

Standard Operating Procedure (SOP) for the Digitization of Archival Records

How to add documents to the IRMA (Integrated Resource Management Applications) Data Store

June 28, 2016

By:
Emma Albee
Katherine Pontbriand
Abe Miller-Rushing

**United States Department of the Interior, National Park Service, Acadia National Park
and Schoodic Institute at Acadia National Park**

AUTHOR:

Science Information & Communications Manager, Schoodic Institute	Emma Albee	Date
--	------------	------

Science Coordinator, NPS	Abe Miller-Rushing	Date
--------------------------	--------------------	------

APPROVED:

Chief of Resource Management, NPS	Rebecca Cole-Will	Date
-----------------------------------	-------------------	------

Curator, NPS	Marie C. Yarborough	Date
--------------	---------------------	------

Table of contents

- [1. Goal of this process](#)
- [2. Introduction](#)
 - [2.a. What is IRMA](#)
 - [2.b. IRMA and Acadia National Park](#)
 - [2.c. Access to IRMA](#)
 - [2.d. Green bar](#)
 - [2.d.i. Home](#)
 - [2.d.ii. Search](#)
 - [2.d.iii. Reports](#)
 - [2.d.iv. Create](#)
 - [2.d.v. My content](#)
- [3. Helpful information about IRMA](#)
 - [3.a. Basic terms and definitions](#)
 - [3.b. Search tips](#)
 - [3.b.i. Search types](#)
 - [3.b.ii. Search Results](#)
 - [3.c. What makes up a reference profile](#)
 - [3.c.i Reference type and reference code](#)
 - [3.c.ii. Basic metadata](#)
 - [3.c.iii. Files and links](#)
 - [3.c.iv. Additional panels](#)
 - [3.d. Additional metadata](#)
 - [3.e. Reference type descriptions](#)
 - [3.f. Other helpful hints](#)
 - [3.f.i. Batch manage permissions](#)
 - [3.f.ii. Levels of visibility](#)
 - [3.f.iii. Reference lifecycle states](#)
 - [3.f.iv. Links among references](#)
 - [3.f.iv.1. Is-part-of](#)
 - [3.f.iv.2. Generates or was-created-by](#)
 - [3.f.iv.3. Collections](#)
 - [3.f.v. Sensitive/proprietary information in reference metadata](#)
 - [3.f.vi. Creating and editing collections](#)
- [4. Creating IRMA references](#)
 - [4.a. Before creating IRMA references](#)
 - [4.b. Check for an existing reference](#)
 - [4.b.i. Search for the document](#)
 - [4.b.ii. Double check that it is the same document](#)
 - [4.b.iii. Duplicate documents](#)
 - [4.b.iv. Draft documents](#)
 - [4.b.v. New documents](#)

4.c. Creating a new IRMA reference

4.c.i Select the reference type

4.c.ii. Enter metadata on the “core” tab

4.c.ii.1. Title

4.c.ii.2. Date published

4.c.ii.3. Author(s)

4.c.ii.4. Editor(s)

4.c.ii.5. Publisher

Add the publisher, is there is one listed on the first few pages of the document.

4.c.ii.6. Report number/ID

4.c.ii.7 Place published

4.c.ii.8. Content begin date

4.c.ii.9. Content end date

4.c.ii.10. Number of pages

4.c.ii.11. Description

4.c.ii.12 Table of contents

4.c.ii.13. Notes

4.c.ii.14. Edition

If the edition exists and can be found, enter it into the edition box in numeral form (2 instead of second).

4.c.ii.15. Finished with “core” tab

4.c.iii. Enter metadata into the “permissions” tab

4.c.iii.1 Who may edit the reference

4.c.iii.2. Reference access level, file access level, and justification

4.c.iii.3. Additional use constraints

4.c.iii.4. Allow data stewards to edit the record

4.c.iii.5. Finished with the “permissions” tab

4.c.iv Files and links

4.c.v. Enter metadata into the “units and geography” tab

4.c.v.1. Add units and bounding boxes

4.c.v.2. Finished with the “units and geography” tab

4.c.vi. Enter metadata into the “subjects and keywords” tab

4.c.vi.1. Keywords

4.c.vi.2. Subject categories

4.c.vi.3. Finished with the “subject and keywords” tab

4.c.vii. Enter metadata into the “taxonomy” tab

4.c.vii.1. Finished with the “taxonomy” tab

4.c.viii. Enter metadata into the “cross-reference” tab

4.c.viii.1. Finished with the “cross-reference” tab

4.c.ix. Activating the reference

4.c.x. Adding the document to the reference

4.c.x.1. Determining the filename for the document

4.c.x.2. Adding an external link

- [4.c.x.3. Adding a digital file](#)
 - [4.c.xi. Finalize the reference](#)
 - [5. More helpful information](#)
 - [5.a. Editing a reference](#)
 - [5.a.i. Changing a reference type](#)
 - [5.b. Fields appearing only in select reference types](#)
 - [5.c. List of islands of particular interest to Acadia National Park](#)
 - [5.d. Create a project and add products to the project:](#)
 - [5.d.i. Create a project](#)
 - [5.d.i.1. Enter metadata into the "Core" tab](#)
 - [5.d.i.2. Enter metadata into the "permissions" tab](#)
 - [5.d.i.3. Enter metadata into the "units and geography" tab](#)
 - [5.d.i.4. Enter metadata into the "subject and keywords" tab](#)
 - [5.d.ii. Add products to a project](#)

1. Goal of this process

To create a reference on the IRMA Data Store, including the appropriate metadata, location of the hard copy, and a digital version of the document (if available).

2. Introduction

2.a. What is IRMA

IRMA, or the Integrated Resource Management Applications, (irma.nps.gov) brings together information from multiple National Park Service (NPS) data systems and sources. IRMA makes it easier to find, view, upload, download, and print information related to NPS resources. One of the applications on IRMA is the Data Store. The IRMA Data Store is the NPS-wide repository for documents, publications, and data sets that are related to NPS natural and cultural resources. For more information on the IRMA Data Store, see the [Help Page](#).

2.b. IRMA and Acadia National Park

Staff at Acadia National Park have been working with the IRMA Data Store since 2012. Most of the documents on the IRMA Data Store are documents that are in the Resource Management (RM) Bibliography. From the beginning, staff at Acadia have been working on creating and updating this SOP so there is a standard way for references to be added to the IRMA Data Store.

2.c. Access to IRMA

Everyone with an NPS Active Directory can view and create references and edit existing references (depending on the ownership of the reference) in the Data Store. The public can only view references that are public. Before beginning the process of entering new references or editing existing references, make sure that the correct permissions and ownership are attained. For more information, see [Batch manage permissions](#).

2.d. Green bar

The green bar at the top of each page has different options such as search, create, and my content, all described below.

2.d.i. Home

- Home - a link to the home page for the IRMA Data Store. Includes a button for quick searches at the top of the page. Also contains links to frequently requested information and types of documents.

- IRMA portal - a link to the home page of IRMA that contains links to each application, including the Data Store.

2.d.ii. Search

- Quick - a link to the quick search page. For more information, see [Search types](#).
- Advanced - a link to the advanced search page. For more information, see [Search types](#).
- By reference code - a link to the reference code search. For more information, see [Search types](#).

2.d.iii. Reports

A link to the page with the following reports:

- Featured park content - featured content in the Data Store (for participating parks only). Acadia does not participate in this.
- Inventory tracking - shows the status of the National Resource Inventories.
- Natural Resource Inventory map services - available map services for the natural resource inventories (vegetation, geology, and soils).
- New content - the 100 most recently added park-specific references.
- Reference types - provides definitions for each reference type. In addition, summarizes the content of records managed.
- Top references - shows the most frequently downloaded/viewed public records in the Data Store.
- IMD web services - inventory and monitoring division web and map services.
- Original and current lifecycles - original lifecycle prior to new release in early 2016.
- Physical holdings - information about the physical holdings for references. Before the new release in early 2016, the location of the hard copy of the document was entered into the reference.
- Project open data - lists the references that are being published/reported to data.doi.gov as part of the federal Open Data Initiative.
- Project open data - summary - summarizes the number of new references reported to data.doi.gov since 2013.
- Quarantined holdings - lists quarantined holdings that were not migrated over after the new release in early 2016.
- Reference audit - shows the history of edits made to each reference.
- Reference basic - simple set of the most important attributes for each reference including title, display citation, files/links, etc.
- Reference biblio - all bibliographic fields for each reference.
- Reference collections - a list of reference collections, their owners, the number of files...
- Reference delimited - a list of reference owners, units, keywords, subject categories... in a comma delimited format.
- Reference statistics - a summary of statistics and other important facts about each reference, including the number of views, number of downloads, date created, date last edited...

