



The NOAA Coral Reef Conservation Program (CRCP) Coral Reef Information System (CoRIS) Status Report on Metadata, Data and Information Resources October – December 2007

CoRIS Product Highlights

Metadata - The 1894 CoRIS metadata records provide managers, researchers and the public access to 19907 coral data products via the CoRIS web site portal. As can be seen in Table 2, CoRIS is still acquiring metadata for some of the earlier, as-well-as recent CRCP data sets. CoRIS staff added 73 new metadata records, updated over 500 existing U. S. Virgin Islands and Northwestern Hawaiian metadata records in support of the CoRIS web site Regional Portal Implementation.

Data - CoRIS received:

- Pulley Ridge Multibeam 2007 XYZ, GeoTIFF, and JPEG backscatter from Andrew David.
- Larval transport plots (card drifts), ship tracks (runs), cruise report, Otolith chemistry results (received Otolith metadata separately), CTD, Chlorophyll data, MOCDATA, SCS-Data Lite-Setlmt samples 2006, MODIS SST jpeg data, Satellite images etc. from John Lamkin.
- Coral Reef Ecosystems Division gave the NODC Pacific Liaison Officer all Shallow CTD cast data for 2000-2007.

Publications, etc. -

CoRIS received 94 coral publications, reports, web sites, presentations, posters, brochures, citations, and videos for addition to the CoRIS Library during October 2007 to December 2007.

Via the CoRIS web site, the NOAA Library provides access to 1166 coral publications, referenced in the NOAA Library, as well as access to another 445 NOAA and other coral reef publications and online resources.

Tables

CoRIS is gathering coral reef data and publications from CRCP funded coral projects for users of the CoRIS web site, the NOAA portal to coral reef data and information. The following tables present summaries and details of CoRIS metadata, data and publication references, from NOAA's coral reef projects and other sources.

Table 1 - Summary of CoRIS Data and Information Items

	Available via CoRIS Web Site					
	Metadata Records	Data Products	Metadata Working	Data Files Served by CoRIS	Pubs, Reports, Websites, etc. available	New Pubs, Websites, etc.
Oct-03	301	9180	105	2	718	-
Sep-04	597	9730	107	170	822	-
Sep-05	1027	13781	85	246	935	-
Sep-06	1424	16697	109	960	1089	-
Sep-07	1826	19855	167	1285	1155	431
Dec-07	1894	19907	389	1325	1166	445

Table 1 presents the count of CoRIS metadata, products, and publications; data served via the CoRIS web site; and metadata being prepared. (*Now includes websites and other documents).

Table 2 - Recent CoRIS Metadata Additions

Source	Description	Metadata	Data Products
NMFS/PIFSC	CRED Oceanographic Moorings Wake Island (STR) 20005-2007	5	5
NMFS/PIFSC	CRED Oceanographic Moorings American Samoa 2002-2006 (CREWS, RCM9, ODP, ADP, EDL)	6	6
NMFS/PIFSC	CRED SVP Drifters American Samoa 2002-2004	8	8
NMFS/PIFSC	CRED APEX Drifter Northwestern Hawaiian Islands 2001-2004	1	1
NMFS/PIFSC	CRED SVP Drifters Northwestern Hawaiian Islands 2001-2005	6	6
NMFS/PIFSC	CRED SVP Drifters Northwestern Hawaiian Islands 2002-2005	9	9
NMFS/PIFSC	CRED REA Algal Assessments Main Hawaiian Islands 2005	8	8
NOS/NCCOS	Sea Floor Characterization of the Caribbean Products for 2006	27	27
	Total Additions	60	60
	Metadata record updates and enhancements	> 500	

Table 2 lists new coral data products that have been added to CoRIS during the past three months that are available via the CoRIS web site. Appendix I on page 6 presents direct links to the metadata records.

