

Changes in the 4th Edition of *Reef Fish Identification - Florida, Caribbean, Bahamas* by Paul Humann and Ned DeLoach

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This document summarizes the changes, updates, and new species presented in the 4th edition of *Reef Fish Identification- Florida, Caribbean, and Bahamas* by Paul Humann and Ned DeLoach (1st printing, released June 2014). This document was created as reference for REEF volunteer surveyors.

Chapter 1 – no significant changes

Chapter 2 - Silvery

pg 64-5t – Redfin Needlefish – new species

pg 68-9m – Ladyfish – new species

pg 72-3m – Harvestfish – new species

pg 72-3b – Longspine Porgy – new species

pg 74-5 – Silver Porgy & Spottail Pinfish – 2 additional pictures of young and more information on distinguishing between the two species

pg 84-5b – Bigeye Mojarra – new species

pgs 90-1 & 92-3t – Chubs new species – there are now 4 species of chub in the book – Topsail Chub and Brassy Chub are easily distinguishable. Brassy Chub is the updated ID of Yellow Chub. Bermuda Chub and Gray Chub are lumped due to difficulties in underwater ID (Gray Chub, *K biggibus*, replaced Yellow Chub in this lumping).

Chapter 3 – Grunts & Snappers

pg 106-7b and 108-9t – Boga and Bonnetmouth are both now in the Grunt Family (Haemulidae), the Bonnetmouth Family, Inermiidae, is no longer valid.

Chapter 4 – Damsel fish & Hamlets

pgs 132-3 & 134-5 – Cocoa Damsel fish and Beaugregory, new pictures and tips for distinguishing between the species

pg 142m – Yellowtail Reef fish - new picture of older adult brown variation has been added, which looks of strikingly different from the younger adult

pg 147-8b – Florida Barred Hamlet – new species (distinctive from regular Barred Hamlet)

pg 153-4t – Tan Hamlet – official species has now been described (*Hypoplectrus randallorum*), differs from previously included “Tan *Hypoplectrus* sp.”. Also see Similar Species note about evidence of an undescribed hamlet species known as “Tan Type 2” that is similar to the Tan Hamlet, but lacks the distinctive black spot markings on the snout and tail base. This potential new species is currently in the REEF database as “Hamlet Variant (Tan Type 2 (no spot))”. It is also referred to as the “Bluelip Hamlet” in Ross Robertson’s fish app.

Chapter 5 – Groupers, Sea Bass, etc.

- pg 178-9t – Black Sea Bass, new picture showing more typical appearance – the dark mid-body stripe phase shown as the only picture in 3rd edition was misleading
- pg 184-5t – Blackear Bass - new species
- pg 190m – Chalk Bass – brown phase picture added
- pg 191m – Atlantic Creolefish – yellow juvenile picture added
- pg 192-3b – Pygmy Bass – new picture and new Distinctive Features
- pg 196t – Spotted Soapfish – new species added in SIMILAR SPECIES, Slope Soapfish – REEF Surveyors should know both, the only visible difference between the two is color of the color of pectoral , rear dorsal, anal and tail fins
- pg 196-7b Yellowcheek Basslet – new picture of more common color variation
- pg 198-9m – Golden Fairy Basslet – new species

Chapter 6 – no significant changes

Chapter 7 – Reddish/Big Eyes

- pg 268-9m – Freckled Cardinalfish – new species
- pg 268-9b – Dusky Cardinalfish – new Distinctive Features, and added information on Sponge Cardinalfish in the Similar Species, the picture of a Sponge Cardinal in the 3rd edition was probably mis-identified

Chapter 8– Gobies & Blennies, etc.

- pg 272-3m – Caribbean Neon Goby – new species
- pg 272-3b – Barsnout Goby – new species
- pg 274-5b – Yellownose Goby – Distinctive Feature changed
- pg 276-7t – Cleaning Goby – picture in 3rd edition was mis-identified, note changes in Distinctive Features and species range
- pg 276-7m – Cayman Cleaning Goby – new species, only from Cayman Islands
- pg 276-7b – Broadstripe Goby – Distinctive Feature changed
- pg 278-9t&m – Yellowline Goby – images of additional variations added
- pg 280-1t&m – Colin’s Sponge Goby – new species
- pg 280-1m&b – Spotlight Goby – additional variations
- pg 284-5m – Redcheek Goby – new species
- pg 288-9t – Semiscaled Goby – new species
- pg 288-9m – Frecklefin Goby – new species
- pg 288-9b – Code Goby – new species (formerly mis-identified as Rockcut Goby)
- pg 290-1t&m – Spotfin Goby – additional variations
- pg 290-1m&b – Dash Goby – additional variations & Distinctive Feature
- pg 292-3t – Spottail Goby – new species

