

relocation effort will be determined during the next reproductive season, which begins in March. If these males do not return to the Northwestern Hawaiian Islands at that time, then they will probably live out their lives as residents of the main Hawaiian Islands.

More details concerning these and other sightings are available via the Hawaii Natural Heritage Program's Natural Diversity Database, or from the National Marine Fisheries Service.

#### Reference

Tomich, P.Q. 1986. *Mammals in Hawai'i*. Second edition. Bishop Museum Press, Honolulu. 375 p.

### New Hawaiian Records of Sessile Foraminifera

B.L. BURCH and T.A. BURCH (Research Associates, Department of Natural Sciences, Bishop Museum, P.O. Box 19000-A, Honolulu, Hawaii 96817, USA)

New records are reported for sessile Foraminifera taken from sediment samples in the Hawaiian Archipelago by dredge or Peterson Grab from the NOAA National Marine Fisheries Service research vessel *Townsend Cromwell* from the island of Hawaii to Pearl and Hermes Reef, from dredge samples in the southern Hawaiian Islands from the Burch 32-foot steel salmon trawler, *Janthina VII*, or by scuba diving. *Miniacina miniacea* (Pallas, 1766) was the only species recorded throughout the Hawaiian Archipelago. Other species are newly reported from Oahu. These were *Discanomalina semipunctata* (Bailey, 1851) from 329 m off Waianae; *Ammolagena clavata* Jones & Parker, 1860, from 466 m off Kaneohe; *Sagenina divaricans* Cushman, 1910 and *Sagenina frondescens* (Brady, 1879) from 91 to 120 m off Oahu; and *Halyphysema tumanowiczii* Bowerbank, 1862. Newly reported form variations of *Biarrizina proteiformis* (Göes, 1882) and *Carpenteria monticularis* Carter, 1877 were found in range extensions from Oahu to Kahului, Maui in depths of 91 to 296 m.

#### *Ammolagena clavata* Jones & Parker, 1860

*Material examined.* BURCH-80064, 09/08/80, Kaneohe, Oahu [021°31.4'N, 157°45.9'W], mud [329 m], Acc. No. 1995.007, Cat. No. A293, 25 specimens.

#### *Biarrizina proteiformis* (Göes, 1882)

*Material examined.* BURCH-79030, 05/05/79, Mamala Bay, Oahu [021°16.9'N, 157°53.9'W], sand [119 m], Acc. No. 1995.007, Cat. No. A299, 8 specimens; BURCH-80068, 09/09/80, Mokapu Pt, Oahu [021°29.9'N, 157°41.8'W], sand, co-algae [= coralline algae] [110 m], Acc. No. 1995.007, Cat. No. A308, 63 specimens; BURCH-86011, 07/22/86, Haleiwa, Oahu [021°36.8'N, 158°11.6'W], sand, gravel [128 m], Acc. No. 1995.007, Cat. No. A315, 150 specimens.

#### *Calcituba polymorpha* von Roboz, 1884

*Material examined.* BURCH-86009, 07/01/86, Haleiwa, Oahu [021°36.8'N, 158°11.6'W], sand, coral [112 m], Acc. No. 1995.007, Cat. No. A295, 1 specimen.

***Carpenteria monticularis* Carter, 1877**

*Material examined.* TC-40-91, 11/25/68, Kahului, Maui [021°03.5'N, 156°29.0'W], sand, mud [274 m], Acc. No. 1981.136, Cat. No. A319, 14 specimens; TC-40-92, 11/25/68, Kahului, Maui [021°03.5'N, 156°29.1'W], sand, mud [296 m], Acc. No. 1981.136, Cat. No. A320, 20 specimens; BURCH-79030, 05/05/79, Mamala Bay, Oahu [021°16.9'N, 157°53.9'W], sand [119 m], Acc. No. 1995.007, Cat. No. A300, 11 specimens; BURCH-79081, 04/15/79, Waianae [021°27.3'N, 158°13.8'W], sand [91 m], Acc. No. 1995.007, Cat. No. A304, 10 specimens; BURCH-80068, 09/09/80, Mokapu Pt, Oahu [021°29.9'N, 157°41.8'W], sand, co-algae [110 m], Acc. No. 1995.007, Cat. No. A310, 120 specimens; BURCH-86011, 07/22/86, Haleiwa, Oahu [021°36.8'N, 158°11.6'W], sand, gravel [128 m], Acc. No. 1995.007, Cat. No. A316, 28 specimens.