Table 3 - Metadata Undergoing Acquisition, Creation and CoRIS Review

Source	Description	Count
NCCOS/CSCOR	Hawaii Coral Reef Initiative Data Sets (Not online)	5
NOS/NCCOS	USVI 2004 Ground Truth observations	2
NOS/NCCOS	Palau Benthic Habitat	5
NOS/CSC	Hawaii Coastal LIDAR	2
NMFS/PIFSC	CRED Optical Validation Coral Coverage and Track Maps (Not online yet)	13
NMFS/PIFSC	CRED Time Series Moorings American Samoa 2006	14
NMFS/PIFSC	CRED REA Algae Marianas 2005	16
NMFS/PIFSC	CRED Drifters NWHI 2001-2003 Deployments (waiting for information)	6
NMFS/PIFSC	CRED Drifters American Samoa 2002-2004 Deployments (waiting for information)	11
NMFS/PIFSC	CRED Drifters CNMI 2003-2005 Deployments (waiting for information)	7
NMFS/PIFSC	PIBHMC Multibeam for Jarvis, Howland, Baker, Johnston, Palmyra, and Kingman Islands and all islands of American Samoa.	~30
NMFS/PIFSC	PIBHMC Gridded Bathymetry and Backscatter Products American Samoa 2004-2006	~28
NMFS/PIFSC	PIBHMC Gridded Bathymetry and Backscatter Products NWHI 2002-2006	~40
NMFS/PIFSC	PIBHMC Gridded Bathymetry and Backscatter Products PRIA 2006	13
NMFS/PIFSC	REA Corals CNMI 2007	13
NMFS/PIFSC	REA Coral NWHI 2006	8
NMFS/PIFSC	REA Coral PRIA 2006	6
NMFS/PIFSC	REA Fish Belt Transects and Point Counts American Samoa 2006	10
NMFS/PIFSC	REA Fish Belt Transects and Point Counts CNMI 2007	26
NMFS/PIFSC	REA Fish Belt Transects and Point Counts Main Hawaiian Islands 2006	16
NMFS/PIFSC	REA Fish Belt Transects and Point Counts NWHI 2006	16
NMFS/PIFSC	REA Fish Belt Transects and Point Counts PRIA 2006	12
NMFS/PIFSC	REA Fish Belt Transects and Point Counts Wake 2005	2
NMFS/PIFSC	REA Fish Belt Transects and Point Counts CNMI 2005	34
NESDIS/NODC	Florida Reef Track Bottom Temperatures 1988-2007	47
NMFS/SEFSC	Florida Middle ground 2006, Fill in area 200508 and 200607, corridor area 200507 and 2006, Steamboat lumps 2006,	4
NMFS/SEFSC	West Florida Shelf Mapping Project 2006 Corridor area and Fill area	2
NMFS/SEFSC	Otolith Microchemistry of Snappers from Southern Florida 2001-2002	1
	Total	~389

Table 3 lists products for which CoRIS is preparing, or assisting coral reef project representatives with metadata preparation.

Table 4a - Other Coral Products Received

Source	Description	Count
NOAA Coral Reef Update	Citation - Book	1
NOAA Coral Reef Update	Digital - Tech Memo and Report (PDF format)	2
NOAA Coral Reef Update	Digital - Journal Articles (PDF format)	5
NESDIS/STAR	Citations - Journal Articles and Presentation	21
NESDIS/STAR	Digital - Journal Article (PDF format)	1
NMFS/HC	Digital and Hard Copy - Report (PDF format)	1
NMFS/PIFSC/ CRED	Citations - Journal Article, Report, Thesis, and Presentation	4
NMFS/PIFSC/ CRED	Digital - Journal Articles and Reports (PDF format)	5
NMFS/PIFSC/ CRED	Digital - Presentations (PPT and PDF format)	4
NMFS/PIFSC/ CRED	DVD - Ofu Island American Samoa ARCGIS Project	1
NMFS/PR	Digital - Brochure (PDF format)	1
NMFS/PR	Digital - Report (PDF format)	1
NMFS/SEFSC	Citations - Journal Articles and Tech Memos	3
NMFS/SEFSC	Citations - Presentations	8
NMFS/SEFSC	Digital - Presentation (PDF format)	1
NMFS/SEFSC	Digital - Journal Articles and Reports (PDF format)	4
NMFS/SEFSC	Web Site	1
NMFS/SER	Hard Copy - Brochures	3
NMFS/SER	Hard Copy - Report	1
NOS/CSC	CD - Characterization of the Waianae Coast	1
NOS/IPO/ International Coral Grants Program	Digital - Brochure (PDF format)	1
NOS/IPO/ International Coral Grants Program	Digital - Publications and Reports (PDF and Word format)	11
NOS/NCCOS	Citation - Journal Article	1
NOS/NCCOS	Digital - Tech Memo and Reports (PDF format)	3
NOS/NCCOS	DVD - Videos	2
NOS/OCRM	Digital - Report (PDF format)	1
NOS/ONMS	Digital - Reports (PDF format)	2
NOS/SPO	Digital - Journal Article and Report (PDF format)	2
OAR/AOML	Digital - Journal Articles (PDF format)	2
	Total Products	94

Table 4a lists new CRCP and other coral publications, reports, web sites, and other products that have been provided to CoRIS for addition to the CoRIS Library. Appendix II presents details of all items received.

Table 4b - Other Coral Products Received (Not for Addition to the CoRIS Library)

Source	Description	Count
NMFS/PIFSC/ CRED	Digital - Report In Review (PDF format)	1
NOS/NCCOS	Digital - CDHC Model Species holdings (XLS format)	1
	Total Products	2

Table 4b lists all CRCP and other coral products that have been provided to CoRIS that are not for addition to the CoRIS Library. They may be sensitive, incomplete, or draft items. Appendix III presents a complete list of all items received.

