

Changes from Version 1.2 to v. 1.49 of the ABCD schema

This document last changed: 27. 6. 2004.

Contents

General changes	3
Changes of elements.....	3
AcquisitionSourceText	3
AccessionCatalogue	3
AssemblageName	3
AssociatedUnitID	3
AuthorString	3
BiotopeText.....	3
BiotopeMeasurment	3
ChronstratigraphicTerms	3
DatasetDerivations	3
DateSupplied.....	3
FactType changed name to FactCategory.....	3
Genus	3
IdentificationType/Identifier/IdentificationSource	4
IdentificationType/Identifier/Organisation.....	4
ImageIPR	4
ImageSize.....	4
ImageResolution	4
ISO2Letter	4
ISO3Letter	4
LithstratigraphicTerms	4
LogoURI.....	4
MeasurmentText.....	4
MeasurmentScale	4
NameAuthorYearString	4
OriginalSource	4
PreviousCollectionName	4
PreviousUnitID	4
ProvenanceCategory.....	4
Rank.....	5
RecordBasis	5
RecordRights.....	5
ScientificNameString	5
SiteFeatures.....	5
SortPersonName	5
SourceExpiryDate	5
SourceInstitutionCode	5
SourceLastUpdatedDate	5
SourceName	5
SourceNumberOfRecords.....	5
SourceVersion.....	5
SourceWebAddress	5
Strain.....	5

StratigraphyText.....	5
Supplier.....	6
TaxonIdentified.....	6
TypifiedName.....	6
UnitDescription.....	6
UnitFact/*.....	6
UnitID.....	6
UnitStatements.....	6
URLS/URL.....	6
ReferenceType/URL.....	6
New elements.....	6
Simple types.....	7
AltTextType.....	7
OpenIDType.....	7
PGRUnitType/*.....	7
RankAbbreviationType.....	7
RankType.....	7
RecordBasisType.....	8
GenusType.....	8
String.....	8
String255.....	8
TransformationChangeEnum.....	8
Complex types.....	8
AgentType.....	8
anyUriPType.....	8
ContactType.....	8
CountryType.....	8
DateTimeType.....	8
PGRUnitType.....	8
HigherTaxonType.....	8
IdentificationType.....	8
ImageType.....	8
IPRStatementsType.....	8
IPRStatementsLType.....	8
OrganizationType.....	9
RightsType.....	9
ScientificNameType.....	9
ScientificNameIdentifiedType.....	9
StatementsType.....	9
StringLType.....	9
StringL255Type.....	9
StringLPType.....	9
StringLP255Type.....	9
StringPType.....	9
StringP255Type.....	9
TaxonIdentifiedType.....	9
TelephoneDeviceType.....	10
TransformationActionType.....	10
TransformationMetadataType.....	10
UnitDataType.....	10

General changes

Separate (included) schemas now fulfil at least one of the following criteria:

- They represent a complex type that is used in several places in ABCD.
- They represent a complex type that may be re-used in other schemas.
- They contain a collection of types representing extensions for a specific collection domain.

Extensions have been made explicit, i.e. extensions of xs: types have been made into explicit types (particularly StringL*, StringP*, StringLP* and anyURIP* typed elements).

All elements typed xs:string have been typed String to exclude empty (nullstring) elements (String is length >0).

All attributes should be in lowercase.

Changes of elements

(incl. attribute additions and changes in bounding and/or type of the element)

AcquisitionSourceText

type changed from AltTextType to xs:string
attribute Language added

AccessionCatalogue

type changed from OpenIDType to xs:string

AssemblageName

renamed attribute of type extension from **Languge** to **Language**

AssociatedUnitID

type changed from OpenIDType to xs:string

AuthorString

deleted

BiotopeText

type changed from AltTextType to xs:string
attribute Language added

BiotopeMeasurment

renamed to BiotopeMeasurement

ChronstratigraphicTerms

renamed to ChronostratigraphicTerms

DatasetDerivations

deleted (elements for rights and statements now represented various metadata envelop elements; Description was deleted entirely)

DateSupplied

deleted, replaced by Transformation/**TimeStamp**

FactType

changed name to **FactCategory**

Genus

(in NameBotanicalType, NameZoologicalType, NameBacterialType, and NameViralType)
renamed to **GenusOrMonomial**

IdentificationType/Identifier/**IdentificationSource**

made bounded

Comment: The IdentificationSource is a reference that actually states the identification, i.e. the entire identification event was taken from literature (or a comparable source). The description of this element was confused with that of the IdentificationReference, which actually is a reference that further circumscribes the taxon identified by the identifier (and thus can act as a “potential taxon’s” ‘sec.’ reference).

IdentificationType/Identifier/**Organisation**

typed Organisation

ImageIPR

typed IPRStatementsLType

ImageSize

typed ImageSizeType

Comment: now only for pixel x pixel size. Filesize covered by new element.

ImageResolution

added

Comment: resolution in dpi.