pg 294-5 – Bridled Goby – is now 3 species, adding Sand-Canyon Goby and Patch-Reef Goby. With perfectly displayed markings they can be distinguished. However, with the ability to pale and inherent variability, they should be reported as one lumped species called “Bridled Goby Complex (Bridled/Sand-Canyon/Patch-Reef)” when one cannot reliably distinguish the ID

pg 296-7t – Bartail Goby – new species

pg 298-9m – Barfin Goby – new species

pg 298-9b – Kuna Goby – new species

pg 300-1b – Bearded Goby – new species

pg 302-3t&m – Crested Goby – important additional information, new pictures

pg 302-3b – Tunnel Goby – new species

pg 304-5t – Brownbar Goby – new species

pg 304-5m – Rusty Goby – important additional information

pg 304-5b – Bluegold Goby – new species

pg 306-7t – Tusked Goby – new species

pg 308-9m – Dashback Goby – new species

pg 311-2t – Lemon Goby – new species

pg 314-5 – Hairy Blenny complex – now 3 species - Harry Blenny, Masquerader Hairy Blenny, and Mock Blenny. With perfectly displayed markings they can be distinguished. However, because of inherent variability they should be surveyed as one species, “Hairy Blenny Complex (Hairy/Masquerader Hairy/Mock)”, when one cannot distinguish ID

pg 316-7t – Mimic Blenny – new species

pg 316-7m – Longfin Blenny – new species

pg 318-9m – Downy Blenny – new Distinctive Features, new information

pg 320-1t – Imitator Blenny – new species

pg 322-3t &m – Barfin Blenny – picture of female added and new information

pg 324-5t&m – Saddled Blenny – new Distinctive Features, new information

pg 326-7t&m – Goldline Blenny – new Distinctive Features and information, new pictures

pg 328-9t – Banded Blenny – new Distinctive Features and information, new pictures

pg 328-9m – Blackfin Blenny – new Distinctive Features and information, new pictures

pgs 330-1 to 334-5t&m – all new Shy Blenny Complexes – *Starksia* spp. REEF surveyors should report in one of the 7 complexes if possible, if not, then use “Unidentified *Starksia* spp.”

pg 334-5b – Eelgrass Blenny – new species

pg 336-7t&m – Sailfin Blenny – New Distinctive Features and information

pg 338-9t – Ribbon Blenny – new species, new information about the previously mis-identified Pirate Blenny

pg 338-9m – Filament Blenny – new species

pg 338-9b – Caribbean Blenny – formerly the Caldwell’s Caribbean Blenny, new name

pg 340-1t&m – Caribbean Flagfin Glass Blenny – new species. See important note about similar species. Due to limited range and incomplete information, REEF surveyors should

report those glass blennies with cirrus above the eyes collectively as “Flagfin Glass Blenny Complex”, rather than to a specific species.

pg 340-1m&b – Southern Smoothhead Glass Blenny – new species. See important note about similar species. Due to limited range and incomplete information, REEF surveyors should report those glass blennies without cirrus above the eyes collectively as “Smoothhead Glass Blenny Complex”, rather than to a specific species.

pg 342-3t&m – Red Banner Blenny - new Distinctive Features and information, new picture

pg 344-5t – Medusa Blenny – new species

pg 346-7m&b – Spinyhead Blenny – new Distinctive Features and information, new pictures

pg 348-9t – Secretary Blenny - new Distinctive Features and information, new picture

pg 348-9m – Jaggedhead Blenny – new species

pg 348-9b – Stalk Blenny – new species

pg 350-1t – Spotjaw Blenny – new species

pg 350-1m – Speckled Blenny – new species

pg 350-1b - Twinhorn Blenny – new species

pg 352-3t&m – Yellowface Pikeblenny - new Distinctive Features, new pictures

pg 352-3b – Bluethroat Pikeblenny - new Distinctive Features, new pictures

pg 358-9 – Seaweed Blenny - new Distinctive Features, new pictures

pg 364-5m&b – Orangespotted Blenny – new species

pg 366-7b – Blackedge Triplefin – new species

pg 368-9t&m – Two-bar Triplefin – new species

pg 368-9m&b – Matador Triplefin – new species

pg 370-1t – Windward Triplefin – new species

pg 370-1m – Lofty Triplefin – new Distinctive Features and information, new picture

pg 370-1b – Roughhead Triplefin – new Distinctive Features and information, new picture

pg 372-3t&m – Lancer Dragonet – new Distinctive Features and information, new picture