- Reference types by unit - summarizes the count of reference types by unit.
- Top public and internal references - shows the most frequently downloaded/viewed public or internal records in the Data Store.
- Unit statistics - information and statistics about each park unit including the number of related references, who the UPOCs are...
- User statistics - information and statistics about all of the Data Store users, including the number of references owned and created.

2.d.iv. Create

The link to create a reference.

2.d.v. My content

- Dashboard - includes:
 - A list of all reference owned by the user (including draft, active, and inactive).
 - A list of all collections owned by the user.
 - A list of all saved searches by the user.
- Batch manage ownership - see [Batch manage permissions](#).

3. Helpful information about IRMA

3.a. Basic terms and definitions

- Collection: a group of references that a user has saved for future reference. For more information, see [creating and editing collections](#).
- Data stewards: a controlled and trusted set of users charged with improving the content of the Data Store. They will have edit permission for all references linked to their respective unit(s), regardless of whether they own the references.
- ITIS (Integrated Taxonomic Information System): an online database of authoritative taxonomic information on plants, animals, fungi, and microbes of North America and the world found at www.itis.gov/.
- Reference: an individual record on the Data Store. Each individual document will have its own reference on the Data Store. Ideally, the only potential duplicates are references that different parks enter individually instead of creating one reference and adding all the parks to that single reference (this usually does not happen because parks all have different procedures for adding references and want control over the reference).
- Reference code: unique identifying number for each individual reference.
- Reference owners: people (their usernames) that can edit a reference. For information on how to add owners to a batch of references, see [batch manage permissions](#).
- Reference profile: a page that contains all (or almost all) of the information (also called metadata) about an individual reference. See [what makes up a reference profile](#) to learn about what information is included in the reference profile.

- Reference types: categories that determine what metadata is required for each reference. For more information on the different reference types, see [reference type descriptions](#).
- UPOC: A unit-specific role that limits discovery of erroneous/incorrect information for a unit, prevents valuable information from being deleted/removed, may access sensitive and/or proprietary information, and sponsor partners to contribute records to the Data Store.
- Visibility: a description of who can see the reference and their associated files.

3.b. Search tips

3.b.i. Search types

There are multiple ways to search the Data Store. Here is a description of the different types of searches:

- Quick search - conduct a simple, broad search.
 - Fields that are automatically searched include the display citation (which includes the author's last name, title, and date published), keywords, content description, author last name, corporate name, abstract, and subject category.
 - Only searches through public and internal references.
 - Can select one unit by selecting the unit from the drop down menu.
- Advanced search - conduct a detailed and customized query to find exactly what is desired.
 - Allows users to save searches for future use and users can download their search results into either an Excel spreadsheet or an EndNote file.
 - To search using a previously saved search, select that search and select "search." To alter a saved search, select that search and add new search parameters. To save the current search, select "save current selections" and name the search.
 - Currently, there are fourteen different ways to narrow the search:
 - Quick search text/any text field - the first panel is simply the same as using the quick search; the additional 13 panels allow you to further refine this further.
 - Units - provides flexibility in filtering by an NPS unit (park, region, network, office). Also includes the options of specifying one or more units and including linked units (such as including all parks for a given network or including all parks for a given region).
 - Text fields - references containing a word/phrase in specific text fields. Note that there is no longer the option to select the 'any text field' option here - this functionality is replicated using the 'quick search text/any text field' above.
 - Dates - references published or containing content within a particular date range.
 - Reference types - references of a specific reference type (e.g., published report).
 - Reference type groups - searches a group of reference types. Note: some reference types fall into more than one group while others do not fall into any group. The following is a description of the different reference type groups:
 - Datasets includes aerial photographs, audio recordings, generic datasets, geodatabases, geospatial datasets, LIDAR images, maps, mapbook-atlas, photographs, raster datasets, relational databases, satellite images, sound

pressure level measures, specimens, surveys, tabular datasets, vector datasets, and web services.

- Documents includes books, book chapters, brochures, conference proceeding papers, data standards, dissertations, dockets, emails, generic documents, journal articles, letters, maps, mapbook-atlas, memorandums, newsletter articles, newsletter issues, newspaper articles, notes, permits, plans, proposals, protocols, published reports, resource guides, resource briefs, standards, standard operating procedures, theses, and unpublished reports.
- Geospatial data includes aerial photographs, geodatabases, geospatial datasets, map services, raster datasets, satellite images, and vector datasets.
- Projects only includes projects.
- Web resources include web services and web sites.
- Multimedia includes aerial photographs, audio recordings, generic multimedia, maps, mapbook-atlas, movie/videos, photographs, podcasts, posters, presentations, and satellite images.
- Map - searches for all references that geographically intersect the desired bounding box.
- Visibility - include all internal and public references or limit results to just internal or just public.
- Subject categories - references linked to standardized subject categories.
- Files and links - references having specific files or links.
- Legacy records - some of the records in the Data Store were migrated from legacy systems in 2011 and have not been reviewed/updated since that time. Here you can choose to exclude legacy records, show only legacy records, or include all records.
- Versions - do not return older versions (default for quick search) or include older versions.
- Collections - references within specific reference collections. If you own collections, you will see them listed here. Otherwise, you can type in the collection ID for collections that you do not own.
- Person - references owned by or created by a specific user.
- Reference code - search by an existing reference code. Searching for a single reference code will result in a single search result. Note: To search for more than one reference code, separate the reference codes with a comma.

3.b.ii. Search Results

- The results of a search are in a table with the following columns
 - File count - if there are digital or external holdings that can be downloaded, this will have a value greater than 0. To download the digital file, click on the number.
 - Code
 - Type - the reference type
 - Display citation - a quick summary of the reference.
 - Title

- Year of issue - year the document was created.
- To see the reference profile, click on either the citation or the title.
- To sort the search results or to add other fields to the table, click on the arrow to the right of a column header.
- To refine search results, click on the “expand panel to revise search definition” and change the search parameters.

3.c. What makes up a reference profile

3.c.i Reference type and reference code

The references type and reference code.

3.c.ii. Basic metadata

This section includes:

- Title
- Description - a brief description of the information resource. In some cases, this may be the associated abstract or overview copied from the document.
- Full citation - this is an auto-generated field that concatenates the authors, dates, title, and other important attributes.
- Visibility - indicates who has permission to view this reference (public or internal).

3.c.iii. Files and links

The files and links panel appears with almost all references and shows the ways one could access the information resource.

Note the following:

- The files and links presented here are no different than the files and links that were accessible from the search results.
- You may not have permission to download some files containing sensitive and/or proprietary information.

3.c.iv. Additional panels

Below the Files and Links panel there may be additional panels to show you related references in the Data Store. In all cases, the number refers to the count of related references - panels, however, do not show if the reference count is zero or the relationship does not apply.

Depending on the specific reference, you may see one or more of the following panels:

- Related (child references) - some references, including those for published report series, books and conference proceedings, can function as containers and organize one or more ‘child’ references: published reports, book chapters, conference proceeding papers, respectively.
- Products created by this project - if the reference describes a project which created one or more products that are each described separately as unique references, this panel will list

them all.

- Originating project and related products - if this reference was created by a project with its own reference, this panel leads you back to the project plus all related products.
- Version history - some records are periodically updated with new finalized versions. This panel presents the entire lineage from the oldest (at the bottom) up to the most current (at the top).
- See also - a reference may provide links, or cross-references, to other references.

3.d. Additional metadata

Note: the additional metadata described below is what shows for a published report. The categories of metadata vary for different reference types.

To see more metadata about a reference, click on “click here for more info” on the right side of the screen. This will expand the reference to show 6 tabs including:

- Core info:
 - Title
 - Date published
 - Author(s)
 - Editor(s)
 - Publisher
 - Report number/ID
 - Place published
 - Content begin date
 - Content end date
 - Number of pages
 - Description
 - Table of contents
 - Notes
 - Edition
- Permissions:
 - Reference access level - who can see the reference (public, internal, or both).
 - File access level - who can download the file(s) (public, internal, or both).
 - Sensibility designation(s) - whether the document is sensitive and if it is sensitive, why it is sensitive
 - Proprietary/copyright designation - whether the document is copyrighted and if it is, whether the park has permission to distribute the document to the public.
 - Quality - the quality of the document (high or operational).
 - Additional use constraints - any additional use constraints on the document.
 - Data stewards permission to edit - whether the data stewards have permission to edit the reference.
 - Reference owners - who owns the reference and can therefore edit the reference.
 - Permission to download restricted files - who has permission to download the restricted files.

