

SUPPLEMENTARY MATERIAL S1

TABLE S1 | Distribution of the *Brachygenys* and *Haemulon* species analyzed with their GenBank/BOLD access numbers, when appropriate.*Accessed only from BOLD. MK: sequences obtained in the present study. †Specimens identified previously as *Haemulon steindachneri*.

| Species | Locality (n) | GenBank/BOLD | BIN | References |
|-----------------------------------|-------------------------|--|---------|---|
| <i>Brachygenys californiensis</i> | Mexico (1) | GU440565 | AAF4707 | Philips A. Hastings – BOLD – Personal Communication |
| <i>B. californiensis</i> | Pacific (1) | EU450657 | | Hastings <i>et al.</i> (2008) |
| <i>B. californiensis</i> | Pacific (1) | HQ676805 | | Sanciango <i>et al.</i> (2011) |
| <i>B. californiensis</i> | Mexico (1) | JQ741344 | | Tavera <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | Mexico (1) | JN313820 | AAC8387 | Martha Valdez - Moreno -BOLD - Personal – Communication |
| <i>B. chrysargyrea</i> | Belize (1) | KF929943 | AAC8387 | Andrew C. Bentley – BOLD- Personal Communication |
| <i>B. chrysargyrea</i> | Curacao (2) | JQ842138; JQ842139 | AAC8387 | Weigt <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | Jamaica (1) | MFLE027_12* | AAC8387 | Lourdes Vasquez Yeomans -BOLD - Personal Communication |
| <i>B. chrysargyrea</i> | Bahamas (3) | JQ839779; JQ839790; JQ839780 | AAC8387 | Weigt <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | St. Croix (1) | EU697532 | | Rocha <i>et al.</i> (2008) |
| <i>B. chrysargyrea</i> | Belize (4) | JQ841586; JQ840860; JQ840519; KF929943 | AAC8387 | Weigt <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | Puerto Rico (5) | HM347638; HM347639; HM347620; HM347621; HM347640 | AAC8387 | Hill, R- BOLD - Personal Communication/ Tavera <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | Colombia (2) | JQ741197; JQ741196 | | Tavera <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | Trinidad and Tobago (2) | JQ842875; JQ842876 | AAC8387 | Weigt <i>et al.</i> (2012) |
| <i>B. chrysargyrea</i> | Pernambuco Brazil (3) | MK829331; MK829332; MN602950 | AAC8387 | Present study |
| <i>B. jessiae</i> | Ecuador (1) | MF446585 | | Tavera <i>et al.</i> (2018) |
| <i>Haemulon atlanticus</i> | Mexico (7) | JQ741245; JQ741246; JQ741247; JQ741248; JQ741253; JQ741251; JQ741252 | AAC5790 | Tavera <i>et al.</i> (2012) |
| <i>H. atlanticus</i> | Guatemala (3) | FBW044_14; FBW045_14; FBW046_14* | AAC5791 | Lourdes Vasquez Yeomans -BOLD - Personal Communication |
| <i>H. atlanticus</i> | Costa Rica (7) | RDFCA019_05; RDFCA020_05; RDFCA021_05; RDFCA022_05; RDFCA023_05; RDFCA024_05; RDFCA041_05* | AAC5790 | Robert Hanner - BOLD - Personal Communication |
| <i>H. atlanticus</i> | Panamá (1) | EU697546 | AAC5790 | Rocha <i>et al.</i> (2008) |
| <i>H. atlanticus</i> | Colombia (2) | JQ741249; JQ741250 | AAC5791 | Tavera <i>et al.</i> (2012) |



