

## Instructions for Tabular Data Archiving at NCEI

**Step 1. Obtain initial consultation:** Send an email to [NCCOS.data@noaa.gov](mailto:NCCOS.data@noaa.gov) requesting an initial consultation to determine how your dataset should be archived.

**Step 2. Format and organize your data:** Save your observation data or model output as either comma-separated values (.CSV) or tab-separated values (.TSV). You may archive a single large spreadsheet (up to 20 GB) or multiple smaller spreadsheets. Use any folder structure and file name convention, but do not use any spaces in your folder or file names (use dashes or underscores instead). See an example archived tabular dataset [here](#).

**Step 3. Create a browse graphic:** Create a browse graphic in .JPG format. This can be any small image that exemplifies the collective dataset. The graphic file should be less than 500KB and 1000x1000 pixels.

**Step 4. Assemble your data package into a directory on the NCCOS network:**

|                              |                                            |
|------------------------------|--------------------------------------------|
| Network Folder Location      | X:\Archiving\Loerzel_NCRMP-Socio-CNMI-2016 |
| Number of Subfolders         | 0                                          |
| Number of Files              | 5                                          |
| Total Size                   | 7.42 MB                                    |
| Zipped File Size             | 6.98 MB                                    |
| Any individual file > 20 GB? | No                                         |
| Includes data documentation? | Yes                                        |
| Includes browse graphic?     | Yes                                        |

**Step 5. Submit request for archiving:** Send an email to [NCCOS.data@noaa.gov](mailto:NCCOS.data@noaa.gov) with this archive submission document attached. You may receive comments or clarifying questions as archiving proceeds. The final archive submission will be approved by your Branch Chief and submitted to NCEI. The NCEI archiving process typically takes about 2 weeks. Upon completion of the archive process, NCEI will issue an Accession number, publish ISO discovery metadata, and mint a digital object identifier (DOI). Your NCCOS Project webpage will be updated with a link to your accession.

**NCCOS Archive Submission: Tabular Data –  
NCRMP Socio CNMI 2016**

| <b>Dataset Description</b>                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>*Dataset Title (Required)</b>                                                                                                                      | <b>National Coral Reef Monitoring Program: Socioeconomic surveys of human use, knowledge, attitudes, and perceptions in CNMI from 2016-08 to 2017-04</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Short Title</b>                                                                                                                                    | NCRMP Socio CNMI 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>*Dataset Description</b><br><i>Brief description of the dataset, including spatial and temporal extent (if applicable), parameters, and format</i> | The data in this file come from a survey of adult residents in the Commonwealth of Northern Mariana Islands (CNMI). The survey was conducted for a random stratified sample of households on the islands of Saipan, Tinian, and Rota from August 2016 to April 2017. These data were collected to record baseline human dimensions information and socioeconomic characteristics of CNMI's coral reef adjacent populations such as human use patterns, management support/opposition, and knowledge, attitudes, and perceptions of coral reefs/coral reef management. These baseline data are being used as a starting point for socioeconomic monitoring of CNMI's coral reefs. Data were collected through the telephone random digit dial survey method and the face to face interview method, and the total sample size for this survey was 722 with a response rate of 20%.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>*Purpose</b><br><ul style="list-style-type: none"> <li>• Project overview</li> <li>• Dataset purpose</li> <li>• Partnerships</li> </ul>            | The National Coral Reef Monitoring Program (NCRMP) details a long-term approach to provide an ecosystem perspective via monitoring climate, fish, benthic, and socioeconomic variables in a consistent and integrated manner. The NCRMP is intended to coordinate various Coral Reef Conservation Program (CRCP) biological, physical, and human dimensions activities into a cohesive NOAA-wide effort. Through the implementation of the NCRMP, NOAA will be able to clearly and concisely communicate results of national-scale monitoring to national, state, and territorial policy makers, resource managers, and the public on a periodic basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>*Methods</b><br><i>Brief description of model approach or observation sampling methods, including reference to publication</i>                     | Resident surveys took place on the islands of CNMI in 2016 and 2017. CNMI contains 3 inhabited islands: Saipan, Tinian, and Rota, and these islands were the sampling strata for NCRMP in CNMI. The potential respondent universe for this study was adults, eighteen years or older, who live on Saipan, Tinian, or Rota. Due to the importance of understanding all potential users of the coral reefs who may be affected by activities related to NOAA's CRCP, the survey was not restricted to those who live directly on the coastline. Therefore, all adults on the island were included in the potential respondent universe. Residents of CNMI over the age of 18 were surveyed via telephone and via face to face interviews from August 2016 to April 2017. To obtain a sample that did not over or under-sample regions of Saipan based on population density, the 2010 US Census population density data was initially used to develop a density dependent sampling strategy. It was quickly determined from field efforts that the 2010 population data for Saipan does not accurately represent present day population distribution. This is in part due to Typhoon Soudelor, which hit Saipan directly in August of 2015 and severely impacted infrastructure and housing. Face to face surveyors found that many of the areas in which the 2010 census data indicated high population density were still largely abandoned as of early 2017. Without accurate density information, the survey method was changed to a random approach in which the surveyors arbitrarily chose a section of the island from digital maps and drove in this area until an inhabited neighborhood was found. If more than one residence was present, the surveyor would approach every third door. If the approached residence was abandoned, the surveyor noted this and continued to the next residence in the sequence. Face to face interviewers used electronic tablets or laptops with the survey instrument programmed into an application that recorded time and duration of survey, the results of each house visited (i.e. no answer, refused survey, successful survey), and automatically skipped questions as necessary based upon answers to previous questions. Phone numbers were obtained from online phone books for Saipan, Tinian and Rota and compiled into a project database. Both landline and cell phone numbers were available. The database was then filtered by phone number prefix to remove the majority of non-residential numbers and categorized by island. Surveyors worked within a specific island until its quota had been met. The database was used to randomly select phone numbers, as well as track which numbers had been used and the results of each call (i.e. no answer, disconnected, refused survey, successful survey, non-residential number). In the case of Saipan, numbers that were initially recorded as "no answer" were called again after all available numbers had been contacted once, because more surveys were needed. Numbers which were |