- Units and geography:
 - Units - the park units that are mentioned in the reference.
 - Bounding box(es) - the physical area associated with the parks selected above.
- Subjects and keywords:
 - Subject categories - a set list of categories the document falls under.
 - Keywords - a list of terms related to the content of the document.
- Taxonomy - a list of species that are found in the document. Includes their category, scientific name, common name, and family.
- History - the date of and username of the person who last update the reference and when and who created the reference.

3.e. Reference type descriptions

The bolded reference types are the ones that Acadia uses. Only use a different reference type if there is no bolded reference type that fits the document.

- **Aerial photograph** - use for aerial photos and satellite images. Photographs taken of the ground from an elevated position where the camera is not supported by a ground-based structure. The most common platforms for aerial photography include fixed-wing aircraft.
- Aerial photograph product type - a series of aerial photographs grouped together based on common characteristics including their scale (e.g., 1-m), format/compression, or spectral signature (e.g., color or IR).
- Aerial photograph series - a succession of aerial photograph product types. For example, the NAIP airphoto series has a number of different product types including 1-M color imagery.
- Audio recording - an electrical or mechanical inscription and re-creation of sound waves, such as spoken voice or the ambient environment. The two main classes of sound recording technology are analog recording and digital recording.
- **Book** - use for an entire bound and published book. A set or collection of written, printed, illustrated, or blank sheets, made of paper, parchment, or other material, usually fastened together by a hinge at one side.
- **Book chapter** - use for a chapter in a larger book when the chapter has a clear set of authors. One of the main divisions of a book. Chapters are generally numbered or titled.
- Book series - a succession of books published with related subjects or authors, similar format, and/or continuous numbering.
- **Brochure** - use for a pamphlet or booklet, especially one containing summarized or introductory information. An unbound booklet (that is, without a hardcover or binding), often consisting of a single sheet of paper that is printed on both sides and folded in half, in thirds, or in fourths (called a leaflet). It may also consist of a few pages that are folded in half and stapled at the crease to make a simple book.
- **Conference proceeding** - use for citing a whole conference proceedings bulletin, publication, or other compilation about a conference. Collection of academic papers that are published in the context of an academic conference. They are usually distributed as printed books (or sometimes CDs) either before the conference opens or after the conference has

closed. Proceedings contain the contributions made by researchers at the conference. They are the written record of the work that is presented to fellow researchers.

- **Conference proceeding paper** - use for citing a paper published with a conference proceedings. For conference proceedings published within a special issue of a journal, use this document type. A paper from a conference proceeding.
- Conference proceeding series - a succession of conference proceedings published with related subjects, publishers, editors, similar format, and/or continuous numbering.
- Data standard - a standard pertaining to the management of data.
- Dissertation - use thesis reference type; document submitted in support of completing a Doctorate degree that presents the author's research and findings.
- Docket - summary of legal documents.
- **Email** - a digital message from one person to one or more other persons. An email consists of two components, the message header, and the message body, which is the email's content.
- Generic dataset - applied to any type of spatial or tabular data that cannot be more specifically defined (e.g., as a vector dataset).
- Generic document - any original or official paper that conveys information. Applied to any type of document that cannot be more specifically defined
- Generic multimedia - any document pertaining to sound or graphics that is not described by a more specific reference type.
- Geodatabase - any database containing more than one related tables, with the tables sharing data. In addition, some of the data types are natively geospatial (i.e., points, lines, and polygons).
- Geospatial dataset - any dataset that is inherently geospatial in nature.
- **Journal** - a periodical specific to peer-reviewed literature.
- **Journal article** - an article from a peer-reviewed periodical relating to a particular academic discipline. For conference proceedings manuscripts published within a special issue of a journal, use the "conference proceedings paper" document type.
- **Journal issue** - use for citing a whole journal issue or special issue of a journal. A specific issue of a journal. For conference proceedings compilations published as a special issue of a journal, use the conference proceeding reference type.
- **Letter** - use for any written communication addressed to a person or organization except an email; a handwritten or typed message from one person to another.
- LIDAR image - Light Detection And Ranging image.
- **Map** - use for a printed visual representation of a geographic region. A visual representation of an area highlighting relationships between objects, regions, and themes.
- Map series - a succession of maps published with related subjects or authors, similar format, and/or continuous numbering.
- Mapbook-atlas - a digital file, book or other bound resource containing a collection of maps, sometimes with supplementary illustrations and graphic analyses.
- **Memorandum** - documents that are typically brief diplomatic communications. A communication that contains directive, advisory, or informative matter. These documents are often noted as memos somewhere below the letterhead.

- **Movie/video** - recordings of visual presentations. A collection of still images, that when viewed in series, show motion.
- **Newsletter** - a printed report giving news or information of interest to a special group.
- **Newsletter article** - an article published in a newsletter.
- **Newsletter issue** - the whole issue of a newsletter. A single issue of a newsletter.
- **Newspaper** - the whole issue of a newspaper (a publication, usually issued daily or weekly, containing current news, editorials, feature articles, and usually advertising). A periodical publication containing news, information, and advertising.
- **Newspaper article** - an article published in a newspaper.
- **Notes** - a brief, informal documents created to assist an individual's work. Quality, content, and format may vary considerably. Examples include field notes, meeting minutes, and personal papers.
- **Permit** - a document that gives formal permission to conduct an activity.
- **Photograph** - a picture captured by an optical device, including cameras, mirrors, lenses, telescopes, microscopes. Images that are orthorectified (processing to geometrically correct it so that the scale of the photograph is uniform and it can be measured as a map) would be treated as a dataset.
- **Plan** - a document identified as a planning document, or a document that outlines procedures of courses of action such as master plans and any type of management or committee plans.
- **Podcast** - a series of digital computer files, usually either digital audio or video, that is released periodically and made available for download by means of web syndication.
- **Poster** - any piece of printed paper designed to be attached to a wall or vertical surface. Typically posters include both textual and graphic elements, although a poster may be either wholly graphical or wholly text. In some cases, a poster can also be a digital file that would be used for the purpose of printing a hardcopy. Poster formats (i.e. whether it is digital or a hardcopy) should be described with separate holding locations.
- **Presentation** - use for presentation printouts such as a powerpoint presentation. Used for the purpose of showing and explaining the content of a topic to an audience or learner. Most often this is a set of slides that rely on simple text statements and graphics.
- **Program** - an ongoing business process that manages multiple interdependent projects.
- **Project** - a planned endeavor, usually with a specific goal and accomplished in several steps or stages that produces a variety of end-products.
- **Proposal** - use for research proposals or materials submitted with applications for research permits. A document used to apply for sponsored program funds and/or permission to conduct activities that would otherwise not be allowed.
- **Protocol** - a rule, guideline, or document which guides how an activity should be performed.
- **Protocol development summary** - a report summarizing progress towards the development of a monitoring protocol.
- **Published report** - use for documents that appear to have gone through some peer review and were created to be circulated among the public. A formally published document which presents focused, salient content to a specific audience. Reports are often used to display the result of an experiment, investigation, or inquiry. Often, the publisher is different than the

report author. Documents created by the National Park Service that have report numbers/IDs assigned to them should be considered published reports.

- Published report section - a piece of a published report.
- Raster dataset - storage format for managing the location of geospatial information as grids and their associated attribute information. Raster datasets are natively geospatial.
- Relational database - a database containing more than one table, with the tables sharing data.
- Report series - a succession of reports published with related subjects or authors, similar format, and/or continuous numbering.
- Resource guide - a document intended to provide an overview and inventory of natural resources.
- Resource brief - use for a press release. A short summary concerning the status of park resources.
- Satellite image - digital image taken of the Earth's surface using electromagnetic sensors on board a fixed-path orbiting or geostationary space-based satellite.
- Satellite image product type - a grouping of satellite images based on common characteristics including their scale (e.g., 1-m), format/compression, or spectral signature (e.g., color or IR).
- Satellite image series - a succession of satellite images published with related subjects, producers, similar format, and/or continuous numbering.
- Software - computer programs or code read and written by computers.
- Sound pressure level measurement - a measure of the local pressure deviation from the ambient (average, or equilibrium) pressure caused by a sound wave. Sound pressure can be measured using a microphone in air and a hydrophone in water.
- Specimen - a collected individual, item, or part considered typical of a group, class, or whole.
- Standard - a document that is established by authority, custom, or general consent as a model or example.
- **Standard operating procedure** - detailed written instructions to achieve uniformity of the performance of a specific function.
- Survey - a method for collecting quantitative information about items in a population.
- **Tabular dataset** - use for all types of datasets and databases. A collection of data. Data is presented in tabular form, where each column represents a particular variable, either as text string or geography (i.e., points, lines and polygons), and each row corresponds to a given member of the data set in question.
- **Thesis** - use for a project or a paper created by a graduate or undergraduate student as part of a graduation requirement that presents the author's research and findings.
- **Unpublished report** - use for documents that do not appear to have gone through any peer review and were created to convey information in an informal, non-official manner. Unpublished reports may or may not have authors, dates, or other identifying information. Examples may include annual reports, checklists, and in-house reports.
- Vector dataset - storage format for managing the location of geospatial information (points, lines and polygons) and their associated attribute information. Vector datasets are natively

geospatial.

