Mapping from iSamples core 1.0 sample description schema to DataCite 4.3 metadata. Fields on the left with prefix ‘X--' do not map to DataCite, or require some logic or processing to map.

| **iSamplesSchemaCore1.0** | **iSamples notes** | **DataCite 4.3** | **Sub element** | **Definition** |
| --- | --- | --- | --- | --- |
|  |  | affiliation |  | array |
| X-- affiliation identifier |  | affiliation | . | datacite also has affiliationIdentifier, affiliationIdentifierScheme, and schemeURI |
| produced\_by/SamplingEvent/responsibility [role=collector]/affiliation | only one affiliation associated with person in this role. | affiliation on | name | string value |
| alternate\_identifiers | other identifiers can be provided with label, scheme\_name (authority), and identifier string. Label doesn't map to DataCite | alternateIdentifiers | . |  |
| alternate\_identifiers/ identifier |  | alternateIdentifiers | alternateIdentifier |  |
| alternate\_identifiers/ scheme\_name |  | alternateIdentifiers | alternateIdentifierType |  |
| produced\_by/responsibility[roles other than 'collector', 'funder'], | Agents associated with sampling event, agent/role is subclass of 'contributor'. Need mapping from iSample roles to DataCite contributorType | Contributor | . | The institution or person responsible for managing, distributing, or otherwise contributing to the collection or curation of the sample |
| produced\_by/SamplingEvent/ responsibility/name |  | Contributor | name |  |
| produced\_by/SamplingEvent/ responsibility/affiliation |  | Contributor | affiliation |  |
| produced\_by/SamplingEvent/ responsibility/identifier |  | Contributor | nameIdentifier |  |
| produced\_by/SamplingEvent/ responsibility/role |  | Contributor | contributorType |  |
| curation/responsibility.Agent | Agents associated with sample curation, Need mapping from iSample roles to DataCite contributorType | contributor | . |  |
| curation/responsibility/role | roles should be restricted to those relevant to sample curation | contributor | contributorType | DataCite terms for contributor roles |
| curation/responsibility/name | Person or organization name | contributor | name |  |
| curation/responsibility/affiliation | If a person, can have an organization affiliation | contributor | affiliation |  |
| curation/responsibility/identifier | Identifier for person or organization. only one identifier in iSamples. An identifier for the institution having custody of the object(s) | contributor | nameIdentifiers |  |
| produced\_by/SamplingEvent/responsibility | the responsibility is an agent-- could be person or organization, with role = 'collector'. Other agents associated with the sampling event could be included, e.g. with roles like 'sponsor', 'funder'.... | creators | . | Array; The main researchers involved in producing the data, or the authors of the publication, in priority order. |
| produced\_by/SamplingEvent/result\_time | Date on which the sample was collected. | Date[dateType = 'Collected'] | . |  |
| description | free text description of the physical sample, and any related information. Include as much detail as will be useful for users to find the sample and understand its context. | Description [descriptionType = 'Abstract'] | . | All additional information that does not fit in any of the other categories. May be used for technical information. |
| produced\_by/label && produced\_by/ description && produced\_by/ authorized\_by | concatenate iSamples SamplingEvent label and description; include information in 'authorized\_by' | Description [descriptionType = 'Method'] | . | The methodology employed for the study or research. |
| X--- family name | no iSamples property | familyName | . | string |
| N.A. | not applicable for physical samples | Format | . |  |
| produced\_by/SamplingEvent/responsibility[Role=funder] | Could also be a funder for curation in Curation/responsibilities. If the information is available, the funder should be considered to be the particular award, grant, contract, etc. that supported the sample collection or curation activity. | fundingReferences | . |  |
| produced\_by/SamplingEvent/responsibility[Role=funder]/ name | Name person or organization that supported the activity; | fundingReferences | funderName |  |
| produced\_by/SamplingEvent/responsibility[Role=funder]/ identifier | identifier for funding agent | fundingReferences | funderIdentifier |  |
| X--- funder award number | award identifiers should go in isam:project | fundingReferences | awardNumber |  |
| X--- funder award URI | identifier for the particular funding instrument that supported the activity. award identifiers should go in isam:project | fundingReferences | awardURI |  |
