

ISO 11915 Core metadata components  
 ISO 11915 Other (comprehensive) metadata components  
 GCMD DIF Required Fields (Req.)  
 GCMD DIF Recommended Fields (Rec.)  
 GCMD DIF Optional Fields (O)

FGDC Content Standard for Digital Geospatial Metadata																
OBIS metadata	Description	ISO 19115 Metadata for geographic datasets		obligation	UML hierarchy	Description	GCMD DIF metadata	obligation	Description	FGDC Content Standard for Digital Geospatial Metadata	Obligation	Description	Proposed OBIS usage	Query from OBIS database	From DiGIR Entry	Other Comment
Database name	Name or title (may include acronyms)	360	Dataset title	(M)	(MD_Metadata > MD_DataIdentification.Citation > CI_Citation.title)	"Name by which the cited resource is known"	Entry_Title (this field may be duplicated under Data_Set_Citation > Data_Set_Title)	(Req.)	"Title of DIF": descriptive enough so that a user can determine the general content of the data set	8.4 Title	(M)	The name by which the data set is known.	Include			
	Version - <b>would recommend be part of a citation group</b>	363	Dataset edition	(O)	(MD_Metadata > MD_DataIdentification.Citation > CI_Citation.edition)	"Version of the cited resource"	Data_Set_Citation > Version	(Rec.)	"Version is the version of the data set"	8.5 Edition	(MIA)	The version of the title.	Include within citation			
	Date released - <b>would recommend be part of a citation group</b>	362	Dataset reference date	(M)	(MD_Metadata > MD_DataIdentification.Citation > CI_Citation.date)	"Reference date for the cited resource"	Data_Set_Citation > Data_Set_Release_Date	(Rec.)	"The date when the data set was made available for release"	8.2 Publication Date	(M)	The date when the data set is published or otherwise made available for release.	Include within citation			
	Status (e.g. Final version or Data continues to be added)	28	Status of dataset	(O)	(MD_Metadata > MD_Identification.Status)	"Status of the resource(s)"	Data_Set_Progress	(O)	"The production status of the data set regarding its completeness": Options: Planned, In Work, or Complete	1.4.1 Progress	(M)	The state of the data set. Domain: "Complete" "In work" "Planned".	Omit (only posting online data)			
		70	Access constraints for dataset	(O)	(MD_Metadata > MD_Constraints.accessConstraints)	"Access constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on obtaining the resource or metadata" ISO list: copyright, patent, patentPending, trademark, license, IntellectualPropertyRights, restricted, otherRestrictions	Access_Constraints	(Rec.)	"Restrictions, limitations and legal prerequisites for accessing the data set" - free-text field	1.7 Access Constraints	(M)	Restrictions and legal prerequisites for accessing the data set. These include any access constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on obtaining the data set. Domain "None", free	Omit (only posting public data)			
Citation	Follow bibliographic standards, e.g. Author, year, title, publisher, place of publication, where appropriate. This will duplicate some other fields. <b>Name or title, Date Released, Version will be duplicated</b>	24	Dataset Citation	(M) - Only Dataset Title and Dataset Reference Date as part of the citation are mandatory	(MD_Metadata > MD_Identification.Citation) - <b>Citation (359):</b> MD_Metadata > MD_Identification.Citation > CI_Citation.title MD_Metadata > MD_Identification.Citation > CI_Citation.date	Citation data for the resource(s)	"Data_Set_Citation" Group: Dataset_Creator: Dataset_Title: Dataset_Series_Name Dataset_Release_Date: Dataset_Release_Place: Dataset_Publisher: Version: Issue_Identifier: Data_Presentation_Form: Other_Citation_Details: Other_Resources	(Rec.) <b>Entry_Title (// Dataset_Title) is a required DIF field</b>	"A citation for the data set to properly credit the data set producer. This field indicates how the data set should be cited in the professional scientific literature."	8 "Citation" compound item: 8.1 Originator: 8.2 Publication Date: 8.4 Title: 8.7.1 Series Name: 8.8.2 Publisher: 8.8.1 Publication Place	(MIA)	The recommended reference to be used for the data set.	Include			
