



Citation

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The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of NOAA, the NOAA Coral Reef Conservation Program, or the U.S. Department of Commerce.

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<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
Batch	ALL	Y	<p>Batch identifies the survey event. There are 20 total batches with 15 late summer surveys, 4 winter surveys and 1 intermediate survey in May of 2010.</p> <p>Batch Identifiers use 'A', 'B', and 'C' to distinguish different surveys within the same year.</p> <p><u>Batch number / Batch Identifier / Survey Months</u></p> <p>1 / 2005 / (Aug-Sep)</p> <p>2 / 2006A / (Jan-Mar) - Post bleaching winter survey</p> <p>3 / 2006B / (Aug-Oct)</p> <p>4 / 2007 / (Aug-Oct)</p> <p>5 / 2008 / (Aug-Nov)</p> <p>6 / 2009 / (Aug-Nov)</p> <p>7 / 2010A / (Jan-Feb) - Cold water event survey</p> <p>8 / 2010B / (May) - Post cold water event survey</p> <p>9 / 2010C / (Aug-Sep)</p> <p>10 / 2011 / (Aug-Sep)</p> <p>11 / 2012 / (Aug-Sep)</p> <p>12 / 2013 / (Sep-Oct)</p> <p>13 / 2014 / (Sep-Oct)</p> <p>14 / 2015A / (Feb) - Post bleaching winter survey</p> <p>15 / 2015B / (Jul-Oct)</p> <p>16 / 2016A / (Feb-Mar) - Post bleaching winter survey</p> <p>17 / 2016B / (Sep-Oct)</p> <p>18 / 2017A / (Aug-Oct)</p> <p>19 / 2017B / (Aug-Oct) - IRMA Rapid Response Research Cruise</p> <p>20 / 2018 / (Aug-Oct)</p> <p>21 / 2019 / (Aug-Oct)</p>
Site	ALL	Y	<p>Four digit numerical code for each site with an alphabetical Batch identifier ("A" in 2005 to "T" in 2019).</p> <p>1000 numbers = Primary sample sites</p> <p>2000 numbers = Secondary or "backup" sites when a primary site is not appropriate habitat or the secondary site is more convenient.</p> <p>3000 numbers = Strategic Sites or sites that were not included the original list of assigned sites and the location was chosen in the field</p> <p>4000 numbers = Fixed Monitoring Sites. SECREMP and CREMP Sites. These sites are typically surveyed during post-bleaching surveys.</p> <p>2017-IRMA sites were not randomly selected but still utilize 1000s and 2000s. These sites were sampled in October 2017 during a research cruise. This effort only sampled sites in the Florida Keys.</p>
Transect	ALL	Y	<p>Unique value for every transect that is entered into the database.</p> <p>Two belt transects are completed at each site. There are some cases where there is only one transect at a site due to limited time or limited habitat area.</p>
Date	ALL	Y	Date of survey.

<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
Latitude	ALL	Y	Decimal Degrees. The coordinates may change from those originally assigned to a sample site if a surveyor chooses to move the location to appropriate habitat.
Longitude	ALL	Y	<p>Decimal Degrees. The coordinates may change from those originally assigned to a sample site if a surveyor chooses to move the location to appropriate habitat.</p> <p>NOTE: If the location of the survey is moved farther than 50 meters from the original sample location, the new survey site will be assigned a Strategic Site number by the online data entry system (3000's).</p>
Depth	ALL	Y	<p>Depth of transect in meters.</p> <p>NOTE: From 2005-2017 two depth measurements were collected along each transect at a site. Starting in 2018, it was reduced to only one measurement per transect.</p> <p>The depth values for 2005-2017 are an average of two depth measurements.</p>
Subregion	ALL	Y	<p>Latitudinal framework to divide up the reef for surveying.</p> <p><u>Subregion / Years Surveyed / Notes</u></p> <p><u>Martin</u> / 2005, 2006, 2008-2012, 2014-2016</p> <p><u>Palm Beach</u> / 2005-2013 / Starting in 2014, the Palm Beach Subregion was divided into North Palm Beach and South Palm Beach Subregions.</p> <p><u>North Palm Beach</u> / 2014, 2019 / Starting in 2014, the Palm Beach Subregion was divided into North Palm Beach and South Palm Beach Subregions.</p> <p><u>South Palm Beach</u> / 2014-2016, 2018-2019 / Starting in 2014, the Palm Beach Subregion was divided into North Palm Beach and South Palm Beach Subregions.</p> <p><u>Deerfield</u> / 2014-2016, 2019 / Starting in 2014, the Deerfield Subregion was split from the Broward Subregion to become its own Subregion.</p> <p><u>Broward</u> / 2005-2013 / Starting in 2014, the Broward Subregion was merged with Miami to become the Broward-Miami Subregion.</p> <p><u>Broward-Miami</u> / 2014-2019 / Starting in 2014, the Broward Subregion was merged with Miami to become the Broward-Miami Subregion.</p> <p><u>Biscayne</u> / 2005-2019</p> <p><u>Upper Keys</u> / 2005-2019 / Starting in 2017, the Upper Keys was divided into Upper Keys and Middle-Upper Keys Transition.</p> <p><u>Mid-Upper Keys Transition</u> / 2017-2019 / Starting in 2017, the Upper Keys was divided into Upper Keys and Middle-Upper Keys Transition.</p> <p><u>Middle Keys</u> / 2005-2019</p> <p><u>Lower Keys</u> / 2005-2019</p> <p><u>Marquesas</u> / 2007, 2019</p> <p><u>Tortugas--Dry Tortugas NP</u> / 2007, 2009, 2011, 2012, 2014-2019 / DRM surveys in the Dry Tortugas area started in 2007.</p> <p><u>Tortugas--Tortugas Bank</u> / 2007 / Only surveyed in 2007.</p>
Zone	ALL	Y	Cross-shelf framework to divide up the reef for surveying. Zones are based on distance from shore and depth.