Table 5 - Coral Reef Data Products served by CoRIS

Source	Description	Count
NMFS/SEFSC	Madison-Swanson and Twin Ridges bathymetry (deep water coral)	2
NMFS/SEFSC	Multibeam Survey products SAB Georgia and South Carolina and Oculina Banks	8
OAR/NURC	Oculina Banks Dive Narratives, Video Clips, GIS and Bathymetry (deep water coral)	30
OAR/AOML	ICON Stations (years)	14
OAR/AOML	SEAKEYS Stations (years)	32
NOS/ORR	Environmental Index Atlas Maps	479
NOS/SP	LandSat Mosaics of Freely Associated States	3
NOS/NCCOS	Summit2Sea Watershed Characterizations	2
NESDIS/ORA	Satellite Bleaching Alerts	451
NMFS/PIFSC	CRED Shallow CTD Casts	135
NMFS/PIFSC	CRED REA Algal Assessments	64
NMFS/PIFSC	CRED NWHI Bathymetry Atlas	90
NMFS/PIFSC	CRED Drifters (future)	
PIMS	Water Temperatures Lee Stocking Island, Bahamas 1988-2003	15
	Total Files	1325

Table 5 lists coral reef data, or products available from the CoRIS server. CoRIS usually obtains metadata for coral reef data and products and links to the originator's web site for user access, or provides information so the user can obtain the coral reef product. These datasets are served by CoRIS with the originator's permission in the interim until they are served by a National Archive.

Table 6 - Coral Reef Data Products provided by CoRIS to NOAA National Data Centers

Archive	Description	Datasets	Files
NODC	Florida Reef Fish Visual Census Species Site Matrix NODC 0001394	1	20
NODC	Environmental Index Atlas Maps for Virgin Islands NODC Number 0002069	1	14
NODC	Environmental Sensitivity Index Amercian Samoa 2003	1	8
NODC	Environmental Sensitivity Index Guam-CNMI 2006	1	5
NODC	Environmental Sensitivity Index Hawaii 2001	1	96
NODC	Environmental Sensitivity Index Puerto Rico 2002	1	68
NODC	Environmental Sensitivity Index East Florida 1996 NODC 0004150	1	19
NODC	Environmental Sensitivity Index West Florida NODC 0006249	1	65
NODC	Environmental Sensitivity Index Upper West Peninsular Florida 1996 NODC 0006377	1	45
NODC	Environmental Sensitivity Index Lower West Peninsular Florida 1996 NODC 0006394	1	42
NODC	Environmental Sensitivity Index South Florida 1996 NODC 0006539	1	54
NODC	Drift Card Survey Barbers Point Oahu 2002-2005	1	1
NODC	CRED Shallow CTD PRIA 2004 OES0404	1	135
NODC/NGDC	CRED Bathymetric Atlas of the NWHI 2003	1	90
NODC/NGDC	Gridded Bathymetry US Pacific Islands 2003-4	2	15
NODC/NGDC	Georgia and South Carolina SAB Bathymetry and Backscatter 2005	2	4
NODC/NGDC	Oculina MPA Bathymetry and Backscatter 2005	2	2
Total		20	453

Table 6 lists the products CoRIS has submitted to a National Data Center for the Coral Archive.

Table 7 - Coral Reef References compiled by the NOAA Library for CoRIS

Library Resources	Count
Publications referenced in the NOAA Library Catalog, including online full text documents, digital images, digital videos, digital maps, home pages, electronic media, and e-books.	1166
NOAA and other coral reef publications and online resources	445
Total	1611

Table 7 presents the number of coral reef publications and web sites available from the "Coral" NOAA Library.

Appendix I Metadata Additions to CoRIS this Quarter

For CRCP Coral Projects

NMFS, Pacific Islands Fisheries Science Center, Coral Reef Ecosystems Division (CRED) metadata received and processed:

Surface Temperature Recorder Time Series

Data from CRED Subsurface Temperature Recorders (STR) provide a time series of water temperature at reef sites. Data is typically collected at 1200 second or 1800 second intervals using a SBE Model 39 from Seabird Electronics Inc. Data from prior to the deployment date/time and after the recovery date/time have been removed.

Wake Island 20005-2007

CRED CREWS Time Series

Monitoring of oceanographic and meteorologic conditons provides information about environmental factors influencing coral reef ecosystems. CREWS Enhanced buoys are equipped to measure water temperature and salinity at 1 m (nominal) below the water line (Seabird Model SBE37); air temperature (R.M Young Model 41342); barometric pressure (Heise DXD); wind vectors (Vaisala WAS425A); PAR, UV305 nm, UV330 nm, UV380 nm measured at 2 m (nominal) above the water line (Biosherical BIC2104R); PAR, UV305 nm, UV330 nm, UV380 nm measured at 1 m (nominal) below the water line (Biosherical BIC2104U). A compass (KVH C100 SE-25) is used in the calculation of wind direction and a GPS system provides geo-location. CREWS Standard buoys use SBE 37 (Seabird Electronics, Inc.) temperature and salinity recorders.

American Samoa 2002-2006

CRED Ocean Data Platform Time Series

The Ocean Data Platform (ODP) is placed on the sea floor with sensor packages to measure water current profiles, and waves, temperature, and salinity. The ODP consist of an upward looking Acoustic Doppler Current Profiler (ADCP) and a CTD, temperature/conductivity recorder (Seabird Electronics, Inc., Model SBE37. There is a metadata record for each time series dataset from the ADCP and CTD.

American Samoa 2002-2006

CRED Recording Current Meter

Recording Current Meter (Model RCM9, Aanderaa Data Instruments). The RCM9 is placed on the sea floor to measure water current and temperature in the vicinity of the sensor.

