
NATIONAL CORAL REEF MONITORING PROGRAM

Data Dictionary

Editor: Coral Reef Conservation Program



NOAA
CORAL REEF
CONSERVATION PROGRAM

<https://www.coris.noaa.gov/>

Benthic Atlantic:

- **JurisdictionName** - The name of the geographic region the data applies to.
- **JurisdictionCode** - The code for the geographic region the data applies to.
- **SubjurisdictionName** - The name of the island or subregion the data applies to.
- **SubjurisdictionCode** - The code for the island or subregion the data applies to.
- **SectorName** - The name of the sector the data applies to, if applicable.
- **SectorCode** - The code of the sector the data applies to, if applicable.
- **StrataName** - The name of the reef zone/depth bin stratum within a sector the data applies to.
- **StrataCode** - The code of the reef zone/depth bin stratum within a sector the data applies to.
- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.
- **Monitoring Cycle** - The year the survey was intended to be conducted.
- **Taxonomic Resolution** - Taxonomic level of the data contained in the row. Values include: Combined (Com), Genus (Gen), Species (Spe).
- **ScientificName** - Genus and species names.
- **N_demo** - The number of sample sites where coral demography data was collected.
- **N_cover** - The number of sample sites where coral cover data was collected.
- **CoralCover_Pct** - A measure of how much (percentage) of the reef is covered by coral. This is considered a measure of coral reef ecosystem status, where a higher percent is generally considered better.
- **CoralCover_SE** - Calculated standard error value for CoralCover_Pct.
- **MacroalgaeCover_Pct** - A measure of how much (percentage) of the reef is covered by macroalgae. This is considered a measure of coral reef ecosystem status, where a lower percentage is generally considered better.
- **MacroalgaeCover_SE** - Calculated standard error value for MacroalgaeCover_Pct.
- **DiseasePrevalence_Pct** - A measure of the proportion of the number of diseased corals to the number of all corals. This proportion of corals exhibiting any coral disease is an indicator of the status and health of coral populations.
- **DiseasePrevalence_SE** - Calculated standard error value for DiseasePrevalence_Pct.
- **BleachingPrevalence_Pct** - A measure of the proportion of the number of bleached corals to the number of all corals. This proportion of corals exhibiting thermal stress is an indicator of the status and health of coral populations.
- **BleachingPrevalence_SE** - Calculated standard error value for BleachingPrevalence_Pct.
- **AdultDensity_colperm2** - A measure of the numbers of corals ≥ 4 cm in the largest dimension (length, width, height) per square meter.
- **AdultDensity_SE** - Calculated standard error value for AdultDensity_colperm2.

Benthic Pacific:

- **JurisdictionName** - The name of the geographic region the data applies to.
- **JurisdictionCode** - The code for the geographic region the data applies to.
- **SubregionName** - The name of the island the data applies to.
- **SubregionCode** - The code for the island the data applies to.
- **SectorName** - The name of the sub-island sector the data applies to. Note, for small islands, island and sector are the same.
- **SectorCode** - The code of the sub-island sector the data applies to. Note, for small islands, island and sector are the same.
- **StrataName** - The name of the reef zone/depth bin stratum within a sector the data applies to.
- **StrataCode** - The code of the reef zone/depth bin stratum within a sector the data applies to.
- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.
- **Monitoring Cycle** - The year the survey was intended to be conducted.
- **Taxonomic Resolution** - Taxonomic level of the data contained in the row. Values include: Combined (Com), Trophic Group (Tro), Genus (Gen), Species (Spe).
- **N_demo** - The number of sample sites where coral demography data was collected.
- **N_cover** - The number of sample sites where coral cover data was collected.
- **N_demoTREND** - The number of sample sites where coral demography data was collected in trend data.
- **N_coverTREND** - The number of sample sites where coral cover data was collected in trend data.
- **CoralCover_Pct** - A measure of how much (percentage) of the reef is covered by coral. This is considered a measure of coral reef ecosystem status, where a higher percent is generally considered better.
- **CoralCover_SE** - Calculated standard error value for CoralCover_Pct.
- **CoralCoverTREND_Pct** - A measure of how much (percentage) of the reef is covered by coral in trend data. This is considered a measure of coral reef ecosystem status, where a higher percent is generally considered better.
- **CoralCoverTREND_SE** - Calculated standard error value for CoralCoverTREND_Pct
- **MacroalgaeCover_Pct** - A measure of how much (percentage) of the reef is covered by macroalgae. This is considered a measure of coral reef ecosystem status, where a lower percentage is generally considered better.
- **MacroalgaeCover_SE** - Calculated standard error value for MacroalgaeCover_Pct.
- **MacroalgaeCoverTREND_Pct** - A measure of how much (percentage) of the reef is covered by macroalgae in trend data. This is considered a measure of coral reef ecosystem status, where a lower percentage is generally considered better.
- **MacroalgaeCoverTrend_SE** - Calculated standard error value for MacroalgaeCoverTREND_Pct.
- **BleachingPrevalence_Pct** - A measure of the proportion of the number of bleached corals to the number of all corals. This proportion of corals exhibiting thermal stress is an indicator of the status and health of coral populations.

