### MBARA Diver's Reef Survey Form Rev 11 May 2013

Reef Number and Name MB 180 James Swiger Memorial Reef

Latitude | 29 54.912 Longitude Was published lat/lon correct? Yes 85 35.940  $(00\ 00.000)$  $(00\ 00.000)$ GPS Manufacturer & Model: Garmin 188C Sonar Depth (feet) Survey Date May 24, 2016 76 Time 1130 Weather Conditions Sunny and Calm Sea Condition Calm Boat Captain Bob Cox **Boat Name** Bobcat Dive Leader Bob Cox **Dive Team Members** Depth Gauge Depth (feet) 77 Diver Bottom Time (minutes) 30 Water Temp Surface (Fahrenheit) Water Temp Bottom (Fahrenheit) 76 69 Water Visibility Surface (feet) 20 Water Visibility Bottom (feet) 30 Thermocline Depth (feet) 20 Current Direction NW **Current Speed (knots)** 1 Other Water Column Characteristics (check all that apply) R Plankton □ Algae 🗆 Jellyfish 🗆 Turbid □ Other Bottom Composition (check all that apply) 🗖 Shell □ Silt 🗆 Gravel **⊠** Sand ⊢ Mud □ Other Reef Materials & Quantity 3 FLAR; one with a plaque Reef Height at Highest Point (measured from base to top of the reef)(feet) 8 Physical Condition (Durability, stability, storm damage, other damage or movement): • No damage  $\bigcirc$  Minor damage  $\bigcirc$  Moderate damage ○ Major damage ○ Minor movement ○ Moderate movement No movement Major movement

Explain damage/movement and suspected cause

Clear Form

# Fish Counts (Click on the hyper-links below for identification)

| Angelfish-Blue                  | ○ 1      | O 2-10 | 11-100 (   | 0 101+ | Length (inches) | Comments |
|---------------------------------|----------|--------|------------|--------|-----------------|----------|
| Angelfish-Queen                 | ○ 1      | ○ 2-10 | ○ 11-100 ( | 0 101+ | Length (inches) | Comments |
| Barracuda-Great                 | 01       | ○ 2-10 | ○ 11-100 ( | 0 101+ | Length (inches) | Comments |
| Barracuda-Guaguanche            | ○ 1      | O 2-10 | ○ 11-100 ( | 0 101+ | Length (inches) | Comments |
| Batfish-Polka-Dot               | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Blenny-Molly-Miller             | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Blenny-Seaweed                  | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Blenny-Tessellated              | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Blenny?                         | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Butterflyfish-Spotfin           | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Butterflyfish?                  | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Cardinalfish-Two-Spot           | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Chromis-Purple-Reeffish         | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Chromis-Yellowtail-<br>Reeffish | 01       | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Cobia (Ling)                    | <u> </u> | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Cowfish-Scrawled                | 01       | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Damselfish-Cocoa                | 01       | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Damselfish?                     | 01       | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Dolphin?                        | 01       | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Drum-Cubbyu                     | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Drum-Jackknifefish              | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Eel?                            | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Flounder-Gulf                   | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Filefish?                       | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Frogfish-Ocellated              | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Goby-Spotted                    | ○ 1      | ○ 2-10 | O 11-100 ( | 0 101+ | Length (inches) | Comments |
| Goby?                           | 01       | O 2-10 | 11-100 (   | 0 101+ | Length (inches) | Comments |

| Grouper-Gag                             | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
|---|-----|--------|------------|----------------------|----------|
| Grouper-Goliath                         | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grouper-Graysby                         | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grouper-Red                             | O 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grouper-Rock-Hind                       | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grouper-Scamp                           | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grunt-Juvenile                          | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grunt-Tomtate                           | O 1 | O 2-10 | ○ 11-100 ● | 101+ Length (inches) | Comments |
| Grunt-White                             | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Grunt?                                  | O 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Hogfish                                 | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Hogfish-Spanish                         | O 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Jack-Almaco-Lesser-AJ                   | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Jack-Blue-Runner                        | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Jack-Greater-Amberjack                  | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Jack-Lookdown                           | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Jack-Rainbow-Runner                     | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Jack-Round-Scad-Cigar-<br><u>Minnow</u> | O 1 | ○ 2-10 | ○ 11-100 ● | 101+ Length (inches) | Comments |
| Jack?                                   | O 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Lionfish                                | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| <u>Lizardfish?</u>                      | O 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Mackeral-King                           | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Mackeral-Spanish                        | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| , <mark>∏Mahi</mark>                    | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Minnows-Glass-Small-Fry                 | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| <mark> √ Pinfish?</mark>                | ○ 1 | 2-10   | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Porgy-Saucereye                         | ○ 1 | ○ 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |
| Porgy-Sheepshead-Porgy                  | O 1 | O 2-10 | ○ 11-100 ○ | 101+ Length (inches) | Comments |

| Porgy-Sheepshead                 | 01       | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
|----------------------------------|----------|----------|-----------------|-----------------|----------|
| Porgy?                           | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Puffer-Bandtail                  | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Puffer-Sharpnose                 | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Puffer?                          | 01       | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Ray?                             | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Shark?                           | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Sharksucker-Sharksucker          | ○ 1      | C 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Sharksucker-Whitefin             | ○ 1      | C 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| ✓ Sand-Perch                     | O 1      | 2-10 (   | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Seabass-Bank                     | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Seabass-Belted-Sandfish          | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Seabass-Black                    | <u> </u> | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Seabass-Pygmy                    | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Seabass?                         | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| ✓ Snapper-Gray                   | • 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Snapper-Lane                     | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Snapper-Red                      | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Snapper-Vermillion               | ○ 1      | 2-10 (   | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Snapper?                         | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Soapfish-Whitespotted            | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Spadefish-Atlantic               | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Toadfish-Leopard                 | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| <b>√</b> <u>Triggerfish-Gray</u> | • 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Wrasse-Slippery-Dick             | ○ 1      | 2-10 (   | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Unlisted-See-Comments            | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Unlisted-See-Comments            | ○ 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |
| Unlisted-See-Comments            | O 1      | O 2-10 ( | ○ 11-100 ○ 101+ | Length (inches) | Comments |

