NPSPECIES



NPSPECIES USER MANUAL

Natural Resource Information Portal (https://nrinfo.nps.gov)

 $MAY 9^{TH}, 2011$

Amendment History

Rev	Description	Author	Date
3.0.0.1	Initial Draft	Loar	04/01/2011
3.0.0.4	Final draft	Loar	04/26/2011
3.0.0.5	Updated section 6.3 How to edit a Park-Species List.	Loar	05/09/2011

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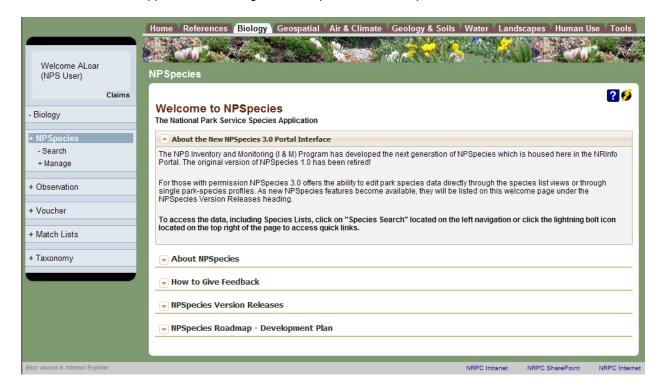
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Introduction

This document is the comprehensive guide to all of the functionality for the NPSpecies Application. It will be regularly updated as new functionality is added or changed. The glossary, data dictionary, and frequently asked questions may be found in the appendices of this document.

NPSpecies can be accessed from the NRInfo Portal at https://nrinfo.nps.gov/Home.mvc. Once here click on the Biology tab. All the biology applications will appear on the left navigation menu. Clicking NPSpecies on the menu will take you to the NPSpecies Welcome page. This Welcome page provides basic descriptive information about the application, including a Roadmap of future development.



2 NPSpecies Basics

National Park Service Natural Resource Challenge established in 1999 required a baseline inventory of all vertebrates and vascular plants in all national parks with significant natural resources. The database to house the park-species lists was to be NPSpecies. The first web-based NPSpecies application went into production in January 2000. NPSpecies began a complete redesign in 2007 and this next generation of NPSpecies replaced the original version in April 2011.

2.1 What is NPSpecies?

NPSpecies is the National Park Service's web-based application for documenting the occurrence and status of species in our national parks. Species information such as abundance, breeding status, nativity and management concerns (e.g., invasive, globally or regionally rare, state-listed species) are also included in this application.

The initial focus of the NPS Inventory and Monitoring Program was to populate NPSpecies with vertebrate and vascular plant data from a select group of 270 parks with significant natural resources although NPSpecies is designed to manage species information for all taxa and all parks in the National Park System. Today NPSpecies has species lists for over 300 parks and there are many species lists for groups other than vertebrates and vascular plants.

2.2 What is the scope of NPSpecies?

NPSpecies consists of these three core elements: 1) Park-Species Lists, 2) status of those species in the park, and 3) quality assurance certification process. These three core elements are the focus of this manual.

2.3 What are the supporting applications used with NPSpecies?

NPSpecies depends upon several other independent applications and they are:

- Unit stores all unit names and their relationships. Units include national park system parks, networks, regions, programs, and offices.
- Taxonomy stores all scientific and common names in addition to relationships between names.
- 3. Template and Reporting generates all data viewed in tables and supports the download mechanism for the data displayed in those tables.
- 4. Voucher stores the metadata associated with a voucher specimen.
- 5. Observation stores the metadata associated with an observation.
- 6. Reference stores the metadata and digital file associated with a document or data set.
- 7. Match List stores species lists from partner agencies and within the park service and simple metadata associated with those species for the purpose of displaying with park-species lists.
- 8. Identity Management stores minimal information about users and their permission to all applications on the NRInfo Portal.

For more information about these applications see their user manuals.

2.4 Who manages NPSpecies data?

NPSpecies Points of Contact (POCs) steward the data within NPSpecies. They may not enter the data themselves, however they do police who does data entry. POCs also coordinate the review of the data.

For data errors found in NPSpecies or questions about a species in a specific park, please contact the appropriate POC. Click here to locate the appropriate POC.

2.5 How were data entered?

Data within NPSpecies were entered various ways over the years. Some data were entered as a result of data mining books, reports, and data sets from historical records from the parks. Other data was entered as a result of targeted field inventories for particular groups of species.

As a result many species lists include historical taxonomy used at the time of the publication or specimen collection. During the review process these historical names, considered taxonomic synonyms, are associated with species names used at the park locale, referred to as the Park Accepted Name.

Status information for each park was then entered for Park Accepted Names only, to avoid replicate status information under multiple taxonomic synonym names. In some cases species were optionally linked to evidence (observations, vouchers, and/or references). These evidence categories serve to verify and validate the existence of species in individual park units.

2.6 What is the quality of the information?

A quality assurance (QA) process is in place to catch logical inconsistencies within NPSpecies. This official QA is conducted only on vertebrates and vascular plants at this time. However, no amount of QA can replace the

reality that the Natural Resource Challenge did not provide enough funding to produce the same level of data quality across all parks. You will see data gaps and errors. Please help us identify these data gaps and errors by contacting us by email at NRInfo Feedback@nps.gov.