- Web service - application programming interfaces (API) or web APIs that are accessed via Hypertext Transfer Protocol and executed on a remote system hosting the requested services
- **Web site** - a collection of related web pages, images, videos or other digital assets that are addressed relative to a common Uniform Resource Locator (URL).

3.f. Other helpful hints

3.f.i. Batch manage permissions

Allows an owner of a group of references to add, remove, or transfer owners to that group of references, collections, or saved searches. To do this, click on “my content” in the green bar and then click on “batch manage ownership.” Select an action (add as owner, remove as owner, or transfer ownership to this user). Select a user (either an NPS user or partner user. Then select what to apply this information to (references, collections, and/or saved searches). Then select the park unit and lifecycle type. When this is complete, select save. Select the action (same as above) and the user, then click save.

3.f.ii. Levels of visibility

There are three different levels of visibility that apply to references and files:

- Public - accessible/downloadable to any anonymous person, including the general public.
- Internal - accessible/downloadable to any individual who has an NPS Active Directory account and is logged into a NPS computer.
- Restricted - accessible/downloadable only to a select group of individuals. Most often, these individuals are the reference owner or designated viewers.

3.f.iii. Reference lifecycle states

Lifecycle states help explain where a reference is in the edit and review process and is a powerful tool to help prioritize the editing and overall management of references. The lifecycle state also has a strong bearing on who may see a reference. Note: The lifecycle state does not apply to the document being described by the reference, it only applies to the reference metadata.

- Legacy - implies that a reference was imported from a legacy application and has not been reviewed as to whether it meets the validation requirements and uses the same definitions of the Data Store. Once the reference is edited in any way, a reference can no longer be in this lifecycle.
- Draft - the reference has been created but has never been set as an active lifecycle state. This lifecycle should be used when a reference is created but is not ready for widespread circulation within the NPS and possibly the public.
- Active - the reference has met all validation requirements and is active. Current validation is limited to the completion of required fields. Activation indicates that the reference is ready for

broader circulation throughout the NPS, and in many cases, the public.

- Quarantined - one of the reference owners has determined there is a gross error in the metadata of the reference (including an error that may result in the inappropriate access of sensitive and/or proprietary information). Quarantining a reference removes it from circulation (the visibility is set to restricted) and should be used when the intent is to ultimately re-activate the reference.
- Inactive (soft delete) - the record no longer (or perhaps never was) of use and should be removed. Only draft references will be completely purged (hard deleted) from the Data Store. All other references are set to inactive, meaning that they do not completely disappear from the system (in case there is a need to access the information). Inactive references will be accessible to the reference owner(s) and viewer(s) for one year. After one year of being inactive, the reference will be archived to a digital graveyard and will only be accessible upon request.

3.f.iv. Links among references

The Data Store has a number of ways that references can be related to each other: “is-part-of,” “generates,” and within a collection.

3.f.iv.1. Is-part-of

Is-part-of is a link used when the identity of a reference (the child reference) is completely dependent on another reference (the parent reference). The most common example is a book chapter and a book. Within the Data Store, the reference for the book chapter is distinct from the reference for the book. While separate records, the identity of the book chapter is completely dependent on knowing information about the book. There are a number of two-level hierarchies:

Child reference	Parent reference
Map	Map series
Newspaper article	Newspaper (required)
Project	Program
Published report	Report series
Standard operating procedure	Protocol

There are also a few cases of three-level hierarchies:

Child reference	Parent reference	Grandparent reference
Newsletter article	Newsletter issue (required)	Newsletter
Aerial photograph	Aerial photograph product	Aerial photograph series

	type	
Book chapter	Book (required)	Book series
Conference proceeding paper	Conference proceeding	Conference proceeding series
Journal article	Journal issue (required)	Journal (required)
Satellite image	Satellite image product type	Satellite image series

There are five reasons for linking references using “is-part-of.” First, it helps prevent duplication of data entry. For example, if a user wishes to create a book chapter and the book already exists, they do not need to re-enter all of the information about the book. Second, it will help minimize the creation of duplicate records because it is easy to see what children already exist for a reference. Third, it allows for greater ease of updating references. For example, if a journal has a misspelling in the title, changes will automatically be updated to all of the children. Fourth, it allows a lot of information to be stored but displayed in a simple way. Finally, establishing this hierarchy provides a simple way for users to browse for information. For example, when someone selects a program, such as the Vegetation Mapping Program, they will see all of the individual projects that are part of that program.

3.f.iv.2. Generates or was-created-by

The generates/was-created-by link always involves a project reference type. A project reference type, when linked to another reference, indicates that the project generated the document. Currently, the following reference types can be generated by a project:

- Aerial photograph
- Audio recording
- Book
- Book chapter
- Brochure
- Conference proceeding paper
- Dissertation
- Docket
- Email
- Generic dataset
- Generic document
- Generic multimedia
- Geodatabase
- Geospatial dataset
- Journal article
- Letter
- Map
- Mapbook-atlas
- Memorandum
- Movie/video
- Notes
- Permit
- Photograph
- Plan
- Podcast
- Poster
- Proposal
- Presentation
- Program
- Protocol
- Protocol development summary
- Published report
- Raster dataset
- Relational database
- Resource brief
- Resource guide
- Software
- Specimen
- Standard operating procedure
- Survey
- Tabular dataset
- Thesis
- Unpublished report
- Vector dataset
- Web service

It is important to note that a document (and therefore its reference) can only be generated by one project.

3.f.iv.3. Collections

Users may want to associate references together for any number of arbitrary reasons. Some examples include “My favorite references about elk” and “Recommended further reading about chronic wasting disease.” Any user can create one or more collections. There is no limit to the number of references that can be in a collection (although the number of references returned in a quick and advanced search is limited to 2000). There is also no limit to the number of collections to which a reference can be tied.

3.f.v. Sensitive/proprietary information in reference metadata

Users who create or edit references must eliminate all sensitive and/or proprietary information in the reference record.

3.f.vi. Creating and editing collections

A collection can be created or updated at any time from the quick or advanced search by clicking on the “Create or update collection” panel below the search results. Once that panel is expanded, a new column will appear in the search results that allows references to be selected to add (or remove) from a collection.

4. Creating IRMA references

4.a. Before creating IRMA references

- Thoroughly review this document and the SOP titled “Standard Operating Procedure (SOP) for the Digitization of Archival Records.”
- Log onto IRMA and review a few completed records to get familiar with the format of the references. Several examples include:
 - examples
- There may be webinars on the IRMA About page that could be helpful (<https://irma.nps.gov/content/index.aspx>). The webinars are updated periodically.
- When entering data, it is important to be consistent. This includes consistent use of capital letters, punctuation, spaces, etc. as well as the use of the keyword thesaurus to ensure standardized data records.

4.b. Check for an existing reference

Determine if an IRMA record already exists (this should be done for all documents, including new publications) by searching the IRMA Data Store. This is an extremely important step to prevent creating duplicate records on IRMA.

4.b.i. Search for the document

Use the quick search option (Search/Quick) to search by the author's last name and the title or an important fragment of the title. Do not select Acadia because the search needs to search through all of the IRMA references, not just Acadia's references. It is important to see if another NPS unit has created a reference for the same document for two reasons

- One is that instead of creating a whole new reference, staff at Acadia may choose to see if the owners of the reference will add someone from Acadia as an owner to that reference.
- The other reason is that if Acadia does choose to create their own reference for that document, the other NPS unit's reference can be duplicated, thus saving some time for the person that enters the information.

4.b.ii. Double check that it is the same document

If a reference exists in the IRMA Data Store that is similar to the document to be entered, double check that it is indeed identical to the new document by comparing the abstract or summary and the number of pages in the document. If, after this, it is still unclear whether the new document is identical to the existing reference, look up the paper copy in the Resource Management Bibliography or download the digital file if it exists and compare the two documents side-by-side.

4.b.iii. Duplicate documents

If the documents are identical, do not create a new reference. If the reference that is already in IRMA is also owned by the NETN (Northeast Temperate Network), Abe Miller-Rushing and Emma Albee should also own the reference. If that is the case, get either of them to add the rest of the owners appropriate for Acadia references and then update the metadata. The metadata should be pretty close to what is Acadia's standard but may need a few things (such as study locations and keywords). Do not delete any metadata that is there, just add to the current metadata. If there is a document that is owned by the NETN and Abe and Emma are not owners, check with Abe to see if he will contact the NETN to see if they will add Abe and Emma as owners. Once that happens, continue to update the metadata.

