Pocilloporidae

Pocillopora damicornis (Linnaeus, 1758)
Pocillopora eydouxi Milne-Edwards & Haime, 1860
c *Pocillopora ligulata* Dana, 1846
Pocillopora meandrina Dana, 1846
c *Pocillopora molokensis* Vaughan, 1907

Poritidae

c *Porites brighami* Vaughan, 190
c *Porites compressa* Dana, 1848
c *Porites duerdeni* Vaughan, 1907
c *Porites evermanni* Vaughan, 1907
Porites lichen Dana, 1846
b *Porites lobata* Dana, 1846
c *Porites pukoensis* Vaughan, 1907
b *Porites* (*Synaraea*) *rus* (Forskål, 1775) [= *P*. (*S*.) *convexa* Verrill, 1864, & *P*.(*S*.) *hawaiiensis* Vaughan, 1907]

Rhizangiidae

a *Culicia* sp. cf. *tenella* Dana, 1846 [cited in Fitzhardinge, 1993]

Siderastreidae

b *Coscinaraea wellsi* Veron & Pichon, 1979 [= *Coscinaraea ostreaeformis* in Maragos, 1977]
a *Psammocora explanulata* Van der Horst, 1921
Psammocora nierstraszi Van der Horst, 1922
Psammocora stellata Verrill, 1864
Psammocora verrilli Vaughan, 1907

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First Record of the Blue Crab (*Callinectes sapidus*) in Hawaii (Decapoda: Brachyura)

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The blue crab, *Callinectes sapidus* Rathbun, has been collected for the first time in Kaneohe Bay, Oahu, Hawaii. The native range of the species is along the eastern seaboard of the New World from Nova Scotia to Argentina, including Bermuda and the Antilles (Williams, 1984). Six specimens (all female) have been collected since 1985 near the Heeia State Park and the Kaneohe Marine Corps base (see Material Examined below).

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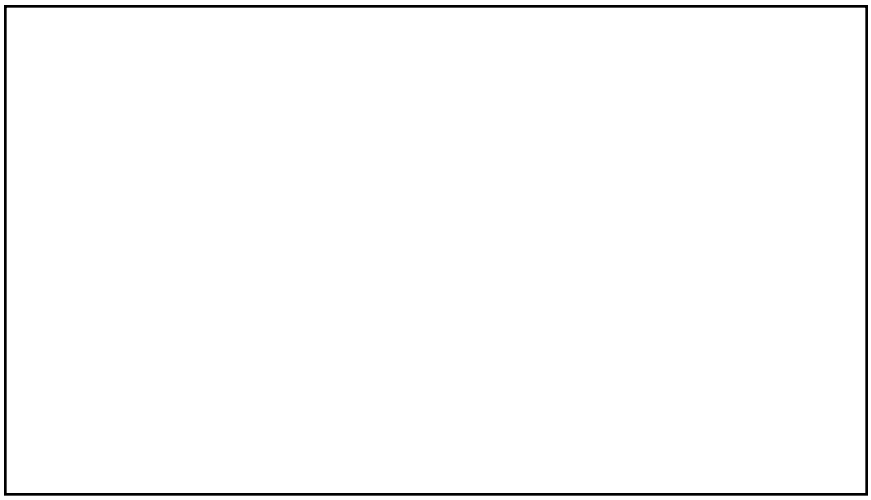

Fig. **1**. *Callinectes sapidus* (BPBM S11231), Kanoehe Bay, Oahu, Hawaii.

The general shape of the lateral spines and the broadly triangular short frontal spines suggest that the specimen examined (or its introduced stock) originated from the North American part of its range (A. B. Williams, pers. comm.)

Specimens of *C. sapidus* have been commonly imported into Hawaii since October 1967 as a food product, with the majority originating from Louisiana. Wholesalers claim that individuals do not reproduce in Hawaii. However, they admit that not all specimens imported have been females.

It is not known whether *C. sapidus* is reproducing in Kaneohe Bay. The temperature of Kaneohe Bay ranges from 20.0–29.0 °C with a mean of 24.9 °C; the warmest months being June through September (U.S. Department of Commerce 1970). Within its natural range, larvae of this species can neither hatch nor molt much below 20 °C; females in the northerly part of its natural range spawn only during the warm months (Norse 1977). It would therefore be very possible for *C. sapidus* to reproduce in Kaneohe Bay.

Stephenson (1976) reported a *Callinectes* sp. from Pearl Harbor, Oahu, Hawaii, which was collected by Paul Bartsch in September 1920 [USNM Cat. No. 76617 (part)]. This juvenile male resembled *C. sapidus* but with some differences in proportions. Since the abdomen and pleopods were missing it was impossible to assign it to a recognized species. Stephenson noted that the specimen might be an accidental introduction. Interestingly, Edmondson (1954) did not note this record or make any mention of *C. sapidus*.