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|                                                                                                                    | still “no answer” were re-entered into the re-call pool and used again as necessary. The CNMI online phone book was updated during the survey process, which increased the availability of working numbers and enabled the completion of the surveys. Contracted surveyors used Computer Assisted Telephone Interviewing (CATI) software for telephone surveys and offered the survey in four languages: English, Chamorro, Carolinian, and Tagalog. A total of 722 interviews were completed (702 by phone and 20 by face to face interview), yielding a response rate of approximately 20% (20% for telephone and 29% for face to face interviews). No names or personally identifiable information were collected during surveying. |
| <b>Cited Publications</b><br>(Optional) Full citations (including DOIs) of all publications cited in this document | M. Gorstein, J. Loerzel, P. Edwards, A. Levine, and M. Dillard. In review. National Coral Reef Monitoring Program Socioeconomic Monitoring Component: Summary Findings for CNMI, 2016. US Dep. Commerce, NOAA Tech. Memo., NOAA-TM-NOS-CRCP-XX, XXp. + Appendices.                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>*Project Webpage(s)</b>                                                                                         | National Coral Reef Monitoring Program Implementation: Biological and Socioeconomic Monitoring<br><a href="https://coastalscience.noaa.gov/projects/detail?key=180">https://coastalscience.noaa.gov/projects/detail?key=180</a><br>National Coral Reef Monitoring Program: Understanding Socioeconomic Connections <a href="https://www.coris.noaa.gov/monitoring/socioeconomic.html">https://www.coris.noaa.gov/monitoring/socioeconomic.html</a>                                                                                                                                                                                                                                                                                     |
| <b>Web Services (Optional)</b>                                                                                     | [none]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| <b>People &amp; Projects</b>                                                                                                                                                                |                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>*Principal Investigator</b><br>Name, email, affiliation                                                                                                                                  | Peter Edwards<br><a href="mailto:peter.edwards@noaa.gov">peter.edwards@noaa.gov</a><br>US DOC; NOAA; NOS; Coral Reef Conservation Program (CRCP)                 |
| <b>Additional Principal Investigators</b><br>(Optional) Name, email, affiliation. Include as many as applicable                                                                             | Jarrold Loerzel<br><a href="mailto:jarrod.loerzel@noaa.gov">jarrod.loerzel@noaa.gov</a><br>US DOC; NOAA; NOS; National Centers for Coastal Ocean Science (NCCOS) |
| <b>Primary Point of Contact</b><br>(Optional) Name, email, affiliation                                                                                                                      | Matt Gorstein<br><a href="mailto:matt.gorstein@noaa.gov">matt.gorstein@noaa.gov</a><br>US DOC; NOAA; NOS; National Centers for Coastal Ocean Science (NCCOS)     |
| <b>Collaborators (Optional)</b><br>Name, affiliation. Include as many as applicable who should be recognized for their contribution to this data collection, including co-Investigators.    | Arielle Levine - US DOC; NOAA; NOS; Coral Reef Conservation Program (CRCP)<br>Justine Kimball - US DOC; NOAA; NOS; Coral Reef Conservation Program (CRCP)        |
| <b>*Suggested Author List</b><br>Last name, first name; repeat as necessary, with each author's name separated by a semi-colon, in any order that you would like. Middle initials optional. | Edwards, Peter;<br>Loerzel, Jarrod;<br>Levine, Arielle;<br>Gorstein, Matt;<br>Dillard, Maria                                                                     |
| <b>*NCCOS Funding</b>                                                                                                                                                                       | US DOC; NOAA; NOS; National Centers for Coastal Ocean Science (NCCOS)                                                                                            |
| <b>Other Funding Agency</b><br>(Optional)                                                                                                                                                   | US DOC; NOAA; NOS; Coral Reef Conservation Program (CRCP)                                                                                                        |
| <b>Partner Entity (Optional)</b><br>List any entities not listed above that you consider to be collaborators.                                                                               | [none]                                                                                                                                                           |
| <b>*NCCOS Project Title</b>                                                                                                                                                                 | NCCOS Project #180, “National Coral Reef Monitoring Program Implementation: Biological and Socioeconomic Monitoring”                                             |