If there is a reference that was created by a park unit other than the NETN, talk to Abe and see if he will contact that unit to see if they are willing to add Abe and Emma as owners.

There is also a rare case that the reference has a duplicate that is a legacy reference. When the references were migrated to IRMA from previous databases (such as NPSpecies and NRInfo), some of the references that were duplicates were not merged appropriately. This means that there are duplicates of some references that have different information that still needs to be merged into one reference. This will be taken care of sometime in the future. This should not happen when creating new references.

4.b.iv. Draft documents

Before entering draft documents, check with the curator to see if there is a reason to create an IRMA reference for the draft. The main reason for creating a reference for a draft is if the draft

version includes information that is not found in the final version. If there is an IRMA reference for the draft version and a reference for the final version is to be created, the reference for the draft version should be edited so the metadata matches the final version, the draft document deleted from the reference, and the final version added to the reference. The only exception to this is if the draft document contains significant detailed information on Acadia National Park's natural or cultural history that is not contained in the final version. In this case, the draft version would be another reference but the references should be linked using the "see also."

4.b.v. New documents

If the document is a new document and there is no reference for it on the IRMA Data Store, continue on with the next steps to create a new reference.

4.c. Creating a new IRMA reference

First, select a document to add to the IRMA Data Store. Find a copy of the document (either a PDF of the document found online or on the Resource Management shared drive or a paper copy of the document). To create a new reference, select "create" from the green bar and then click "reference." Then complete the following steps:

4.c.i Select the reference type

- Select the appropriate reference type from the drop-down menu. See [Reference type descriptions](#) for more information on the different reference types.

4.c.ii. Enter metadata on the "core" tab

Once the reference type and any parents or grandparents have been selected, the next step is to add metadata to the core tab. The core tab will automatically appear after selecting the reference type however, another way to get to this page is to select "edit" from the "actions" button on the right side of the screen. There are four other tabs, but the core tab is the first section to enter information. Note: The information required in the core tab varies depending on the reference type selected. Thus, some document types may lack some of the data fields described below or they may have additional fields. For the purpose of this document, the fields described are used for published reports. To see information on other possible metadata, see [Fields appearing only in select reference types](#).

4.c.ii.1. Title

Enter the title of the document in the "title" box.

- Main title versus subtitle - use the complete title for the document. Do not shorten it. Include any parallel or subordinate titles and enter a colon and space between the main title and any subordinate title. Capitalize the first word of the subtitle.
- Capitalization of title - use "sentence style." Capitalize only the first word of a title and proper nouns. Note: Documents edited or created before April 2014 used "title case" in which all major words were capitalized.

- There are two exceptions to this rule. One is conference names, which are considered a corporate entity, so they are treated as a proper noun (all nouns in the conference name appearing in the title are capitalized. The second is that acronyms are to be transcribed exactly as they appear (such as ERA).
- Draft revisions - add the word “draft” or “revised” as necessary in parentheses at the end of the title.
- Misspellings - correct misspelled words in the title, but also record the actual misspelled full title in the “Notes” field prefaced with “Actual title (misspelled):”.

4.c.ii.2. Date published

First, choose the format of the date to be entered from the drop-down menu. Be as specific as possible. The drop-down menu has many options including exact date (month, day, year), month/year, and year. Then enter the date the document was published or produced in the appropriate format.

- Unknown date - IRMA does not allow estimated dates or partial dates. For example, if it appears that the document was produced in the 1990s, there is no way to enter this information. In these circumstances, IRMA suggests that the date field be left blank. If a probable date can be deduced, that information can be added to the notes field.

4.c.ii.3. Author(s)

Enter the author using the following steps:

- Select “add” from the right side of the author(s) box and select whether to add an individual or organization. Select “individual” unless no individual author is identifiable on the document. If no individual author is identifiable, select “organization.”
 - Individual: add the author’s last name, first name, middle initial (if known), and affiliation. If the affiliation is Acadia National Park, select “National Park Service” from the dropdown menu. If the author has a different affiliation, type it into the appropriate box.
 - Organization: add the organization's name.

4.c.ii.4. Editor(s)

Add any editors of the document the same way author(s) were added.

4.c.ii.5. Publisher

Add the publisher, if there is one listed on the first few pages of the document.

4.c.ii.6. Report number/ID

Enter and report numbers associated with the document. Many park created documents will have report numbers such as 2013 – 8.

4.c.ii.7 Place published

Type the place of publication. Write the city and state/province, separated by a comma, using the appropriate state/province abbreviation (example: Orono, ME). If the document was

produced at a college/university or a research facility, write the name, followed by the city and state (such as University of Maine, Orono, ME or Acadia National Park, Bar Harbor, ME). Leave this section blank if it is unknown.

4.c.ii.8. Content begin date

Enter the date when fieldwork began for the project or the earliest year assessed for non-field based research reports. Be as specific as possible (such as month/day/year). Methods sections are often a good place to search for this information.

- Unknown date - IRMA does not allow estimated dates or partial dates. For example, if it appears that the document was produced in the 1990s, there is no way to enter this information. In these circumstances, IRMA suggests that the date field be left blank. If a probable date can be deduced, that information can be added to the notes field.
- If the content begin and end dates are the same, then only the content begin date needs to be completed.

4.c.ii.9. Content end date

Enter the date when fieldwork ended for this project or the latest year assessed for non-field based research reports. Be as specific as possible (such as month/day/year). Methods sections are often a good place to search for this information.

- Exact date - Note: There is a programming quirk so it appears that IRMA does not allow exact dates with a month, day, and year to be entered. However, by selecting the exact date, the month, day, and year can be entered in the year box.
- If the content begin and end dates are the same, then only the content begin date needs to be completed.

4.c.ii.10. Number of pages

Enter the number of pages the document has. If there are several documents under one reference, enter the total number of pages.

4.c.ii.11. Description

Enter the abstract or full description in the appropriate box. This section is for a summary of the information in the document. The entire contents of this field cannot exceed 4,000 characters which sometimes is not enough space to fully summarize all of the information. As a result, the abstract or summary can be continued in the notes field if it cannot fit in this field (make sure to include the following: Abstract and detailed notes continued in the notes field).

To summarize the document, first get a general understanding of what the document is about. For natural history documents, pay particular attention to what categories of flora and fauna were studied and which information in the document would be of particular interest to resource managers (for example: lists of species by location, partial or complete inventories, monitoring results, status updates...). Then look at the abstract or summary and see if this readily conveys all of that information. If so, type or paste (as plain text to avoid formatting issues) in the abstract, put it in quotations, and write "From official abstract," "From introduction," or "From executive summary" at the start of the excerpt with quotes around the copied text. If any

important information is left out of the abstract, add it at the end. If there is no abstract or summary or if it does not provide sufficient information, write a summary of the document, paying particular attention to all of the taxa mentioned in the document and the type of information available for the various groups of taxa.

4.c.ii.12 Table of contents

If the document contains a table of contents, enter it using the following format as well as following the format of the original table of contents:

- 1 Introduction: purpose and need ... 1
 - 1.1 Purpose and need for the action ... 1
 - 1.2 Project background ... 4
 - 1.2.1 History and significance of ANP ... 4
 - 1.2.2 Blackwoods Campground ... 7

Include a list of any appendices but do not include a list of figures or maps. After the section headers, add a space, three periods, a space, and then the page number.

This section is limited to 4000 characters. If the table of contents exceeds 4000 characters, continue it in the “notes” section and write “Table of contents continued” at the start of the excerpt

4.c.ii.13. Notes

Enter any other pertinent details about the document that do not fit elsewhere in any of the other fields.