Taxonomic scope	Include names in informal OBIS taxonomic hierarchy, add others where appropriate.		No Match				Science Keywords Auxiliary Keywords	(Req.) (O)	"Science keywords allows the specification of keywords that are representative of the data set being described" - controlled vocabulary used for data discovery "Auxiliary Keywords" - any words or phrases used to further describe				Include	Yes		Use OBIS Taxonomic List
Geographic scope	Common place name (e.g. North-east Atlantic)	343	Geographic location of the dataset (by four coordinates or by geographic identifier)	Mandatory under certain conditions - (C)	(MD_Metadata > MD_DataIdentification.extent > EX_Extent > EX_GeographicBoundingBox or EX_GeographicDescription)	"Geographic position of the dataset: (Note: This is only an approximate reference so specifying the coordinate reference system is unnecessary)"	Location	(Rec.)	"names of places which may be used for searching" - controlled vocabulary	1.6.2.2 Place Keyword	(MIA)	The geographic name of a location covered by a data set.	Include	Yes		
	Latitude-longitude box (Min Lat, Min Long, Max Lat, Max Long)	344-347	see above (+ westBoundLongitude, eastBoundLongitude, southBoundLatitude, northBoundLatitude)				"Spatial_Coverage" group: Southernmost_Latitude: Northernmost_Latitude: Westernmost_Longitude: Easternmost_Longitude: Minimum_Altitude: Maximum_Altitude: Minimum_Depth: Maximum_Depth:	(Rec.)	"Geographic coverage (horizontal/vertical) of the data described"	1.5 Spatial Domain: 1.5.1 Bounding Coordinates: 1.5.1.1 West Bounding Coordinate: 1.5.1.2 East Bounding Coordinate: 1.5.1.3 North Bounding Coordinate	(M)	the geographic areal domain of the data set.	Include			

	Geographical resolution (see guidelines)	38	Spatial Resolution	(O)	(MD_Metadata > MD_DataIdentification.spatialResolution)	"Factor which provides a general understanding of the density of spatial data in the dataset"	"Data_Resolution" group: Latitude_Resolution: Longitude_Resolution: Horizontal_Resolution_Range: Vertical_Resolution: Vertical_Resolution_Range: Temporal_Resolution: Temporal_Resolution_Range:	(Rec.)	"The difference between two adjacent geographic, vertical, or time values." Keyword list can be viewed at <a href="http://gcmd.nasa.gov/Resources/valids/keyword_list.html">http://gcmd.nasa.gov/Resources/valids/keyword_list.html</a>	4	Spatial Reference Information: 4.1 Horizontal Coordinate System Definition: 4.1.1 Geographic: 4.1.1.1 Latitude Resolution: 4.1.1.2 Longitude	(M)	The description of the reference frame for, and the means to encode, coordinates in the data set	Include	
	Number of locations		No Match											Include	Yes
Temporal coverage	Date of first record	350	Additional extent information for the	(O)	(MD_Metadata > MD_DataIdentification.extent)	"Time period covered by the content of the dataset" or	"Temporal_Coverage" group: Start_Date: [yyyy-mm-dd]	(Rec.)	"Temporal Coverage" in DIF - start and stop	1.3	Time Period of Content: 9.3.1	(M)	Time period of the content	Include	Yes
Habitat coverage	Major environment such as marine, brackish, freshwater, coast-land (seal haulouts, bird nesting)	351	No Exact Match Dataset keywords	(O) - the free-text character string "keyword" is the only mandatory field in the "MD_Keyword" optional field	(MD_Metadata > MD_Keywords.keyword); also see MD_KeywordTypeCode CodeList (B.5.17)	"Commonly used word(s) or formalised word(s) or phrase(s) used to describe the subject - free-text	Science Keywords Auxiliary/Keywords (user can choose from a controlled vocabulary list or enter habitat-related keyword(s) as "free-text")	(Req.) (O)	Some "Science keywords" pertaining to habitat classification: Benthic Habitat: Coastal Habitat: Demersal Habitat: Estuarine Habitat: Pelagic Habitat: Reef Habitat: Rivers/Stream Habitat: Lakes: Saline Lakes. Keyword list can be viewed at <a href="http://gcmd.nasa.gov/Resources/valids/keyword_list.html">http://gcmd.nasa.gov/Resources/valids/keyword_list.html</a>				Same as GCMD	Include	Yes
