ULTIMATE FISH BOOK Corrections/additions for 2nd printing
June 4, 2009

Back cover blurb, line 5. Number of fish species should be 386 (not 3~~65~~)

p. ix CLASSIFICATION and NAMES. 1st paragraph, line 5:

original: ("genera" and "families" are incorrectly ordered)
"**orders**, ~~**genera**~~, and ~~**families**~~. ~~Families~~ are separated…"

Change to:
"**orders**, **families**, and **genera**. Genera are separated…"

p. 37, LINED BUTTERFLYFISH, line 3 of text:
~~Kahalu'u Beach Park in Kailua-Kona is a good place to see them.)~~ Occasionally they gather in schools, perhaps to spawn.

See Butterflyfishes_2nd_printing_p37.PDF
Resize photo and move text, as in PDF, and add Chaetodon_lineolatus_school_5.TIF at bottom.
Add caption: An unusual school of Lined Butterflyfish, perhaps preparing to spawn. Kahalu`u Beach Park, Hawai`i. 8 ft.

p. 65, bottom photo caption, and index p. 383: "Grammonus ~~*sp.*~~" should be "Grammonus nagaredai"

p. 69. INDO-PACIFIC SERGEANT, 4th line from bottom:
Bigeye ~~Jack~~ Trevally, ~~p~~ pp. 178-9.)

p. 69. replace bottom photo with two photos side by side.
Right photo: Abudefduf_hybrid_5.tif
Left photo: Abudefduf_abdominalis_school_adj_5.tif

Right caption: Hybrid sergeant, Lahaina, Maui. 30 ft.
Left caption: Native sons with immigrant interloper. Palea Point, O`ahu. 20 ft.

p. 69 sidebar: Enlarge sidebar and add title: A new look?
Replace entire last paragraph with:

Whichever side you take, questions remain: Will the two remain distinct, producing occasional hybrids, or will they merge completely and disappear? If they merge, will they create a new species? In that case, would abdominalis *be declared extinct? What might a new species look like? If the above right photo is any guide, the appearance of the two would blend about 50/50.*

p. 116, Snake Eels (family Ophichthidae), line 3: add "See p. 365." After "no fins at all."

Changed version:
True snake eels.…and no fins at all. See p. 365.)

p. 118: Move and resize photos and text, add Pencil Snake Eel at bottom.

Apterichtus_klazingai_4.TIF

PENCIL SNAKE EEL
Apterichtus klazingai (Weber, 1913)

No larger than a pencil point sticking out of the sand, this tiny, sharp-snouted snake eel with spots on the head is an unusual find for snake eel aficionados and quite difficult to spot. A similar pointy-nosed species, the Yellowtail Snake Eel *(A. flavicaudus),* is yellowish and slightly larger. To 10 in. Indo-Pacific. Photo: Ho`okena, Hawai`i. 40 ft.

p. 119, UNICORN FILEFISH, line 2 of text: 'oddly-shapped" should be "oddly-shaped"

p. 137. Top right photo of Reticulated Frogfish: add photo credit John E. Randall

p. 155. 2nd paragraph, last sentence: "The Goliath Groupers (E. itajara) of the Eastern Pacific and tropical Atlantic (*Epinephelus quinquefasciatus* and *E. itajara*, respectively) is are similar…

p. 169. ARC-EYE HAWKFISH, line 11 of text: *Pocillopora exdouxi* should be *Pocillopora eydouxi*

p. 189, SLENDER LIZARDFISH, last 2 lines: (The similar Nebulous Lizardfish, *Saurida nebulosa*, also occurs in shallow protected habitats on muddy or silty bottoms. It has almost the same coloration….)

Changed version:
(The similar Nebulous Lizardfish, *Saurida nebulosa*, occurs on muddy or silty bottoms. It has almost the same coloration….)

p. 216, Ball's Pipefish:

This endemic pipefish is entirely whitish and spends most of its time hidden in rubble or seaweed along shallow protected shores. The egg pouch of males lies under the tail. Bottom-dwelling pipefish such as this are often somewhat sluggish, but Ball's Pipefish thrashes back and forth vigorously when disturbed, and can move away fairly quickly. Little else is known about the species and very few divers or snorkelers have ever seen it. Named for Yale zoologist Stanley C. Ball (1885-1956).To about 2 ½ in. This individual was found in seaweed at a depth of 8 ft. in front of the Waikīkī Aquarium and photographed later in a tank.

p. 224: 3rd paragraph, 5th line from bottom: "two three of them endemic

p. 232 last paragraph, line 2 and following:

Three Two species have been recorded from occur in Hawaiian Hawai`i's inshore waters, but only one, the Broad Stingray, is shown here. The Diamond extremely rare Hawaiian Stingray *(Dasyatis dipterurus hawaiensis),* an Eastern Pacific species known in the Islands, found in a Honolulu fish market around 1900, has never been seen again. It differs from resembled the Broad Stingray by having but had folds or keels of skin along both the upper and lower surfaces of the long tail, instead of along the underside lower surface only. Its adult size and depth range are unknown. Also omitted is the Two other Hawaiian stingrays live beyond sport diving depths, and the unusual sea-going Violet Stingray *(Dasyatis Pteroplatytrygon violacea),* which occurs offshore and does not normally approach land.

