## **BHL Tab-Separated Data Export**

Updated January 7, 2021

Additional information on using these files is available at: <a href="https://blog.biodiversitylibrary.org/2008/09/export-of-titles-in-bhl-now-available.html">https://blog.biodiversitylibrary.org/2008/09/export-of-titles-in-bhl-now-available.html</a>

#### **Download**

Two versions of these files are available. The first contains metadata for all items that are part of the BHL collection. The second contains metadata for only those items with content that is hosted by BHL (this includes the majority of the BHL collection). The data model and schema is the same for both sets of files. The only difference is the content.

The files containing metadata for the **entire BHL collection** can be downloaded from the following locations:

#### Individual tables

- Title: <a href="http://www.biodiversitylibrary.org/data/title.txt">http://www.biodiversitylibrary.org/data/title.txt</a> (48MB+)
- TitleIdentifier: <a href="http://www.biodiversitylibrary.org/data/titleidentifier.txt">http://www.biodiversitylibrary.org/data/titleidentifier.txt</a> (15MB+)
- Subject: <a href="http://www.biodiversitylibrary.org/data/subject.txt">http://www.biodiversitylibrary.org/data/subject.txt</a> (29MB+)
- Creator: http://www.biodiversitylibrary.org/data/creator.txt (26MB+)
- DOI: <a href="http://www.biodiversitylibrary.org/data/doi.txt">http://www.biodiversitylibrary.org/data/doi.txt</a> (12MB+)
- Item: <a href="http://www.biodiversitylibrary.org/data/item.txt">http://www.biodiversitylibrary.org/data/item.txt</a> (95MB+)
- Part: <a href="http://www.biodiversitylibrary.org/data/part.txt">http://www.biodiversitylibrary.org/data/part.txt</a> (116MB+)
- PartCreator: <a href="http://www.biodiversitylibrary.org/data/partcreator.txt">http://www.biodiversitylibrary.org/data/partcreator.txt</a> (21MB+)
- PartIdentifier: <a href="http://www.biodiversitylibrary.org/data/partidentifier.txt">http://www.biodiversitylibrary.org/data/partidentifier.txt</a> (10MB+)
- CreatorIdentifier: http://www.biodiversitylibrary.org/data/creatoridentifier.txt (3MB+)

To get Page and Name data, there is a ZIP archive containing the individual tables listed above, plus the Page and Name table data.

• <a href="http://www.biodiversitylibrary.org/data/data.zip">http://www.biodiversitylibrary.org/data/data.zip</a> (2.3+ GB)

The files containing metadata for **only items hosted by BHL** can be downloaded from the following locations:

#### Individual tables

- Title: <a href="http://www.biodiversitylibrary.org/data/hosted/title.txt">http://www.biodiversitylibrary.org/data/hosted/title.txt</a> (44MB+)
- TitleIdentifier: <a href="http://www.biodiversitylibrary.org/data/hosted/titleidentifier.txt">http://www.biodiversitylibrary.org/data/hosted/titleidentifier.txt</a> (14MB+)
- Subject: http://www.biodiversitylibrary.org/data/hosted/subject.txt (29MB+)
- Creator: <a href="http://www.biodiversitylibrary.org/data/hosted/creator.txt">http://www.biodiversitylibrary.org/data/hosted/creator.txt</a> (25MB+)
- DOI: http://www.biodiversitylibrary.org/data/hosted/doi.txt (12MB+)
- Item: http://www.biodiversitylibrary.org/data/hosted/item.txt (90MB+)
- Part: http://www.biodiversitylibrary.org/data/hosted/part.txt (101MB+)
- PartCreator: http://www.biodiversitylibrary.org/data/hosted/partcreator.txt (15MB+)
- PartIdentifier: http://www.biodiversitylibrary.org/data/hosted/partidentifier.txt (8MB+)
- CreatorIdentifier: <a href="http://www.biodiversitylibrary.org/data/hosted/creatoridentifier.txt">http://www.biodiversitylibrary.org/data/hosted/creatoridentifier.txt</a> (3MB+)