American Samoa 2002-2006

CRED Environmental Data Logger

U and V wind components (Note the vector points toward the source of the Wind); Compass (magnetic): degrees; Air temperature (sun shielded): degrees Celsius; Barometric pressure (wind shielded port): milliBar; Sea surface temperature: degrees Celsius; and Sea surface conductivity.

American Samoa 2002-2006

CRED APEX Drifters

APEX (Autonomous Profiling Explorers) floats. Profiling satellite drifters mimic diurnal migrations of zooplankton and transmit profiles of water column temperature daily by satellite telemetry, and are used to "simulate" diurnal migration of larvae to and from 100m depth and back as possible indicators of potential larvae paths.

Northwestern Hawaiian Islands 2001-2004

CRED SVP Drifters

Drogued drifters that telemeter the date, time, position and sea surface temperature.

Northwestern Hawaiian Islands 2001-2005

CRED REA Algal Assessments

Part of an initial assessment program in which corals, algae, fish, and other macroinvertebrates are co-sampled along the same set of transect lines

Main Hawaiian Islands 2005

NOS/NCCOS Sea Floor Characterization of the Caribbean

Bathymetry and Backscatter Products for 2006

Appendix II CRCP and Other Coral Publications, Reports, Web Sites, Web Links, Presentations, Citations, and Videos Received by CoRIS for Addition to the CoRIS Library

NOAA Coral Reef Update Items

Citation: NOAA and the Smithsonian Institution. 2007. Hidden Depths: Atlas of the Oceans. HarperCollins, New York, NY. 256pp.
Digital: Pait, A.S., D.R. Whitall, C.F.G. Jeffrey, C. Caldow, A.L. Mason, J.D. Christensen, Mark E. Monaco, and J. Ramirez. 2007. An Assessment of Chemical Contaminants in the Marine Sediments of Southwest Puerto Rico. NOS NCCOS 52. Silver Spring, MD. NOAA/NOS/Center for Coastal Monitoring and Assessment. 116pp.
Digital: Sulak, Kenneth J., George D. Dennis III, and James V. Gardner. Cruise Report March, 2004. STRUCTURE, FUNCTION, AND BIOLOGICAL/PHYSICAL COUPLING OF DEEP REEF COMMUNITIES IN THE NORTHEASTERN GULF OF MEXICO. Cruise TM-2003-01 Mississippi/Alabama Outer Continental Shelf 10-17 June 2003. 40pp.
Digital: Donald Kennedy. 2007. Editorial: Year of the Reef. Science 14 December 2007: 1695.
Digital: Elizabeth Pennisi. 2007. REEFS IN TROUBLE: Spawning for a Better Life. Science 14 December 2007: 1712-1717.
Digital: Cheryl Jones. 2007. REEFS IN TROUBLE: Moonlight Sonata on the Reef. Science 14 December 2007: 1715.
Digital: Cheryl Jones. 2007. REEFS IN TROUBLE: Whiter Shades of Pale. Science 14 December 2007: 1716.
Digital: Christopher Pala. 2007. REEFS IN TROUBLE: Life on the Mean Reefs. Science 14 December 2007: 1719.

NESDIS/STAR Items

Citation: Montgomery, R.S. and A.E. Strong. 1994. Coral bleaching threatens oceans, life. EOS, 75, 145-147.
Citation: Gleeson, M.W. and A.E. Strong. 1995. Applying MCSST to coral reef bleaching. Adv. Space Res., 16(10), 10,151-10,154.
Citation: Goreau, T.J., Hayes, R., Strong, A., Williams, E., Smith, G., Cervino, J., and M. Goreau. 1998. Coral reefs and global change: Impacts of temperature, bleaching, and emerging diseases. Sea Wind, 12(3), 2-6.
Citation: Strong, A.E., T.J. Goreau, and R. Hayes. 1999. Ocean HotSpots and Coral Reef Bleaching: January -- July 1998. Reef Encounters, 24, 20-22.
Citation: Toscano, M.A., Strong, A.E. and I.C. Guch. 1999. New analyses for ocean HotSpots and coral reef bleaching. Reef Encounters, 26, 31.
Citation: Wilkinson, C., O. Linden, H. Cesar, G. Hodgson, J. Rubens, and A.E. Strong. 1999. Ecological and socioeconomic impacts of 1998 coral mortality in the Indian Ocean: An ENSO impact and a warning of future change?. AMBIO, 28(2), 188-196.
Citation: Goreau, T., T. McClanahan, R. Hayes and A.E. Strong. 2000. Conservation of coral reefs after the 1998 global bleaching event. Conservation Biology, 14(1), 5-15.
Citation: Strong, A.E., K.K. Gjovig, and E. Kearns. 2000. Sea Surface Temperature Signals from Satellites - An Update. Geophys. Res. Lett, 27(11), 1667-1670.
Citation: Wellington, G.M., A.E. Strong and G. Merlen. 2001. Sea surface temperature variation in the Galapagos Archipelago: a comparison between AVHRR nighttime satellite data and in-situ instrumentation (1982-1988). Bull. Marine Res., 69(1): 27-42.
Citation: Wellington, G.M., P.W. Glynn, A.E. Strong, S. Navarrete and E. Wieters. 2001. Crisis on coral reefs linked to climate change. EOS, 82(1), 1 and 5.
Citation: Brinkman, R., E. Wolanski, E. Deleersnijder, F. Mcallister and W. Skirving. 2002. Oceanic inflow from the Coral Sea into the Great Barrier Reef. Estuarine, Coastal and Shelf Science, 54:655-668.