	Depth zone (e.g. littoral, sublittoral, coastal, continental slope, deep-sea, abyssal)													Include	
	Seascape features (e.g. estuary, seamounts, bay, lagoon, canyon)													Include	
	Species habitats (sediment, rocky, front)													Include	
	Community association (e.g. coral reef, kelp forest, sea grass bed, posidonia bed)													Include	
Total distribution records provided	Insert number		No Match				No Match							Include	Yes
Total number of taxa	Insert number		No Match				No Match							Include	Yes
Collection method	Sampling method (e.g. trawl, grab, visual observation, video)		No Match		see MD_KeywordTypeCode CodeList (B.5.17) <KeyTypCd value="instrument"/>		Instrument (i.e sensor) Sensor_Name: [SHORT NAME] > [Long Name]	(Rec.)	"Instrument or hardware used to acquire the data." Keyword list can be viewed at <a href="http://gcmd.nasa.gov/">http://gcmd.nasa.gov/</a>	1.2.3	Supplementary Information	(O)	other descriptive information about the data set.	Include	
Data source	e.g. field observation, specimen in collection, image.		No Match				Platform (i.e Source) Source_Name: [SHORT NAME] > [Long Name]	(Rec.)	"The platform of data collection, as in a spacecraft, ship or ground station housing the sensor(s) used to acquire the data; or as in a map from which the data were digitized; or as in a model from which the data were	1.2.3	Supplementary Information	(O)	other descriptive information about the data set.	Include	
Abstract	Short description of dataset for potential users. Mention any quality control issues.	25	Abstract describing the dataset	(M)	(MD_Metadata > MD_DataIdentification.abstract)	"Brief narrative summary of the content of the resource(s)	Summary	(Req.)	"A brief description of the data set, descriptive enough to allow potential users of the data set to determine if the data set is useful for their	1.2.1	Abstract	(M)	a brief narrative summary of the data set.	Include	
Publications from this data	Provide citation (e.g. author, year, title, journal, volume, pages). Typically paper, but can be CD or diskette publications.	359	Citation (359)	(O)	some ISO profiles uses MD_PortrayalCatalogue Reference (B.2.9)		Reference	(O)	"key bibliographic references pertaining to the data set"					Include	
Scientific Contact	Scientist responsible for the quality and content of the data (e.g. Principal Investigator).	374	Dataset responsible party	(O)	(MD_Metadata > MD_DataIdentification.pointOfContact > CI_Contact > CI_ContactResponsibleParty)	"Identification of, and means of communication with, person(s) and organizations associated with the dataset" ISO list: resourceProvider, custodian, owner, user, distributor, originator, pointOf Contact, principalInvestigator, processor, publisher, author	Data_Center_Name: [SHORT NAME] > [Long Name] Data_Center_URL: Data_Set_ID: "Personnel" Group: Role: First_Name: Middle_Name: Last_Name: Email: Phone: FAX: "Contact_Address" Group: Address: City: Province_Or_State: Postal_Code: Country:	(Rec.)	<b>INVESTIGATOR</b> – person who headed the investigation or experiment that resulted in the acquisition of the data. <b>TECHNICAL CONTACT</b> – person who is knowledgeable about the technical content of the data (quality, processing methods, units...etc). <b>DIF AUTHOR</b> – person who is responsible for the content of the DIF (metadata contact):	1.9	Point of Contact : 10.1 Contact Person Primary (Group) : 10.1.1 Contact Person : 10.3 Contact Position (title of individual) : 10.4 Contact Address : 10.4.2 Address (Group) : 10.4.3 City: 10.4.4 State or Province : 10.4.6 Country : 10.5 Contact Voice Telephone : 10.6 Contact TDD/TTY Telephone :	(O)	contact information for an individual or organization that is knowledgeable about the data set. Where Position Title like 'Investigator'	Include	