- **BleachingPrevalence_SE** - Calculated standard error value for BleachingPrevalence_Pct.
- **BleachingPrevalenceTREND_Pct** - A measure of the proportion of the number of bleached corals to the number of all corals in trend data. This proportion of corals exhibiting thermal stress is an indicator of the status and health of coral populations.
- **BleachingPrevalenceTREND_SE** - Calculated standard error value for BleachingPrevalenceTREND_Pct.
- **DiseasePrevalence_Pct** - A measure of the proportion of the number of diseased corals to the number of all corals. This proportion of corals exhibiting any coral disease is an indicator of the status and health of coral populations.
- **DiseasePrevalence_SE** - Calculated standard error value for DiseasePrevalence_Pct.
- **DiseasePrevalenceTREND_Pct** - A measure of the proportion of the number of diseased corals to the number of all corals in trend data. This proportion of corals exhibiting any coral disease is an indicator of the status and health of coral populations.
- **DiseasePrevalenceTREND_SE** - Calculated standard error value for DiseasePrevalenceTREND_Pct.
- **CCA_Pct** - A measure of how much (percentage) of the reef is covered by crustose coralline algae. This is considered a measure of coral reef ecosystem status, where a higher percent is generally considered better.
- **CCA_SE** - Calculated standard error value for CCA_Pct.
- **CCATREND_Pct** - A measure of how much (percentage) of the reef is covered by crustose coralline algae in trend data. This is considered a measure of coral reef ecosystem status, where a higher percent is generally considered better.
- **CCATREND_SE** - Calculated standard error value for CCATREND_Pct.
- **AdultDensity_colperm2** - A measure of the numbers of corals ≥ 5 cm in the largest dimension (length, width, height) per square meter.
- **AdultDensity_SE** - Calculated standard error value for AdultDensity_colperm2.
- **AdultDensityTREND_Pct** - A measure of the number of corals ≥ 5 cm in the largest dimension (length, width, height) per square meter in trend data.
- **AdultDensityTREND_SE** - Calculated standard error value for AdultDensityTREND_Pct.
- **JuvenileDensity_colperm2** - A measure of the number of corals < 5 cm in the largest dimension (length, width, height) per square meter.
- **JuvenileDensity_SE** - Calculated standard error value for JuvenileDensity_colperm2.
- **JuvenileDensityTREND_Pct** - A measure of the numbers of corals < 5 cm in the largest dimension (length, width, height) per square meter in trend data.
- **JuvenileDensityTREND_SE** - Calculated standard error value for JuvenileDensityTREND_Pct.

Fish Atlantic:

- **JurisdictionName** - The name of the geographic region the data applies to.
- **JurisdictionCode** - The code for the geographic region the data applies to.
- **SubjurisdictionName** - The name of the island or subregion the data applies to.
- **SubjurisdictionCode** - The code for the island or subregion the data applies to.
- **StrataName** - The name of the reef zone/depth bin stratum within a sector the data applies to.
- **StrataCode** - The code of the reef zone/depth bin stratum within a sector the data applies to.
- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.
- **Monitoring Cycle** - The year the survey was intended to be conducted.
- **Taxonomic Resolution** - Taxonomic level of the data contained in the row. Values include: Combined (Com), Trophic Group (Tro), Genus (Gen), Species (Spe).
- **ScientificName** - Genus and species names.
- **CommonName** - The common name of the organism, if one exists.
- **SciComName** - The scientific name of the organism, with the common name next to it in parentheses.
- **N** - The number of sample sites where data was collected.
- **Biomass_kgper177m2** - the average total weight of all individuals observed by fish species in a survey expressed as kilograms per 177m².
- **Biomass_SE** - Calculated standard error value for Biomass_kgper177m2.
- **Density_nper177m2** - a measure of the number of individuals per species in a 177 m² survey area.
- **Density_SE** - Calculated standard error value for Density_nper177m2.
- **Occurrence** - the proportion (or percentage) of times a fish species is observed in a survey.
- **Occurrence_SE** - Calculated standard error value for Occurrence.