Citation: Skirving, W.J. 2002. A system for routinely monitoring radiometric sea surface temperature. <i>Marine Technology Society Journal</i> , 39 (1) 39-43.
Citation: Kutser, T., W.J. Skirving, and A. Dekker. 2003. Satellite remote sensing of coral reef benthos. <i>Limnology and Oceanography</i> , 48, 497-510.
Citation: McKinnon, D., M. Meekan, J. Carleton, M. Furnas, S. Duggan and W. Skirving. 2003. Rapid changes in shelf waters and pelagic communities on the southern Northwest Shelf, Australia, following a tropical cyclone. <i>Continental Shelf Research</i> , 23, 93-111.
Citation: Berkelmans, R., G. De'ath, S. Kinimonth and W. Skirving. 2004. Coral bleaching on the Great Barrier Reef: Correlation with sea surface temperature, a handle on 'patchiness' and comparison of the 1998 and 2002 events. <i>Coral Reefs</i> , 23:74-83.
Citation: Mumby, P.J., W. Skirving, A. Strong, J. Hardy, E. LeDrew, E. Hochberg, R. Stumpf and L. David. 2004. Remote sensing of coral reefs and their physical environment. <i>Marine Pollution Bulletin</i> , 48 (3-4), 219-228.
Citation: Nalli, N., F. Arzayus, P. Chang, P. Clemente-Colon, A. Harris, A. Ignatov, R. Legeckis, X. Li, G. Liu, E. Maturi, T. Mavor, R. Meiggs, B. Pichel, J. Sapper, W. Skirving, A. Strong, C. Merchant and S. MacCallum. 2004. Satellite Remote Sensing and the NOAA/NESDIS Sea-Surface Temperature Science Team. <i>Backscatter</i> , Spring 2004, 24-28.
Citation: Donner, S., W.J. Skirving, C.M. Little, M. Oppenheimer and O. Hoegh-Guldberg. 2005. Global assessment of coral bleaching and required rates of adaptation under climate change. <i>Global Change Biology</i> , 11:1-15.
Citation: Hoegh-Guldberg, O., M. Fine, W. Skirving, R. Johnstone, S. Dove and A. Strong. 2005. Coral bleaching following wintry weather. <i>Limnol. Oceanogr.</i> , 50(1), 2005, 265–271.
Citation: Kleypas, J.A., R.W. Buddemeier, C.M. Eakin, J.-P. Gattuso, J. Guinotte, O. Hoegh-Guldberg, R. Iglesias-Prieto, P.L. Jokiel, C. Langdon, W. Skirving and A.E. Strong . 2005. Comment on "coral reef calcification and climate change: The effect of ocean warming". <i>Geophysical Research Letters</i> , 32, L08601.
Citation: Kleypas, J.A. and C.M. Eakin. 2007. Scientists' Perceptions of Threats to Coral Reefs: Results on a Survey of Coral Reef Researchers. <i>Bulletin of Marine Science</i> , 80(2):419-436.
Digital: O. Hoegh-Guldberg, P. J. Mumby, A. J. Hooten, R. S. Steneck, P. Greenfield, E. Gomez, C. D. Harvell, P. F. Sale, A. J. Edwards, K. Caldeira, N. Knowlton, C. M. Eakin, R. Iglesias-Prieto, N. Muthiga, R. H. Bradbury, A. Dubi, and M. E. Hatziolos. 2007. Coral Reefs Under Rapid Climate Change and Ocean Acidification. <i>Science</i> 14 December 2007: 1737-1742.

NMFS/HC Items

Digital and Hard Copy: Lumsden SE, Hourigan TF, Bruckner AW, Dorr G (eds.) 2007. <i>The State of Deep Coral Ecosystems of the United States</i> . NOA Technical Memorandum CRCP-3. Silver Spring MD.

NMFS/PIFSC/CRED Items

DVD (2 - one with file missing): Ofu Island American Samoa ARCGIS Project. Airport Vicinity. Compiled Dec 2006. (Harry gave to Michele for Library 11/2007)
Digital: Cruise Report. August 10- September 6, 2006. Marine Debris Removal Operations Northwestern Hawaiian Islands (NWHI). PIFSC Cruise Report CR-07-005. 10pp.
Digital: DeMartini EE, Anderson TW (2007) Habitat associations and aggregation of recruit fishes on Hawaiian coral reefs. <i>Bulletin of Marine Science</i> 81(1):139-152.
Citation: Tribollet, Aline D., and Peter S. Vroom. 2007. Temporal and spatial comparison of the relative abundance of macroalgae across the Mariana Archipelago between 2003 and 2005. <i>Phycologia</i> (2007) Volume 46(2), 187-197.
Digital Presentation: Joyce Miller and John Rooney. August 2007. The Geomorphology, Habitats, and Mapping of the Hawaiian Archipelago. NOAA Pacific Islands Fisheries Science Center, Coral Reef Ecosystem Division, Pacific Islands Benthic Habitat mapping Center. Hawaii Association for Marine Education and Research (HAMER) Meeting.

