

# *Morphbank*

## V 2.8 Table Descriptions

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Morphbank Table Descriptions Contributors:

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## Annotation table structure

Field	Type	Null	Default
id	int(11)	No	
objectId	int(11)	No	
objectTypeId	varchar(50)	No	
typeAnnotation	varchar(25)	No	
xLocation	int(11)	Yes	NULL
yLocation	int(11)	Yes	NULL
areaHeight	int(11)	Yes	NULL
areaWidth	int(11)	Yes	NULL
areaRadius	int(11)	Yes	NULL
annotationQuality	enum('0', '1', '2', '3', '4', '5')	Yes	NULL
title	varchar(40)	Yes	NULL
keywords	varchar(40)	Yes	NULL
comment	text	Yes	NULL
xmlData	text	Yes	NULL
externalURL	varchar(255)	Yes	NULL
annotationLabel	varchar(25)	Yes	NULL
annotationMarkup	varchar(25)	Yes	NULL

**Definition:** An annotation is one type of **Object** stored in Morphbank. Stores annotation location, description and type of mark. In Morphbank, the annotation can be a specific point or area in terms of a square. An annotation can also be a general comment about the image. The annotation can be shared with the public or remain visible only to the group/user. Any image in Morphbank with annotations has a link to those annotations. The annotations can have external links to sites outside Morphbank. The current version of this software can store one mark per annotation. Various types of Annotations are possible in Morphbank. The **typeAnnotation** field stores this information and relates to the next table.

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## AnnotationType table structure

Field	Type	Null	Default
annotationType	varchar(25)	No	0
annotationSchema	text	Yes	NULL

**Definition:** Types of annotations in Morphbank include: **general** annotations (comments), **determination** annotations (specific comments about the identification of

the object shown in a given image), **TaxonName** annotations, **XML** annotations and **legacy** annotations.

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### BaseObject table structure

Field	Type	Null	Default
id	int(11)	No	
userId	int(11)	No	
groupId	int(11)	No	
dateCreated	datetime	No	
dateLastModified	datetime	No	0000-00-00 00:00:00
dateToPublish	datetime	No	0000-00-00 00:00:00
objectTypeId	varchar(50)	No	
name	varchar(64)	Yes	NULL
description	varchar(255)	Yes	NULL
submittedBy	int(11)	No	
objectLogo	varchar(25)	Yes	NULL
keywords	text	Yes	NULL
summaryHTML	text	Yes	NULL
thumbURL	varchar(30)	Yes	NULL
published	int(11)	No	0
geolocated	tinyint(1)	Yes	NULL
imageAltText	text	Yes	NULL

**Definition:** Holds basic key information about every object in Morphbank. Objects in Morphbank include: Image, Specimen, Locality, View, Annotation, Determination Annotation, Publication, Collection, Taxon Concept, MB Character, Otu, Character, and Character State.

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### BasisOfRecord table structure

Field	Type	Null	Default
description	varchar(64)	Yes	Not provided
name	char(2)	No	

**Definition:** a Darwin Core field (dwc) clarifying the nature of the Morphbank Specimen. From <http://wiki.tdwg.org/twiki/bin/view/DarwinCore/BasisOfRecord>, *A descriptive term indicating whether the record represents an object or observation.* This field may help the Morphbank user to discern whether or not a voucher may exist. Current **Basis of Record** options in Morphbank include: Specimen, Observation, Living Organism,

Germplasm/Seed. In general, a dwc specimen (voucher, collection, lot) refers to a *physical object representing one or more organisms, part of organism, or artifact of an organism.*

**Darwin Core field:** BasisOfRecord

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### **CharacterState** table structure

Field	Type	Null	Default
id	int(11)	No	
charStateValue	varchar(32)	No	

**Definition:** Character States can be defined in Morphbank. Images can be used to illustrate and delimit the defined character states. A Character is considered in Morphbank to be a collection of states. The Character is stored in the Collection Table. The Morphbank object ids related to a particular Character State are stored in the CollectionObjects table which is related to the Collection Table by the Character collection id. The CharacterState table stores the id for each character and the value for that state.

