



#### Acknowledgements

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D-4- E'-11	Year	Currently	W.4. J.4.
Data Field	collected	collected?	Metadata
Batch	ALL	Y	Batch identifies the survey event. There are 26 total batches with 18 late summer surveys, 4 winter surveys, 1 disease reconnaissance survey in 2023, 1 post-cold water event survey in May of 2010, and one hurricane response event in October of 2017.
			Batch Identifiers use 'A', 'B', and 'C' to distinguish different surveys within the same year.  Batch number / Batch Identifier / Survey Months  1 / 2005 / (Aug-Sep)  2 / 2006A / (Jan-Mar) - Post bleaching winter survey (Not included this report)  3 / 2006B / (Aug-Oct)  4 / 2007 / (Aug-Oct)  5 / 2008 / (Aug-Nov)  6 / 2009 / (Aug-Nov)  7 / 2010A / (Jan-Feb) - Cold water event survey (Not included this report)  8 / 2010B / (May) - Post cold water event survey (Not included this report)  9 / 2010C / (Aug-Sep)  10 / 2011 / (Aug-Sep)  11 / 2012 / (Aug-Sep)  12 / 2013 / (Sep-Oct)  13 / 2014 / (Sep-Oct)  14 / 2015A / (Feb) - Post bleaching winter survey (Not included this report)  15 / 2015B / (Jul-Oct)  16 / 2016A / (Feb-Mar) - Post bleaching winter survey (Not included this report)  17 / 2016B / (Sep-Oct)  18 / 2017A / (Aug-Oct) - Low number of survyed sites due to Hurricane IRMA  19 / 2017B / (Oct) - IRMA Rapid Response Research Cruise (Not included this report)  20 / 2018 / (Aug-Oct)  21 / 2019 / (Aug-Oct)  22 / 2020 / (Aug-Sep)  23 / 2021 / (Aug-Nov)  24 / 2022 / (Aug-Nov)  25 / 2023A / (May-June) - Disease Recon in the Nearshore Habitat of the Middle Keys subregion (Not included in this report)  26 / 2023B / (Aug-Oct)  27 / 2024A / (Jan-Mar) - Post bleaching winter survey (Not included this report)

Data Field	Year collected	Currently collected?	Metadata
Site	ALL	Y	Alphabetical Batch-identifier ("A" in 2005 to "Y" in 2023) followed by a four digit numerical code for each site. Example (Y1120). 2024 is identified by "AA".
			1000 numbers = Primary sample sites
			2000 numbers = Secondary or "backup" sites when a primary site is not appropriate habitat or the secondary site is more convenient.
			3000 numbers = Strategic Sites or sites that were not included the original list of assigned sites and the location was chosen in the field.
			####-2 numbers = Sample sites that were duplicate numbers in the same Batch dataset and had to be assigned a "-2" to differentiate them from one another (i.e. 1035-2).
			2017B-IRMA sites are not included in this report. These sites were also not randomly selected but still utilize 1000s and 2000s. These sites were sampled in October 2017 during a research cruise to document hurricane impacts. This effort only sampled sites in the Florida Keys. For more information on this effort, contact CoralDRM@MyFWC.com.
			All sites where "MQ" is included in the name were collected in the Marquesas subregion. MQ-#### (surveyed in 2019), MQ20-#### (surveyed in 2020), MQ21-#### (surveyed in 2021), MQ22-#### (surveyed in 2022), etc. Due to the lack of benthic habitat data in the Marquesas, these sites were pre-selected based on known coral habitat and were not apart of the stratified random sample draw.
Transect	ALL	Y	Transects number at each site.
			Transect dimensions: 1m width x 10m length = 10m2.
			Total transects per site – From 2005-2019, two belt transects were surveyed for all coral species $\geq$ 4cm. From 2020-2023, four belt transects were surveyed where two transects (transects 1 and 2) were surveyed for all coral species $\geq$ 4cm and the remaining two transects (transects 3 and 4) only 10 targeted coral species $\geq$ 4cm were surveyed.
			The 10 targeted coral species are those known to be susceptible to SCTLD. Data from Transects 3 and 4 are not included in this report. Those ten coral species are as follows: Colpopyllia natans, Dichocoenia stokesii, Diploria labyrinthformis, Meandrina meandrites, Mussa angulosa, Mycetophyllia aliciae, M. ferox, M. lamarckiana, Pseudodiploria clivosa, P. strigosa.
			Data from Transects 3 and 4 is not included in this report since it only targets 10 coral species and should not be analyzed with all species data from Transects 1 and 2. To obtain data from Transects 3 and 4 please email CoralDRM@myfwc.com.