2.7 What is the Quality Assurance Certification Process?

This is the basic quality assurance certification process:

- 1. A taxa expert reviews the species list for accuracy.
- 2. The species list is run through a series of checks for logical inconsistencies. Only after these checks pass the next step may begin.
- 3. The POC submits a certification submission form to the Natural Resource Program Center (NRPC) data manager. The content of this form is used to create a certification record that lists the park status fields being certified, the date of the certification, and who participated in the review process. If a certification is as a result of a new field inventory, park boundary change, or natural disaster, that information is also recorded.
- 4. The species list is then copied as a record of the data at the time of the certification.
- 5. Finally the species list is evaluated for its merits to become publically accessible.

This QA Certification process only applies to vertebrates and vascular plants at this time. However, there is a need to also evaluate species lists for other taxonomic categories. The information that results from the certification process is based upon the premise that the information is current, complete and accurate to the best knowledge of the reviewers at the time of the review. Because NPSpecies is a dynamic database which will continue to be populated into the future, it is necessary to document when, and which data have been reviewed for completeness and accuracy so that users can qualify the use of the data for scientific, management and interpretive purposes.

In order to maintain information in such a dynamic system, data need to be entered and reviewed on an intermittent or periodic basis. At minimum, a certification will be completed after the first formal review of park species list. Review is done by taxonomic category and includes a review of the park status values recorded for each species on the list. The need for subsequent reviews and certification will vary depending on changes to park boundaries, man-made or natural events affecting biodiversity, and the extent of data added or edited after the time of the previous review.

2.7.1 Implementation of Original QA Certification Guidance

The original QA Certification guidance given included a lofty goal and in some cases produced very accurate results. However, in many cases parks simply did not receive enough funding to conduct field inventories needed to produce current, complete, and accurate species lists. You will see data gaps and errors. Please help us identify these data gaps and errors by contacting us by email at NRInfo_Feedback@nps.gov.

2.8 Why do some fields have Not Applicable (NA)?

Many fields in NPSpecies are dependent on the values of other fields. For instance, in order for a value to be applicable in the Occurrence field the park species record must be a Park Accepted Name. In other words, there is no need to fill out the same Occurrence value for species considered a taxonomic synonym to the scientific name representing that organism in the park. For more detailed information on these dependencies please review the NPSpecies Data Dictionary in Appendix B of this manual. Where possible always look for the park status values associated with the Park Accepted Name.

In addition some park status fields were designed for a particular taxonomic group, for example Residency is for animals only, and therefore plants will have a Residency value of Not Applicable (NA).

2.9 Protecting Confidential Species

Some species are so rare or are so heavily exploited that they require extra protection in NPSpecies. When a species is marked as confidential their data stewards are indicating that their very existence on a species list is sensitive.

2.9.1 Who can see confidential species?

This depends on two factors: authentication and permissions. Authenticated users are those that the system recognizes (i.e. NPS Active Directory users). Permissions give a user the ability to take particular actions within the system (i.e. edit data vs. read data).

Available April 2011

All editors, POCs, and NPSpecies Administrators will be able to see confidential species in their parks by default. No authenticated readers may see confidential species. Unauthenticated (i.e. general public) readers will not be able to see confidential species.

Available summer 2011

All editors, POCs, and NPSpecies Administrators will be able to see confidential species in their parks by default. Only specified authenticated readers may see confidential species. Unauthenticated (i.e. general public) reader will not be able to see confidential species.

When POCs assign permissions for editors and specific authenticated readers the POCs have the opportunity to provide those users special instructions as to the appropriate use of those confidential data and restrictions of those data. If POCs did not explicitly give permission to users they would not have this ability to inform users of their procedures.

2.10 Data Use and Liability Disclaimer

NPSpecies provides information on the presence and status of species in our national parks. Although the data have been reviewed using the best information available at the time of disclosure, these species lists are not exhaustive (e.g., the absence of a species from a list does not necessarily mean the species is absent from a park). Varying degrees of effort spent surveying species or mining historical reference information may have resulted in data gaps. Also, please be aware that taxonomy for species changes over time and information may be listed under a different species name.

The National Park Service shall not be held liable for improper or incorrect use of the data described or contained herein. These data are not legal documents and are not intended to be used as such. The information contained in NPSpecies is dynamic and may change over time. It is the responsibility of the data user to use the data appropriately and in a manner consistent with data's limitations.

The National Park Service gives no warranty, expressed or implied, as to the accuracy, reliability, or completeness of the information in NPSpecies. It is strongly recommended that these data be acquired directly from an NPS server or source and not indirectly through non-National Park Service sources.