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### **Collection** table structure

Field	Type	Null	Default
id	int(11)	No	
userId	int(11)	No	
groupId	int(11)	No	
name	varchar(50)	No	New collection

**Definition:** Any Morphbank object can be placed into a unique Morphbank Collection. A Collection is one of the object types in Morphbank. The Collection table stores the basic information about each Collection made: the Morphbank user who created the collection (userId), the Morphbank group(groupId) they were logged into when making the collection and the name of the collection.

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### **CollectionObjects** table structure

Field	Type	Null	Default
identifier	int(11)	No	
collectionId	int(11)	No	
objectId	int(11)	No	

objectOrder	int(11)	Yes	NULL
objectTypeld	varchar(50)	Yes	NULL
objectRole	varchar(128)	Yes	NULL
objectTitle	varchar(25)	Yes	NULL
startSubCollection	tinyint(1)	Yes	NULL
parentld	varchar(18)	Yes	NULL

**Definition:** Any Collection in Morphbank may have one or more objects and the order in which they appear in the Collection may be determined by the user and stored. This table stores the details for each object stored in each Collection. Collections may contain a single object type, for example, a collection of Images. Or, a collection may contain various object types as desired by the user. For example, as outlined above, a Collection might be a Character Collection or an OTU collection.

In adding the ability to upload data via XML, this table is also used to store the relationships between the upload objects. For example, in the online interface, Morphbank users may only set one View per Image uploaded. But, if an Image can be used to represent various specimen parts from more than one angle, one image may have several Views. With this table, an image is uploaded to Morphbank only once, with multiple related views. In this manner, when sharing data in the future, all annotations, will be related to a single image. Basically, it is an elegant way to prevent the occurrence of uploading an image to Morphbank more than one time with annotations then present for any or all of each occurrence of the image.

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### ContinentOcean table structure

Field	Type	Null	Default
description	varchar(64)	Yes	NULL
name	char(2)	No	NA

**Definition:** Table used as reference for the oceanContinent value in the Locality table. Undergoing revisions, note that the Locality table now has separate fields for Continent and Ocean. This ContinentOcean field is still in use via the Excel Workbook as well the Morphbank Web interface.

**Darwin Core fields:** Continent, WaterBody

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### Country table structure

Field	Type	Null	Default
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continentOcean	char(2)	No	
description	varchar(128)	No	<i>Not provided</i>
name	char(2)	No	

**Definition:** Table used as reference for the country value in the Locality table.

**Data Source:** ISO-3166-1; id is the two letter ISO abbreviation of the country.

**Darwin Core field:** Country

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### **DeterminationAnnotation** table structure

Field	Type	Null	Default
annotationId	int(11)	No	
specimenId	int(11)	No	
tsnId	bigint(20)	No	
rankId	smallint(6)	No	
kingdomId	int(11)	No	
rankName	varchar(140)	Yes	<i>NULL</i>
typeDetAnnotation	varchar(10)	Yes	<i>NULL</i>
sourceOfId	varchar(128)	Yes	<i>NULL</i>
collectionId	int(11)	No	
materialsUsedInId	varchar(25)	Yes	<i>NULL</i>
prefix	varchar(25)	Yes	<i>NULL</i>
suffix	varchar(25)	Yes	<i>NULL</i>
resourcesused	varchar(128)	Yes	<i>NULL</i>
altTaxonName	varchar(35)	Yes	<i>NULL</i>

**Definition:** There are five types of Annotations in Morphbank. See the definition (above) of the AnnotationType table. For Determination Annotations where a user wishes to comment on the current identification of the object represented in the Image, Morphbank stores the details. A Determination Annotation is an Object in Morphbank.

Fields in this table are almost identical to those in the **HISPID** schema

[http://www.tdwg.org/standards/110/download/110-540-1-RV.html#\\_Toc366998637](http://www.tdwg.org/standards/110/download/110-540-1-RV.html#_Toc366998637)

(note the Verification Group and Identification Qualifiers).