TABLE S1 | (Continued)

| Species | Locality (n) | GenBank/BOLD | BIN | References |
|--|----------------------|--|---------|--|
| <i>H. atlanticus</i> | Venezuela (1) | EU697547 | AAC5791 | Rocha <i>et al.</i> (2008) |
| <i>H. atlanticus</i> | Ceará Brazil (1) | MK238414 | AAC5791 | Present study |
| <i>H. atlanticus</i> | Paraíba Brazil (1) | EU697545 | AAC5791 | Rocha <i>et al.</i> (2008) |
| <i>H. atlanticus</i> | Pará Brazil (5) | MK238417; MK238421; MK238411; MK238412; MK238418 | AAC5791 | Present study |
| <i>H. atlanticus</i> | Paraíba Brazil (1) | EU697545 | AAC5791 | Rocha <i>et al.</i> (2008) |
| <i>H. atlanticus</i> | Alagoas Brazil (4) | MK238419; MK238422; MK238410; MK238420 | AAC5791 | Present study |
| <i>H. atlanticus</i> / <i>atlanticus</i> | São Paulo Brazil (7) | JQ365368; JQ365369; MK238409; MK238415; MK238413; MK238416; MK238423 | AAC5791 | Ribeiro <i>et al.</i> (2012) |
| <i>H. aurolineatum</i> | Atlantic (1) | HQ676761 | AAA9693 | Sanciango <i>et al.</i> (2011) |
| <i>H. aurolineatum</i> | United States (7) | JQ842500; JQ842501; JQ 842502; JQ 842503; KF929942; KF461185; LIDM441 | AAA9693 | Weigt <i>et al.</i> (2012) |
| <i>H. aurolineatum</i> | Bermuda (4) | FBERM016_06; FBERM017_06; FBERM019_06; FBERM020_06 | AAA6812 | Robert Hanner - BOLD - Personal Communication |
| <i>H. aurolineatum</i> | Bermuda (1) | FBERM018_06 | AAA6814 | Robert Hanner - BOLD - Personal Communication |
| <i>H. aurolineatum</i> | Belize (2) | JQ840859; JX042220 | AAA9693 | Weigt <i>et al.</i> (2012) |
| <i>H. aurolineatum</i> | Puerto Rico (1) | HM34611 | AAA9693 | Hill, R - BOLD - Personal Communication |
| <i>H. aurolineatum</i> | Jamaica (3) | MFLE020_12; MFLE022_12; MFLE112_12* | AAA9693 | Lourdes Vasquez Yeomans -BOLD - Personal Communication |
| <i>H. aurolineatum</i> | Colombia (4) | JQ741187; JQ741188; JQ741189; JQ741190 | AAA9693 | Tavera <i>et al.</i> (2012) |
| <i>H. aurolineatum</i> | Venezuela (2) | MK238436; MK238441 | AAA9693 | Present study |
| <i>H. aurolineatum</i> | Ceará Brazil (5) | MK238440; MK238442; MK238428; MK238443; MK238444 | | Present study |
| <i>H. aurolineatum</i> | Paraíba Brazil (1) | EU697528 | AAA9693 | Rocha <i>et al.</i> (2008) |
| <i>H. aurolineatum</i> | Alagoas Brazil (5) | MK238433; MK238439; MK238435; MK238438; MK238430 | | Present study |



TABLE S1 | (Continued)