3 Generating Reports in NPSpecies

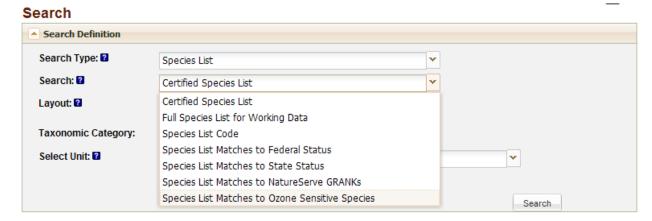
NPSpecies uses reports to output various information in a read-only format. The NPSpecies Search page is made of two main sections: 1) search parameters and 2) search results. The search parameters define what search is being performed, including any user defined parameters to further refine the search. The search results section is where the results are displayed. In many cases the results may be downloaded.

The Search Results panel displays the report content based on the type of Search and Layout selected in the Species Search. Each layout has a basic structure, including a section for the Search Criteria Definition and the Search Results. Search Criteria Definition displays the search parameters chosen to filter the record set. The Search Results section displays title, subtitle, date report was created, disclaimer, download options, and a table with the report results. Both title and subtitle are editable. To view the header information or sorting options click on the arrow next to the sections "Notifications", "Report Header", and "Multiple Column Sorting Options".

3.1 What are the available reports?

The various reports available are described below, including any built in parameters.

3.1.1 Park-Species Lists



Certified

Certified Species List search only finds Park Accepted Names in a Unit for the latest Certified species list where at least Park Accepted Status and Occurrence fields have been certified. Certified workbenches are those whose data were frozen after the certification took place. Lists will be based on data taken as a snapshot at the time of the certification. Taxonomic category options for this species list include only Mammals, Birds, Fish, Reptiles, Amphibians, and Vascular Plants.

Full Species List for Working Data

Full Species List for Working Data search finds all Scientific Names in a Unit regardless of Park Accepted Status for a work-in-progress workbench. This search may return species list information for categories that were not certified (such as insects, non-vascular plants, etc.) and include scientific names at a higher taxonomic rank than species. Future releases will enable you to select from different versions of a workbench and not just work-in-progress workbenches.

Species List by Code

The Species List by Code search finds a single species list. The species list returned may be either a work-in-progress or certified species list for a particular unit and taxonomic category. This search is used internally by the system when a Manage Species List action is taken. See the Editing Data in NPSpecies section in this manual (6.1) for details.

Park-Species Lists with Matches to USFWS Endangered Species Act Listings

Species List with Matches to Federal Status search finds any Scientific Names in a Unit regardless of Park Accepted Status for a work-in-progress workbench and returns only those that have a match to any United States Fish and Wildlife Service (USFWS) Federal Listing Status.

Park-Species Lists with Matches to State Species of Special Concern

Species List with Matches to State Species of Special Concern search finds any Scientific Names in a Unit regardless of Park Accepted Status for a work-in-progress workbench and returns only those that have a match to any state species of special concern.

Park-Species Lists with Matches to NPS Ozone Sensitive Species

Species List with Matches to Ozone Sensitive Species search finds any Scientific Names in a Unit regardless of Park Accepted Status for a work-in-progress workbench and returns only those that have a match to an Ozone Sensitive Species.

Park-Species Lists with Matches to NatureServe Global Conservation Ranks (GRANKs)

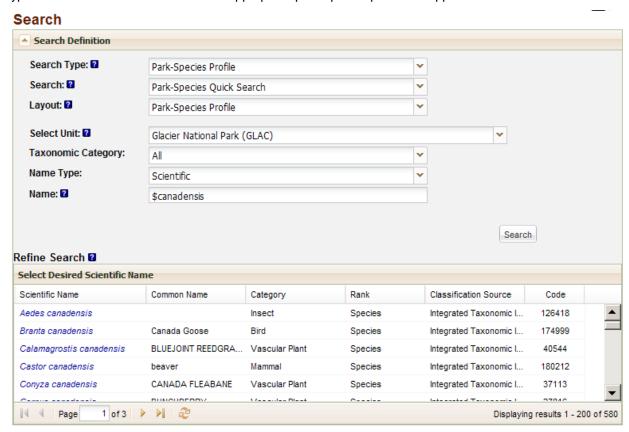
Species List with Matches to NatureServe GRANKs search finds any Scientific Names in a Unit regardless of Park Accepted Status for a work-in-progress workbench and returns only those that have a match to any NatureServe Global Conservation Status Rank.

3.1.2 Park-Species Profiles

Park-Species Quick search presents options for finding a particular organism based on the type of name, such as scientific or common name, or the taxonomic category and a park.

The Name text box is required for narrowing the search for a species and is for typing in part of or an entire common or scientific name. There are many operations that can be used to narrow your search. See the Search Tips and Tricks section for instructions using enhanced text searching in this text box.

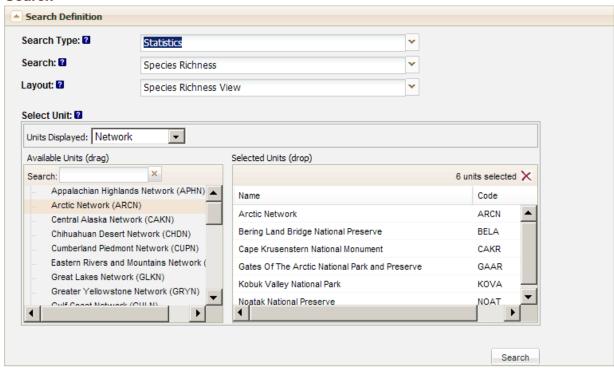
When you search on a name there may be many names that meet the criteria, so a list of name options are listed from which one may be chosen, as shown below in the Refine Search table. By clicking on the hyperlinked scientific name in the list an appropriate park-species profile will appear on the next screen.