<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
Habitat	ALL	Y	<p>Habitat distinction within the Subregion and Zones.</p> <p><u>Code and Habitat Description</u></p> <p>CONT_HR = Contiguous reef, high relief</p> <p>CONT_LR = Contiguous reef, low relief</p> <p>CONT_MR = Contiguous reef, moderate relief</p> <p>CPDP_LR = Colonized pavement, deep, low relief</p> <p>CPSH_HR = Colonized pavement, shallow, high relief</p> <p>CPSH_LR = Colonized pavement, shallow, low relief</p> <p>ISOL_HR = Isolated reef structures, high relief</p> <p>ISOL_LR = Isolated reef structures, low relief</p> <p>ISOL_MR = Isolated reef structures, moderate relief</p> <p>LIRI_HR = Linear reef, inner reef line, high relief</p> <p>LIRI_LR = Linear reef, inner reef line, low relief</p> <p>LIRM_HR = Linear reef, middle reef line, high relief</p> <p>LIRM_LR = Linear reef, middle reef line, low relief</p> <p>LIRO_HR = Linear reef, outer reef line, high relief</p> <p>LIRO_LR = Linear reef, outer reef line, low relief</p> <p>OTHR_NA = Other non-reef habitat</p> <p>PTDP_HR = Patch reefs, deep, high relief</p> <p>PTDP_LR = Patch reefs, deep, low relief</p> <p>PTSH_HR = Patch reefs, shallow, high relief</p> <p>PTSH_LR = Patch reefs, shallow, low relief</p> <p>RGDP_HR = Reef ridge, deep, high relief</p> <p>RGSH_HR = Reef ridge, shallow, high relief</p> <p>RGSH_LR = Reef ridge, shallow, low relief</p> <p>RUBB_LR = Reef rubble, low relief</p> <p>SAND_NA = Sand</p> <p>SGRS_NA = Seagrass</p> <p>SPGR_HR = Spur-groove reef, high relief</p> <p>SPGR_LR = Spur-groove reef, low relief</p> <p>UCHB_LR = Unconsolidated hardbottom, low relief</p> <p>UNCR_UN = Unclassified reef</p> <p>UNDF_UN = Undefined, unknown</p>
Species	ALL	Y	<p>Four letter code to identify coral species. First letter = First letter of Genus, Following letters = First three letters of Species. If Species is unknown, the four digit code will be the first four letters of the Genus.</p> <p>The species codes are listed separately in this document. 'Coral Species Code'</p> <p>NOTE: Starting in 2018, Millipora spp. were no longer recorded during DRM surveys.</p>
Width	ALL	Y	Maximum diameter of coral colony from a planar view. Measured in centimeters.
Height	ALL	Y	Maximum perpendicular measurement (height) of coral colony. Measured in centimeters.
Isolates	2005-2017	N	The number of isolated areas of live tissue on a single colony separated by old mortality. NOTE: Starting in 2018, this data was no longer collected.