***Discanomalina semipunctata* (Bailey, 1851)**

*Material examined.* BURCH-83048, 09/17/83, Waianae, Oahu [021°24.8'N, 158°13.6'W], sand [466 m], Acc. No. 1995.007, Cat. No. A296, 8 specimens.

***Halyphysema tumanowiczii* Bowerbank, 1862**

*Material examined.* BURCH-79078, 12/09/79, Kailua Bay, Oahu [021°25.8'N, 157°43.3'W], coral, *Chondrocidaris* [15 m], Acc. No. 1993.345, Cat. No. A288, 3 specimens.

***Miniacina miniacea* (Pallas, 1766)**

*Material examined.* BURCH-75005, 09/03/75, Mahukona, Hawaii [020°11.0'N, 155°54.8'W], sand, coral [59 m], Acc. No. 1995.007, Cat. No. A294, 5 specimens; BURCH-75015, 09/05/75, Puuhonau Pt, Hawaii [019°25.1'N, 155°55.3'W], sand, pinnae [102 m], Acc. No. 1995.007, Cat. No. A297, 24 specimens; BURCH-79030, 05/05/79, Mamala Bay, Oahu [021°16.9'N, 157°53.9'W], sand [119 m], Acc. No. 1995.007, Cat. No. A295, 44 specimens; BURCH-79081, 04/15/79, Waianae, Oahu [021°27.3'N, 158°13.8'W], sand [91 m], Acc. No. 1995.007, Cat. No. A303, 53 specimens; BURCH-80068, 09/09/80, Mokapu Pt, Oahu [021°29.9'N, 157°41.8'W], sand, co-algae [110 m], Acc. No. 1995.007, Cat. No. A307, 30 specimens; BURCH-86011, 07/22/86, Haleiwa, Oahu [021°36.8'N, 158°11.6'W], sand, gravel [128 m], Acc. No. 1995.007, Cat. No. A314, 151 specimens; TC-8104-066, 08/07/81, Pearl and Hermes Reef [027°46.2'N, 175°47.5'W], sand [73 m], Acc. No. 1991.136, Cat. No. A266, 1 specimen.

***Sagenina divaricans* Cushman, 1910**

*Material examined.* BURCH-79030, 05/05/79, Mamala Bay, Oahu [021°16.9'N, 157°53.9'W], sand [119 m], Acc. No. 1995.007, Cat. No. A302, 2 specimens; BURCH-79081, 04/15/79, Waianae, Oahu [021°27.3'N, 158°13.8'W], sand [91 m], Acc. No. 1995.007, Cat. No. A305, 65 specimens; BURCH-86011, 07/22/86, Haleiwa, Oahu [021°36.8'N, 158°11.6'W], sand, gravel [128 m], Acc. No. 1995.007, Cat. No. A317, 11 specimens.

***Sagenina frondescens* (Brady, 1879)**

*Material examined.* BURCH-79030, 05/05/79, Mamala Bay, Oahu [021°16.9'N, 157°53.9'W], sand [119 m], Acc. No. 1995.007, Cat. No. A301, 2 specimens; BURCH-79081, 04/15/79, Waianae, Oahu [021°27.3'N, 158°13.8'W], sand [91 m], Acc. No. 1995.007, Cat. No. A306, 11 specimens; BURCH-80068, 09/09/80, Mokapu Pt, Oahu [021°29.9'N, 157°41.8'W], sand, co-algae [110 m], Acc. No. 1995.007, Cat. No. A309, 16 specimens; BURCH-86011, 07/22/86, Haleiwa, Oahu [021°36.8'N, 158°11.6'W], sand, gravel [128 m], Acc. No. 1995.007, Cat. No. A318, 68 specimens.