3.1.3 Species Richness

Species Richness search results are a count by taxonomic category of the number of Park Accepted Names that are Present in Park or Probably Present in the units selected for only taxonomic categories that have been certified. For example, if *Canis lupus* is the Park Accepted Name for multiple units selected, then *Canis lupus* will only be counted once.

Search



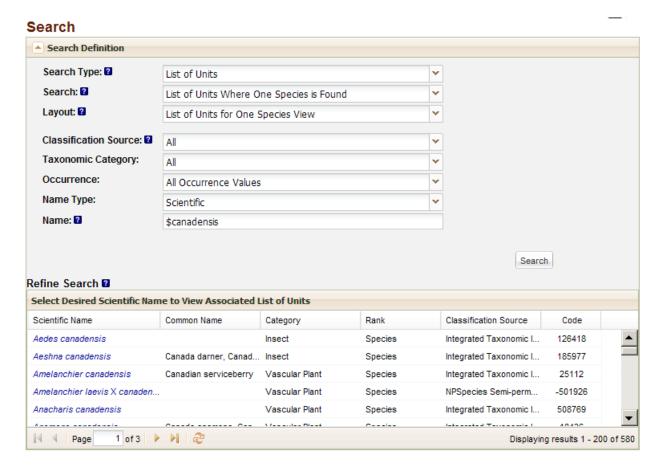
3.1.4 What parks have species x?

List of Units search results in a list of all units for which a single species is found.

The Name text box is required for narrowing the search for a species and is for typing in part of or an entire common or scientific name. See the Search Tips and Tricks section for instructions using enhanced text searching in this text box.

When you search on a name there may be many names that meet the criteria, so a list of name options are listed from which one may be chosen, as shown below in the Refine Search table. By clicking on the hyperlinked scientific name a list of units where that species is found will appear on the next screen.

Be advised that this report only returns the exact scientific name selected if that name is on a park-species list. It does not intelligently determine if other scientific names are used by parks that are taxonomic synonyms of the name you select. Therefore, you may not see the information that you are expecting. NPSpecies will only have information for what is called a Park Accepted Name. If a park doesn't use the scientific name that you selected as its Park Accepted Name, then the results will not include this species or the Occurrence, Abundance, Residency, Nativity, and Cultivation values may be listed under a different scientific name.



3.2 How do I generate a Park-Species List or other report?

- 1. Click on "Search" in breadcrumb at upper left corner of page.
- Select a Search Type (i.e. Species List), Search, Layout and other search criteria.
- 3. Click Search button.

3.3 How do I run another report?

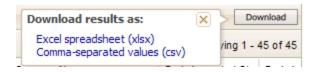
Once you have run a report and you are ready to run another one select the Expand Panel to Revise Search Definition at the top of the page. You do not need to click the internet browser's back button. Revise your search criteria and click the 'Search' button again.

Search

Expand Panel to Revise Search Definition

3.4 How do I download a Park-Species List?

- 1. First you must execute a search and return results. See 'How do I generate a Park-Species List' as an example.
- 2. To access the download options click on the 'Download' button icon in the upper right corner of the results table.
- To download the results click on one of the download options in the list that displays to save results to a file.
- 4. Select open or save to save this file on your computer.

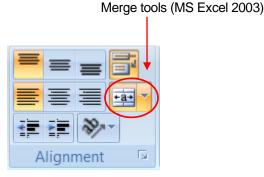


3.5 How do I print a Park-Species List?

To print a Park-Species List you must first download the list into MS Excel or similar application and then print using MS Excel. It is advisable to format the file prior to printing to meet your needs, such as setting up the page orientation, adjusting column widths, wrapping disclaimer text. For more help using MS Excel, please refer to the Microsoft website.

3.5.1 How do I wrap the disclaimer text?

- 1. Once the downloaded file is in MS Excel, determine the width of your printed page (i.e. set up your page orientation first; see below Columns B-J).
- 2. Highlight those columns and merge the cells (Home, Alignment, Merge Across)
- 3. Adjust the height of the disclaimer's row
- Adjust the alignment of the disclaimer (i.e. select cell, Format cells...,Alignment tab Horizontal Left(Indent))



D 1 Title Certified Species List for Mammals in Abraham Lincoln Birthplace National Historical Park 2 Date Created April 21, 2011 3 Date Certified Mammal = February 27, 2007 Disclaimer This list includes all the species that have been documented within the park. Absence of a species from the list does not necessarily indicate its absence from the park, since it is possible that formal census techniques targeting rare, unique, cryptic or seasonally present species were not used. Species on the list are recorded using park-accepted scientific names that have been quality-checked and certified by subject-matter experts. The Occurrence field has also been reviewed and certified by experts. Common names are based on the park's preferred common names list if available, or else from the Integrated Taxonomic Information System (ITIS). Order Family Scientific Name Abundance Residency Nativity Category Common Name Mamma Artiodactyla Cervidae Odocoileus virginianus white-tailed deer Present in Park Common Breeder Native Present in Park 8 Mammal Carnivora Canidae Canis latrans Common Breeder Unknown NA coyote Mammal Carnivora Canidae Urocyon cinereograenteus common gray fox Probably Present NA NA Native NA 10 Mammal Carnivora Canidae Vulpes vulpes red fox Present in Park Rare Breeder Unknown NA

4 Search Tips and Tricks

4.1 Enhanced Text Searching

Enhanced text searching is available for some applications in the portal as well as for some web services. With enhanced text searching, input of text as part of a search has certain default behavior. The default search behavior has these elements:

- Searches are case-insensitive.
- Searches are for whole word matches only.