Need to review available keywords

<b>Technical contact</b>	OBIS contact to ensure interoperability.	29	Metadata point of contact	(M)	(MD_Metadata.contact > CI_ResponsibleParty)	"Identification of, and means of communication with, person(s) and organizations associated with the resource(s)" ISO list, resourceProvider, custodian, owner, user, distributor, originator, pointOf Contact, principalInvestigator, processor, publisher, author	"Data_Center" Group: Personnel Role: TECHNICAL CONTACT and/or DIF Author	[Req.]	DATA CENTER CONTACT (Required field in "DATA CENTER" Group) -Identifies the data center point of contact responsible for the distribution of the data. Or someone who knows about the data (see definition above for TECHNICAL	1.9	As above	(O)	Where Position Title like 'Technical Contact'	Include
<b>Website</b>	One or more website url where more information on the data set is available. Indicate relationship of site to dataset, e.g. Original project description, museum collection catalogue, data centre, host organization.	396-397	On-line resource	(O)	(MD_Metadata > MD_Distribution > MD_DigitalTransferOption.onLine > CI_OnlineResource)	"Information about on-line sources from which the dataset, specification, or community profile name and extended metadata elements can be obtained."	"Related_URL" URL Type keywords can be found at <a href="http://gcmd.nasa.gov/Resources/valids/url_type.html">http://gcmd.nasa.gov/Resources/valids/url_type.html</a> & "Project" [SHORT NAME] > [Long Name]	(Rec.)	This field provides hypertext URL links to Internet sites that contain information related to the subject of the data, as well as other useful Internet sites such as project home pages, related data archives/servers, metadata extensions, online software packages, web	8.10	Online Linkage	(O)	the name of an online computer resource that contains the data set. Entries should follow the Uniform Resource Locator convention of the Internet.	Include
		292	Name of medium	(O)	(MD_Metadata > MD_Distribution > MD_Medium.name )	"Name of the medium on which the resource can be received"	"Distribution" group: Distribution_Media: Distribution_Size: Distribution_Format: Fees:	(Rec.)	"Distribution - The medium, size, scientific data format, and fees involved in distributing the data set"; Distribution_Media: the media options for the user receiving the data.	6.4.2	Digital Form 6.4.2.1.1 Format Name : 'OBIS' : 6.4.2.2.1.1 : Network Resource Name (?/dlgr.php) :6.4.2.2.1.1.1.1 Network	(O)	The description of options for obtaining the data set on computer-compatible media.	Omit
<b>Comment</b>	Optional	46	Supplemental info on dataset	(O)	(MD_Metadata > MD_DataIdentification.supplementalInformation)	"Any other descriptive information about the dataset"	No Match		Such comments could also be recorded in the abstract/summary, and/or auxiliary keyword metadata field	1.2.3	Supplementary Information	(O)	other descriptive information about the data set.	Omit
<b>Date this entry completed</b>	Date this metadata form completed	9	Metadata date stamp	(M)	(MD_Metadata.dateStamp)	"Date that the metadata was created"	DIF_Creation_Date	(O) however automatically filled in	"The date the DIF was created" [yyyy-mm-dd]	7.	Metadata Reference Information : 7.1 Metadata Date	(M)	information on the currentness of the metadata information, and the responsible party.	Include