Data Field	Year collected	Currently collected?	Metadata
Transect Cont.			<b>IMPORTANT NOTE</b> : If a transect (1 or 2) is missing from a site in the dataset, it is due to no corals ≥ 4cm (excluding Millipora spp.) observed on the transect. However, since the transect was surveyed, the survey area should reflect 20m² per site (Transects 1 & 2 included in this report) or 40m2 (Transects 1, 2, 3, and 4 for only the 10 target species - Transects 3 & 4 are not included in this report).
Date	ALL	Y	Date of survey. (MM/DD/YYYY)
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	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.
			NOTE: If the location of the survey is moved farther than 25 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).
Depth	ALL	Y	Depth of transect in feet.
		L v	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.  The depth values in this report from 2005-2017 are a single measurement (maximum) and not an average of both.
Subregion	ALL	Y	Latitudinal framework to divide up the reef for surveying.
			For analysis or reporting purposes, data from select subregions are often merged to provide a more broad scale representation of the data. Subregions typically merged: North Palm Beach and South Palm Beach; Deerfield, Broward, and Broward Miami; Upper Keys and Mid-Upper Keys Transition.  Subregion / Years Surveyed / Notes  Martin / 2005, 2006, 2008-2012, 2014-2016, 2020, 2021, 2022,
			2023, 2024  Palm Beach / 2005-2013 / Starting in 2014, the Palm Beach Subregion was divided into North Palm Beach and South Palm Beach
			Subregions.  North Palm Beach / 2014, 2019-2024 / Starting in 2014, the Palm Beach Subregion was divided into North Palm Beach and South Palm Beach Subregions.
			South Palm Beach / 2014-2016, 2018-2024 / Starting in 2014, the Palm Beach Subregion was divided into North Palm Beach and South Palm Beach Subregions.  Deerfield / 2014-2016, 2019, 2022 / Starting in 2014, the
			Deerfield Subregion was split from the Broward Subregion to become its own Subregion.

Data Field	Year	Currently	Metadata
	collected	collected?	
Subregion			Broward / 2005-2013 / Starting in 2014, the Broward Subregion
Cont.			was merged with Miami to become the Broward-Miami Subregion.
			Broward-Miami / 2014-2024 / Starting in 2014, the Broward
			Subregion was merged with Miami to become the Broward-Miami
			Subregion.
			Biscayne / 2005-2024
			Upper Keys / 2005-2024 / Starting in 2017, the Upper Keys was
			divided into Upper Keys and Middle-Upper Keys Transition.
			Mid-Upper Keys Transition / 2017-2024 / Starting in 2017, the
			Upper Keys was divided into Upper Keys and Middle-Upper Keys
			Transition.
			Middle Keys / 2005-2024
			<u>Lower Keys</u> / 2005-2024
			<u>Marquesas</u> / 2007, 2019-2024
			TortugasDry Tortugas NP / 2007, 2009, 2011, 2012, 2014-2024 /
			DRM surveys in the Dry Tortugas area started in 2007.
		Γ	Tortugas-Tortugas Bank / 2007 & 2024
Zone	ALL	Y	Cross-shelf framework to divide up the reef for surveying. Zones are
			based on distance from shore and depth.
Habitat	ALL	Y	Habitat distinction within the Subregion and Zones.
			The below is not a complete list of Habitats listed in the data but are
			the most commonly surveyed. If you have any questions about Habitat
			distinctions, please contact CoralDRM@MyFWC.com.
			Code and Habitat Description
			APRD = Agregated patch reef, deep
			CONT_HR = Contiguous reef, high relief
			CONT_LR = Contiguous reef, low relief
			CONT_MR = Contiguous reef, moderate relief
			CPDP = Colonized pavement, deep, relief unknown CPDP LR = Colonized pavement, deep, low relief
			CPSH = Colonized pavement, shallow, relief unknown
			CPSH HR = Colonized pavement, shallow, high relief
			CPSH LR = Colonized pavement, shallow, low relief
			DPRC = Deep ridge complex, relief unknown
			ISOL HR = Isolated reef structures, high relief
			ISOL LR = Isolated reef structures, low relief
			ISOL MR = Isolated reef structures, moderate relief
			LIRI = Linear reef, inner reef line, relief unknown
			LIRI HR = Linear reef, inner reef line, high relief
			LIRI LR = Linear reef, inner reef line, low relief
			LIRM = Linear reef, middle reef line, relief unknown
			LIRM_HR = Linear reef, middle reef line, high relief
			LIRM_LR = Linear reef, middle reef line, low relief
			LIRO = Linear reef, outer reef line, relief unknown
			LIRO_HR = Linear reef, outer reef line, high relief