Digital Presentation: Emily Lundblad and Joe Breman. Wet DEMs – Lessons Learned Working with Bathymetric Data in the Hawaiian Islands. CA/HI/NV/Guam ESRI Regional Users' Group Annual Conference February 6 – 8, 2007.
Digital: GENZ, A.S.; FLETCHER, C.H.; DUNN, R.A.; FRAZER, L.N., and ROONEY, J.J., 2007. The predictive accuracy of shoreline change rate methods and alongshore beach variation on Maui, Hawaii. <i>Journal of Coastal Research</i> , 23(1), 87–105. West Palm Beach (Florida), ISSN 0749-0208.
Digital Presentation: Emily Lundblad, Joyce Miller, John Rooney, Megan Moews, Joe Chojnacki, and Jonathan Weiss. 2005. Mapping Pacific Island Coral Reef Ecosystems with Multibeam and Optical Surveys, Introducing the Benthic Terrain Modeler to Automate Terrain Classification. Joint Institute for Marine and Atmospheric Research, University of Hawaii, Contractors to NOAA Pacific Islands Fisheries Science Center. Coastal GeoTools 2005.
Digital: Mapping Moderate Depth Habitats of the U.S. Pacific Islands with Emphasis on the Northwestern Hawaiian Islands: an Implementation Plan. Version 2. August 2003. 23pp.
Digital Presentation: Joyce Miller, Jamie Smith, Emily Lundblad, Jonathan Weiss, Joe Chojnacki, Jeremy Jones, Scott Ferguson, John Rooney, and Jeremy Taylor. Bathymetric and 3-D Maps of the U.S. Pacific Remote Islands: Collaborative Mapping in the Pacific. Pacific Islands Fisheries Science Center, Coral Reef Ecosystem Division, UH – Joint Institute for Marine & Atmospheric Research, Pacific Islands Benthic Habitat Mapping Center, and the NOAA Ship Hi'ialakai. HCPO / PacGeo Conference 2006 – Honolulu, HI – Oct. 3-5, 2006.
Digital: G. R. Cutter Jr. October 2004. Seafloor Texture Analysis of Saipan Anchorage Bathymetry using Local Fourier Histogram (LFH) Texture Features: LFH class maps from Saipan bathymetry using unsupervised classification and supervised classification based upon seafloor video image data. Draft Final Report. Order number JJ133F04SE0124, Requisition/Ref. No. NFFR7400-4-00124. 104pp.
Citation: Vetter, O., 2007, Field Observations of setup over two fringing reefs: Ipan Reef, Guam and Mokule'ia Reef, Hawai'i, Thesis (MS). Department of Oceanography, University of Hawaii at Manoa.
Citation: Hoeke, R., Storlazzi, C., 2007, Hydrodynamic modeling of Hanalei Bay: in Field, Michael E., Berg, Carl S., and Cochran, Susan A., eds., Science and management in the Hanalei watershed; a trans-disciplinary approach: Proceedings from the Hanalei watershed workshop, 21-22 February 2007, Hanalei, HI, U.S. Geological Survey Open File Report 2007-1219, p. 41-44.
Citation: Brainard R., Gove, J., Hoeke, R., Wong, K., Moffitt, R., Firing, J., Hogrefe, K., Dameron, O., Smith, E., Vetter, O., 2007, Oceanographic processes influencing coral reef ecosystems in the Northwestern Hawaiian Islands, Northwestern Hawaiian Islands Joint Science Symposium, 5-6 February 2007, Marine National Monument Office, Honolulu, Hawaii.

NMFS/PR Items

Digital: Napoleon Fish (Humphead Wrasse) <i>Cheilinus undulatus</i> . Groupers and Wrasses Specialist Group, IUCN. 2pp.
Digital: Sadovy, Yvonne. 2006. FINAL REPORT CITES Project No. A-254 Development of fisheries management tools for trade in humphead wrasse, <i>Cheilinus undulatus</i> , in compliance with Article IV of CITES. IUCN Groupers & Wrasses Specialist Group. 100 pp.

NMFS/SEFSC Items

Citation: Miller MW, Williams DE. (2007) Coral disease outbreak at Navassa, a remote Caribbean Island. <i>Coral Reefs</i> 26:97-101.
Digital Presentation: Gledhill, Christopher T, and Andrew W. David. 2007. Northeast Gulf of Mexico Marine Reserve Program. 59 pp.
Citation: Miller MW, McClellan DB, Wiener JW, Stoffle B (2007) Apparent rapid fisheries escalation at a remote Caribbean island. <i>Env Cons</i> 34:92-94.
Citation: Johnston L, Miller MW (2007) Variation in life-history traits of the corallivorous gastropod <i>Coralliophila abbreviata</i> on three coral hosts. <i>Marine Biology</i> 150: 1215-1225.