Fish Pacific:

- **JurisdictionName** - The name of the geographic region the data applies to.
- **JurisdictionCode** - The code for the geographic region the data applies to.
- **SubjurisdictionName** - The name of the island the data applies to.
- **SubjurisdictionCode** - The code for the island the data applies to.
- **SectorName** - The name of the sub-island sector the data applies to. Note, for small islands, island and sector are the same.
- **SectorCode** - The code of the sub-island sector the data applies to. Note, for small islands, island and sector are the same.
- **StrataName** - The name of the reef zone/depth bin stratum within a sector the data applies to.
- **StrataCode** - The code of the reef zone/depth bin stratum within a sector the data applies to.
- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.
- **Monitoring Cycle** - The year the survey was intended to be conducted.
- **Taxonomic Resolution** - Taxonomic level of the data contained in the row. Values include: Combined (Com), Trophic Group (Tro), Genus (Gen), Species (Spe).
- **ScientificName** - Genus and species names.
- **CommonName** - The common name of the organism, if one exists.
- **SciComName** - The scientific name of the organism, with the common name next to it in parentheses.
- **N** - The number of sample sites where data was collected.
- **N_TREND** - The number of sample sites where data was collected in trend data.
- **Biomass_gper1m2** - the average total weight of all individuals observed by fish species in a survey expressed as grams per m².
- **Biomass_SE** - Calculated standard error value for Biomass_gper1m2.
- **BiomassTREND_gper1m2** - the average total weight of all individuals observed by fish species in a survey expressed as grams per m² in trend data.
- **BiomassTREND_SE** - Calculated standard error value for BiomassTREND_gper1m2.
- **Density_gper1m2** - a measure of the number of individuals per species in a 1 m² area.
- **Density_SE** - Calculated standard error value for Density_gper1m2.
- **DensityTREND_gper1m2** - a measure of the number of individuals per species in a 1 m² area in trend data.
- **DensityTREND_SE** - Calculated standard error value for DensityTREND_gper1m2.
- **Occurrence** - the proportion (or percentage) of times a fish species is observed in a survey.
- **Occurrence_SE** - Calculated standard error value for Occurrence.
- **OccurrenceTREND** - The proportion (or percentage) of times a fish species is observed in a survey in the trend data.
- **OccurrenceTREND_SE** - Calculated standard error value for OccurrenceTREND.

Climate:

- **Site ID** - A unique identifier for the site where a sample was collected.
- **Latitude** - The latitude of the site in decimal degrees, referencing the horizontal datum WGS84.
- **Longitude** - The longitude of the site in decimal degrees, referencing the horizontal datum WGS84.
- **Jurisdiction** - The name of the geographic region the data applies to.
- **Subjurisdiction** - The name of the island the data applies to.
- **Monitoring Cycle** - The year the survey was intended to be conducted.
- **Sample Date** - The date the sample was collected in month/day/year format.
- **SampleTime_UTC** - The time the sample was collected in 24-hour format, UTC time zone.
- **SampleDepth_m** - The depth below the surface at which the sample was collected, in meters.
- **TempInField_degC** - The temperature of the sample as measured in the field, in degrees Celsius.
- **Salinity_PSU** - The salinity of the sample in practical salinity units. In cases when more than one salinity value was obtained, this attribute should be the best or most relevant one.
- **AragSatState** - Aragonite saturation state, a measure of carbonate ion concentration in a seawater sample measured on a scale from 0-5. Corals and other calcifiers are more likely to survive and reproduce when the saturation state is greater than 3.
- **pCO₂_uatm** - A measure of the partial pressure of carbon dioxide in a seawater sample in micro-atmospheres.
- **pH_calculated** - A measure of how acidic or basic a seawater sample is based on hydrogen ion concentration in seawater. This value is calculated from other carbonate chemistry variables. pH is measured on a scale of 0 to 14 with 0 being the most acidic, 7 being neutral, and 14 being the most basic. The ocean's average pH is now around 8.1, which is basic, but as the ocean continues to absorb more CO₂, the pH decreases and the ocean becomes more acidic.
- **pH_measured** - A measure of how acidic or basic a seawater sample is based on hydrogen ion concentration in seawater. This value is empirically measured. pH (measured) is not included in the Pacific Climate data (only pH calculated values are presented), and is available for some, but not all, Atlantic jurisdictions.
- **TA_umolperkg** - Total alkalinity, a measurement of the concentration of all alkaline substances dissolved in seawater that can both attract and release hydrogen ions, in micro-mols per kilogram. In simpler terms, total alkalinity is a measurement of seawater's ability to resist a reduction in pH.
- **DIC_umolperkg** - Dissolved inorganic carbon, a measurement of the sum of the aqueous species of inorganic carbon in a seawater sample in micro-mols per kilogram. Dissolved inorganic carbon is commonly referred to as the total concentration of bicarbonate, carbonate, and dissolved carbon dioxide.