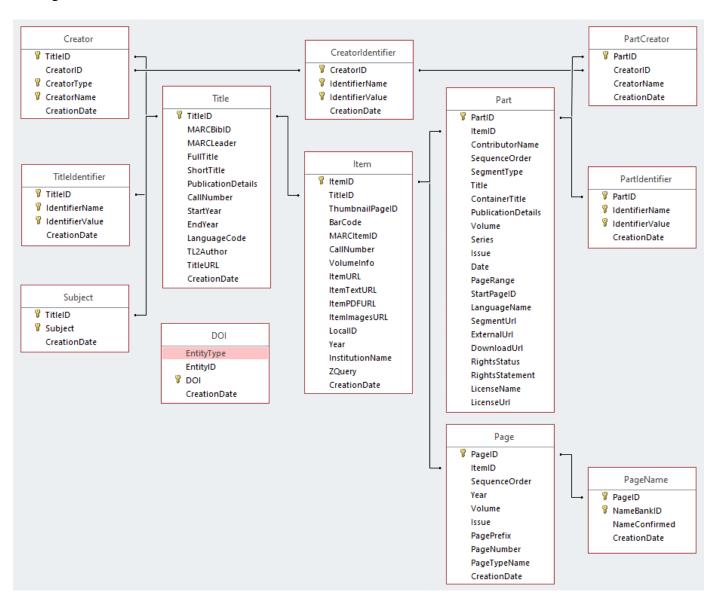
To get Page and Name data, there is a ZIP archive containing the individual tables listed above, plus the Page and Name table data.

• <a href="http://www.biodiversitylibrary.org/data/hosted/data.zip">http://www.biodiversitylibrary.org/data/hosted/data.zip</a> (2.3+ GB)

### **Data Model**

For a complete data model and data dictionary, visit: https://github.com/gbhl/bhl-us/tree/master/Documentation/DataModel

The figure below shows how the tables available for download are related.



# **Schema Description**

### **Title**

The Title table contains bibliographic metadata about the journals and monographs represented in the BHL web portal, as extracted from the contributing library's catalogue at the time of scanning or applied post-scanning. **NOTE:** This export includes all of the Titles that have a status of "Published" in the BHL database.

Field	Data Type	Description
	Data Type	Description Control of the Control o
TitleID	PK, int	System-assigned identifier for the title within BHL
		database.
MARCBibID	nvarchar(50)	Identifier used to group titles during scanning.
		This field will be removed in future releases as it is
		now only used as an internal identifier.
MARCLeader	nvarchar(24)	The Leader is the first field of a MARC record. It
		is fixed in length at 24 character positions (00-23).
		It consists of data elements that contain numbers
		or coded values and are identified by relative
		character position.
		http://www.loc.gov/marc/bibliographic/bdleader.html
FullTitle	ntext	The complete title for the work, as concatenated
		from MARC 245 subfields.
ShortTitle	nvarchar(255)	Same as FullTitle, but truncated to 255 characters.
PublicationDetails	nvarchar(255)	Publisher, Place of Publication, and Date, as
		concatenated from MARC 260 subfields.
CallNumber	nvarchar(100)	An alphanumeric code which identifies the shelf
		location of the title in the contributing library.
StartYear	smallint	Date extracted from MARC 008/07-10
		http://www.loc.gov/marc/bibliographic/concise/bd008.html
EndYear	smallint	Date extracted from MARC 008/11-14
		http://www.loc.gov/marc/bibliographic/concise/bd008.html
LanguageCode	nvarchar(10)	Language extracted from MARC 008/35-37
		http://www.loc.gov/marc/bibliographic/concise/bd008.html
TL2Author	nvarchar(100)	TL-2 is the standard reference work for plant
		taxonomic literature from Linnean times to 1940.
		This field will be removed in future releases in
		favor of authors extracted from the MARC record.
		http://tl2.idcpublishers.info/
TitleURL	nvarchar(100)	Stable URL to the title in the BHL web portal.
CreationDate	Datetime	Date that the title was added to BHL.

# TitleIdentifier

The TitleIdentifier table relates digitized titles to standard identification schemes, as extracted from the contributing library's catalogue at the time of scanning or applied post-scanning.

Field	Data Type	Description
		*
TitleID IdentifierName	FK, int nvarchar(40)	The TitleID to which this identifier is associated.  One of:  Abbreviation Standard abbreviation by which this title is known.  BPH Identifier for title from Botanico-Periodicum-Huntianum  CODEN http://en.wikipedia.org/wiki/CODEN  DDC Dewey Decimal Classification  DLC  GPO Government Printing Office Identifier  ISBN International Standard Book Number  ISSN International Standard Serial Number  MARC001 Local control number assigned by the organization creating the record.  NAL Identifier assigned by the National Agricultural Library  NLM Identifier assigned by the National Library of Medicine  OCLC Identifier assigned by OCLC, available through www.worldcat.org  TL2 Identifier assigned by Taxonomic Literature-2.  WonderFetch Identifier assigned to the title by the
IdentifierValue	nyorohor(125)	contributing library at the time of digitization.  The value extracted from the MARC record for the
	nvarchar(125)	identifier
CreationDate	Datetime	Date that the identifier was added to BHL.

#### Creator

The Creator table contains the names of the authors of each journal and monograph. NOTE: This export includes creator information for all Titles that have a status of "Published" in the BHL database.

