CORRECTIONS AND UPDATES TO HAWAII'S SEA CREATURES

as of 05-13-12. These changes will appear in the 6th printing, summer 2012.

p. xiv: Replace photo caption top right with:

The endemic Painted Hermit Crab (p. 253) has orange bands on its legs, while those of its almost identical Indo-Pacific sister species, the Elegant Hermit Crab, are blue. For many years the Hawaiian species was considered a color variant of its Indo-Pacific relative. Hekili Point, Maui. 3 ft.

p. xiv: Photo caption bottom: *Heterocentrotus mammilatus*

p. xv, line 2: Heterocentrotus mammilatus

p. 53 5th line from bottom:

(The similarly colored *M. dilatata* cf. turgescens forms pillars and mounds in Midway Lagoon and perhaps...

p. 56: LOBE CORAL 13th line from bottom: Replace "lutea" with "evermanni"

p. 57:

MOUND EVERMANN'S CORAL * pohaku puna

Porites <u>lutea Milne-Edwards & Haime, 1851</u> evermanni Vaughan, 1907 Replace entire text with:

This massive coral varies from chocolate brown to bluish or purplish gray. It never has the yellowish color usually present in *P. lobata*. Heads can be 3 ft. or more across. Colony surfaces are typically crowded with many small rounded swellings or lobes. Often, polyps are not completely retracted, giving the surface a slightly fuzzy appearance. Evermann's Coral has a patchy distribution but may sometimes be common, even dominant, on protected or semi-protected reef flats a few feet deep. (Kahalu'u Beach Park, Kailua-Kona, Hawai'i, and the Koko Head side of Black Point, O'ahu, are good places to see it.) It also occurs to depths of at least 30 ft. It is sometimes confused with the very similar Indo-Pacific species, *Porites lutea*. The name honors American ichthyologist Barton Warren Evermann (1853-1932), who studied Hawaiian fishes in the early 20th century and later became director of San Francisco's Steinhart Aquarium. Central Pacific. Photos: a) Hekili Point, Maui. 1 ft.; b) Kahalu'u Beach Park, Hawai'i. 3 ft. (surrounded by P. lobata)

p. 86 YELLOW ACORN WORM Ptychodera flava Eschscholtz, 1835 Family Ptychoderidae

These worms are common just beneath the sand or under stones on some shallow reef flats. Their yellow color is distinctive. In shallow water they attain lengths of about 1 to 8 in. and seldom create recognizable mounds. Much larger yellow worms, up to 18 in. long and 1 in. in diameter, occur on sandy bottoms at depths of 30 ft. or more. They may be the same species. Although the dark fecal mounds of these large worms can be common, the worms themselves are never seen. If one is dug up, the weight of the mud or sand within it often ruptures its thin body walls. Gould's Auger (p. 142) feeds on both the large and small forms. Indo-Pacific, with subspecies laysanica in Hawai`i.

Photos: a) Kahe Point, O'ahu. 30 ft. (casting of large worm); b) Hekili Point, Maui. 2 ft. (small worm, about 1 in.)

p.148. BLUE SWALLOWTAIL SLUG, 3rd line from bottom:

(A <u>The</u> similar <u>but undescribed species of </u>Chelidonura <u>alisonae</u> (see inset photo) has bright blue spots instead of lines and is common in the same habitat.) To about 1 in., but usually smaller. All warm seas. Photo: Magic Island boat channel, O`ahu. 4 ft.