ISO2Letter

renamed to **ISO3166Code**

ISO3Letter

deleted (NOTE: incorporated into **ISO3166Code!**)

LithstratigraphicTerms

renamed to LithostratigraphicTerms

LogoURI

moved to ContactType

explanation added

MeasurmentText

renamed to **MeasurementText**

type changed from AltTextType to xs:string

attribute Language added

MeasurmentScale

renamed to **MeasurementUnit**

NameAuthorYearString

(in TaxonIdentifiedType)

renamed to **FullScientificNameString**

OriginalSource

deleted (the mandatory dataset identifiers have been moved to the level of the unit, other elements have either been deleted or moved one level up – under dataset. Content may furthermore be identified in TransformationHistory).

PreviousCollectionName

(in SpecimenUnit/SpecimenUnitHistory/.. / PreviousUnit/)

renamed to **PreviousSourceID**

PreviousUnitID

type changed from OpenIDType to xs:string

ProvenanceCategory

(in BotanicalGardenUnitType)

Added enumeration of ITF standard codes.

Rank

(in NameAtomised/Botanical)
assigned type RankAbbreviationType

RecordBasis

type changed from xs:string to RecordBasisType

RecordRights

renamed UnitIPRStatements
type changed to IPRStatementsLType

ScientificNameString

deleted

SiteFeatures

deleted (entire structure)

SortPersonName

(in PersonNameType)
renamed to **PersonNameLastFirst**

SourceExpiryDate

Renamed to **ExpiryDate**

Moved from enumeration under deleted element OriginalSource one level up (directly under Dataset)

Changed annotation, refers now to (potential) content of file, not to original database)

SourceInstitutionCode

renamed to **SourceInstitutionID**.
moved to UnitType

SourceLastUpdatedDate

Renamed to **LastUpdatedDate**

Moved from enumeration under deleted element OriginalSource one level up (directly under Dataset)

Changed annotation, refers now to (potential) content of file, not to original database)

SourceName

renamed to **SourceID**
moved to UnitType

SourceNumberOfRecords

deleted (referred to database, however, that reference becomes fuzzy once intermediate storage and/or processing is involved).

SourceVersion

deleted (may be re-introduced if the SDD project construct is to be used)

SourceWebAddress

deleted (is now represented by the AdministrativeContact of the DataSet or, if present, the AdministrativeContact for the Unit)

Strain

(in NameBacterialType)
deleted (because it is not a name element under the respective Code of Nomenclature)

StratigraphyText

type changed from AltTextType to StringLType

Supplier

deleted

replaced by **TechnicalContact**

TaxonIdentified

made optional (because of introduction of alternative MaterialIdentified)

TypifiedName

(in NomenclaturalTypeDesignation)

type changed to ScientificNameType

UnitDescription

renamed **UnitNotes**

UnitFact/*

deleted (covered by MeasurementAndUnitType)

UnitID

type changed from OpenIDType to xs:string

UnitStatements

deleted

URLS/URL

(in ContactType)

changed to URIS/URI

ReferenceType/URL

changed to ReferenceType/URI

New elements

Datasets/Dataset/**TechnicalContact** [Contact]

Dataset/**ContentContact** [Contact]

Dataset/**TransformationHistory** [set of Transformations]

Dataset/**OtherNetworks/OtherNetwork** [UUID]

DateType/**TimeZone**

MeasurementType/MeasurementAtomised/**MeasurementReference** [ReferenceType]

MeasurementType/MeasurementAtomised/**MeasuredBy**

MeasurementType/MeasurementAtomised/**MeasurementTime**

CultureCollectionUnitType/**OrganismType**

CultureCollectionUnitType/**InfrasubspecificName**

CultureCollectionUnitType/**FormOfSupply**

CultureCollectionUnitType/**Serovar**

CultureCollectionUnitType/**Mutant**

CultureCollectionUnitType/**Genotype**

UnitCollectionDomain/**PlantGeneticResourcesUnit**

PGRUnitType/*

SequenceType/*

HerbariumUnitType/**DuplicatesDistributedTo**

Identifications/./TaxonIdentified/**ScientificName**

Identifications/Identification/**IdentificationMethod**

Identifications/Identification/**IdentificationResult**

Identifications/Identification/IdentificationResult/**MaterialIdentified**

Identifications/Identification/**IdentificationRole**

Identifications/Identification/**PreferredFlag**
Identifications/Identification/**StoredUnderFlag**
Identifications/Identification/**NonFlag**
ImageType/**ImageURIString**
ImageType/**ImageCreatedDate**
ImageType/**ImageCreator**
ImageType/**ImageCaptureEquipment**
ImageType/**ImageResolution**
ImageType/**ImageFileSize**
ImageType/**ColorSpace**
ImageSizeType/*
MeasurementType/MeasurementAtomised/**IsDescriptor**
NameBacterialType/**NameApprobation**
NameBotanicalType/CultivatedPlantNameElements/**TradeDesignationNames** [container]
DateTimeType/**PeriodExplicit**
SpecimenUnit/**SpecimenUnitOwner** [ContactType] (was formerly covered by Rights Type, ownership of observations is covered by IPRStatements)
SpecimenUnit/Acquisition/**AcquiredFrom** [ContactType]
SpecimenUnit/SpecimenUnitHistory/**PreviousUnits** (Wrapper for PreviousUnit)
SpecimenUnit/SpecimenUnitHistory/**PreviousUnitsText**
SpecimenUnit/SpecimenUnitHistory/PreviousUnits/**PreviousUnitText**
SpecimenUnit/SpecimenUnitHistory/PreviousUnits/**PreviousSourceInstitutionID**
SpecimenUnit/UnitPreparation/**PreparationAgent** [Contact]
TaxonIdentifiedType/**Code** [xs:name]
Unit/**UnitGUID** [String]
Unit/**UnitContentContact** [Contact]