- Research permit and study number - if the document is a product of a research permit, add that information in the following format:
 - Research permit # ACAD-2005-SCI-00XX
 - Study # ACAD-00XXX
 - Also, add the appropriate information to the spreadsheet “references linked to studies” on the Google shared drive.
 - Make sure to cross-reference any other references that are products of the same study number. This can be done by searching the spreadsheet for the study number, clicking on the appropriate link, and then cross-linking the references.
- Study locations - the study locations are all of the places where the information described in the document was collected. Refer to maps to determine which areas are within Acadia National Park (see [List of islands of particular interest to Acadia National Park](#) for a listing of islands of particular interest to ANP). The phrase “Study locations:” and the primary locations (both written in all caps) pertaining to Acadia National Park (such as MOUNT DESERT ISLAND, SCHOODIC PENINSULA, ISLE AU HAUT, ISLANDS, and EASEMENTS) should each be on their own line. These primary study locations should be preceded by a forward slash (/). Secondary study locations (written in lowercase) should be added after the primary study locations and each should be followed by a forward slash. Each primary study location (with its secondary study locations) should be entered onto a separate line. The format for this section is very important. Some examples:

/STUDY LOCATIONS: /

/MOUNT DESERT ISLAND/Sand Beach/Thunder Hole/
/ISLE AU HAUT/Merchant Point/Eastern Head/

/STUDY LOCATIONS:/
/ACADIA NATIONAL PARK/

Sometime, it may be possible to only be as specific as Acadia National Park if no specific study locations were mentioned. However, sometimes there may be many study locations. Be as specific as possible and make sure to begin and end all lines with a forward slash(/).

- GIS useable data - record whether the document contains GIS useable data. GIS useable data refers to detailed location information that can be precisely relocated in the field. There are three categories of GIS information as described below. If in doubt, ask the Resource Management GIS specialist for advice on how to code a particular document. This information goes after the study location in the notes section. Include the full term listed below (such as GIS-Category 1:), making sure to include the hyphen between GIS and category, and then write a short description of the GIS useable data that is included in the document (such as "GIS-Category 1: Appendix contains a list of UTM coordinates of each study location"). Note: This information may have been deleted from some entries that were edited before April 2014.
 - GIS-Category 1: use for geographically referenced maps that can be digitized or a table with latitude and longitude or UTM coordinates of study locations with an approximate error of point locations of up to 10 meters.
 - GIS-Category 2: use for detailed, written out specific study locations or a more generic map that plots approximate study area locations with an approximate error of point locations of up to 100 meters. For example, a study location of "Northern portion of Bubble Pond" would likely fall in this category.
 - GIS-Category 3: use for more general locations, either written out or on a map, with an approximate error of point location of up to 300 meters. For example, a study of locations written as Bubble Pond would likely fall in this category.
 - No coding - for very generic locations or maps, do not enter any GIS coding. For example, a location of Bar Harbor or Isle au Haut or eastern side of Schoodic Peninsula would fall into this category.
- Potential duplicate documents - include notes on potential duplicate documents (such as "Document appears to be similar to document #554422, but after side-by-side comparisons, of the two documents, they are indeed different").
- Document attachments split into multiple folders - sometimes the physical document will be split into several folders because of size. If this is the case, all of the folders should be included in a single reference, but the presence of multiple folders should be noted in the notes section in the following format "***Note: Physical holding is divided into ___ separate folders because of size.**"
- Unscanned map or other media - if the reference includes an unscanned map, CD-ROM, or other type of media which proves to be impossible to upload, note that using the following format "***Note: Physical holding contains an oversized map which has not been scanned. It is available for examination at the William Otis Sawtelle Research Center at Park

Headquarters in Acadia National Park.**”

- Other document notes - include additional notes as needed in this section. Include details on the type of information presented in each section.

4.c.ii.14. Edition

If the edition exists and can be found, enter it into the edition box in numeral form (2 instead of second).

4.c.ii.15. Finished with “core” tab

After all of the information “core” tab, select “save.” This will save the reference but it will not be viewable to the public. When the reference is completely finished, hit the “activate” button to save the document and make it viewable by the public. Now that the “core” tab is complete, move on to entering the information in the rest of the tabs.

4.c.iii. Enter metadata into the “permissions” tab

Select the “permissions” tab at the top of the page to enter information regarding owners of the reference, copyright restrictions, sensitive information, and the quality of the record. The sensitivity and copyright status of the document should have already been determined by the person who decided where the document belongs so all that is required is to select the appropriate choice. The quality will need to be determined before selecting the appropriate choice.

4.c.iii.1 Who may edit the reference

Enter the people who own the document and can therefore make changes to the reference. The person creating the reference will automatically own the document, however it is good to have multiple owners so multiple people can edit the reference as necessary and can add owners to the reference as there are new people working on editing and creating reference. To add additional owners:

- Select “add” from the right side of the screen and select whether to add a NPS user or a Partner.
- Start typing the username or full name of the person to be added and select the appropriate person. Select “add.” Make sure that all of the following people are owners of every reference created:
 - Abe Miller-Rushing amillerrushing@nps.gov
 - Karen Anderson KBAnderson@nps.gov
 - Rebecca Cole-Will RCole-Will@nps.gov
 - William “Bill” Gawley WGawley@nps.gov
 - Marie Yarborough MYarborough@nps.gov
 - Emma Albee ealbee@nps.gov
- Continue adding owners as necessary. Then close the window.

4.c.iii.2. Reference access level, file access level, and justification

Next, the sensitivity, copyright status, and quality of the document need to be selected. This information will determine who will be able to access the reference and its associated file.

- First, select the sensitivity of the reference. If the document does not contain any sensitive material, select “not sensitive.” If the document contains one or more FOIA-exempt (Freedom of Information Act) sensitivities, select “specific individuals” for the file access level, select “sensitive,” select the reason it is sensitive (archeological, caves, commercial value, cultural, endangered, Indian Sacred Site, litigation, minerals, paleontological, personally identifiable information (PII), security, threatened, and/or wells), and then add the individuals who can access the file.
- Then, select the copyright status of the document. If the document is copyrighted, then select the permissions to distribute (permission to distribute for non-commercial use, permission to distribute internally to all NPS staff, or distribution limited to select individuals).
- Then, select the quality of the document. Select “high” if the information in the document is adequately documented and organized to ensure that someone using the information can readily determine whether it will meet their specific needs. In general, this information has been peer-reviewed and has adequate documentation about its generation. Select “operational” if the information is not adequately documented or organized, therefore, it may be difficult for someone to determine whether use of the information will meet their specific needs. In general, this information had not been peer-reviewed and documentation about its generation may be inadequate.
- Finally, adjust the reference and file access level. These should be accurate after the previous information is entered, but may require adjusting.

4.c.iii.3. Additional use constraints

Enter the following statement in the use constraints text box for all NPS-produced publications:

Please note: The following electronic documents may contain copyrighted material. NPS-produced publications are normally considered public domain; however, many of the reports contain illustrations that are copies of materials NOT in the public domain. Persons wishing to use these illustrations for any purpose other than that stated in the fair use doctrine must obtain their own permission from the owners of the original materials.

4.c.iii.4. Allow data stewards to edit the record

Select “yes, allow management of this record as needed.”

4.c.iii.5. Finished with the “permissions” tab

Click on the “save” button to save the metadata before moving onto the next tab.

4.c.iv Files and links

Leave this tab until the rest of the metadata has been entered.

4.c.v. Enter metadata into the “units and geography” tab

Select the “units and geography” tab to enter information regarding spatial information about the document. A document should only be linked to Acadia National Park if it contains information specifically about ANP.

4.c.v.1. Add units and bounding boxes

Add ANP (and any other appropriate National Park Service units such as Saint Croix International Historic Site) using the following steps:

- Select “add” on the right side of the page. Select Acadia National Park from the pull-down menu and click “Add unit.” Make sure that the “Automatically add bounding box” is checked (this will ensure that the bounding box for ANP and any other selected NPS units will be added).
- Add specific study area bounding boxes for identifying more specific study locations within the park. Note: As of October 2014, this feature is not currently available on IRMA.

4.c.v.2. Finished with the “units and geography” tab

Click on the “save” button to save the metadata before moving onto the next tab.

4.c.vi. Enter metadata into the “subjects and keywords” tab

4.c.vi.1. Keywords

Select the “subjects and keywords” tab at the top of the page to enter keywords pertaining to the document. It is helpful, especially for complex documents, to search for a similar document and to copy and paste those keywords into the new reference as a starting point. Double check that each keyword is appropriate and necessary and edit as required. The best way to determine the keywords for a document is to read/skim the entire document and make a list of potential keywords, and then convert the list of potential keywords into the ANP standard using the ANP keyword thesaurus database which is on the Google Drive and is on the Resource Management Shared Drive under Museum\CURATORIAL\IRMA Data Store Digitization Info.

- Enter keywords into the keywords box, separating them using a comma. Choose keywords using the ANP keyword thesaurus database. Look for and include more general terms as keywords as well as specific terms. Choosing and filling out appropriate keywords is one of the most time-consuming aspects of creating a reference.
- Keywords should be in Proper Case, meaning that the first letter should be capitalized. Common words such as “and” and “or” should be lower case. Note: The case of the keyword is determined by how the first user to use that keyword enters it. IRMA will routinely monitor keyword case and fix those that do not follow Proper Case. So, if a keyword case is changed after the reference has been saved, do not worry.
- Make sure to include relevant details about the upper level taxonomy of the taxa mentioned in the document. To determine what the upper level taxonomy group for a species is, use the internet (either Google or ITIS) to search for it. The following guide will help determine what basic keyword to use for the upper level taxonomy (the keyword term is in bold below):

Fish: all fish, including lamprey, hagfish, sharks, rays, and bony fish

Amphibians (Amphibia): frogs, toads, and salamanders

Reptiles (Reptilia): turtles, snakes, etc.