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## DevelopmentalStage table structure

Field	Type	Null	Default
name	varchar(128)	No	<i>Not provided</i>
description	varchar(128)	Yes	<i>Not provided</i>

**Definition:** A supporting table that provides the items in a drop-down list for users to choose from when constructing a Morphbank View. Table used as reference for the developmentalStageId in View.

**Darwin Core field:** LifeStage.

The age class or life stage of the biological individual represented by the catalogued object or observation. Examples: "adult", "mature", "juvenile", "eft", "nymph", "seedling", "seed", "egg" Definition from: <http://wiki.tdwg.org/twiki/bin/view/DarwinCore/LifeStage>

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## ExternalLinkObject table structure

Field	Type	Null	Default
linkId	int(10)	No	
mbId	int(11)	No	
extLinkTypeId	int(5)	Yes	<i>NULL</i>
label	varchar(64)	Yes	<i>NULL</i>
urlData	varchar(255)	Yes	<i>NULL</i>
description	varchar(128)	Yes	<i>NULL</i>
externalId	varchar(512)	Yes	<i>NULL</i>

**Definition:** Stores external links for a given object in Morphbank. Also, stores a user's own unique identifiers (GUIDs) for their objects. This facilitates any updates needed for any given set of Morphbank objects via XML. In the future, it will also be likely that a user will be able to do their own updates via XML at <http://services.morphbank.net/mb2/> The linkId is unique only to this table. The mbId relates to the Morphbank Ids for all Morphbank objects.

**Darwin Core fields:** GlobalUniqueIdentifier

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## ExternalLinkType table structure

Field	Type	Null	Default
linkTypeId	int(5)	No	

name	varchar(128)	No	
description	varchar(255)	Yes	NULL

**Definition:** When a user chooses to add an External Link to an Object, they categorize the type of External Link being added. Current categories are stored here and the user may add more categories. Examples are: GenBank, Project, Institution, Publication, Ontology, Other. This choice is stored via the extLinkTypeid field in the ExternalLinkObject table above. Users opting to place their unique identifiers (GUIDs) in Morphbank, also choose an ExternalLinkTypeid = 4= External Unique Identifier).

### Form table structure

Field	Type	Null	Default
name	varchar(128)	No	
description	varchar(128)	Yes	NULL

**Definition:** A supporting table that provides the items in a drop-down list for users to choose from when constructing a Morphbank View or uploading a Specimen. This table is used to hold the values that are valid entries into Specimen table field **“form”**. **The field “form”** in the Specimen table must point to a specific record in this table.

### Geolocated table structure

Field	Type	Null	Default
id	int(11)	No	

**Definition:** Stores the Object ids for Objects in Morphbank having latitude and longitude values. Can be used to create maps for a given set of Objects using <http://services.morphbank.net/mb2/>

### Image table structure

Field	Type	Null	Default
id	int(11)	No	
userId	int(11)	No	
groupId	int(11)	No	
dateToPublish	date	No	0000-00-00

specimenId	int(11)	Yes	NULL
viewId	int(11)	Yes	NULL
imageHeight	int(11)	Yes	NULL
imageWidth	int(11)	Yes	NULL
resolution	int(11)	Yes	NULL
magnification	float	Yes	NULL
imageType	varchar(8)	No	
accessNum	int(18)	Yes	NULL
copyrightText	varchar(255)	Yes	NULL
originalFileName	varchar(127)	Yes	NULL
creativecommons	text	Yes	NULL
photographer	text	Yes	NULL

**Definition:** Data associated with the Image object in Morphbank is stored here. Note the dateToPublish field. The user controls if the image is private or published. Once published, the data associated with the object cannot be changed. If the image is private, the user can upload a replacement image in the event the uploaded image for a given image record was not correct.

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### ImagingPreparationTechnique table structure

Field	Type	Null	Default
name	varchar(128)	No	
description	varchar(128)	Yes	NULL

**Definition:** Supporting table that provides values for the imaging preparation technique field in the View table. Users may add these as needed.

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### ImagingTechnique table structure

Field	Type	Null	Default
name	varchar(128)	No	
description	varchar(128)	Yes	NULL

**Definition:** Supporting table that provides values for the imaging technique field in the View table. Users may add these as needed.