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| <b>Other Projects (Optional)</b><br><i>If CRCP-funded, include project # and title.</i>     | CRCP Project #743, "National Coral Reef Monitoring Program (NCRMP) Socioeconomic Component: CNMI"                                                                   |
| <b>*NCCOS Branch Chief</b><br><i>Provide your Branch Chief's name, Division and Branch.</i> | John Christensen<br>US DOC; NOAA; NOS; National Centers for Coastal Ocean Science (NCCOS); Center for Coastal Monitoring and Assessment (CCMA); Biogeography Branch |

| <b>Dates, Locations, and Keywords (see <a href="#">Appendix</a> for NCCOS Keywords)</b>                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>*Start Date</b><br><i>(YYYY-MM-DD)</i>                                                                                      | 2016-08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>*End Date</b><br><i>(YYYY-MM-DD)</i>                                                                                        | 2016-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>*Northern Boundary</b><br><i>(dd.ddddd)</i>                                                                                 | 15.320843                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>*Southern Boundary</b><br><i>(dd.ddddd)</i>                                                                                 | 14.072533                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>*Western Boundary</b><br><i>(dd.ddddd)</i>                                                                                  | 145.076238                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>*Eastern Boundary</b><br><i>(dd.ddddd)</i>                                                                                  | 145.873011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Sea Areas, Water Bodies, Marine Protected Areas</b><br><i>(Optional)</i>                                                    | Northern Mariana Islands                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>NOAA Ships, Other Ships, or Platforms</b><br><i>(Optional)</i>                                                              | [none]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>*Research Priorities</b>                                                                                                    | Social Science<br>Long-term Monitoring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>*Research Topics</b>                                                                                                        | Coral Reefs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>*NCCOS Regions</b>                                                                                                          | International                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>*U.S. States and Territories</b> <i>List all applicable</i>                                                                 | Commonwealth of Northern Mariana Islands (CNMI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>*NCCOS Data Types</b>                                                                                                       | Field Observation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>~CoRIS Keywords</b><br><i>(Required if CRCP-funded) See <a href="#">link</a> for CoRIS keywords.</i>                        | CoRIS Discovery Thesaurus:<br>Geographic Information > Socioeconomic<br>CoRIS Theme Thesaurus:<br>EARTH SCIENCE > Biosphere > Zoology > Corals > Reef Monitoring and Assessment > Baseline studies<br>EARTH SCIENCE > Biosphere > Zoology > Corals > Reef Monitoring and Assessment > Socio-economic Survey<br>CoRIS Place Keywords:<br>COUNTRY/TERRITORY > Northern Mariana Islands<br>COUNTRY/TERRITORY > Northern Mariana Islands > Saipan<br>COUNTRY/TERRITORY > Northern Mariana Islands > Tinian<br>COUNTRY/TERRITORY > Northern Mariana Islands > Rota |
| <b>GCMD Keywords</b><br><i>(Leave blank) The NCCOS Data Manager will fill these out using the <a href="#">current list</a></i> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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| Data File Description (copy this section as needed for each spreadsheet)                                                                                                                                                        |                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>*File Names</b>                                                                                                                                                                                                              | NCRMP-Socio-CNMI-2016_Data.csv                                                                                                                                              |
| <b>*File Sizes</b>                                                                                                                                                                                                              | 236 MB                                                                                                                                                                      |
| <b>*File Formats</b>                                                                                                                                                                                                            | CSV                                                                                                                                                                         |
| <b>*Parameters or Variables</b><br><i>List major observed parameters or model output variables here; provide details for every column in the Data Dictionary section below.</i>                                                 | Human Activity                                                                                                                                                              |
| <b>*Property Type</b><br><i>Choose Measured or Calculated</i>                                                                                                                                                                   | Measured                                                                                                                                                                    |
| <b>*Units</b>                                                                                                                                                                                                                   | Multiple                                                                                                                                                                    |
| <b>*Observation Category</b><br><i>Choose laboratory analysis, model output, in situ, satellite, or other</i>                                                                                                                   | Other                                                                                                                                                                       |
| <b>*Sampling Instrument</b> <i>If applicable, otherwise use model</i>                                                                                                                                                           | documentation only - no instrument type                                                                                                                                     |
| <b>*Sampling and Analyzing Method</b><br><ul style="list-style-type: none"> <li>• Description of parameter</li> <li>• Description of units, precision, and accuracy</li> <li>• How parameter was measured/ collected</li> </ul> | Data were collected via telephone using random digit dialing and via face to face interview, and the total sample size for this survey was 722 with a response rate of 20%. |
| <b>*Data Quality Method</b><br><ul style="list-style-type: none"> <li>• Data processing method</li> <li>• Data analysis method</li> </ul>                                                                                       | For a complete description of the data processing and analysis methods, see Gorstein et al. (in review).                                                                    |