pg 372-3b – Spotted Dragonet – new species

pg 374-5t – Arrow Stargazer – new species

pg 374-5m – Warteye Stargazer – new species

pg 374-5b – Pugjaw Wormfish – new species

pg 376-7b – Moustache Jawfish – new species

pg 380-1t – Banded Jawfish - new Distinctive Features and information, new picture

pg 380-1m – Mottled Jawfish – new species

pg 380-1b – Spotfin Jawfish – new species

Chapter 9 Odd-Shaped Bottom Dwellers

pg 388-9t&m – Eyed Flounder – new Distinctive Features and information, new picture

pg 388-9b – Twospot Flounder – new species

pg 390-1m – Dusky Flounder – new species (NOTE – Spiny Flounder has been removed, it inhabits deepwater mud and unlikely to be ever be observed by a diver. No known *in situ* pictures. The old sightings and picture in 3rd edition were most likely this species)

pg 392-3m – Flabby Sole – new species
pg 392-3b – Hogchoker – new species
pg 394-5t – Lined Sole – new species
pg 394-5b – Caribbean Tonguefish – new species
pg 412-3t&m – Red Lionfish – new species
pg 414t&b – Longlure Frogfish – new Distinctive Feature about the lure
pg 416-7t&m – Striated Frogfish – new important information and new pictures
pg 420-1b – Northern Searobin – new species
pg 422-3m – Bighead Searobin – new species
pg 424-5t – Bluespotted Searobin – new species
pg 424-5m – Bluewing Searobin – new species
pg 424-5b – Blackwing Searobin – new species
pg 426-7b – Bluestriped Lizardfish – new Distinctive Features, new picture, picture in 3rd edition was a mis-identification it was actually a variation of the Sand Diver
pg 432-3t&m – Longsnout Seahorse – added note in Similar Species about possible undescribed seahorse, which is included in the ReefNet DVD as “Island Seahorse”, and should be reported as such to REEF when seen (and images submitted if possible). The potential new species has a dusky to dark dorsal fin with yellow to pale outer margin, which can be seen in both Longsnout and Lined (the yellow/pale border on dorsal fin is not distinctive of either species, despite information in the DVD to the contrary). The “Island Seahorse” lacks the distinctive black spot markings of the Longsnout and lacks the distinctive line markings on the head and body of the Lined.

Chapter 10 – Odd-Shaped Swimmers

pg 444-5 – Red Goatfish – new species – 3rd edition picture was mis-identified as the Dwarf Goatfish, which are typically found beyond diveable depths
pg 446-7 – Caribbean Puffer – new species
pg 448-9 – Southern Puffer – new species
pg 462-3m&b – Orangespotted Filefish – new pictures and additional phases information
pg 466-7 – Unicorn Filefish – new picture of the more common spotted phase
pg 470-1 – Fringed Filefish – 2 new pictures with additional color/markings phases
pg 470-1b – Ground Croaker – new species
pg 472-3m – Blue Croaker – new species
pg 482-3m – Key Brotula – new species

Chapter 11 – Eels

pg 492-3t – Ocellated Moray – new species
pg 492-3m – Reticulated Moray – new Distinctive Feature and new picture
pg 492-3b – Whitespotted Moray – new species
pg 496-7b – Marbled Moray – new species
pg 498-9m – False Moray – new species
pg 500-1b – Stippled Spoon-nose Eel – new species

pg 502t&m – Spotted Spoon-nose Eel – new species (3rd edition pictures were mis-identified, note the differences between the Stippled and the Spotted – they are quite similar, but can be distinguished)

pg 504-5t – Shorttail Snake Eel – new species

pg 504-5m – Surf Eel – new species

pg 504-5b – Finless Eel – new species

pg 506-7t – Sooty Eel – new species

pg 506-7b – Spaghetti Eel – new species

pg 510-1t – Margintail Conger – new species

Chapter 12 – Sharks & Rays

pg 526-7b – Lesser Electric Ray – 2 new pictures showing highly variable markings

pg 528-9m&b – Yellow Stingray – 3 new pictures showing highly variable markings

pg 530-1t – Caribbean Whiptail Stingray – new species

pg 534-5 – Manta Rays – there are now 2 species of mantas in the Caribbean: Oceanic Manta Ray (with world-wide distribution) and Caribbean Manta Ray (with only west Atlantic distribution). Note that there is a 3rd species of manta that is only found in the tropical Pacific (*Manta alfredi*, Reef Manta). Distinctive features and other information distinguishing the two species found in the western Atlantic is included. (Note on pg 10 in the front of the book is a good somewhat head-on picture of an Oceanic Manta – note the black mouth)