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## Keywords table structure

Field	Type	Null	Default
id	int(11)	No	
userId	int(11)	Yes	NULL
groupId	int(11)	Yes	NULL
dateToPublish	datetime	Yes	NULL
objectTypeId	varchar(50)	Yes	NULL
keywords	text	Yes	NULL
submittedBy	int(11)	No	
geolocated	tinyint(1)	Yes	NULL

**Definition:** Table constructed nightly from all Morphbank Objects. Provides a unique single table to query which facilitates faster searching by users and a quicker, more responsive user-interface.

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## Locality table structure

Field	Type	Null	Default
id	int(11)	No	
continentOcean	varchar(128)	Yes	NULL
country	varchar(128)	Yes	NULL
locality	text	Yes	NULL
latitude	double	Yes	NULL
longitude	double	Yes	NULL
coordinatePrecision	int(11)	Yes	NULL
minimumElevation	smallint(6)	Yes	NULL
maximumElevation	smallint(6)	Yes	NULL
minimumDepth	smallint(6)	Yes	NULL
maximumDepth	smallint(6)	Yes	NULL
imagesCount	bigint(20)	Yes	0
county	varchar(128)	Yes	NULL
state	varchar(128)	Yes	NULL
paleoGroup	varchar(128)	Yes	NULL
paleoFormation	varchar(128)	Yes	NULL
paleoMember	varchar(128)	Yes	NULL
paleoBed	varchar(128)	Yes	NULL

continent	varchar(128)	Yes	NULL
ocean	varchar(128)	Yes	NULL
informationWithheld	text	Yes	NULL

**Definition:** Locality information is stored separately from the Specimen data. This was originally done to facilitate others being able to use any given locality record if the same data applied to their own Specimens. In reality, it seems most users' localities are unique to their own data. It is likely that given more development time, these fields would be moved to the Specimen table.

**Darwin Core fields:**

continent  
waterBody (= to Morphbank Locality.ocean)  
decimalLatitude  
decimalLongitude  
coordinatePrecision  
county  
stateProvince  
locality  
minimumElevationInMeters  
maximumElevationInMeters  
minimumDepthInMeters  
maximumDepthInMeters  
Group  
Formation  
Member  
Bed  
informationWithheld

**Matrix** table structure

Field	Type	Null	Default
id	int(11)	No	
numRows	int(11)	Yes	NULL
numChars	int(11)	Yes	NULL
gap	char(5)	Yes	-
missing	char(5)	Yes	?

**Definition:** This table is currently still in the testing/development phase. The Matrix component of Morphbank may be further developed in the future. It includes the MatrixCell and MatrixCellValue tables. Purpose is to create functionality to associate images in Morphbank with a Matrix to illustrate the character states for each taxonomic entity in the Matrix.

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### MatrixCell table structure

Field	Type	Null	Default
id	int(11)	No	
matrixId	int(11)	No	
rowNum	int(5)	Yes	NULL
columnNum	int(5)	Yes	NULL
charStateList	text	Yes	NULL
value	varchar(45)	Yes	NULL

**Definition:** Stores the information for each object in each cell of a matrix. Again this functionality of morphbank is in development/testing phase only.

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### MatrixCellValue table structure

Field	Type	Null	Default
id	int(11)	No	
matrixId	int(11)	Yes	NULL
row	int(11)	No	
col	int(11)	No	
value	varchar(12)	No	

**Definition:** Stores the information for each cell of a matrix. This functionality of morphbank is in development/testing phase only.

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### MbCharacter table structure

Field	Type	Null	Default
id	int(11)	No	
label	varchar(8)	Yes	NULL
characterNumber	varchar(32)	Yes	NULL
discrete	tinyint(1)	No	
ordered	tinyint(1)	Yes	NULL
publicationId	int(11)	Yes	NULL

pubComment	text	Yes	NULL
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**Definition:** A Character can be defined in Morphbank and states for that Character delineated. Continuous and ordered characters are not supported in this version.