Data Field	Year collected	Currently collected?	Metadata
Habitat cont.	conceteu	tonecteu.	LIRO LR = Linear reef, outer reef line, low relief
Haorar Com.			OTHR NA = Other non-reef habitat
			PTDP HR = Patch reefs, deep, high relief
			PTDP LR = Patch reefs, deep, low relief
			PTCH = Patch reef
			PTSH HR = Patch reefs, shallow, high relief
			PTSH LR = Patch reefs, shallow, low relief
			RGDP = Reef ridge, deep, relief unknown
			RGDP HR = Reef ridge, deep, high relief
			RGSH = Reef ridge, shallow, relief unknown
			RGSH HR = Reef ridge, shallow, high relief
			RGSH LR = Reef ridge, shallow, low relief
			RUBB LR = Reef rubble, low relief
			SAND NA = Sand
			SGRS NA = Seagrass
			SPGR = Spur-groove reef, relief unknown
			SPGR HR = Spur-groove reef, high relief
			SPGR_LR = Spur-groove reef, low relief
			UCHB LR = Unconsolidated hardbottom, low relief
			UNCR UN = Unclassified reef
			UNDF UN = Undefined, unknown
			UNKN = Undefined, unknown
			, , , , , , , , , , , , , , , , , , ,
Species	ALL	Y	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.
			The species codes are listed separately at the end of this document
			'Coral Species Codes'
			NOTE: Starting in 2018, <i>Millepora</i> spp. were no longer recorded
			during DRM surveys and are not included in this report.
			During the 2020-2024 survey events, four belt transects were
			completed at each site. Along Transects 3 and 4, only ten species were
			targeted. Those species are outlined in the 'Transect' section of this
			metadata report.
Width	ALL	Y	Maximum diameter of coral colony from a planar view. Measured in
		_	centimeters. Only corals $\geq 4$ cm are included in this report.
		<u>.</u> _	Maximum perpendicular measurement (height) of coral colony.
Height	ALL	Y	Measured in centimeters. $NULL = No Entry. Only corals \ge 4 cm are$
			included in this report.
Bleaching	ALL	Y	Identifies symptoms of stress that results in loss of coral tissue color.
,		•	Codes and Descriptions
			$\overline{(P)}$ = 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)

Data Field	Year collected	Currently collected?	Metadata
Old Mort 'Old'	ALL	Y	Percent of the coral colony that has died and is covered with turf algae or macroalgae.
Total RM 'Recent'	2005-2017	N	Percent of the coral colony with recent mortality that has not been colonized by turf algae, macroalgae or other organisms. From 2018-2022, this value is the sum of 'Other Recent Mortality' and 'Disease Recent Mortality'.
Other RM 'oPercRecMor t'	2018-2024	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. Prior to 2018 values are NULL.
Dis RM 'dPercRecMor t'	2018-2024	Y	Percent of the coral colony with recent mortality from disease that has not been colonized by turf algae, macroalgae or other organisms. Prior to 2018 values are NULL.
TL Pattern	2018-2019	N	If recent mortality from disease is observed, the surveyor will describe the pattern of the lesion(s). Starting in 2020, this data was no longer collected.
			Codes and Descriptions
			(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	2018-2024	Y	If recent mortality from disease is observed, the surveyor will describe the rate of tissue loss of the lesion(s).
			Codes and Descriptions
			(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. These columns (Disease and Disease Conditions) were combined for this report.
			If recent mortality from disease is observed, the surveyor will describe it as an unknown or known coral disease(s).  Codes and Disease Descriptions  (UNK) = Unknown Coral Disease (NOTE: 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 (NOTE: Only observed on Acroporid
			spp.)  (WPX) = White Pox (NOTE: Only observed on Acroporid spp.)
			(RTL) = Rapid Tissue Loss (NOTE: Only observed on Acroporid
			spp.)

