*Material examined.* **KAHO'OLAWE**: Honokanaia, basecamp, KIRC hut, on floor, collected by L. Abbott, 25 ft [8 m], 28 Dec 2004, *Starr; Starr; & Abbott 041228-1* (1 specimen).

## Orthoptera: Acrididae

#### Schistocerca nitens (Thunberg)

## New island record

*Schistocerca nitens* (vagrant grasshopper) was previously known from Necker, Nihoa, and all the main islands except Ni'ihau and Kaho'olawe (Nishida 2002).

Material examined. KAHO'OLAWE: Moa'ulanui, vegetation sweeps, 1300 ft [396 m], 16 Oct 2003, Starr, Starr, & Mar 031016-21 (1 specimen).

## Acknowledgements

We thank Mach Fukada for assistance with identification of most specimens and Will Haines for assistance with identification of *Omiodes* spp. For collection assistance, we thank Paul Higashino, Maya LeGrande, Lyman Abbott, Cheryl King, Dean Tokishi, Paiea Busby, and Derek Mar. We also thank the Bishop Museum staff and volunteers for their assistance. This research was made possible thanks to support from the U.S. Geological Survey, Pacific Island Ecosystems Research Center, and the U.S. Fish and Wildlife Service, Pacific Islands Office.

## Literature Cited

- Nishida, G.M., editor. 2002. Hawaiian terrestrial arthropod checklist. Fourth edition. *Bishop Museum Technical Report* 22, 313 p.
- Howarth, F.G. & D.J. Preston. 2002. Baseline Survey of Arthropods (Insects and Relatives) of Kahului Airport Environs, Maui, Hawai'i. Final report prepared for Edward K. Noda & Associates, Inc. and the State of Hawai'i, Department of Transportation, Airport Environs.

# First record of coral crabs of the family Tetraliidae (Crustacea: Brachyura) from the Hawaiian Islands<sup>1</sup>

Peter Castro<sup>2</sup> (Biological Sciences Department, California State Polytechnic University, Pomona, California 91768, USA) & Scott Godwin (Hawaii Biological Survey, Bishop Museum, 1525 Bernice St, Honolulu, Hawai'i 96817-2704, USA)

Brachyuran crabs of the family Tetraliidae Castro *et al.* 2004, which comprises the genera *Tetralia* Dana and *Tetraloides* Galil are obligate symbionts of species of *Acropora*, scleractinian corals of circumtropical distribution. Tetraliids were formerly grouped with species of *Trapezia* Dana and other coral crabs in the family Trapeziidae Miers. All 8 described species of tetraliids are restricted to the Indo-West Pacific region (see Castro *et al.* 2004). Although 6 species of *Trapezia* are known from the Hawaiian Islands (Castro 1998), tetraliids have never been recorded from the archipelago until their recent discovery among collections made at French Frigate Shoals under the auspices of the Northwestern Hawaiian Islands Rapid Assessment and Monitoring Program 2000 (NOW-RAMP 2000). The family had been previously recorded anywhere *Acropora* occurs

<sup>1.</sup> Contribution No. 2006-028 to the Hawai Biological Survey.

Research Associate, Hawaii Biological Survey, Bishop Museum, 1525 Bernice Street, Honolulu, Hawai'i 96817, USA.

throughout the Indo-West Pacific region, from the Red Sea and South Africa to French Polynesia, and Johnston Atoll (Castro 2000). French Frigate Shoals has the highest abundance and species diversity of *Acropora* (seven species) in the Hawaiian Archipelago (Maragos *et al.* 2004).

## Tetraliidae

## Tetralia glaberrima (Herbst)\*

#### New state record

[syn. *Cancer glaberrimus* Herbst, 1790: 262, pl. 20, fig. 115; *Tetralia glaberrima fulva* Serène, 1984: 282; *Tetralia fulva* – Castro, 1997: 65; *Tetralia glaberrima* – Castro *et al.*, 2004: 24 (synonymy, type material)].

This species is widely distributed throughout the Indo-West Pacific region wherever the coral *Acropora* is found, including southern Japan, Australia, Marshall Is., French Polynesia, and now the Hawaiian Islands.

*Material examined*: **FRENCH FRIGATE SHOALS**: west central lagoon, north side of La Perouse Pinnacle, site FFS-R-31, 23°46.280'N, 166°15.737'W, 10–15m, coll. S. Godwin, 26 Sep 2000 (1 male) (BPBM-S 12267, Marine Invertebrate Collection).

#### *Tetralia muta* (Linnaeus)

#### New state record

[syn. *Cancer mutus* Linnaeus, 1758: 625; *Tetralia vanninii* Galil & Clark, 1988: 146, figs. 1C, 2B, 3C, 4C, 4H, 6C; *Tetralia muta* – Castro *et al.*, 2004: 29 (synonymy, type material)]

This species, like *T. glaberrima*, is widely distributed throughout the Indo-West Pacific region wherever the coral *Acropora* is found. It has been recorded from Christmas I., Johnston Atoll (P. Castro, unpubl. data), and now the Hawaiian Islands.

*Material examined*: **FRENCH FRIGATE SHOALS**: North central lagoon, submerged pinnacle 2 km south of Tern Island, site FFS-R-27, 23°50.907'N, 166°17.215'W, 2–9 m, coll. S. Godwin, 25 Sep 2000 (1 ovigerous female) (BPBM-S 12266, Marine Invertebrate Collection).