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### MirrorInfo table structure

Field	Type	Null	Default
serverId	int(5)	No	1
imageId	int(11)	No	1

**Definition:** Stores data needed for mirror sites.

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### Otu table structure

Field	Type	Null	Default
id	int(11)	No	
label	varchar(32)	No	

**Definition:** *Operational Taxonomic Units* (OTU)s are Objects in Morphbank defined using Specimen Records and / or Taxon Names. OTUs express a concept of a possible new classification, or grouping of taxa. Each OTU id is stored here. The Specimen Record and / or Taxon Name ids that compose each OTU are stored in the CollectionObjects Table and related by the Otu.id

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### Publication table structure

Field	Type	Null	Default
id	int(11)	No	
doi	varchar(128)	Yes	NULL
publicationType	varchar(18)	Yes	NULL
address	varchar(64)	Yes	NULL
annotate	varchar(255)	Yes	NULL
author	varchar(128)	Yes	NULL
publicationTitle	varchar(256)	Yes	NULL
chapter	varchar(256)	Yes	NULL
edition	varchar(64)	Yes	NULL
editor	varchar(256)	Yes	NULL

Field	Type	Null	Default
id	int(11)	No	
doi	varchar(128)	Yes	NULL
publicationType	varchar(18)	Yes	NULL
address	varchar(64)	Yes	NULL
annotate	varchar(255)	Yes	NULL
author	varchar(128)	Yes	NULL
publicationTitle	varchar(256)	Yes	NULL
chapter	varchar(256)	Yes	NULL
edition	varchar(64)	Yes	NULL
editor	varchar(256)	Yes	NULL
howPublished	varchar(128)	Yes	NULL
institution	varchar(128)	Yes	NULL
key	varchar(64)	Yes	NULL
month	enum('Jan', 'Feb', 'Mar', 'Apr', 'May', 'Jun', 'Jul', 'Aug', 'Sep', 'Oct', 'Nov', 'Dec')	Yes	NULL
day	tinyint(5)	Yes	NULL
note	tinytext	Yes	NULL
number	varchar(11)	Yes	NULL
organization	varchar(128)	Yes	NULL
pages	varchar(64)	Yes	NULL
publisher	varchar(128)	Yes	NULL
school	varchar(128)	Yes	NULL
series	varchar(128)	Yes	NULL
title	varchar(256)	Yes	NULL
volume	varchar(11)	Yes	NULL
year	varchar(10)	Yes	NULL
isbn	varchar(64)	Yes	NULL
issn	varchar(64)	Yes	NULL

**Definition:** Users may add Publication records to Morphbank to verify when and where a Taxon Name was first published. Users may also add their own Publication data to Morphbank associated with their image contributions to Morphbank. For example, a Character may be illustrated in a Publication, that character is delineated in Morphbank with associated images. The Publication can be linked to the Character in Morphbank as well as the Images.

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### Sex table structure

Field	Type	Null	Default
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name	varchar(128)	No	<i>Not provided</i>
description	varchar(128)	No	<i>Not provided</i>

**Definition:** Supporting table holding values that populate a drop-down for choosing the sex of the Specimen and the sex of the View related to the Image of a given specimen.