<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
Bleaching	ALL	Y	Identifies symptoms of stress that results in loss of coral tissue color. <u>Codes and Descriptions</u> (P) = Pale (Tissue color is lighter than normal healthy tissue) (PB) = Partially Bleached (Portions of the coral have a complete loss of color) (BL) = Bleached (100% of coral tissue has lost its color and appears white)
Old Mort	ALL	Y	Percent of the coral colony that has died and is covered with turf algae or macroalgae.
Total RM	2005-2017	N	Percent of the coral colony with recent mortality that has not been colonized by turf algae, macroalgae or other organisms.
Other RM	2018, 2019	Y	Percent of the coral colony with recent mortality not from disease that has not been colonized by turf algae, macroalgae or other organisms. Other causes of recent mortality may be biotic or abiotic.
Dis RM	2018, 2019	Y	Percent of the coral colony with recent mortality from disease that has not been colonized by turf algae, macroalgae or other organisms.
TL Pattern	2018, 2019	Y	If recent mortality from disease is observed, the surveyor will describe the pattern of the lesion(s). <u>Codes and Descriptions</u> (F) = Focal (lesion originating from one location) (MF) = Multifocal (lesions originating from more than one location) (D) = Diffuse (tissue loss has no distinct origin and irregular tissue loss margins)
TL Rate	2018, 2019	Y	If recent mortality from disease is observed, the surveyor will describe the rate of tissue loss of the lesion(s). <u>Codes and Descriptions</u> (Fast) = Area of recent mortality from disease is > 1cm in width. (Slow) = Area of recent mortality from disease is <1cm in width.
Disease Conditions	ALL	Y	From 2005-2017 this field was called 'Disease'. Starting in 2018 this field was renamed 'Disease Conditions' where more than one condition could be added. If recent mortality from disease is observed, the surveyor will describe it as an unknown or known coral disease(s). <u>Codes and Disease Descriptions</u> (UNK) = Unknown Coral Disease (NOTE: Added in 2019 to identify the disease outbreak. In 2018, corals observed with the disease outbreak were recorded as UNK since the pathogen was and still is unknown.) (STL) = Stony Coral Tissue Loss Disease (Added in 2019) (WPL) = White Plague (WBD) = White Band Disease (WPX) = White Pox (RTL) = Rapid Tissue Loss (NOTE: Only observed on Acroporid spp.) (DSD) = Dark Spot Disease (YB) = Yellow Band Disease (BB/RB) = Black Band / Red Band Disease (DC) = Discolored (NOTE: This code is used when there is a discoloration of the coral tissue caused by disease or in association with a disease lesion.)

<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
Other Condition(s)	2018, 2019	Y	Other biotic or abiotic conditions that cause recent mortality. <u>Codes and Condition Descriptions</u> (PRD) = Predation (OGI) = Overgrowth and interaction (ABR) = Abrasion (SC) = Sediment Cover (CLN) = Clionid sp. (MUC) = Mucus sheathing (NOTE: Mucus sheathing may not cause recent mortality but can be documented in the 'Other Condition(s)' field.)
Impacts	2017 only	N	This field was added in 2017 to document impacts from Hurricane Irma. <u>Codes and Impact Descriptions</u> (ABR) = Abrasion (DSL) = Dislodged (BRK) = Broken (SC) = Sediment Cover

The below data fields are not included in the online data report generator
To obtain data from fields listed below, please contact Jennifer Stein (Jennifer.Stein@MyFWC.com).

<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
Surveyor	ALL	Y	Primary data collector for a transect.
Shared	ALL	Y	Did the primary data collector for a transect have help from another surveyor? If so, the other surveyor will need to enter data for that transect or allow the primary surveyor to enter their data for them.
Buddy	ALL	Y	Dive buddy for the primary surveyor
Habitat Type "fhabitat"	2018, 2019	Y	fhabitat = field habitat. One of four distinctions identified by the surveyor underwater to help in refining the grid file for better site allocation in future surveys. NOTE: This field is different from the 'Habitat' field assigned by the data entry system. Isolated Reef Reef Rubble Contiguous Reef Other Contiguous Reef Spur and Grove
Rugosity Msmts 1 - 10	2018, 2019	Y	Ten rugosity measurements are collected within each square meter of a transect.
Diadema Present	2006-2019	Y	Presence / absence of Diadema in the visible area surrounding your transect. This is not to be filled in during a Roving Diver survey so that it remains consistent with past year's data collection.