| Species | Locality (n) | GenBank/BOLD | BIN | References |
|------------------------|-----------------------|--|---------|---|
| <i>H. aurolineatum</i> | Bahia Brazil (17) | BAHIA021_14; BAHIA022_14; BAHIA023_14; BAHIA024_14; BAHIA025_14; BAHIA026_14; BAHIA027_14; BAHIA028_14; BAHIA029_14; BAHIA030_14; BAHIA031_14; BAHIA032_14; BAHIA033_14; BAHIA035_14; BAHIA036_14; BAHIA037_14; BAHIA038_14* | AAA9693 | Brandão <i>et al.</i> (2016) |
| <i>H. aurolineatum</i> | São Paulo Brazil (5) | MK238437; MK238434; MK238431; MK238432; MK238429 | | Present study |
| <i>H. melanurum</i> | United States (1) | EU697538 | AAI1955 | Rocha <i>et al.</i> (2008) |
| <i>H. melanurum</i> | Puerto Rico (1) | HM347612 | AAI1955 | Hill, R - BOLD - Personal Communication |
| <i>H. melanurum</i> | Ceará Brazil (4) | MK238451; MK238450; MK238452; MK238453 | | Present study |
| <i>H. parra</i> | United States (7) | JQ841906; JQ841907; JQ841908; JQ841909; JQ841910; JQ841911; JQ841912 | AAA6815 | Weigt <i>et al.</i> (2012) |
| <i>H. parra</i> | Mexico (10) | JN313804; JN313794; HM379784; GU672648; GU672651; MFLE707_16; MXV143_11; MXV144_11; MXV145_11; MXV098_11 | AAA6815 | Martha Valdez - Moreno -BOLD - Personal - Communication |
| <i>H. parra</i> | Belize (1) | JQ840520 | AAA6815 | Weigt <i>et al.</i> (2012) |
| <i>H. parra</i> | Puerto Rico (2) | HM347635; HM347613 | AAA6815 | Hill, R - BOLD - Personal Communication |
| <i>H. parra</i> | Pará Brazil (1) | MK238426 | | Present study |
| <i>H. parra</i> | Pernambuco Brazil (1) | MK829330 | | Present study |
| <i>H. parra</i> | Bahia Brazil (4) | BAHIA017_14; BAHIA018_14; BAHIA019_14; BAHIA020_14* | AAA6815 | Brandão <i>et al.</i> (2016) |
| <i>H. parra</i> | São Paulo Brazil (2) | MK238424; MK238429 | | Present study |



TABLE S1 | (Continued)

| Species | Locality (n) | GenBank/BOLD | BIN | References |
|-------------------------|--------------------|--|---------|--|
| <i>H. plumieri</i> | United States (5) | HQ024937; HQ024938; HQ024939; HQ024950; JQ841913 | ABY5140 | Handy <i>et al.</i> (2011) |
| <i>H. plumieri</i> | United States (2) | JQ842508; JQ842509 | AAA9694 | Weigt <i>et al.</i> (2012) |
| <i>H. plumieri</i> | Mexico (5) | GU225312; GU225313; GU225309; GU225310; GU225311 | AAA9694 | Valdez-Moreno <i>et al.</i> (2009) |
| <i>H. plumieri</i> | Belize (5) | JQ840086; JQ224487; JQ841590; KF929946; JQ840087 | AAA9694 | Weigt <i>et al.</i> (2012) |
| <i>H. plumieri</i> | Puerto Rico (3) | HM347617; HM437619; HM347637 | AAA9694 | Hill, R - BOLD - Personal Communication |
| <i>H. plumieri</i> | Bahamas (3) | JQ839781; JQ839784; JQ839782 | AAA9694 | Weigt <i>et al.</i> (2012) |
| <i>H. plumieri</i> | Haiti (2) | MFLE035_12; MFLE070_12* | AAA9694 | Lourdes Vasquez Yeomans -BOLD - Personal Communication |
| <i>H. plumieri</i> | Puerto Rico (2) | HM347636; HM347616 | AAE3001 | Hill, R - BOLD - Personal Communication |
| <i>H. plumieri</i> | Ceará Brazil (5) | MK238445; MK238446; MK238447; MK238448; MK238449 | | Present study |
| <i>H. plumieri</i> | Bahia Brazil (3) | BAHIA014_14; BAHIA015_14; BAHIA016_14* | AAE3001 | Brandão <i>et al.</i> (2016) |
| <i>H. squamipinna</i> | Ceará Brazil (1) | MK238408 | | Present study |
| <i>H. squamipinna</i> | Paraíba Brazil (1) | EU697544 | AAV1832 | Rocha <i>et al.</i> (2008) |
| <i>H. steindachneri</i> | Pacific (1) | HQ676764 | AAC5790 | Sanciangco <i>et al.</i> (2011) |

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Neotropical Ichthyology



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