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Field	Data Type	Description
TitleID	FK, int	The TitleID to which this creator is associated.
CreatorID	Int	System-assigned identifier for the creator within
		BHL database.
CreatorType	nvarchar(50)	One of:
		Main – Personal Name
		Main – Corporate Name
		Main – Meeting Name
		Added – Personal Name
		Added – Corporate Name
		Added – Meeting Name
		Added – Uncontrolled Name
		"Main" and "Added" follow the MARC
		definitions for the same (see
		http://www.loc.gov/marc/bibliographic/ for more
		information).
CreatorName	nvarchar(450)	The creator name extracted from the MARC
		record for the title
CreationDate	Datetime	Date that the creator was added to BHL.

## **Subject**

The Subject table contains information about subject headings assigned to each journal and monograph represented in the BHL web portal. **NOTE:** This export includes subject headings for all Titles that have a status of "Published" in the BHL database.

Field	Data Type	Description
TitleID	PK, int	The TitleID to which this subject is associated.
Subject	PK, nvarchar(50)	A subject heading assigned to this title.
CreationDate	Datetime	Date that the subject was added to BHL.

### DOI

The DOI table contains information about Digital Object Identifiers that have been assigned to BHL entities (Titles, Items, Pages, etc).

Field	Data Type	Description
EntityType	nvarchar(50)	The type of Entity to which this DOI is associated.
		Valid values include "Title", "Item", "Page".
EntityID	Int	The ID of the Entity to which this DOI is
		associated.
DOI	PK, nvarchar(50)	The DOI identifier assigned to the Entity.
CreationDate	Datetime	Date that the DOI was added to BHL.

#### **Item**

The Item table contains information about each bound object (or "book") digitized from a contributing library. For a serial, journal, or multi-volume monograph, an item represents a volume or multiple volumes bound together. For a single-volume monograph an item represents the book. **NOTE:** This export includes all of the Items that have a status of "Published" in the BHL database.

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Field	Data Type	Description
ItemID	PK, int	System-assigned identifier for the item (volume or
		book) in the BHL database.
TitleID	FK, int	The TitleID to which this item is associated.
ThumbnailPageID	int	The identifier of the page whose thumbnail can be
		used as a thumbnail image for the entire book. To
		construct the path to the thumbnail image, use this
		identifier in the following URL:
		http://biodiversitylibrary.org/pagethumb/ <id></id>
BarCode	nvarchar(4)	The identifier assigned to this book during
		scanning by the Internet Archive.
MARCItemID	nvarchar(50)	Redundant with BarCode. Will be removed in
		future releases.
CallNumber	nvarchar(100)	The shelf location of the volume, as assigned by
		the contributing library.
VolumeInfo	nvarchar(100)	Free-text volume (and year, in some cases) for the
		volume scanned, as extracted from the contributing
		library's catalogue or applied during scanning.
ItemURL	nvarchar(100)	Stable URL to the item.
ItemTextURL	nvarchar(100)	Stable URL to the text of the item.
ItemPDFURL	nvarchar(100)	Stable URL to the PDF for the item.
ItemImagesURL	nvarchar(100)	Stable URL to the page scans for the item.
LocalID	nvarchar(100)	Local library identifier assigned at the time of
		scanning.
Year	nvarchar(20)	Free-text year for the volume scanned, as extracted
		from the contributing library's catalogue or applied
		during scanning.
InstitutionName	nvarchar(255)	The contributing library.
ZQuery	nvarchar(200)	String used to query the contributing library's
		catalogue to return bibliographic information about
		the volume during scanning.
CreationDate	Datetime	Date that the item was added to BHL.

## **Page**

The Page table contains the metadata about the scanned pages from an Item. **NOTE:** This export DOES NOT include all of the pages in the BHL database. It only contains pages on which taxonomic names have been identified.

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Field	Data Type	Description
PageID	PK, int	System-assigned identifier for the page image in
		the BHL database.
ItemID	FK, int	The ItemID to which this page is associated.
SequenceOrder	Int	Position of the page within an Item. For example,
		a value of 1 indicates the first page. A value of 10
		indicates the tenth page. This is NOT the assigned
		page number, but rather an indication of the order
		of the pages within an Item.
Year	nvarchar(20)	Year the page was published, assigned post-
		scanning.
Volume	nvarchar(20)	Volume in which the page was published, assigned
		post-scanning.
Issue	nvarchar(20)	Issue in which the page was published, assigned
		post-scanning.
PagePrefix	nvarchar(20)	Free-text descriptor for the page, assigned post-
		scanning.
PageNumber	nvarchar(20)	Page number as printed on the page, assigned post-
		scanning.
PageTypeName	nvarchar(40)	Kind of page, assigned post-scanning.
CreationDate	Datetime	Date that the page was added to BHL.