# Growth on Reef (Click on the hyper-links below for identification)

| Algae                   | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
|-------------------------|--|--|
| Anemone                 | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| ✓ Barnacles             | ● 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Bivalves                | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Coral-Colorful-Sea-Whip | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Coral-Hard-Unkown       | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Coral-Gorgonian         | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Coral-Occulina          | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Coral-White-Telesto     | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Feather-Duster-Worms    | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Sponges                 | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |
| Unlisted-See-Comments   | ○ 1-25% ○ 26-50% ○ 51-75% ○ 76-100% Size (inches) Describe |  |

## Invertebrates at Reef (Click on the hyper-links below for identification)

| Cowry-Spotted-Cyphoma    | <u> </u> | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
|--------------------------|----------|----------|-----|----------|--------|---------------|----------|
| Cowry-West-Indian-Simnia | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Crab-Swimming            | 01       | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Crab-Stareye-Hermit      | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Crab-Stone               | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Crab-Yellowline-Arrow    | 01       | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Crab?                    | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Lobster-Shovelnose       | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Lobster-Spiny            | 01       | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Octopus                  | <u> </u> | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Sea-Cucumber             | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Sea-Slug                 | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |
| Sea-Star                 | ○ 1      | <u> </u> | -10 | 0 11-100 | ○ 101+ | Size (inches) | Comments |
| Sea-Urchin               | ○ 1      | ○ 2-     | -10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |

| Snail-Atlantic-Hairy-Triton   | 01  | O 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
|---|-----|--------|----------|--------|---------------|----------|--|
| Snail-Murex   | 01  | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Snail-Netted-Olive  | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Snail-Florida-Horse-Conch   | ○ 1 | O 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Unlisted-See-Comments   | ○ 1 | O 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Turtles and Air Breathers/Mammals (Click on the hyper-links below for identification) |     |        |          |        |               |          |  |
| Turtle-Green  | ○ 1 | O 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Turtle-Leatherback  | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Turtle-Loggerhead   | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Turtle?   | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Whale?  | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Unlisted-See-Comments   | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Unlisted-See-Comments   | 01  | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |
| Unlisted-See-Comments   | ○ 1 | ○ 2-10 | ○ 11-100 | ○ 101+ | Size (inches) | Comments |  |

# Other Observations/Photos:

| Observations   |                  |
|----------------|------------------|
|                |                  |
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|                |                  |
|                |                  |
| Photos?<br>Yes | Attached?<br>Yes |
| Video?<br>Yes  |                  |



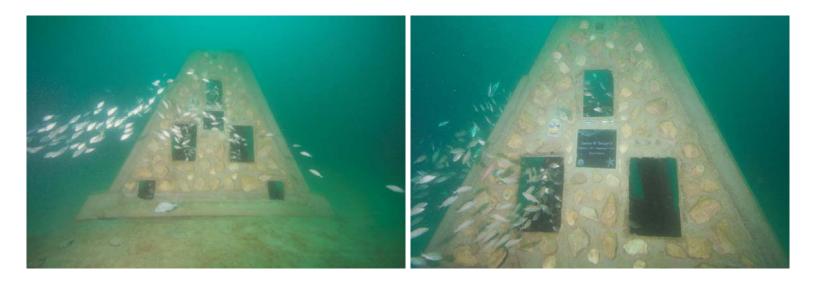


Image Field



#### Image Field



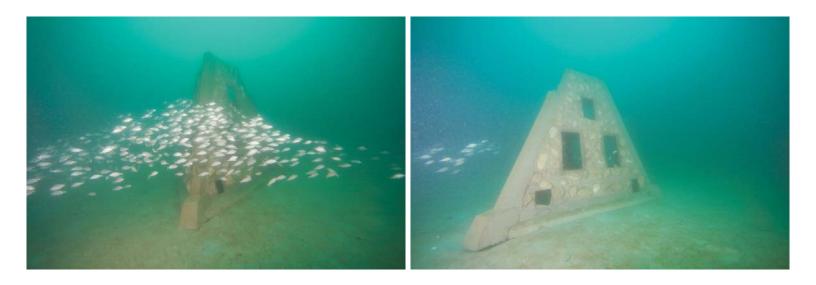


Image Field

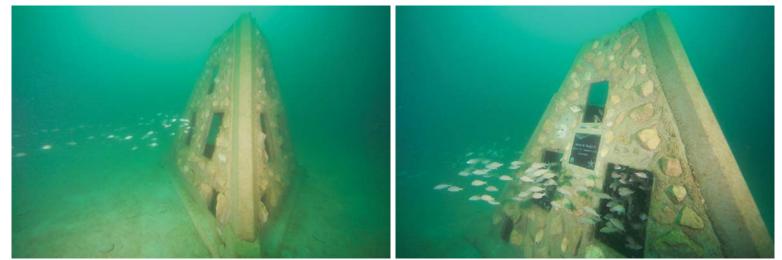


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