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|------------------------------------------------------------------------------------------------------------------------------|
| <b>*Data Dictionary (copy this section as needed for each spreadsheet, edit/add/remove columns as applicable) (Required)</b> |
| See separate file "NCRMP-Socio-CNMI-2016_DataDictionary.pdf" for full survey codebook.                                       |

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|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Comment:</b><br>(To be filled out by Data Coordinator) | This is a NOAA/NCCOS dataset, please direct this archive submission package to Data Archivist Katharine Woodard or Lauren Jackson, NCEI-Stennis.//<br>This is CRCP-funded, please also include Brian Beck and Sarah O'Connor, NCEI/CoRIS.//<br>Please mint a digital object identifier for this accession.//                                                                                                                                                                            |
| <b>Keywords</b><br>(Reformatted)                          | NCCOS Research Priority > Social Science<br>NCCOS Research Priority > Long-term Monitoring<br>NCCOS Research Topic > Coral Reefs<br>NCCOS Research Location > Region > International<br>NCCOS Research Location > U.S. States and Territories > Northern Mariana Islands<br>NCCOS Research Location > Geographic Area > Coral Reefs<br>NCCOS Research Data Type > Field Observation                                                                                                     |
| <b>Supplemental Information</b><br>(Reformatted)          | Project Webpage://<br>National Coral Reef Monitoring Program Implementation: Biological and Socioeconomic Monitoring<br><a href="https://coastalscience.noaa.gov/projects/detail?key=180">https://coastalscience.noaa.gov/projects/detail?key=180</a><br>//<br>National Coral Reef Monitoring Program: Understanding Socioeconomic Connections<br><a href="https://www.coris.noaa.gov/monitoring/socioeconomic.html">https://www.coris.noaa.gov/monitoring/socioeconomic.html</a><br>// |

## Appendix: NCCOS Discovery Keywords

### Research Priorities

- Marine Spatial Ecology
- Stressor Impacts and Mitigation
- Coastal Change: Vulnerability, Mitigation, and Restoration
- Social Science

### Research Topics

- Ecological and Biogeographic Assessments
- Habitat Mapping
- Regional Ecosystem Science
- Coastal Aquaculture Siting and Sustainability
- Harmful Algal Bloom (HAB) Detection and Forecasting
- Biological Effects of Contaminants and Nutrients
- Vulnerability and Risk Assessment
- Natural and Nature-based Features
- Climate Impacts on Ecosystems
- Restoration
- Ecosystem Services Valuation
- Assessing Human Use
- Assessing Vulnerability and Resilience

### Research Locations

- Regions
  - Atlantic Ocean
  - Bering Sea
  - Caribbean Sea
  - Great Lakes
  - Gulf of Mexico
  - Pacific Ocean
  - International
- U.S. States and Territories
  - [list all applicable]

### Research Data Types

- Field Observation
- Long-term Monitoring
- Geospatial
- Derived Data Product
- Model
- Field Experiment
- Laboratory Experiment