| produced\_by/SamplingEvent/project | a name or a resolvable URI for a project that is the sponsor for a samplingEvent. If funding was through an identified grant/award/ contract instrument, this is the label associated with that instrument, If a grant/contract/award was the instrument, this would be the award title. | fundingReferences/ awardTitle, awardNumber, awardURI | awardTitle | concatenate award information to identify a funded project |
| produced\_by/SamplingEvent/sampling\_site | one WGS 84 Decimal Degree lat /long point location is required. Schema doesn't accommodate other coordinate locations. This corresponds to DataCite geoLocationPoint. Multiple places might be specified; iSamples is limited to a single point location -- doesn't make sense for a sample to come from more than one point location... | GeoLocation | . | Spatial region or named place where the data was gathered or about which the data is focused. |
| produced\_by/SamplingEvent/sampling\_site/label | text to identify a location for people; | GeoLocation | geoLocationPlace |  |
| produced\_by/SamplingEvent/sampling\_site/description | description of location | GeoLocation | geoLocationPlace |  |
| produced\_by/SamplingEvent/sampling\_site/place\_name | iSamples can have multiple values. | GeoLocation | geoLocationPlace |  |
| produced\_by/SamplingEvent/sampling\_site/sample\_location/longitude | sample location point coordinate | GeoLocation | geoLocationPoint/ pointLongitude |  |
| produced\_by/SamplingEvent/sampling\_site/sample\_location/latitude | sample location point coordinate | GeoLocation | geoLocationPoint/ pointLatitude |  |
| X--- given name | no iSamples property | givenName | . | string |
| sample\_identifier | unique identifier for the physical object, ideally a URI that is physically attached to the material sample object, an IGSN or ARK | Identifier | . | The Identifier is a unique string that identifies a resource. |
| X-- keyword language | no iSamples property | lang, ClassificationCode |  | DataCite has ClassificationCode and xml:lang attributes for subject |
| X-- metadata language | not in isamples model; English is assumed | Language | . |  |
| produced\_by/SamplingEvent/responsibility [role=collector]/name | string, name of a person. Format: {firstName MI lastName}. | name (creatorName in XML) | . | string |
| X--- name type | no iSamples property; DataCite allows 'organizational' or 'personal' name | name (creatorName in XML) | nameType | controlled |
|  |  | nameIdentifiers | . | an array |
| produced\_by/SamplingEvent/responsibility [role=collector]/identifier | only one identifier associated with person in this role. iSamples identifier value is a string. | nameIdentifiers | nameIdentifier | string |
| X-- name identifier scheme name | no iSamples property | nameIdentifiers | nameIdentifierScheme | string |
| X-- name identifier scheme URI | no iSamples property | nameIdentifiers | schemeURI | URI |
| X-- publication year | Time stamp for when the sample registration information is made public through the identifier authority; not currently included in iSamples metadata, use year of sample registration; If an embargo period has been in effect, use the date when the embargo period ends. | PublicationYear | . | The year when the data was or will be made publicly available. If an embargo period has been in effect, use the date when the embargo period ends. |
| registrant [role=registrant]/name/ | identification of the agent that registered the sample, with contact information. Role = 'registrant' | Publisher | . | String. The name of the entity that holds, archives, publishes prints, distributes, releases, issues, or produces the resource. |
| related\_resource | link to another resource via identifier for the target resource, with a relationship type, label, and description. Label and description do not have matching properties in DataCite. | RelatedIdentifiers | . |  |
| related\_resource/relationship | [nature of relationship between sample and resource that is the target of the relationship. See vocabulary in development: https://docs.google.com/spreadsheets/d/1yk3ZEWzEc1cXBOwb-foCtq3isaBBa95Rv8eA6TIyieM](https://docs.google.com/spreadsheets/d/1yk3ZEWzEc1cXBOwb-foCtq3isaBBa95Rv8eA6TIyieM) | RelatedIdentifiers | relationType | DataCite has a vocabulary focused on datasets, some likely values are IsDescribedBy, HasMetadata, IsPartOf (for link to parent sample where relation is a split or physical separate), IsDerivedFrom (link to parent sample where derivation is chemical process). IsDocumentedBy not recommended because of lack of clarity on distinction with 'IsDescribedBy'. |