## Acknowledgments

This report was made possible through the support of the Hawaii Coral Reef Initiative for NOW-RAMP-2000.

## Literature Cited

Castro, P. 1997. Trapeziid crabs (Brachyura: Xanthoidea: Trapeziidae) of New Caledonia, eastern Australia, and the Coral Sea. *In*: Richer de Forges, B. (ed.), Les fonds meubles des lagons de Nouvelle Calédonie (Sédimentologie, Benthos). *Études et Théses* 3: 59– 107.

—. 1998. The Hawaiian species of *Trapezia* (Crustacea, Brachyura, Trapeziidae), symbionts of *Pocillopora* (Scleractinia). *Bishop Museum Occasional Papers* 55: 73–76.

— 2000. Biogeography of trapeziid crabs (Brachyura, Trapeziidae) symbiotic with reef corals and other cnidarians. *In*: J.C. von Vaupel Klein & Schram, F.R. (eds.), The Biodiversity Crisis and Crustacea. Proceedings of the Fourth International Crustacean Congress, Amsterdam. Vol. 2. *Crustacean Issues* 12: 65–75.

Dana, J.D. 1851. Conspectus Crustaceorum quae in Orbis Terrarum circumnavigatione, Carolo Wilkes e Classe Republicae Foederatae Duce, lexit et descripsit J.D. Dana. Pars VI. American Journal of Sciences and Arts (2) 11(32): 268–274.

<sup>\*</sup> Note added in proof: *Tetralia* is being reviewed by S. Trautwein (UCLA), who found that the Hawaiian *T. glaberrima* is a new species.

Galil, B. 1986. *Tetraloides*—a new genus of coral-inhabiting crabs. *Crustaceana* 50 [1985]: 68–77.

——. & Clark, P.F. 1988. On a collection of *Acropora*-inhabiting trapeziids (Crustacea Brachyura Xanthoidea) from East Africa. *Tropical Zoology* 1: 137–151.

- Herbst, J.F.W. 1782–1804. Versuch einer Naturgeschichte der Krabben und Krebse nebst einer Systematischen Beschreibung ihrer Verschiedenen Arten. Vols. 1–3. Gottlieb August Lange, Berlin & Stralsund.
- Linneaus, C. 1758. Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis synonymis, locis. Tenth edition. Vol. 1. Holmiae. iii + 824 p.
- Maragos, J.E., Potts, D.C., Aeby, G., Gulko, D., Kenyon, J., Siciliano D., & Van Ravenswaay, D. 2004. 2000–2002 rapid ecological assessment of corals (Anthozoa) on shallow reefs of the Northwestern Hawaiian Islands. Part 1: species and distribution. *Pacific Science* 58(2): 211–230.
- Miers, E.J. 1886. Report on the *Brachyura* collected by H.M.S. *Challenger* during the years 1873–76. *In*: Report on the scientific results of the voyage of H.M.S. *Challenger* during the years 1873–76, Zoology, 17(49): 1 + 362 p., pls. 1–29. Eyre & Spottiswoode, London.
- Serène, R. 1984. Crustacés décapodes brachyoures de l'Océan Indien Occidental et de la Mer Rouge. Xanthoidea: Xanthidae et Trapeziidae. Addendum: Carpillidae et Menippidae par A. Crosnier. *Faune Tropicale* 24: 1–400, pls. 1–48.

## Documentation of box jellyfish *Carybdea sivickisi* and *Carybdea rastoni* (Cubozoa: Carybdeidae) at Ma'alaea Harbor, Maui

GERALD L. CROW (Waikīkī Aquarium, University of Hawaii, 2777 Kalakaua Ave, Honolulu, Hawaiʻi 96815, USA; email: crow@waquarium.org) AHARON MIROZ (Maui Ocean Center, 192 Maʻalaea Rd, Wailuku, Hawaiʻi 96793, USA), NORTON CHAN & KELLEY LAM (Waikīkī Aquarium, 2777 Kalakaua Avenue, Honolulu, Hawaiʻi 96815, USA)

Since the 1990s, box jellyfish have become high profile animals along beach shorelines of the island of O'ahu. Due to powerful stings affecting ocean visitors, and corresponding beach closures, it has become increasingly important to document box jellies along Hawaiian coastlines. Three species have been described in Hawaiian waters: 1) *Charyb-dea arborifera* Maas that was synonymized with *Carybdea rastoni* by Mayer (1910); 2) *Charybdea moseri* Mayer, placed in *Carybdea alata* by Mayer (1910); 3) *Carybdea sivickisi* (Stiasny), reported in Hawaiian waters in 1996 (Matsumoto *et al.* 2002). Recent observations at Ma'alaea Harbor, Maui, documented two species including one new location record and one new island record.

#### Carybdea sivickisi (Stiasny)

#### New island record

Night lighting observations were conducted from shore near the condominiums at the southern end of Ma'alaea Boat Harbor on 23 July 2005, and 7 and 9 February 2006. Box jellies attracted to the light, were hand netted and placed in 86% ethanol. Specimens were all less than 12 mm in bell height. Some specimens will be used for future DNA research.

*Carybdea sivickisi* was originally observed from Hawai'i in 1996 from the southern and western coastlines of O'ahu (Matsumoto *et al.* 2002). This species appears to be wide-