<u>Data Field</u>	<u>Year collected</u>	<u>Currently collected?</u>	<u>Metadata</u>
ACER Present	2006-2019	Y	Presence / absence of <i>Acropora cervicornis</i> in the visible area surrounding your transect. This is not to be filled in during a Roving Diver survey so that it remains consistent with past year's data collection.
APAL Present	2006-2019	Y	Presence / absence of <i>Acropora palmata</i> in the visible area surrounding your transect. This is not to be filled in during a Roving Diver survey so that it remains consistent with past year's data collection.
DCYL Present	2006-2019	Y	Presence / absence of <i>Dendrogyra cylindrus</i> in the visible area surrounding your transect. This is not to be filled in during a Roving Diver survey so that it remains consistent with past year's data collection.
MALC - NB, P, PB, BL - Count	2015-2017	N	Starting in 2015, MALC was tallied in one of the four bleaching categories. In past survey events, MALC was recorded and measured the same as all other coral species within the belt transects. In 2018, recording MALC was eliminated. NB = <i>Millipora</i> spp. was not bleached. P = <i>Millipora</i> spp. was pale. PB = <i>Millipora</i> spp. was partially bleached. BL = <i>Millipora</i> spp. was fully bleached.
Comments	2005-2017	N	Surveyor could provide additional information on a coral colony.

Below are the list of species listed in the database
Coral Species Codes (Former names are not used in the DRM database)

ACER = *Acropora cervicornis*
 APAL = *Acropora palmata*
 APRO = *Acropora prolifera*
 ACRO = *Acropora* sp.
 AAGA = *Agaricia agaricites* (Former name: *Undaria agaricites*)
 AFRA = *Agaricia fragilis*
 AGRA = *Agaricia grahamae*
 AHUM = *Agaricia humilis* (Former name: *Undaria humilis*)
 ALAM = *Agaricia lamarcki*
 AGAR = *Agaricia* sp.
 ATEN = *Agaricia tenuifolia* (Former name: *Undaria tenuifolia*)
 AUND = *Agaricia undata*
 CARB = *Cladocora arbuscula*
 CNAT = *Colpophyllia natans*
 DCYL = *Dendrogyra cylindrus*
 DSTO = *Dichocoenia stokesi*
 DLAB = *Diploria labyrinthiformis*
 DIPL = *Diploria* sp.
 EFAS = *Eusmilia fastigiata*
 FFRA = *Favia fragum*
 HCUC = *Helioseris cucullata* (Former name: *Leptoseris cucullata*)
 IRIG = *Isophyllia rigida* (Former name: *Isophyllastraea rigida*)
 ISIN = *Isophyllia sinuosa*
 ISOP = *Isophyllia* sp.

MAUR = *Madracis auretenra* (Former name: *Madracis mirabilis*)
 MDEC = *Madracis decactis*
 MFOR = *Madracis formosa*
 MPHA = *Madracis pharensis*
 MADR = *Madracis* sp.
 MARE = *Manicina areolata*
 MJAC = *Meandrina jacksoni*
 MMEA = *Meandrina meandrites*
 MEAN = *Meandrina* sp.
 MALC = *Millepora alcicornis*
 MCOM = *Millepora complanata*
 MILL = *Millepora* sp.
 MCAV = *Montastraea cavernosa*
 MANG = *Mussa angulosa*
 MALI = *Mycetophyllia aliciae*
 MFER = *Mycetophyllia ferox*

 MLAM = *Mycetophyllia lamarckiana* (Includes Former: *Mycetophyllia danaana*)

 MYCE = *Mycetophyllia* sp.
 ODIF = *Oculina diffusa*
 OCUL = *Oculina* sp.
 OVAR = *Oculina varicosa*
 OANN = *Orbicella annularis* (Former name: *Montastrea annularis*)
 OFAV = *Orbicella faveolata* (Former name: *Montastrea faveolata*)
 OFRA = *Orbicella franksi* (Former name: *Montastrea franksi*)
 ORBI = *Orbicella* sp.
 PAST = *Porites astreoides*
 PBRA = *Porites* cf. *branneri*
 PDIV = *Porites divaricata*
 PFUR = *Porites furcata*
 PPOR = *Porites porites*
 PORI = *Porites* sp.
 PCLI = *Pseudodiploria clivosa* (Former name: *Diploria clivosa*)
 PSEU = *Pseudodiploria* sp.
 PSTR = *Pseudodiploria strigosa* (Former name: *Diploria strigosa*)
 SCUB = *Scolymia cubensis*
 SLAC = *Scolymia lacera*
 SCOL = *Scolymia* sp.
 SWEL = *Scolymia wellsi*
 SRAD = *Siderastrea radians*
 SSID = *Siderastrea siderea*
 SIDE = *Siderastrea* sp.
 SBOU = *Solenastrea bournoni*
 SHYA = *Solenastrea hyades*
 SOLE = *Solenastrea* sp.
 SINT = *Stephanocoenia intersepta*
 UNKN = Unknown species