| related\_resource/target | identifier for the target resource in the relationship. Should be a resolvable URI. | RelatedIdentifiers | relatedIdentifier | Identifiers of related resources. These must be globally unique identifiers. |
| X-- related identifier type | no iSamples equivalent. Default to PURL, unless you can determine its one of the the others in the DataCite vocabulary. | RelatedIdentifiers | relatedIdentifierType |  |
| X-- related resource type general | no iSamples equivalent. If relation is to another sample, use PhysicalObject. Other likely values would be Dataset, DataPaper, Collection, Image, Text. Use Other if nothing matches. | RelatedIdentifiers | resourceTypeGeneral |  |
| has\_material\_sample\_object\_type | specify the kind of object that the specimen is, use iSamples Material Sample Object Type vocabulary, with ResourceTypeGeneral = PhysicalObject. the label for the Material\_Sample\_Object\_Type is the text value for dataCite ResourceType | ResourceType | . |  |
| X-- constant | PhysicalObject, a constant for all physical samples. | ResourceTypeGeneral | . | ResourceTypeGeneral = PhysicalObject, a constant for all physical samples. |
| dc\_rights | A statement about various property rights associated with the resource, including intellectual property rights. Recommended practice is to refer to a rights statement with a URI. If this is not possible or feasible, a literal value (name, label, or short text) may be provided. | rightsList/rights | rightsList/rights |  |
| keywords | keywords. | Subjects | . | Subject, keyword, classification code, or key phrase describing the resource. |
| keywords/keyword | An identifier for the nomenclatural (not taxonomic) details of a scientific name. | Subjects | subject |  |
| keywords/keyword\_uri |  | Subjects | valueURI |  |
| keywords/scheme\_name |  | Subjects | subjectScheme |  |
| keywords/scheme\_uri | not included for controlled vocabulary terms | Subjects | schemeURI |  |
| has\_context\_category/label | For context using controlled vocabulary, the DataCite subject is the identifier/label, for keywords, it is the keyword | Subjects [subjectScheme=isamplesContext | subject |  |
| has\_context\_category/identifier | use URI from isamples sampledFeature vocabulary | Subjects [subjectScheme=isamplesContext | valueURI | single object value. Examples add keys for types from othervocabs, e.g. schemaorg, citeproc,bibtex |
| has\_context\_category/scheme\_name | https://w3id.org/isample/vocabulary/sampledfeature/1.0/sampledfeaturevocabulary | Subjects [subjectScheme=isamplesContext | subjectScheme |  |
| has\_context\_category | Top level context, based on the kind of feature sampled. Specific identification of the sampled feature of interest is done through the SamplingEvent/Feature of Interest property. At least one value a skos:Concept from the iSamples sampledFeature vocabulary. | Subjects [subjectScheme=isamplesContext] | . |  |
| has\_material\_category | iSamples top level classifications for material | Subjects[subjectScheme=isamplesMaterial] | . |  |
| has\_material\_category/label | For material using controlled vocabulary, the DataCite subject is the identifier/label, for keywords, it is the keyword | Subjects[subjectScheme=isamplesMaterial] | subject |  |
| has\_material\_category/identifier | use URI from iSamples material type vocabular | Subjects[subjectScheme=isamplesMaterial] | valueURI |  |
| has\_material\_category/scheme\_name | [use https://w3id.org/isample/vocabulary/material/1.0/materialsvocabulary](https://w3id.org/isample/vocabulary/material/1.0/materialsvocabulary) | Subjects[subjectScheme=isamplesMaterial] | subjectScheme |  |
| has\_material\_sample\_object\_type/label | repeat label and uri in subjects for DataCite | Subjects[subjectScheme=isamplesSpecimenType] | subject |  |
| has\_material\_sample\_object\_type/identifier |  | Subjects[subjectScheme=isamplesSpecimenType] | valueURI |  |
| has\_material\_sample\_object\_type/scheme\_name | https://w3id.org/isample/vocabulary/materialsampleobjecttype/1.0/conceptscheme | Subjects[subjectScheme=isamplesSpecimenType] | subjectScheme |  |
| label | a human intelligible string used to identify the material sample; i.e. the name to use for the sample; should be unique in the scope of a sample collection. This will typically be a sample identifier or label assigned by the original collector | Title | . | A name or title by which a resource is known. May be the title of a dataset or the name of a piece of software. |
| X-- version | Samples don't have versions. metadata version should be specified by the schema property or the update date | Version | . |  |