### **PageName**

The PageName table lists all of the names that have been identified by TaxonFinder and the pages on which those names are found.

Field	Data Type	Description
NameBankID	PK, int	Taxon identifier from NameBank
NameConfirmed	nvarchar(255)	String extracted by TaxonFinder and confirmed by
		NameBank.
PageID	FK, int	The PageID on which this name is found.
CreationDate	Datetime	Date that the name was added to BHL.

#### **PartCreator**

The PartCreator table contains the names of the authors of each part.

Field	Data Type	Description
PartID	FK, int	The PartID to which this creator is associated.
CreatorID	Int	System-assigned identifier for the creator within
		BHL database.
CreatorName	nvarchar(450)	The creator name
CreationDate	Datetime	Date that the creator was added to BHL.

**Part**The Part table contains information about articles/chapters/treatments/etc. These parts may or may not be contained in material scanned by BHL.

* *	Description Section 1:10 of Francisco 1
PK, int	System-assigned identifier for the part within
<b>.</b>	BHL database.
Int	The ItemID to which this part is associated. May
	be blank.
nvarchar(255)	Name of the institution or person that contributed
	the part.
Int	Sequence order of the part within its container
	work. (Example: First article in a journal is
	assigned a value of 1, second is assigned 2, and so
	on).
nvarchar(50)	The type of part. Possible values include Article,
	Chapter, and Treatment.
nvarchar(2000)	The complete title for the part.
nvarchar(2000)	The title of the work in which this part appears.
nvarchar(400)	Publisher, Place of Publication, and Date
nvarchar(100)	Volume of the container work
nvarchar(100)	Series of the container work
nvarchar(100)	Issue of the container work
nvarchar(20)	Date of publication of the part
nvarchar(50)	The range of pages in the container work on
	which the part appears.
Int	PageID of the first page of the part. May be
	blank.
nvarchar(100)	Language in which the part is written.
nvarchar(200)	Stable URL to the part in the BHL web portal.
nvarchar(200)	URL of a location external to BHL at which the
	part is located
nvarchar(200)	URL for downloading the part
nvarchar(500)	Rights, usage, and copyright information.
nvarchar(500)	Rights, usage, and copyright information.
nvarchar(200)	Rights, usage, and copyright information.
11 var char (200)	ragins, usage, and copyright information.
	nvarchar(400) nvarchar(100) nvarchar(100) nvarchar(100) nvarchar(20) nvarchar(50)  Int  nvarchar(100) nvarchar(200) nvarchar(200) nvarchar(200) nvarchar(500) nvarchar(500)

# PartIdentifier

The PartIdentifier table relates parts to standard identification schemes.

Field	Data Type	Description
PartID	FK, int	The PartID to which this identifier is associated.
IdentifierName	nvarchar(40)	One of:
		<ul> <li>Abbreviation         Standard abbreviation by which this part is known.</li> <li>BioStor         Identifier of the part within BioStor         (<a href="https://biostor.org/">https://biostor.org/</a>)</li> </ul>

		<ul> <li>DLC</li> <li>ISBN         <ul> <li>International Standard Book Number</li> </ul> </li> <li>ISSN             <ul> <li>International Standard Serial Number</li> </ul> </li> <li>JSTOR</li></ul>
IdentifierValue	nvarchar(125)	The value for the identifier
CreationDate	Datetime	Date that the identifier was added to BHL.

# CreatorIdentifier

The CreatorIdentifier table relates creators to standard identification schemes.

Field	Data Type	Description
CreatorID	FK, int	The CreatorID to which this identifier is
		associated.
IdentifierName	nvarchar(40)	<ul> <li>associated.</li> <li>One of: <ul> <li>Abbreviation</li> <li>Standard abbreviation for this creator</li> </ul> </li> <li>ARK <ul> <li>ARK identifier for this creator</li> </ul> </li> <li>BioStor <ul> <li>Identifier of the creator within BioStor</li> <li>(<a href="https://biostor.org/">https://biostor.org/</a>)</li> </ul> </li> <li>DLC <ul> <li>OCLC</li> <li>Identifier assigned by OCLC, available through <a href="https://www.worldcat.org">www.worldcat.org</a></li> </ul> </li> <li>ORCID</li> </ul>
		<ul> <li>Identifier assigned by the ORCID organization</li> <li>Soulsby</li> <li>Tropicos         <ul> <li>Identifier of the creator within Tropicos</li> <li>(https://www.tropicos.org)</li> </ul> </li> <li>VIAF         <ul> <li>Identifier assigned by VIAF</li> </ul> </li> <li>Wikidata         <ul> <li>Identifier assigned at Wikidata</li> </ul> </li> </ul>
IdentifierValue	nvarchar(125)	The value for the identifier
CreationDate	Datetime	Date that the identifier was added to BHL.