- Extra white space (before, after and between words) does not affect the search results.
- All words entered will be required to be present in the field being searched (equivalent to an AND search).

The search operators (special characters) in the table below can then be used to modify the default search behavior in the portal.

Name: 2

Operator	Description	What it does	Examples	Tips for portal use
*	Wildcard	Substitutes for any number of characters, including spaces, punctuation or zero characters	*alces alce* al*es	Can be used before, after, or in the middle of a search string. Search strings of few letters, beginning with the wildcard (for example, *us) may be unsuccessful because of long processing time.
?	Single character wildcard	Substitutes for exactly one single character, including a space or punctuation (but not zero characters)	al?es ?lces alce?	Can be used before, after, or in the middle of a search string.
" "	"Phrase search"	Retrieves two or more words in the order specified.	"canis lupus alces"	Wildcards may be used within quotes, but may not return intended results.
۸	Field starts with	Requires that the field must start with the specified text string	^canis ^canis* ^"canis lupus"	Use of ^ directly followed by * is not recommended because results are then no longer restricted to the first word in the field (e.g. ^*ruba)
\$	Field ends with	Requires that the field must end with the specified text string	\$canadensis \$*upus \$"alces gigas"	Use of the \$ operator with a text string ending with a wildcard is not recommended because then the results are not limited to the last word of the field (e.g. \$alu*)
=	Entire field exactly matches	Requires that the field must exactly match the specified text string	=lontra ="lontra canadensis"	Do not use the wildcard or the question mark with the = operator. Must use quotes for a phrase.
-	Minus sign (NOT operator)	Excludes a word from the search results	canis -lupus canis NOT lupus	Either the minus sign or the text equivalent <i>NOT</i> may be used. The minus sign must appear immediately before the word to be excluded and be preceded by a space (otherwise it will

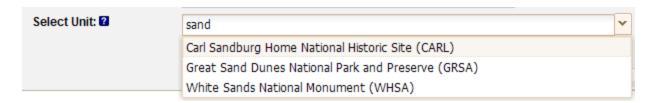
				be interpreted as a hyphen).
I	Pipe character (OR operator)	Changes the default search from AND to OR	deer elk deer OR elk	Either the pipe character or the text equivalent <i>OR</i> may be used.
()	Parentheses to order the evaluation of search terms	Forces a group of terms to be evaluated together	canis (albus alces) canis (albus OR alces)	Use with the pipe character (OR operator)
\	Escape character	Removes the operator functionality from a special character	Tinodes provo Ross \& Merkley	Use immediately before a special character
Complex	May combine operators for a very specific search		^lontra (\$sonora \$lataxina)	Some combinations of operators may not make logical sense, so use carefully.

Other tips:

- Searching for common words such as 'in', 'the', or 'of' may give incorrect results. Use quotes for a text string that includes common words.
 - o Example: Search for Jack in the Pulpit by entering "jack in the pulpit" or just enter jack pulpit
 - o Example: Search for Star of India by entering "star of india" or just enter star india
- You may enter parentheses that are part of a name. Parentheses as part of the text string, without the OR operator, will be treated as regular text. However, it is not necessary to include the parentheses.
 - o Example: Entering Aradus (Quilnus) will give the same results as Aradus Quilnus
- Punctuation (such as periods, commas or hyphens) does not need to be entered in the text string to get the correct results.
 - o Example: Entering Abies var. will give the same results as Abies var
 - Example: Entering Alces Gray, 1821 will give the same results as Alces Gray 1821
 - Example: Entering black-footed ferret will give the same results as black footed ferret
- A possessive form of a name should be entered using the apostrophe.
 - Example: Search for Nava's wren by entering Nava's wren
- Some other special characters in the data may give incorrect results. In most cases, a search will be more efficient without the inclusion of these characters in the text string. The escape character \ as described in the table above may also be used.
 - Example: Search for Tinodes provo Ross & Merkley, 1950 by simply entering Tinodes provo Ross Merkley
 - Example: Search for Tinodes provo Ross & Merkley, 1950 by entering Tinodes provo Ross \& Merkley

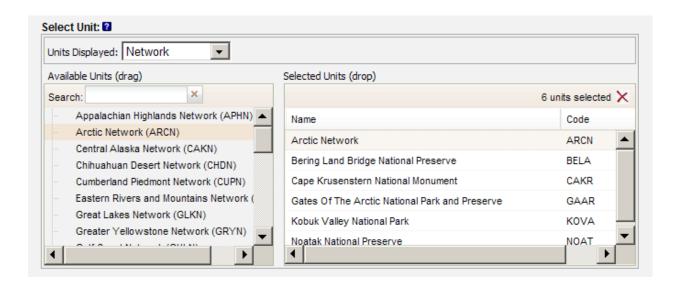
4.2 Single Unit Selector

The single unit selector (simple drop down menu) allows you to choose a single unit to be included in a set of search criteria. You may start typing a Unit Name or Code and the drop down list will be filtered to those that match.