**Darwin Core field:** sex

see: <http://rs.tdwg.org/dwc/terms/history/index.htm#sex-2009-04-24>

## Specimen table structure

Field	Type	Null	Default
id	int(11)	No	
basisOfRecordId	char(2)	Yes	<i>NULL</i>
sex	varchar(128)	Yes	<i>NULL</i>
form	varchar(128)	Yes	<i>NULL</i>
developmentalStage	varchar(128)	Yes	<i>NULL</i>
preparationType	varchar(255)	Yes	<i>NULL</i>
individualCount	int(11)	Yes	<i>NULL</i>
tsnId	bigint(20)	Yes	<i>NULL</i>
typeStatus	varchar(64)	Yes	<i>NULL</i>
name	text	Yes	<i>NULL</i>
dateIdentified	datetime	Yes	<i>NULL</i>
comment	text	Yes	<i>NULL</i>
institutionCode	varchar(128)	Yes	<i>NULL</i>
collectionCode	varchar(128)	Yes	<i>NULL</i>
catalogNumber	varchar(128)	Yes	<i>NULL</i>
previousCatalogNumber	varchar(128)	Yes	<i>NULL</i>
relatedCatalogItem	varchar(128)	Yes	<i>NULL</i>
relationshipType	varchar(128)	Yes	<i>NULL</i>
collectionNumber	varchar(128)	Yes	<i>NULL</i>
collectorName	text	Yes	<i>NULL</i>
dateCollected	datetime	Yes	<i>NULL</i>
localityId	int(11)	Yes	<i>NULL</i>
notes	text	Yes	<i>NULL</i>
taxonomicNames	text	Yes	<i>NULL</i>
imagesCount	bigint(20)	Yes	0
standardImageId	int(11)	Yes	<i>NULL</i>
ocr	text	Yes	<i>NULL</i>
barCode	varchar(45)	Yes	<i>NULL</i>

labelData	text	Yes	NULL
earliestDateCollected	datetime	Yes	NULL
latestDateCollected	datetime	Yes	NULL

**Definition:** Specimen data stored in this table is related to the Image Records via the specimenId stored in the Image table. Note some fields are new and appear here in the table, but have not yet been added to the user-interface (earliestDateCollected, latestDateCollected).

**Darwin Core fields:**

- basisOfRecord
- institutionCode
- collectionCode
- collectionId (=Morphbank Specimen GUID via ExternalLinkObject table)
- catalogNumber
- occurrenceRemarks (=Specimen.notes)
- recordNumber (=Specimen.collectionNumber)
- recordedBy (=Specimen.collectorName)
- individualCount
- sex
- lifeStage (=Specimen.developmentalStage)
- preparations (=Specimen.preparationType)
- otherCatalogNumbers (=Specimen.previousCatalogNumber)
- identificationID (?Specimen.tsId)
- identifiedBy (=Specimen.name)
- dateIdentified
- identificationRemarks (=Specimen.comment)
- typeStatus

For Darwin Core terms & definitions, see: <http://rs.tdwg.org/dwc/terms/index.htm>

**SpecimenPart** table structure

Field	Type	Null	Default
name	varchar(255)	No	
description	varchar(128)	No	<i>Not provided</i>

**Definition:** Users may add Specimen Parts as needed (via the web or other upload strategies). Specimen Parts are part of the Morphbank View Object. A View provides information about what is seen in a particular image.

## TaxonConcept table structure

Field	Type	Null	Default
id	int(11)	No	
tsn	bigint(20)	No	
nameSpace	varchar(32)	Yes	NULL
status	varchar(32)	Yes	NULL

**Definition:** The TaxonConcept table links new Taxon Names added to the database via the TaxonConcept.id = BaseObject.id and the tsn. Taxon Names are in Tree via the TSN. Names in the TaxonConcept table appear in the Taxa tab of My Manager. It is intended that the Taxon Names added to Tree also get added to the Taxa Table. This is occurring via the web, but not via other upload strategies. The tables are not in sync. This means some names do not appear in the Taxa table that are present in Tree. Those wishing to edit their taxon names can only do so if their names are present in the Taxa table. Only Taxon Names present in the Taxa table are available to create OTUs. Further development of the OTU functionality in Morphbank will require syncing these tables.

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## Tree table structure

Field	Type	Null	Default
tsn	bigint(20)	No	0
unit_ind1	char(1)	Yes	
unit_name1	varchar(35)	Yes	
unit_ind2	char(1)	Yes	
unit_name2	varchar(35)	Yes	
unit_ind3	varchar(7)	Yes	
unit_name3	varchar(35)	Yes	
unit_ind4	varchar(7)	Yes	
unit_name4	varchar(35)	Yes	
scientificName	text	Yes	NULL
taxon_author_id	int(11)	Yes	NULL
letter	char(1)	Yes	
usage	varchar(12)	No	
unaccept_reason	varchar(50)	Yes	NULL
credibility_rtng	varchar(40)	No	
completeness_rtng	varchar(10)	Yes	NULL
currency_rating	varchar(7)	Yes	NULL
parent_tsn	bigint(20)	Yes	NULL