Callinectes sapidus was reported from Europe as early as the 1900s (first found in France; later, in the Netherlands and Denmark). The species is also reported from Egypt and the eastern Mediterranean (Williams 1984). In 1989, *C. sapidus* was collected in the Sea of Galilee [= Lake Tiberias] (Snovsky & Galil 1990). Specimens were first collected from Japan in 1975 at Hamana Lake in central Japan (Sakai 1976). Ariyama (1985) reported the species from Osaka Bay. A second record from Lake Hamana was in 1991 (Hasegawa 1992), and specimens have been collected from Sagami Bay (Muraoka & Taguchi 1992).

The primary means of accidental introduction into non-native areas suggested by the

various authors appears to be in ballast water or on ships' bottoms. Sakai (1976) suggested that the crab might have been taken by submarine from the east coast of the U.S. to central Japan, an opinion suggested to him by naval engineers. Snovsky & Galil (1990) assumed that the introduction into Lake Tiberias occurred when juvenile mugilid fish were transported from the Mediterranean to stock the lake. In the case of the Kaneohe Bay specimens, it is assumed that the individuals were released after having been purchased at a fish market, since all the specimens collected have been about the same size, without eggs, and from the same locality. Some well meaning citizens may have suspected that they might be able to establish their own fishery similar to that of the mangrove crab (*Scylla serrata*) which was introduced into Oahu waters from Samoa beginning in 1926 and is now among the more frequently collected species in certain embayments of the island of Hawaii (Eldredge 1994).

Material examined. Female, carapace length 59.7 mm; width at base of lateral spines 110 mm (BPBM S11231), August 15, 1992, from fish trap near Kaneohe Marine Corps base, Kaneohe Bay, Oahu, Hawaii (Fig. 1) [a second specimen was retained at Hawaii's Division of Aquatic Resources].

Acknowledgements

Thanks are extended to Lester Zuckeran who collected the specimens and recognized that they were unusual and passed them to Joann Kushima of the Hawaii's Division of Aquatic Resources who brought them to my attention. Thanks are also extended to Austin Williams of the National Marine Fisheries Service, Systematic Laboratory, Smithsonian Institution for verifying the my identification of the specimen and to Ruth Gibbons for preparing the photograph; Domingo Carvalho of Hawaii's Division of Plant Quarantine provided background information on the import of blue crabs to Hawaii.

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Corbicula fluminea Müller (Mollusca: Bivalvia) Established on Oahu

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On 7 September 1992, in Kamooalu Stream adjacent to Kaneki Street, Kaneohe, Oahu, Hawaii, a live juvenile *Corbicula fluminea* Müller, 1774 [BPBM Acc. No. 1995.007; Cat. No. BPBM 250462] was collected and photographed. It was first reported from Hawaii being sold as food in an open market at Kailua, Oahu on 8 August 1977 (B.L. Burch, 1978, *The Nautilus* 92(1): 54–55). This is the first record of this species now being established in streams on the windward side of Oahu.

New Records of Deep-Water Bivalves from the Hawaiian Islands (Mollusca: Bivalvia)

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Alectryonella plicatula (Gmelin, 1791)

This is a **new state record** of the tropical southwest Pacific oyster found growing on a stem of black coral (*Antipathes* sp.) by the NOAA National Marine Fisheries Service research vessel *Townsend Cromwell*.

Material examined. Cat. No. BPBM 250463, 1 live specimen, TC-090-10-204, 06/12/90, South Molokai [021°03.0'N, 157°02.0'W] [79 m].

Neopycnodonte cochlear (Poli, 1795)

Twenty-five live specimens of this tropical Pacific oyster, which is a **new state record**, were found growing on black coral (*Antipathes* sp.) by the NOAA National Marine Fisheries Service Research Vessel *Townsend Cromwell* off Molokai in 79 meters [Acc. No. 1991.018] (only the valves attached to the coral were retained.) In addition, the *Townsend Cromwell* trawled 354 dead juvenile valves from 9 stations off Kahului, Maui [Acc. No. 1991.136, Cat. No. BPBM 250464].

Material examined. Cat. No. BPBM 250469, 1 valve, TC-033-09, 10/30/67, Hawaii [020°58.8'N, 156°48.2'W [229-234 m]; Cat. No. BPBM 250470, 139 valves, TC-033-18, 11/01/67, Hawaii [021°03.7'N, 156°43.7'W] [245 m]; Cat. No. BPBM 250471, 8 valves, TC-033-37, 11/09/67, Hawaii [020°42.8'N, 156°42.1'W] [260-292 m]; Cat. No. BPBM 250472, 122 valves, TC-033-50, 11/13/67, Hawaii [021°00.4'N, 156°45.4'W] [210-241 m]; Cat. No. BPBM 250473, 5 valves,TC-033-