Birds (Aves): all birds

Mammals (Mammalia): dogs, cats, bears, humans, and most other large animals

Segmented worms (Annelida): earthworms, leeches, ringed worms

Insects (Insecta): a class of invertebrates within the arthropod phylum that have a three-part body, three pairs of jointed legs, compound eyes, and one pair of antennae.

Arachnids (Arachnida): spiders, harvestmen, ticks, mites

Crustaceans (Crustacea): crabs, lobsters, crayfish, shrimp, and barnacles

Cnidaria (hydras, jellyfish, corals): also sea anemones

Echinoderms (Echinodermata): sea stars, sea urchins, sea cucumbers

Mollusks (Mollusca): squid, snails, bivalves

Round worms (Nematoda): round worms

Platyhelminthes: flat worms

Sponges (Porifera): sponges

Plants: all flowering plants

Bryophytes (Bryophyta): mosses and liverworts

Fungi: mushrooms

4.c.vi.2. Subject categories

Leave this section blank.

4.c.vi.3. Finished with the “subject and keywords” tab

Click on the “save” button to save the metadata before moving onto the next tab.

4.c.vii. Enter metadata into the “taxonomy” tab

Skim through the document to note any and all biological taxa found in the document. Only add Genus and species names in this section (as well as sub-taxa [varieties or subspecies] if noted). Upper level taxonomy (such as families, order, or phyla) should be entered under keywords and not entered here. If numerous biological taxa are given in a document, enter them all. If hundreds of biological taxa are listed, talk to someone in resource management to see if IRMA can batch-upload the taxa. To enter taxa, select “add” on the right side of the window and select “by searching taxa.” Then, search by entering the scientific name if that is provided in the document. If it is not, select “common names” and search using the common name. Once the appropriate species has been identified, select it by checking the box at the left of the species and select “add.” Repeat until all species have been added.

4.c.vii.1. Finished with the “taxonomy” tab

Click on the “save” button to save the metadata before moving onto the next tab.

4.c.viii. Enter metadata into the “cross-reference” tab

Select the “cross-reference” tab at the top of the pane to add any other documents related to the current document. If there are any documents that should be cross-referenced (there will not be

many documents that require cross-referencing because most documents will be tied together in other ways, usually by being tied to the same project), select “add” on the right side of the page, then code search. Enter the reference code for the reference to be cross-referenced, select the appropriate reference, and select add.

4.c.viii.1. Finished with the “cross-reference” tab

Click on the “save” button to save the metadata before moving onto the next tab.

4.c.ix. Activating the reference

After all of the metadata has been added (the file will be added later), select “activate” near the bottom of the page to finalize the reference. Note: Once a reference has been activated (by selecting the “active” button to save the reference), it cannot be deleted; it can only be inactivated, which is a soft delete.

4.c.x. Adding the document to the reference

Now that the metadata is complete, the document can be added to the reference. The first step is to determine the filename for the document:

4.c.x.1. Determining the filename for the document

The process for creating the filename is very specific as to keep a standardized format for the name of the files and to try to create the best type of filename.

- First, paste the citation from the reference into a Word document and add the reference code to the end.
- Then, delete all spaces and punctuation and capitalize all of the first letter of each word.
- Delete the year if it shows up more than once.
- Reduce the name as much as possible by abbreviating as follows:
 - Acadia National Park → ANP
 - Mount Desert Island → MDI
 - National Park Service → NPS
 - Saint Croix Island International Historic Site → SCIIHS
- If there are more than one file for a reference, add a short description before the reference code of the document (such as report, photos, appendices...).
- Try to keep the filename to a maximum of 120 characters. If it is longer, shorten the title.
- Some examples:
 - EmeryJC1996AnnualReportOnAirQualityInTheStateOfMaine2179097
 - NPSANP1970ResourceManagementPlanANP4Folder2179041
 - NPSANP1992ResourceManagementPlanANP5Folder2179040
 - AirResourceSpecialistsInc1990NPSVisibilityMonitoringAndDataAnalysisProgramSeasonalDataSummaryReportSpringReport2178629
 - AirResourceSpecialistsInc1990NPSVisibilityMonitoringAndDataAnalysisProgramSeasonalDataSummaryReportSpringAppendices2178629
- Once the filename is determined, change the actual filename on the Resource management

bibliography external hard drive to the new name.

4.c.x.2. Adding an external link

For some documents, mainly journal articles, the document is available online. Search online for the title of the document to see if it is available online. Some good resources to search are Google Scholar (scholar.google.com) and JSTOR (jstor.org). If the document is available online, the link to the document should be added to the reference:

- Select “add” on the right side of the page, then select “external link.”
- Paste the URL into the appropriate box. Make sure to use the most stable URL. For example, JSTOR has a stable link that may be different than the link in the address bar.
- Add a description that describes what the link goes to. For example:
 - Access to article via DOI (or other) subscription to JSTOR
 - The abstract is available. The full article can be purchased from Springer Link.
 - The full article is available by logging into the Geological Society of America Bulletin or purchasing it.
 - The abstract is available. The full article can viewed by purchasing or logging in.
- Once the link is added, complete all the steps in the **** section to***.

4.c.x.3. Adding a digital file

For the rest of the documents where the document is not available online, a PDF of the document will be uploaded to the reference.

- First, find the PDF that will be uploaded. It will likely be on the Resource Management shared drive under \Museum\RM BIBLIOGRAPHY - to be uploaded to IRMA.
- Note: Before the PDF is uploaded, make sure to delete the sticky note (that was placed on the PDF with the location, copyright, and sensitivity of the document) and save the document. The sticky note should not appear on the PDF that is uploaded to IRMA.
- Then, move the file to the appropriate folder (the folder of the first letter of the citation) on the Resource Management bibliography external hard drive. Then, add the information about the reference to the spreadsheet in the same folder that the PDF was added to (add the filename, reference code, sensitivity, copyright status, location of the printed copy of the document, and any notes about the reference or document).
- Then, select the “add” button on the reference page and select “digital file.”
- Select the PDF of the document.
- If the reference will have more than one digital file added, add a description of the individual file in the “description” section, such as report, appendices...

4.c.xi. Finalize the reference

Select “activate” to finalize the reference.

5. More helpful information

5.a. Editing a reference

When a reference needs to be edited to either fix incorrect metadata or to add or replace a file, select “actions” on the upper right side of the screen and select “edit.” Then, update the incorrect metadata or add/replace the appropriate file. Then, select “activate” at the bottom of the screen to save the information.

5.a.i. Changing a reference type

When editing a reference, sometime the reference type needs to be changes. One reason is because the original reference type was a published or unpublished report but there is a better reference type that is more specific. To change the reference type:

- Select “actions” and the “edit.”
- Then, select the “change type” tab on the far right.
- Select the new reference type and select “submit.” When changing the reference type, some information may be lost if it is a type of metadata for the original reference type but is not included in the new reference type.
- Then, to save the changes, select “activate.”

5.b. Fields appearing only in select reference types

Book place of publication	Field used in the book reference type. Bibliographic information for the location of where the book was published. Use the same format as "Place produced."
Book edition	Field used in the book reference type. Bibliographic information for the edition of the book. Use numbers to identify. Example: "9" for 9 th edition or "2" for 2 nd edition.
Book series title	Field used in the book reference type. Refers to the title of a book's series. Example: For the reference Peterson, Roger Tory and Margaret McKenny. <i>A Field Guide to Wildflowers of Northeastern and North-central North America</i> . The Peterson Field Guide Series. Boston: Houghton Mifflin, 1968. the book series title is The Peterson Field Guide Series.
Book series description	Field used in the book reference type. This is a one to five sentence description of the entire series. This may include a note about the other books in the series, how they are arranged, their scope, and their content.
Chapter page range	Field used in the book chapter reference type. The page numbers of the chapter or chapters in the book being referenced. Example: If a book chapter spanning pages 189 – 243 is being entered into the database, the chapter page range would be "189 – 243."
Chapter number	Field used in the book chapter reference type. The number of the chapter as identified in the book from which the book chapter is being referenced. Example: If a chapter is labeled as "Chapter 10" in a book, enter "10" in the chapter number field of the database.
City, State	Field used in the dissertation or thesis reference type. Refers to the location where the dissertation or thesis was completed. Use state abbreviation. Example: Bar Harbor, ME.
Completion date	Field used in the dissertation or thesis reference type. Date that the dissertation or thesis was completed.
Date of issue	Date that a reference was published or otherwise released for use.
Date of meeting	Field used in the conference proceeding reference type. The date or date range that the conference took place.
Issue	Field used in journal issue, newsletter issue, newspaper article, and map (labeled "Map issue ID") reference type. Not the same as date of issue. This is a number. The issue number is typically given on the document. For example, for a journal, issue number 3 is the third issue published that year.