4.3 Multiple Unit Selector

The multiple unit selector allows you to select more than one unit to use as criteria in your search. The left side of the multiple unit selector contains the units to select from. The multiple unit selector also has a blank box on the right side. This is where the names of the units defined as search criteria will be displayed.



Units Displayed (pull down menu)

The Units Displayed pull down menu allows you to choose the type of administrative unit to display in the list below. The options are Park (default), Network, Region, Office or All.

Search (text box)

You can narrow down the list of units displayed by typing a word or partial word in the Search text box. As you type, the list of units will get shorter and only units that have the word or partial word you have typed display. Keep in mind if you type "roc", you will not only get units that start with "roc" but any unit that has the letters "roc" found together in the name of the unit.

Display Options

Some versions of the multiple unit selector allow the values in the selector to display additional information.

Plus Sign Next to Unit Names

Any unit that has linked parks will have a plus sign next to its name in the selector list. Clicking on the plus sign will expand the linked park list so that the parks can be viewed. If Networks or Regions are chosen as the units to be displayed, clicking on the plus sign will reveal the list of parks included in the network or region.

Selecting Units:

To select a unit, click on its name in the left side of the selector and drag it to the empty box on the right side. The unit name you clicked and dragged will now appear in the right list box. Click and drag as many unit names as you would like to include in your search. Hold down the control key to choose multiple units at one time.

Unselecting Units:

Units can be removed from your search criteria by selecting them in the right hand (Selected Units) box and dragging them back to the left hand (Available Units) box. To unselect multiple units you can hold down the control key and select the units you would like to unselect, let go of the control key and then drag them back to the left hand box. You can also remove all the selected units by clicking on the red X in the upper right hand side of the Selected Units box.

Examples:

Search for the Species Richness for the Arctic Network:

Units Displayed: select 'Network'

Search: leave blank

Click on Arctic Network (ARCN) and drag it to the right hand Selected Units box.

NOTE: This example use all parks with NPSpecies data linked to the Arctic Network in the Species Richness search.

5 Table Results Tips and Tricks

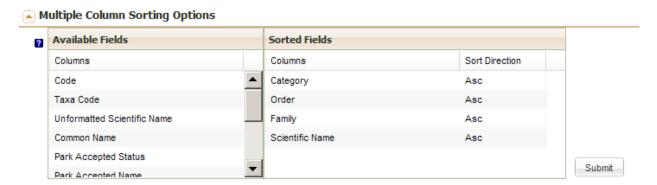
5.1 Multiple Column Sorting Tool

When entering the results page, by default Species Lists are sorted ascending by Category, Order, Family and then Scientific Name. The list of units where a particular species occurs is sorted ascending on Unit Name by default.

In the Multicolumn Sorting tool the Available Fields box displays the columns available in the Layout selected. To select fields to sort, drag from the Available Fields box to the Sorted Fields box. To remove items from the Sorted Fields box, drag unneeded columns back to the Available Fields box.

The order in which fields display in the Sorted Fields box determines the sort order of the fields selected. To change the order in which columns are sorted click and drag column labels up or down to change the sort order. To change the sort direction, double click on the Sort Direction column and select a new sort direction (i.e. Ascending or Descending) in the dropdown menu that appears.

When this Multiple Column Sorting tool is present on a results page the single column sorting options in the results grid are disabled and this tool must be used for all sorting.



5.1.1 How do I sort by only one column?

Follow these directions when you want to sort by only one column.

- 1. First, drag fields from the Sorted Fields box to the Available Fields box that you do not want sorted.
- 2. Next, find the column you want sorted in the list of columns under Available Fields.
- 3. Then, drag the column to be sorted from the Available Fields box to the Sorted Fields box if it is not already there.
- 4. To change the Sort Direction, double click on Sort Direction column and choose either Ascending or Descending from the dropdown menu that appears.
- 5. Click the Submit button to see the changes reflected in the results grid.

5.1.2 How do I sort by more than one column?

Follow these directions when you want to sort by more than one column at once.

- 1. First decide which columns you want to sort by and in which order.
- Next, drag the first column to sort by from the Available Fields box to the Sorted Fields box.
- 3. Then, if necessary change the Sort Direction by double clicking in that cell to activate a dropdown of choices (i.e. Ascending or Descending).
- 4. Repeat the steps above till you have listed all the columns you would like to sort by.
- 5. Click the Submit button to see the changes reflected in the results grid.

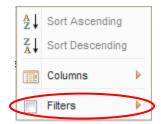
5.2 Grid Filtering

Grid filtering allows the table results to be further refined or filtered based on values specified. This type of refined filtering is only available for Species Lists at this time.