Simple types

AltTextType

deleted

Comment: The idea behind this type was to have a "consists of" relationship of the free text entry with the corresponding atomised data items. At least in the present phase of standard development this seems to be overly prescriptive, furthermore, xml does not support this kind of relationship between elements.

OpenIDType

deleted

PGRUnitType/*

created

RankAbbreviationType

created

enumeration added

RankType

renamed to **HigherTaxonRankType**

enumeration added

Comment: The type is used for the attribute of HigherTaxonType, i.e. taxon names of a rank above generic level.

RecordBasisType

created

enumeration added

GenusType

renamed to **MonomialType**

String

normalised string required to be at least 1 character long (i. e. either element/attribute may be optional, but if they are required the content must not be an empty string) [Taken from SDD]

String255

normalised string restricted to 1..255 character length (i. e. required, may not be empty string). [Taken from SDD]

TransformationChangeEnum

added (from SDD)

Complex types

AgentType

removed

Comment: AgentType was used only once (for GatheringAgent) and actually consisted only of a combination of two other complex types (PersonNameType and OrganisationType) with a free text field. It is thus superfluous and has been removed. The elements were moved into a sequence under GatheringAgent; the type extension for PrimaryCollectorFlag became a simple attribute of the element GatheringAgent.

anyUriPType

created (xs:anyURI extended with Preferred attribute)

ContactType

added element LogoURI (from former StatementsType)

CountryType

removed attribute derived (already contains element CountryNameDerived)

DateTimeType

added element TimeZone

PGRUnitType

created

HigherTaxonType

added sequence with name and rank instead of extension with rank attribute.

IdentificationType

Identifier/IdentificationSource made bounded.

Rearrangement: Inserted element **IdentificationResult** and added a **CHOICE** under which the elements TaxonIdentified and the MaterialIdentified were placed.

ImageType

deleted attribute Original

added several new elements (see above)

stored in separate file (ImageType.xsd)

IPRStatementsType

created (replaces RightsType and StatementsType).

IPRStatementsLType

created (extends IPRStatementsType with language attribute).

language attribute set to required

OrganizationType

changed to **OrganisationType**

RightsType

deleted (replaced by IPRStatementsLType)

ScientificNameType

created (converted to type, see TaxonIdentifiedType)

ScientificNameIdentifiedType

created (converted to type, see TaxonIdentifiedType)

StatementsType

deleted (replaced by IPRStatementsLType)

StringLType

created (String type for xs:string of minimal length 1, extended with language attribute)

StringL255Type

created (string255 type, i.e. xs:string of length of 1 to 250 characters, extended with language attribute)

StringLPType

created (String type for xs:string of minimal length 1, extended with language and preferred attribute)

StringLP255Type

created (string255 type, i.e. xs:string of length of 1 to 250 characters, extended with language and preferred attribute)

StringPType

created (String type for xs:string of minimal length 1, extended with preferred attribute)

StringP255Type

created (string255 type, i.e. xs:string of length of 1 to 250 characters, extended with preferred attribute)

TaxonIdentifiedType

Rearrangement of elements:

Unchanged: InformalNameString and HigherTaxa

All other elements rearranged under an added **CHOICE** between InformalNameString (unchanged element) and the added element **ScientificName**. Further elements formerly arranged in sequence under TaxonIdentifiedType are now in the

ScientificNameIdentifiedType, which in turn is an extension (for ABCD) of the ScientificNameType, which consists only of the name elements adhering strictly to the codes of nomenclature, namely:

- NameAuthorYearString (now renamed FullScientificNameString)
- ScientificNameString
- AuthorString
- NameAtomised (entire container)

FullScientificNameString is now mandatory.

The extension ScientificNameIdentifiedType includes the non-code items

- NameAddendum
- IdentificationQualifier

Comment: The arrangement allows to make FullScientificNameString mandatory if (and only if) a scientific name is given as the result of an identification event. It also makes the ScientificNameType usable for other standards.

TelephoneDeviceType

created (LStringType restricted to list of devices that can be reached by telephone number, e.g. voice, fax, voice/fax)

TransformationActionType

created (common type with SDD)

TransformationMetadataType

created (common type with SDD)

includes TransformationActionType and TransformationChangeEnum

UnitDataType

Renamed to **UnitType**

Acknowledgements

See “CommentsCommented” document for contributors. Special thanks to Helmut Knüpffer (Gatersleben) for pointing out numerous orthographical errors and inconsistencies in the Annotation texts.