Location emailed from	Location from which an email was sent. If it is clear that the email was sent from an NPS unit, enter the acronym for that unit. For Acadia National Park, use ACAD. For the acronyms of other parks, refer to the NPS unit filter on the IRMA Data Store search page to determine the acronym for a park or other unit. For emails sent from non-park locations, look at the document to see if there is a location listed by the author.
Place published	Field used in the conference proceeding reference type. This is the location of the publication.
Proceeding meeting location	Field used in the conference proceeding reference type. The physical location of where the meeting took place. Use the same format as the place produced field.
Report number/ID	Field used in the published report reference type. Many final reports published by the National Park Service list a report number. This will be found on the front cover of the bound final report. The ID consists of both capital letters and numbers. Enter as seen on the document. Example: NPS/NAROSS/NRTR-92/96
Special issue title	Field used in the journal issue and newsletter issue reference types. Refers to an issue of a periodical that is in addition to or in lieu of the regularly produced issues.
Table of contents	This is the entire list of a work's table of contents, usually found near the beginning of a work. Example of format: Abstract ... 5 1. Introduction ... 5 1.1 Overview and goals ... 5 For an example on IRMA, look at Thesis - 2183555.
Version	Same as edition. Usually used for datasets while edition is usually used for documents such as books or journals.
Volume	The same as the volume number listed on the periodical issue.

5.c. List of islands of particular interest to Acadia National Park

Babbidge Island (E of Northhaven, Easement)
Babson Island (S of Brooklin, Easement)
Baker Island (south of Cranberry Isles, partial ANP)
Bald Island (N of Vinalhaven, Easement)
Bald Porcupine Island (Frenchman Bay, ANP)
Bar Island (near Bar Harbor, partial ANP)
Bar Island (in Somes Sound, ANP)
Barred Islands (N of Vinalhaven, partial, Easement)
Bean Island (Frenchman Bay, Easement)
Bear Island (south of MDI, partial ANP)
Black Island (S of Bass Harbor, Easement)
Black Island (N of Swans Island, Easement)
Buckle Island (NW of Swans Island, Easement)
Buckle Island (SE of Stonington, Easement)
Burnt Island (N of IAH, Easement)
Butter Island (N of Vinalhaven, Easement)
Chatto Island (S of Brooklin, Easement)
Duck Island (NW of Swans Island, Easement)
Gooseberry Island (N of IAH, Easement)
Green Island (SW of Vinalhaven, Easement)
Great Spoon Island (E of IAH, Easement)
Greening Island (Cranberry Isles area, Easement)
Hardwood Island (W of MDI, Easement)
Hat Island (SW of Swans Island, Easement)
Heart Island (W of Deer Isle, Easement)
Heron Island (S of Swans Island, ANP)
Hog Island (Frenchman Bay, Easement)
Hog Island (S of Brooklin, Easement)
Ironbound Island (Frenchman Bay, Easement)
Johns Island (next to Opechee Island, Easement)
Jordan Island (Frenchman Bay, Easement)
Lamp Island (N of Swans Island, Easement)
Little Babson Island (S of Brooklin, Easement)
Little Duck Island (S of Cranberry Isles area, Easement)
Little Gott Island (S of Bass Harbor, Easement)
Little Moose Island (tip of Schoodic Peninsula, ANP)
Little Spoon Island (E of IAH, Easement)
Long Island (SE of Swans Island, Easement)
Long Island (SE of Blue Hill, Easement)
Moose Island (W of MDI, Easement)
Opechee Island (N of Swans Island, Easement)
Orono Island (N of Swans Island, Easement)
Pell Island (N of IAH, Easement)
Pond Island (W of Schoodic Peninsula, ANP)
Pond Island (N of Swans Island, Easement)

Pond Island (N of Vinalhaven, Easement)
Preble Island (Frenchman Bay, Easement)
Rolling Island (E of Schoodic Peninsula, ANP)
Round Island (N of Swans Island, Easement)
Saddleback Island (E of Stonington, Easement)
Schoodic Island (E of Schoodic Peninsula, ANP)
Scrag island (N of Vinalhaven, Easement)
Shabby Island (E of Stonington, Easement)
Sheep Island (E of Deer Isle, Easement)
Sheep Island (S of Little Deer Isle, Easement)
Sheep Porcupine Island (Frenchman Bay, ANP)
Spruce Island (SE of Stonington, Easement)
Sutton Island (Cranberry Isles area, Easement)
The Thrumcap (E of MDI, ANP)
The Hop (Frenchman Bay, ANP)
Torrey Islands (S of Brooklin, Easement)
West Sister Island (E of Swans Island, Easement)
Western Ear (south of Isle au Haut, ANP)
Wheat Island (N of IAH, Easement)

5.d. Create a project and add products to the project:

A project is a planned endeavor, usually with a specific goal accomplished, and accomplished in several steps or stages, that produces a variety of end-products. A project is a way to link IRMA references together that originated from a project that created different products. An IRMA reference can only be linked to one project. An example of a project and its associated references are the project “Carriage road censuses” and the products “Carriage road census data 1994, 1995-1997” and “Carriage road census data 2001-2002.” To see the project on IRMA, search the reference code 2202593. The project and products are linked together so that if someone finds one of the references, they can easily see that there are other references with similar information from the same project. There is a section on the reference profile for references that are linked to projects titled “Originating project” with the citation for the project which links to the project. On the reference page for projects, there is a sections titled “Products” which has information and links to the products linked to the project.

Once it has been decided that there are two or more references that need to be linked by a project, follow these steps to create a projects and then link the appropriate references to that project. The steps for creating a project are very similar to creating any other reference type; however, the project needs to incorporate metadata from two or more references instead of a single document.

Note: It is helpful to have all of the individual products open in browser tabs to reference while creating the project and linking the products.

5.d.i. Create a project

A project is a reference type, so create a reference and select “project” as the reference type..

5.c.i.1. Enter metadata into the “Core” tab

- Enter the “title.” This should be different than the individual product titles but similar. It should represent all of the products linked to the project.
- Enter the lead(s) of the project. In many cases, this will be the coordinating organization such as National Park Service, Acadia National Park.
- Enter the “project begin date.” This should be the earliest date from all of the individual products.
- Enter the “project end date.” This should be the most recent date from all of the individual products. If the project is not finished, leave this blank.
- Enter the “description.” The should be a description of the whole project.
- Add any notes to the “Notes” section. This includes a compilation of all of the study locations.
- After all of the information has been added to the “core” tab, select the “save” button to save the metadata before moving onto the next tab.

5.d.i.2. Enter metadata into the “permissions” tab

- Add all of the owners that were added to each individual product.

- Select the appropriate category on the “Sensitivity evaluation” section based on what the sensitivity of each individual product is. If any of the products are marked as sensitive, mark the entire project as sensitive and select the appropriate reason as to why it is marked as sensitive.
- Select the appropriate category on the “copyright” section based on what the copyright status of the individual products is.
- In the “quality evaluation” section, select the lowest quality from all of the individual products.
- Select the “save” button to save the metadata before moving onto the next tab.

5.d.i.3. Enter metadata into the “units and geography” tab

- Select “Acadia National Park” from the drop-down menu and click “Add unit.” If other parks or NPS units are mentioned in any of the individual products, add them as well.
- Select the “save” button to save the metadata before moving onto the next tab.

5.d.i.4. Enter metadata into the “subject and keywords” tab

- In the “freeform keywords” section, add all of the keywords from each individual product.
- Do not add any taxa as that information is already in the metadata for each individual product.
- Select the “save” button to save the metadata before moving onto the next tab.

5.d.ii. Add products to a project

Once a project reference has been created, products (existing references) can be linked to that project. It is easiest to link products to a project using the product’s reference code to ensure that the correct product is being linked to the correct project (many products for the same project have similar titles, so using the reference code eliminates the possibility of choosing the incorrect reference).

- Go to the reference page for the project. Select “edit” under the “actions” button. Click on the “products” tab.
- Select “code search” under the “add” button. Paste in the reference code and search. Select the appropriate reference(s) and select “add”.
- Then, “activate” the reference.