895. *Summary of the scientific results obtained at the sounding, dredging, and trawling stations of H.M.S.* Challenger. Vol. 2. Pp. 797–1608.

———. 1897. On the distribution of the pelagic Foraminifera at the surface and on the floor of the ocean. *Natural Science* (Lond.) **11**: 17–27, 5 text figs.

———. **& A**. **Renard**. 1891. *Deep sea deposits: chemical analysis of mineral deposits, manganese nodules, phosphatic concretions, zeolite crystals, volcanic lapillae, glauconite, bones of cetaceans, teeth of sharks, etc*. Appendix III. 583 pp., 51 pls., 1 table, 43 maps.

Nuttall, **W**.**L**.**F**. 1927. The localities whence the Foraminifera figured in the Report of H.M.S. *Challenger* by Brady were derived. *Annals and Magazine of Natural History* (9) **14**: 209– 241.

———. 1931. Additional localities of the "*Challenger*" Foraminifera*. Contributions from the Cushman Foundation for Foraminiferal Research* 7: 46–47.

Thalmann, **H**.**E**. 1932. Nomenclator (Um- und Neubenungen) zu den Tafeln 1 bis 115 in Brady's Werk über die Foraminiferen der *Challenger*–Expedition, London 1884. *Eclogae Geologicae Helvetiae* **25**: 293–312.

———. 1933. Nachtrag zum Nomenclator zu Brady's Tafelband der Foraminiferen der "*Challenger*"–Expedition. *Eclogae Geologicae Helvetiae* **26**: 251–255.

———. 1937. Mittelungen über Foraminiferen III. Weitere Nomina Mutata in Brady's Werk über de Foraminiferen der "*Challenger*"-Expedition (1884), *Eclogae Geologicae Helvetiae* **30**: 340–342.

———. 1942. Nomina Bradyana mutata. *American Midland Naturalist* **28**(2): 463–464.

———. 1955. New names for foraminifer homonyms, III. *Contributions from the Cushman Foundation for Foraminiferal Research* 6: 82.

Williams, **M**. **& B**. **Macdonald**. 1985. *The Phosphateers: a history of the British Phosphate Commissioners and the British Phosphate Commission*. Melbourne University Press, Beaverton, Oregon. xviii + 586 pp., 40 pls., illustrations and index.