kingdom_id	smallint(6)	Yes	NULL
rank_id	smallint(6)	Yes	NULL
lft	int(11)	Yes	NULL
rgt	int(11)	Yes	NULL
imagesCount	bigint(20)	Yes	0
nameType	varchar(32)	Yes	NULL
nameSource	varchar(64)	Yes	NULL
comments	text	Yes	NULL
tradeDesignationName	varchar(64)	Yes	NULL
pages	varchar(32)	Yes	NULL
publicationId	int(11)	Yes	NULL

**Definition:** Basically a table copied from [ITIS](#). Morphbank used this table of Taxon Names as a starting point. Many new names have been added to it. TSNs beginning with 999 are Morphbank added taxa.

**Added Fields:** (not in the original ITIS table)

scientificName – the name given to a specimen; the name string only (not authority)

imagesCount – from a cron job script, the number of images for a given taxon name

nameSource – when a user adds a name, the place where (or group who has) the authority and taxonomic history can be found (IPNI, TROPICOS, uBio, SCAMIT,...)

tradeDesignationName – for the botanical gardens

pages – referring to the pages in a given publication where the name data is found

publicationId – the Morphbank Publication Id when a user provides the publication information for a given taxon name.

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## TypeStatus table structure

Field	Type	Null	Default
name	varchar(64)	No	
description	varchar(255)	Yes	NULL

**Definition:** From a standard list of accepted terms for indicating Type Status for a given specimen. The list is controlled, users may not add new terms to the list. Current terms are from ICBN and ICZN nomenclature protocols.

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## UserProperty table structure

Field	Type	Null	Default
id	int(11)	No	

objectId	int(11)	No	
name	varchar(255)	No	
value	text	No	
namespaceURI	varchar(255)	Yes	NULL

**Definition:** Morphbank sometimes finds users wish to store fields & the related data for fields Morphbank does not have. Using the triple store concept, currently via xml upload only, this table enables users to insert this related data.

This table stores the id for the *user property*, the Morphbank <objectId> with which to associate the *user property*, the <name> of the *user property* field, the <value> to display for the field and the <namespace URI> if the field is from an accepted Schema. Therefore, this table, the BaseObject table & the table pertaining to each Morphbank Object Id makes up the *triple store*.

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### Vernacular table structure

Field	Type	Null	Default
tsn	bigint(20)	No	0
vernacular_name	varchar(80)	No	
language	varchar(15)	No	
approved_ind	char(1)	Yes	NULL
update_date	date	No	
vern_id	bigint(20)	No	0

**Definition:** From [ITIS](#). This table was adopted from ITIS at the beginning of the Morphbank project. Users have added new common names. Any TSN beginning with 999 has been added by Morphbank users.

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### View table structure

Field	Type	Null	Default
id	int(11)	No	
viewName	text	Yes	NULL
imagingTechnique	varchar(128)	Yes	NULL
imagingPreparationTechnique	varchar(128)	Yes	NULL
specimenPart	varchar(255)	Yes	NULL
viewAngle	varchar(128)	Yes	NULL
developmentalStage	varchar(128)	Yes	NULL

sex	varchar(128)	Yes	NULL
form	varchar(128)	Yes	NULL
viewTSN	bigint(20)	Yes	NULL
isStandardView	int(1)	Yes	NULL
standardImageId	int(11)	Yes	NULL
imagesCount	int(20)	Yes	0

**Definition:** In Morphbank, a View provides information about the Image. The Image table is related via Image.viewId. The standardImageId holds the Image Id to be used to pull up a given image to represent that View. imagesCount comes from a cron job script that counts how many images are present using a particular View.

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### **ViewAngle** table structure

Field	Type	Null	Default
name	varchar(128)	No	
description	varchar(128)	Yes	NULL

**Description:** Via the web, or Excel spreadsheet, users can add items to this drop-down. viewAngle is part of a Morphbank View.

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