Data Field	Year collected	Currently collected?	Metadata
			(DSD) = Dark Spot Disease
Disease			(YB) = Yellow Band Disease
Conditions			(BB/RB) = Black Band / Red Band Disease
Cont.			(DC) = Discolored (NOTE: Added in 2018. This code is used when
			there is a discoloration of the coral tissue caused by disease or in
			association with a disease lesion.)
Other	2018-2024	Y	Other biotic or abiotic conditions that cause recent mortality.
Conditions	2016-2024	1	Other blotte of ablotte conditions that cause recent mortality.
			Codes and Condition Descriptions
			(PRD) = Predation
			(OGI) = Overgrowth and interaction
			(ABR) = Abrasion
			(SC) = Sediment cover
			(CLN) = Clionid boring sponge.
			(MUC) = Mucus sheathing (NOTE: Added in 2018. Mucus
			sheathing may not cause recent mortality but can be documented in the
			'Other Condition(s)' field.)
			(TRS) = Thermal stress (NOTE: Added in 2023 in response to the
			mass bleaching event.)
			(OUK) = Other unknown condition

	The below data fields are not included in this report			
To obtain	To obtain data from fields listed below, please contact the program PI (CoralDRM@MyFWC.com).			
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"	2018-2024	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 contains different habitat identifiers than the 'Habitat' field described above.  Isolated Reef	
			Reef Rubble Contiguous Reef Other Contiguous Reef Spur and Grove	
Rugosity Msmts 1 - 10	2018-2024	Y	Ten rugosity measurements are collected along transects 1 and 2. One rugosity measurement is collected within each square meter of a transect. Measurements are in centimeters. Rugosity measurements are only collected along Transects 1 and 2 and not on Transects 3 and 4. If value is NULL, measurement was not collected.	

Data Field	Year collected	Currently collected?	Metadata
Diadema Present	2006-2021	N	Presence / absence of Diadema in the visible area surrounding your transect. Starting in 2022 the presence / absence of Diadema was split into two catagories (healthy and diseased) in response to a large die-off reported throughout the Caribbean and Florida.
H.Diad	2022-2024	Y	Presence / absence of Healthy Diadema in the visible area surrounding your transect.
D.Diad	2022-2024	Y	Presence / absence of Diseased (sick or dying) Diadema in the visible area surrounding your transect.
Acropora spp. Present	2006-2018	N	Presence / absence of Acropora spp. in the visible area surrounding your transect.
ACER Present	2018-2024	Y	Presence / absence of Acropora cervicornis in the visible area surrounding your transect.
APAL Present	2018-2024	Y	Presence / absence of Acropora palmata in the visible area surrounding your transect.
DCYL Present	2006-2024	Y	Presence / absence of Dendrogyra cylindricus in the visible area surrounding your transect.
MALC - NB, P, PB, BL - Count	2015-2017	N	Starting in 2015, <i>Millepora</i> spp. were tallied in one of the four bleaching categories. Prior to 2015, <i>Millepora</i> spp. were recorded and measured the same as all other coral species within the belt transects. In 2018, recording <i>Millepora</i> spp. were eliminated from the survey.
			NB = Millepora spp. were not bleached.
			P = Millepora spp. were pale.  PB = Millepora spp. were partially bleached.
			BL = <i>Millepora</i> spp. were fully bleached.
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.
Impacts	2017 only	N	This field was added in 2017 to document impacts from Hurricane Irma. This data is not included in the query.
			Codes and Impact Descriptions
			(A) = Abrasion (D) = Dislodged
			(B) = Broken
			(S) = Sediment Cover
Comments	2005-2024	Y	Surveyor could provide additional information on a coral colony.
Juv. Coral Abundance (3 Families and MCAV)	2020-2024	Y	Starting in 2020, juvenile coral abundances of three target families was collected along four belt transects (1, 2, 3, 4). The three target families are as follows: Mussinae, Faviinae, and Meandrinidae. The species <i>Montastraea cavernosa</i> was added to the juvenile coral tally in 2022.
			These three coral families and <i>Montastraea cavernosa</i> are known to be susceptible to SCTLD.
			Please contact CoralDRM@myfwc.com for more information.