Digital: Gleason, ACR, A-M Ecklund, RP Reid, and V Koch. 2006. Acoustic signatures of the seafloor: tools for predicting grouper habitat. In: Emerging technologies for reef fisheries research and management, JC Taylor (ed), pp. 38-47. NOAA Professional Paper NMFS 5.
Digital: Johnston, SV, JA Rivera, A Rosario, MA Timkko, PA Neilson and KK Kumagai. 2006. Hydroacoustic evaluation of spawning red hind (<i>Epinephelus guttatus</i>) aggregations along the coast of Puerto Rico in 2002 and 2003. In: Emerging technologies for reef fisheries research and management, JC Taylor (ed), pp. 10-17. NOAA Professional Paper NMFS 5.
Digital: Report for NOAA-CRCP Project # 2134 Margaret Miller (NMFS/SEFSC). 9pp.
Web Link: http://ecopath.org/
Digital: Bruckner, Andy, and Ron Hill. Cruise Report 2006 and Research Plan 2007 Monitoring the FORTUNA REEFER Restoration and Researching Coral Disease and Coral Reef Ecology at Mona Island, Desecheo Island and La Parguera. NOAA Fisheries and Coral Reef Conservation Program. 7 pp.
Presentation Citation: Brusher, J. and J. Schull. 2007. Non-lethal age determination for juvenile goliath grouper (<i>Epinephelus itajara</i>) from southwest Florida. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Cass-Calay, S. and T. Schmidt. 2007. Monitoring the recovery of goliath grouper, <i>Epinephelus itajara</i> , using the Everglades National Park Creel Survey, 1972-2006. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Kellison, T. and D. Harper. 2007. Spatial trends in size and abundance of fishery targeted reef fish in the FL Keys, USA. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Miller, M., J. Weiner, D. McClellan and B. Stoffle. 2007. Preliminary effort and yield estimates from the Haitian fishery at Navassa Island. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Hill, R. et al. 2007. Reef fish habitat use as a measure of coral reef restoration success at the Fortuna Reefer grounding site Mona Island, Puerto Rico. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Doerr, J. and R. Hill. 2007. Determining habitat use, movement, and migration patterns of queen conch, <i>Strombus gigas</i> , in St. John, USVI, using acoustic tagging techniques. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Lara, M., J. Schull, D. Jones and R. Allman. 2007. First Description of Post-Settlement Goliath Grouper. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.
Presentation Citation: Murie, D, K. Koenig, J. Schull and S. Frias-Torres. 2007. Evaluation of finrays as a non-lethal aging method for protected goliath grouper (<i>Epinephelus itajara</i>) in Southwest Florida. 60'th International Gulf and Caribbean Fisheries Institute Meeting, Punta Cana, Dominican Republic, November 5-9'th 2007.

NMFS/SER Items

Hard Copy: Reserva Natural Canal Luis Pena Culebra.
Hard Copy and Digital: Mena, Lourdes, Lisamarie Carrubba, and Juan Torres. 2007. Guide to Regulations and biology for Law Enforcement Officers I Puerto Rico. NOAA's National Marine Fisheries Service. 277pp.
Hard Copy: Guide to Enjoying Your USVI Vacation Appropriate Souvenirs. NOAA Coral Reef Conservation Program and the National Marine Fisheries Service Caribbean Field Office.
Hard Copy (Laminated): St. Croix and St. Thomas/St. John Coral and Protected Areas Information Sheets.

NOS/CSC Items

CD: Characterization of the Waianae Coast
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NOS/IPO/International Coral Grants Program Items