5.2.1 To activate a grid filter:

- 1. Hover over the column header of interest
- 2. Left click on the down arrow that appears to the right of the column label
- 3. If grid filtering is available for the selected column an option of Filters will be available in the menu
- 4. Click the arrow to the right of the Filters option
- 5. Then checkmark or fill in the values to filter the table results



5.2.2 To turn off a single column grid filter:

- 1. Hover over the column header of interest
- 2. Left click on the down arrow that appears to the right of the column label
- 3. Uncheck the box to the left of the Filters option.



5.2.3 To turn off all grid filters

Click the Clear Filters link in the table. If the Clear Filters link is disabled, then no grid filters are currently activated.



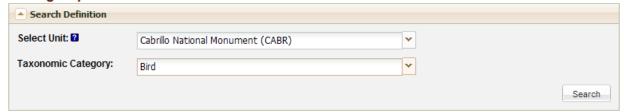
6 Editing Data in NPSpecies

In NPSpecies there are various components to manage, including editing species lists, managing permissions for users, importing data sets, and etc. The manage page provides access to these management functions.

6.1 What is the Manage Species List menu option?

To edit a species list go to the Manage page and click on Manage My Species Lists. Select a park and a taxonomic category all species lists for those criteria will display, including all past certification snapshots and the current working species list. Future versions will enable access to imported species lists and sandbox species lists.

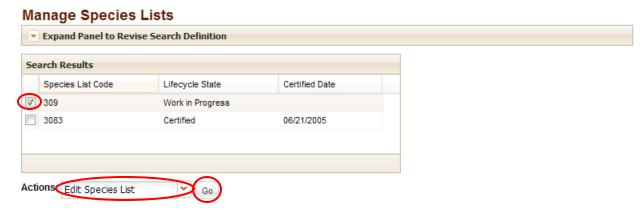
Manage Species Lists



Once the results table of species lists display actions on the species lists may take place, such as editing or viewing a species list. Future actions from this page include merging the working species list with an imported species list and initiating the QA Certification process for a species list.

To edit a species list, select the box to the left of work in progress species list, then select Edit Species List in the Actions dropdown, then click the Go button to execute.

To view a species list, select the box to the left of any species list, then select View Species List in the Actions dropdown, and to execute click the Go button

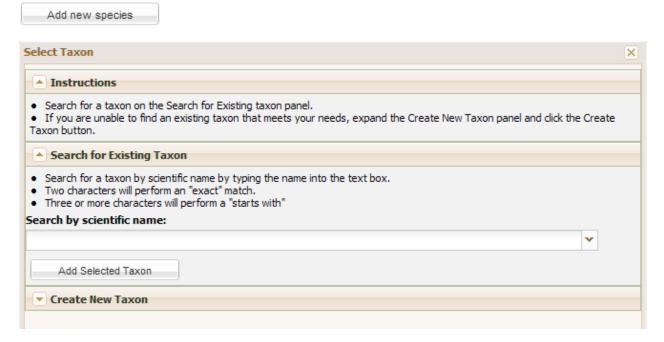


6.2 How do I add a species to a Park-Species List?

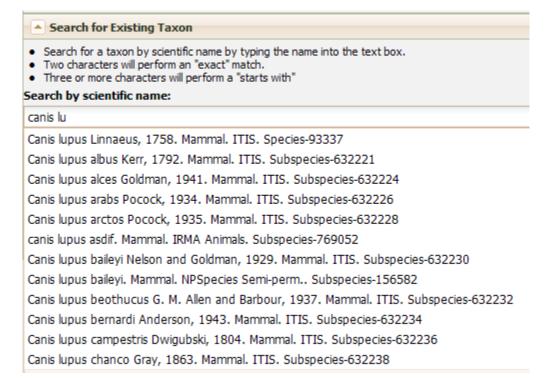
To add a species to a species list, first follow the instructions above to open a work in progress species list to edit. Click the Add New Species button at the bottom of the species list table. This will prompt a wizard for you to use an existing taxon in the Taxonomy application or create a new one, then add that taxon to the species list. Once the wizard has been completed a new row will appear with the taxon you selected (including Category, Order, Family, Scientific Name, and Common Name), then any NPSpecies information will need to be entered using the "How to Edit a Species List" instructions.

6.2.1 Add New Species button

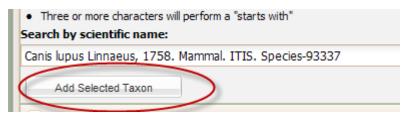
By clicking on the 'Add New Species' button, you initiate a popup for selecting a taxon to add.



This popup contains three collapsible panels, with the first two being expanded. In most cases, the taxon is likely to already exist in our system. Therefore, you should always search for the taxon by scientific name to see if it already exists within the application. By typing in at least three letters, you initiate a search for names that begin with the specified text that you entered. A list of possible results is returned in the dropdown. This list will narrow as you continue to type.

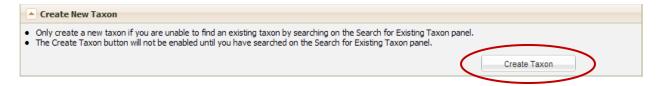


There will often be a number of taxa to choose from. When in doubt, add the taxon at the top of the shortlist since we have the ITIS accepted species sorting to the top.