- p. 159, Clumpy Nudibranch Asteronotus cespitotus last line: To about 5 10 in."
- p. 171, Fellow's Nudibranch: scientific name update: Peltodoris Hiatodoris fellowsi

p. 197:

HAWAIIAN-STARRY NIGHT OCTOPUS

Octopus c.f. Callistoctopus luteus (Sasaki, 1929)

· This small, dark brown, nocturnal octopus with short arms and relatively smooth skin has a scattering of tiny white spots that can be elevated into papillae. Like all octopuses, it can change color, often developing whitish patches. Little is known of its habits. It belongs to the *Octopus macropus* complex, along with *C. ornatus* (above). Although known at present only from the Hawaiian Islands, it is similar to *O. luteus* from elsewhere in the Indo-

Pacific. It is known from the Central and Western Pacific. Photo: Mākua, O'ahu, 15 ft. (night)

p. 225: HYDROID SHRIMP. Scientific name update: <u>Periclimenes Rapipontonia galene</u> (Holthuis, 1952)

p. 227, MINER'S URCHIN SHRIMP

4th line from bottom: (Periclimenes Margitonia insolitus, is now...

p. 234, CANDY CANE SHRIMP

Parhippolyte misticia (Clark, 1989). (add "i" between c and a -- misticia)

Family Hippolytidae Barbouriidae

Notes: Janice Clark described this shrimp in 1989, naming it *Koror misticius*. (The Latin species name, misticius, means "hybrid" or "mixed," while the genus name, Koror, derives from the name of the capital island of the Republic of Palau, where the shrimp was first discovered.) Clark, who erected the genus *Koror*, declared it to be a masculine word and therefore, according to the rules of Latin, gave the species name the masculine ending "us." However, ubsequent researchers C.H.J.M. Fransen & T. Tomasik discarded *Koror* as a valid genus and placed the species in the pre-existing genus *Parhippolyte*. Unfortunately, in their paper, Fransen and Tomasik misspelled *misticius* as *misticus*. Since *Parhippolyte* is a feminine word, they changed the masculine ending of "us" to the feminine ending "a," but because they had used the incorrect spelling *misticus* they changed it to *misticia*. They should have used *misticius* and they should have changed it to *misticia*. Unfortunately, a few authors, myself included, did not notice the error and have perpetuated it. Now both versions can be found in print and on the web, but only *misticia* is correct

p. 187:

JUDD's SCALLOP

Haumea juddi Dall, Bartsch & Rehder, 1938 loxoides (Sowerby II, 1882)

p. 220, EARLE'S CORAL SHRIMP Stenopus earlei Goy & Randall, 1984 Family Stenopodidae

Tiny compared to other Hawaiian *Stenopus*, these shrimps are known at present only from Hawai'i, <u>Kenya</u> and the Comoro Islands, Western Indian Ocean. With only a few specimens known they are considered extremely rare. The body is white. A pair of red stripes originating at the sides of the carapace converge in a "V" at the tail. Like most others in their genus, these shrimps live in pairs under coral slabs and in crevices and caves. Judging from the prominent long white antennae they may be cleaners, although such behavior is not yet documented. Hawaiian specimens have been found off Mākua and Pūpūkea, O'ahu at 130 and 30 ft. respectively, and off Lāwa'i, Kaua'i, at 50 ft., and in a rubble-filled tidal pool only a few feet deep at Puakō, Hawai'i. The largest was slightly less than 1 in. total body length. In the mated pair pictured here the male (right) is larger than the female, unusual in *Stenopus*. Bluish green eggs held under the abdomen of the female impart a blue-green tinge to her body. The name honors Honolulu naturalist John L. Earle, who captured the first scientific specimens. Photo: Aquarium specimens collected off Wai'anae, O'ahu.

BUMBLEBEE SHRIMP

Gnathophyllum cf. americanum Guérin-Méneville, 1856

These tubby little shrimps are not uncommon under stones in some areas. They occur from wading depth to at least 50 ft. The pattern of alternating light and dark lines on the body is unmistakable. Agile and quick to hide, they are rarely seen, even when specifically looked for. Captive specimens at the Waikīkī Aquarium have fed on the tube feet of sea urchins. Other observers report them feeding on the papillae of sea stars. Incaptivity they also accept frozen foods and can be kept singly or in pairs. The pincerbearing limbs of males are longer than those of females. This shrimp closely resembles *G. americanum* from the Atlantic, but whether it is truly the same species is questionable. "Bumblebee Shrimps" around the world probably form a species complex, but details have yet to be worked out. Body length of Hawaiian specimens probably does not exceed 1/2 in. Photo: Hālona Blowhole, O`ahu.

p. 233: EYESPOT SHRIMP several new photos added

p. 234

WHITE-STRIPE CLEANER SHRIMP. 4th line from end.