D-4- E' 11	Year	Currently	34. 3.			
Data Field	collected	collected?	Metadata			
		Below a	are the species listed in the database			
Coral Species Codes (Former names are not used in the DRM database)						
Cora	al Species Co	des	AAGA = Agaricia agaricites (Former name: Undaria agaricites)			
			ACER = Acropora cervicornis			
			ACRO = Acropora sp.			
			AFRA = Agaricia fragilis			
			AGAR = Agaricia sp.			
			AGRA = Agaricia grahamae			
			AHUM = Agaricia humilis (Former name: Undaria humilis)			
			ALAM = Agaricia lamarcki			
			APAL = Acropora palmata			
			APRO = Acropora prolifera			
			ATEN = Agaricia tenuifolia (Former name: Undaria tenuifolia)			
			AUND = Agaricia undata			
			CARB = Cladacora arbuscula			
			CNAT = Colpophyllia natans			
			DCYL = Dendrogyra cylindrus			
			DIPL = Diploria sp.			
			DLAB = Diploria labyrinthiformis			
			DSTO = Dichocoenia stokesi			
			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.			
			MADR = Madracis sp.			
			MALC = Millepora alcicornis (Not included in this report)			
			MALI = Mycetophyllia aliciae			
			MANG = Mussa angulosa			
			MARE = Manicina areolata			
			MAUR = Madracis auretenra (Former name: Madracis mirabilis)			
			MCAV = Montastraea cavernosa			
			MCOM = Millepora complanata (Not included in this report)			
			MDEC = Madracis decactis			
			MEAN = Meandrina sp.			
			MFER = Mycetophyllia ferox			
			MFOR = Madracis formosa			
			MILL = Millepora sp. (Not included in this report)			
			MJAC = Meandrina jacksoni			
			MLAM = Mycetophyllia lamarckiana (Includes former:			
			Mycetophyllia danaana)			
			MMEA = Meandrina meandrites			
			MPHA = Madracis pharensis			

	Year	Cummontly	Opulated Peortuary 2023
Data Field	y ear collected	Currently collected?	Metadata
Spp. Codes	conceteu	tonecteu.	
cont.			MSEN = Madracis senaria
			MYCE = Mycetophyllia sp.
			OANN = Orbicella annularis (Former name: Montastraea annularis)
			OCUL = Oculina sp.
			ODIF = Oculina diffusa
			OFAV = Orbicella faveolata (Former name: Montastraea faveolata)
			OFRA = Orbicella franksi (Former name: Montastraea franksi)
			ORBI = Orbicella sp.
			OVAR = Oculina varicosa
			PAME = Phyllangia americana
			PAST = Porites astreoides
			PBRA = Porites cf. branneri
			PCLI = Pseudodiploria clivosa (Former name: Diploria clivosa)
			PDIV = Porites divaricata
			PFUR = Porites furcata
			PORI = Porites sp.
			PPOR = Porites porites
			PSEU = Pseudodiploria sp.
			PSTR = Pseudodiploria strigosa (Former name: Diploria strigosa)
			SBOU = Solenastrea bournoni
			SCOL = Scolymia sp.
			SCUB = Scolymia cubensis
			SHYA = Solenastrea hyades
			SIDE = Siderastrea sp.
			SINT = Stephanocoenia intersepta (Former name: Stephanocoenia
			michelinii)
			SLAC = Scolymia lacera
			SOLE = Solenastrea sp.
			SRAD = Siderastrea radians
			SSID = Siderastrea siderea
			SWEL = Scolymia wellsi
			UNKN = Unknown species