Digital: NOAA-Coral Grants- Project No. NA05NO54631013. Assessment of management effectiveness for the Marine Protected Areas at the 'Rosario and San Bernardo Corals National Park' (Cartagena): towards an adaptive management of Colombia's first coral reef protected area. FINAL REPORT. 15pp.
Digital: Republic of Vanuatu. June 2006. Management Plan of the Nguna-Pele Marine Protected Area. 16pp.
Digital (Bislama): Republic of Vanuatu. Draft June 2006. Manajmen Plan Blong Nguna-Pele Marine Protected Area. 16pp.
Digital (Bislama): Ripot i ko long ol man, Nguna mo Pele, mo Not Efate. Oktoba 2006. Biche-de-Mer Karem Aot long Solwota Blong Yumi? DENJA!!!. 5pp.
Digital: Nguna-Pele Marine Protected Area. 2007. STADI LONG CONSERVESEN ERIA MO TABU UNAKAP VILLAGE NGUNA ISLAND FES KOMUNITI RIPOT. Ngun-Pele Marine Protected Area Nguna and Pele Islands. 22pp.
Digital: Germano, B.P., S.A. Cesar and G. Ricci. 2007. Enhancing Management Effectiveness of Marine Protected Areas: A Guidebook for Monitoring and Evaluation. Marine Laboratory, Institute for Tropical Ecology, Leyte State University, Visca, Baybay, Leyte 6521-A, Philippines. 47pp.
Digital (Bahasa): PANDUAN MENGEVALUASI PENGELOLAAN DAERAH PERLINDUNGAN LAUT YANG EFEKTIF. Joke Mewengkang, Ismail Tampi, James Koagouw. 20pp.
Digital: GUILLERMO PAZ and GEORGE R. SEDBERRY. Spawning of Black Grouper (<i>Mycteroperca bonaci</i> , Serranidae) in Belize. 24pp.
Digital: Black Grouper Brochure
Digital: S. Young. 2006. Social and Economic Profile of Helene; Community Views on the Environment and the Potential for a Successful MPA. SocMon: Helene, Bay Islands, Honduras 2006. 122pp.
Digital: Malleret-King D, Glass A, Wanyonyi I, Bunce L, Pomeroy B. 2006. Socio-economic Monitoring guidelines for coastal managers of the Western Indian Ocean, SocMon WIO. CORDIO East Africa publication. (Version 1). pp 108.
Digital: David Obura, & Innocent Wanyonyi. 2007. Establishing a Regional Socioeconomic Monitoring Network in East Africa. Final Report for implementation period October 1, 2005-March 31, 2007. Submission date: June 30, 2007. Project award Number: NA05NOS4631010. CORDIO East Africa. 10pp.

NOS/NCCOS Items

Digital: Rohmann, S.O. and M.E. Monaco. 2005. Mapping Southern Florida's Shallow-water Coral Ecosystems: An Implementation Plan. NOAA Technical Memorandum NOS NCCOS 19. NOAA/NOS/NCCOS/CCMA. Silver Spring, MD. 39 pp.
Digital Report: A Classification Scheme for Mapping the Shallow-water Coral Ecosystems of Southern Florida Version 2.1 17 August 2007. 15pp.
Digital: Analytical Laboratories of Hawaii. 2004. Mapping of Benthic Habitats for U.S. Pacific Territories: American Samoa, Guam, and The Commonwealth of the Northern Mariana Islands. 54pp.
DVD: Histological Techniques for Coral Tissues By Kathy Price
DVD: Disease Outbreak Investigation Coral Collection Techniques Featuring Dr. Robert Jonas
Citation: S.J. Pittman, J.D. Christensen, C. Caldow, C. Menza, and M.E. Monaco. 2007. Predictive mapping of fish species richness across shallow-water seascapes in the Caribbean. Ecological Modeling 204:9-21.

NOS/OCRM Items

Digital: Jameson, Dr. Stephen C., and Dr. Ruth A. Kely. 2004. A Review of Indicators of Land-based Pollution Stress on Coral Reefs A Background Paper for the Joint PA/NOAA/USGA/DOI Workshop on Assessing Pollution Stress on Coral Reefs August 31-September 2, 2004 Honolulu, Hawaii. Coral Seas Inc - Integrated Coastal Zone Management and National Oceanic and Atmospheric Administration, National Centers for Coastal Ocean Science. 75pp.
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NOS/ONMS Items

Digital: Florida Fish and Wildlife Conservation Commission. November 7, 2007. Performance Evaluation of Marine Zoning in the Florida Keys National Marine Sanctuary Interim Report 2. Fish and Wildlife Research Institute. 30pp.

Digital: Florida Fish and Wildlife Conservation Commission. December 31, 2007. Performance Evaluation of Marine Zoning in the Florida Keys National Marine Sanctuary Final Report Year 2. Fish and Wildlife Research Institute. 44pp.

NOS/SPO Items

Digital: Manuel Valdés Pizzini. 2007. SocMon Workshop Report June 18-21, 2007 La Parguera, Puerto Rico. University of Puerto Rico, Mayagüez. 9 pp.

Digital: Shapiro, Aurélie C., and Steven O. Rohmann. 2006. Mapping Changes in Submerged Aquatic Vegetation using Landsat Imagery and Benthic Habitat Data: Coral Reef Ecosystem Monitoring in Vieques Sound Between 1985 and 2000. BULLETIN OF MARINE SCIENCE, 79(2): 375–388, 2006.

OAR/AOML Items

Digital: Manzello DP, Brandt M, Smith TB, Lirman D, Hendee JC, Nemeth RS (2007) Hurricanes benefit bleached corals. Proc. Nat. Acad. Sci. U.S.A. 104(29): 12035-12039.

Digital (Uncorrected Proof): Manzello DP, Berkelmans R, Hendee JC (2007) Coral bleaching indices and thresholds for the Florida Reef Tract, Bahamas, and US Virgin Islands. Marine Pollution Bulletin 54: 1923-1931.

Appendix III Items Received Not for Addition to the CoRIS Library (Items may be sensitive, incomplete, or draft items)

NMFS/PIFSC/CRED Items

Digital (In Review): 2006 Northwestern Hawaiian Islands Marine Debris Effort. NOAA Pacific Islands Fisheries Science Center. 1pp.

NOS/NCCOS Items

Digital: CDHC Woodley Model Species holdings 1107.xls