Indo-Pacific. (Lysmata grabhami from the tropical Atlantic is almost identical)
(At least four Lysmata species occur in Hawai`i. Two shoreline species, L. trisetacea and L. anchisteus, are not pictured in this book.) Photo: Makua, O`ahu. 40 ft.

p. 235, STARRY CLEANER SHRIMP - Replace top photo

p. 235, STARRY CLEANER SHRIMP

Lysmata ternatensis acicula

De Man, 1902 (Rathbun, 1906)

Family Hippolytidae

· Shrimps of the genus *Lysmata* are usually cleaners. This endemic ene typically lives at depths of 30 ft. or more in crevices and holes, often in pairs, and often associated with eels. It is reddish brown, liberally speckled with tiny white spots and marked with several transverse rows of larger brilliant blue-white spots. Very rarely seen in the main

Hawaiian Islands, it is probably more common in the northwestern chain. (At least four Lysmata species occur in Hawai'i. Two shoreline species, L. trisetacea and L.-anchisteus, are not pictured in this book.) To about 1 in. body length. Indo-Pacific. Photo: Jerry Kane. Pūpūkea, O'ahu. 50 ft. (on Conger Eel). Honokōhau, Hawai'i. 80 ft.

p. 253, bottom:

HAWAIIAN ELEGANT PAINTED HERMIT CRAB

Calcinus c.f. elegans (H. Milne Edwards, 1836) pictus (Owen, 1839) Family Diogenidae

This colorful endemic hermit is found from tide pools to depths of at least 30 ft. with larger individuals often occurring at the deeper end of the range. The walking legs are dark brown with bright orange bands and the last segments are bright orange with black spots. The two almost equal-size claws are brownish speckled with white and have white tips. The eyes and eyestalks are bright blue, the antennae orange, the back white. Although morphologically identical to *Calcinus elegans* found elsewhere in the Indo-Pacific (which has turquoise blue instead of orange bands on the legs), recent DNA studies by Gustav Paulay and Machel Malay show the confirm that this Hawaiian population hermit, first described in 1839, is to be distinct. To about 3/4 in. carapace length. Endemic. Photo: Hekili Point, Maui. 3 ft. (in triton shell)

p. 262: Photo caption at top.

<u>Spiny-Nose</u> Squat Lobster (unidentified) <u>Galathea spinosorostris</u> (Dana 1852). <u>Usually seen at night on coral, this tiny squat lobster is fairly common on Hawaiian reefs.</u>

p. 264: replace photo caption at bottom with:

Red Swimming Crab (p. 274) with Reticulated Cowry (p. 117). Kea'au, O'ahu. 50 ft.

p. 274

RED SWIMMING CRAB

Gonioinfradens paucidentata (A. Milne Edwards, 1861) (replace existing text with text below)

In size, shape and habits this crab resembles the Hawaiian Swimming Crab (below). However, it is more uniformly colored (bright red or orange), with black claw tips and eyes. The eyes are not striped. The species name means "few teeth" or "small teeth"; To about 3 in. carapace width. Indo-Pacific. Photo: Hōnaunau, Hawai`i. 40 ft. (see also p. 264)

p. 289. CORAL CHAMBER CRAB

2nd line from bottom:

(Similar crabs include *Fungicola* sp. which inhabits chambers in Oval Mushroom Coral (p. 61), and the xanthid *Jonesius triunguiculata*, which inhabits chambers in Lobe Coral (p. 56), and *Domecia hispida*, a symbiont of pocilliporid corals.)

p. 315: HELMET URCHIN

After "Photo: Makapuu, Oahu. 1 ft." add:

Recent DNA studies indicate that the Hawaiian population might be distinct.

p. 317 (bottom) RED PENCIL URCHIN Heterocentrotus mammilatus