Socioeconomic:

- **Jurisdiction** - The name of the geographic region the data applies to.
- **Subjurisdiction** - The name of the island or subregion the data applies to.
- **Sector** - The name of the sector the data applies to, if applicable.

Activity Participation

- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.
- **Monitoring Cycle** - The year the survey was intended to be conducted.
- **N** - Number of respondents.
- **Question** - The question as posed on the survey.
- **Variable** - The variable the question is asking about. Acceptable values are: Swimming/wading, Beach Recreation, Snorkeling, Fishing, Diving.
- **Activity participation (AP) - a self-reported measure of how frequently residents do the activities below on a monthly basis categorized as never, once a month or less, 2-3 times a month, or 4 times a month or more:**
 - Beach recreation
 - Diving
 - Fishing
 - Snorkeling
 - Swimming/wading
- **AP_Binary_NoPart_Pct** - The percent of respondents that reported they did not participate in the activity.
- **AP_Binary_YesPart_Pct** - The percent of respondents that reported they did participate in the activity.
- **AP_LNever_0Year_Pct** - The percent of respondents that answered 'Never', which is equivalent to 0 days per year on the adjusted scale.
- **AP_L1Month_1to12Year_Pct** - The percent of respondents that answered 'Once a month or less', which is equivalent to 1-12 days per year on the adjusted scale.
- **AP_L2to3Month_24to36Year_Pct** - The percent of respondents that answered '2-3 times a month', which is equivalent to 24-36 days per year on the adjusted scale.
- **AP_L4Month_46to365Year_Pct** - The percent of respondents that answered '4 times a month or more', which is equivalent to 24-365 days per year on the adjusted scale.
- **AP_LikertAdjusted_mode** - The mode of the adjusted scale values. Acceptable values are: 0, 1-12, 24-36, 48-365.
- **AP_DaysperYear_mean** - The mean of the respondents' answers.

Resource Condition Perception

- **Area Name** - The name of the geographic area the data applies to.
- **Area Code** - The code for the geographic area the data applies to.
- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.

- **Analysis Year** - The NCEI submission package year in which the data are included. If the survey occurred in two calendar years, the analysis year is the year the collection began.
- **Question** - The question as posed on the survey.
- **Variable** - The variable the question is asking about. Acceptable values are: Ocean water quality, Amount of live coral, Amount of fish.
- **Resource Condition Perception (RCP) - a self-reported measure of how residents perceive the condition of the following resources at the time of survey categorized as very bad, bad, neither good nor bad, good, very good, or not sure:**
 - Amount of live coral
 - Number of fish
 - Ocean water quality
- **RCP_VeryBad_Pct** - The percent of respondents that answered 'Very Bad'.
- **RCP_Bad_Pct** - The percent of respondents that answered 'Bad'.
- **RCP_Neither_Pct** - The percent of respondents that answered 'Neither Good nor Bad'.
- **RCP_Good_Pct** - The percent of respondents that answered 'Good'.
- **RCP_VeryGood_Pct** - The percent of respondents that answered 'Very Good'.
- **RCP_NotSure_Pct** - The percent of respondents that answered 'Not Sure'.

Topic of awareness

- **Area Name** - The name of the geographic area the data applies to.
- **Area Code** - The code for the geographic area the data applies to.
- **Survey Year Start** - The survey year in which the data collection began.
- **Survey Year End** - The survey year in which the data collection ended.
- **Analysis Year** - The NCEI submission package year in which the data are included. If the survey occurred in two calendar years, the analysis year is the year the collection began.
- **Question** - The question as posed on the survey.
- **Variable** - The variable the question is asking about. Acceptable values are: MPA/MMA, Climate change, Coral Bleaching, Pollution, Invasive species.
- **Topic of awareness (TOA) - a self-reported measure of how familiar residents are with the following issues related to coral reefs categorized as not familiar or familiar:**
 - Climate change
 - Coral bleaching
 - Invasive species
 - Marine protected or managed areas
 - Pollution
- **TOA_Binary_Not fam_Pct** - The percent of respondents that answered "not familiar".
- **TOA_Binary_Fam_Pct** - The percent of respondents that answered "familiar".