Changed version:
There are about 60 species of stingrays, some attaining a width of 6 ft. and a weight of over 800 lbs. Two species occur in Hawai`i's inshore waters, but only one, the Broad Stingray, is shown here. The extremely rare Hawaiian Stingray *(Dasyatis hawaiensis)*, found in a Honolulu fish market around 1900, has never been seen again. It resembled the Broad Stingray but had folds or keels of skin along both the upper and lower surfaces of the long tail, instead of along the lower surface only. Its maximum size and depth range are unknown. Two other Hawaiian

stingrays live beyond sport diving depths, and the unusual sea-going Violet Stingray occurs offshore.

p. 233: **Manta Rays and Devil Rays**, last sentence: Devil rays ~~sightings~~ are extremely rare in Hawai`i. The Chilean Devil Ray *(Mobula tarapacana)*, has been seen by divers only a handful of times.

p. 232, MANTA RAY, line 2 of text: "Although mostly ~~bluish~~ black on the back…"

p. 233, MANTA RAY, line 7 of text: "~~No~~ It's very rare, for example, for a ~~manta from~~ Kona ~~has ever been~~ manta to be recorded from Maui~~, for example, and no Maui manta in Kona~~."

Changed version:
It's very rare, for example, for a Kona manta to be recorded from Maui.

pages 242 and 243 lack page numbers

p. 247, line 24: ~~Ten~~ Eleven are endemic.

p. 248, HAWAIIAN RED LIONFISH, line 2 of text:
"spines on the pectoral fins. A pair of antennas rise over the eyes, but are often missing in large specimens. Although similar…."

p. 257 "SPECKLED SCORPIONFISH" should be in red (same color as other endemic fishes)
5th line from bottom: ~~Known from the Line Islands and Wake Island as well as from Hawai`i~~ Found only in the Hawaiian Islands.

p. 270, Mackerel Sharks (family Lamnidae), line 2: as much as ~~50-60~~ 39 degrees

p. 285, BRICK SOLDIERFISH, last line: Delete sentence: ~~Two Yellowfin Goatfish… visible behind.~~

p. 285, BIGSCALE SOLDIERFISH, last line: (see also ~~previous page~~ p. 280)

p. 319, BRIDLED TRIGGERFISH, 5 lines from bottom. "Hawaiins" should be "Hawaiians"

p. 335 YELLOWTAIL CORIS: Replace top photo with
Coris_gaimard_male_Kahaluu_5.tif

change text:
Females have reddish to greenish bodies speckled with brilliant blue spots, a bright yellow tail, and orange-red dorsal and anal fins edged with electric blue. Males develop a dark greenish tinge, ~~dark margins to the dorsal and anal fins, and~~ with a light ~~green~~ bar at midbody, and rarely a beautiful orange-red margin on the tail fin. Juveniles are bright red with a series of white saddles edged in black. As they grow, the colors change to the adult pattern from the tail forward; the white spot on the snout is the last to go.

Photos: (a) ~~Kaiwi Point~~ Kahalu`u, Hawai`i. ~~40~~ 5 ft. (b, c) Ka`ohe Bay, Hawai`i. 15 ft. (d) Puakō, Hawai`i. 40 ft. (e) Hōnaunau, Hawai`i. 20 ft. (f) Pūpūkea, O`ahu. 30 ft.

p. 344 ROCKMOVER WRASSE: Add two photos.
Novaculichthys_taeniourus_Kahaluu2_5.TIF
Novaculichthys_taeniourus_juv_5.TIF

p. 344 ROCKMOVER WRASSE
change text:
Juveniles of this species, often called Dragon Wrasses, are among the most unusual fishes on the reef. Filamentous fin extensions and peculiar swaying and twisting motions help them resemble drifting seaweed. Most are brown with white blotches, but occasional green ones are seen. As they grow, they lose the fin filaments, becoming dark brown with white marks on each scale ~~(appearing grayish at a distance) with~~, a white bar through the tail, and sometimes a pinkish belly. Some, perhaps males, become grayish with a yellow pectoral spot. Large adults spend much of their time nosing about the bottom, often actually moving or overturning rocks in search of invertebrate prey. The species name means “ribbonlike” because of the juvenile form. To 12 in. Indo-Pacific and Eastern Pacific. Photos: (a) Molokini Islet, Maui. 30 ft. (b) ~~Magic Island, O`ahu. 25~~ Kahalu`u, Hawai`i. 5 ft. (c) Maui. ~~Mike Roberts.~~ (d, e) Hanauma Bay, O`ahu. 8 ft., 30 ft.

p. 360, 3rd paragraph, line 2. “bask on shore ~~at a few select locations~~.”

p. 362, GREEN TURTLE, line 10: Laniākea macron messed up

p. 363: Replace two photos at lower right with a sidebar. Move sidebar next to binding with photo on right.

Reef wreckers?

Observing Green Turtles at Honokōwai, Maui, from 1989 to 1999, Peter Bennett and Ursula Keuper-Bennett discovered that these heavy, hard-shelled reptiles can actually reshape the reef. Green Turtles often rest motionless for long periods in specific “home” spots that they probably visit daily. Often, the turtles lie directly on living coral. A dozen or so turtles may use the same area repeatedly, and their daily comings and goings over the years break up and grind down the reef. The turtles also scratch their undersides on coral projections, rub their backs on coral overhangs, and break coral while foraging for food, causing further destruction. Although localized, turtle damage can be severe: sections of Finger Coral beds are flattened and huge Lobe Coral heads are worn smooth and sometimes fractured. Most of the damage seems to have occurred in the last several decades and fish populations in damaged areas have decreased. Are there longterm consequences for our reefs as Hawai`i’s beloved turtles continue to multiply?

p. 377 2nd to last line. Pilot~~s~~ Whales should be Pilot Whales

p. 383 index: *Dasyatis ~~dipterurus~~* should be *Dasyatis hawaiensis*