If, after searching for a taxon, you discover that it does not exist, your other option is to create a new taxon. If you decide to go this route, please click the Create Taxon button in the Create New Taxon panel and see the help provided here:

https://nrinfo.nps.gov/Help.mvc/ShowPageContent?realm=Primary&domain=Biology&path=Taxonomy.Create



6.3 How do I edit a Park-Species List?

First open a species list to edit through Manage My Species Lists. In the species list table click on a cell for an editable column and change its value. Your changes are saved to the database as you make modifications, therefore there is no Save button on this screen. After changing a value for a cell you must click anywhere else on the screen for the edit to take place. Caution: There is no undo feature at this time. Future versions will allow for an undo option. Prior to editing your park-species list you can download the table view to MS Excel. To do

this run a Full Species List for Working Data report, select the proper park, category, and layout, then click search button. Finally click the download button. For assistance see How to Download in section 5.4 in this document.

6.3.1 Editable columns by Layout

- Park Status View: Occurrence, Abundance, Residency, Nativity, and Cultivation
- Management Fields View: Weedy, Pest, Management Priority, and Exploitation Concern
- Park Classification View: Park Accepted Status (assignment of Park Accepted Name is done either automatically by the application or through a popup window depending on the type of Park Accepted Status change being made)

6.3.2 Details and Data Source long text fields

These editable columns have details and data source comment fields associated with them.

- Park Status View: Occurrence, Abundance, Residency, Nativity, and Cultivation
- Management Fields View: Weedy, Pest, Management Priority, and Exploitation Concern
- Park Classification View: Park Accepted Status

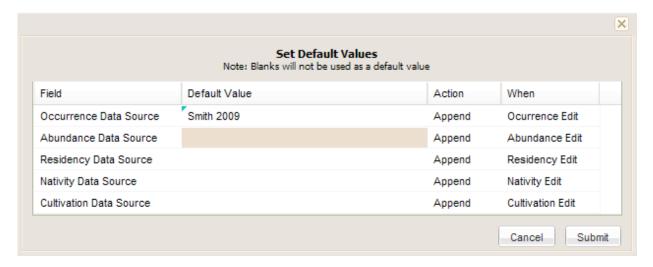
These long text fields are not displayed in the table, but rather in popup windows. To access and optionally edit associated comment fields, click on an editable cell to activate the "+" icon, then click on this "+" icon. A popup window with the details and data source associate with the column will display. You may edit these fields by typing in them, and then click the "Submit" button to save your edits to these text fields.



6.3.3 Set Default Values

Before you begin editing a species list you may optionally set default values for the data source for one or many editable columns. If you set a default value, as you make changes to the species list column values the default text will be applied automatically to the data source field. This will save time if all your edits are based on the same data source for a column or set of columns being editing. Click the Set Default Values button at the

bottom of the species list table to activate a popup window where you can enter default text to either append or replace existing data source content. We recommend you spot check the data source values for records you change to determine those values are modified the way you intended.



6.4 How do I edit a Park-Species Profile?

Park-Species Profile displays detailed information about one species on a park-species list. The profile definition section at the top of page indicates the particular Park-Species Profile being displayed. Content of each tab is presented below. While in a Park-Species Profile, click Edit Profile link to switch to edit mode. To edit the Park-Species profile, go to each tab and modify the information, then click the Save Edits to Profile button at the bottom of the page to save your changes (edits to a Park-Species Profile are not saved as changes are made as they are in the species list edit mode).



6.4.1 Taxonomy Tab

Taxonomy tab displays information about taxonomy of species chosen, such as its taxonomic authority, classification source, taxonomic hierarchy, and associated names. Only Park Preferred Common Names may be added or removed in this tab. Any edits to the Taxonomy record should be made through the Taxonomy application.



Click the 'Add/Remove Park Preferred Common Names' button to access the window above.

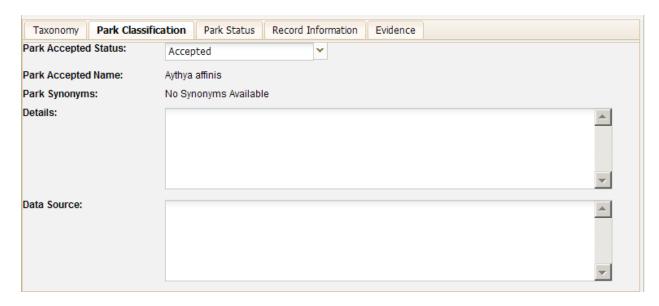


- To add a common name, type the name in the Park Preferred Common Names text box, then click the 'Add Common Name' button. The common name will be added to the table.
- To remove a common name, select the 'delete' action in the table for the common name you want to remove.
- To update the spelling of a common name in the table, please remove the incorrectly spelled common name and add a new common name that is spelled correctly.

Once you have completed adding/removing common names click the 'Submit' button. You will be returned to the Park-Species Profile edit page to continue making changes to the Profile.

6.4.2 Park Classification Tab

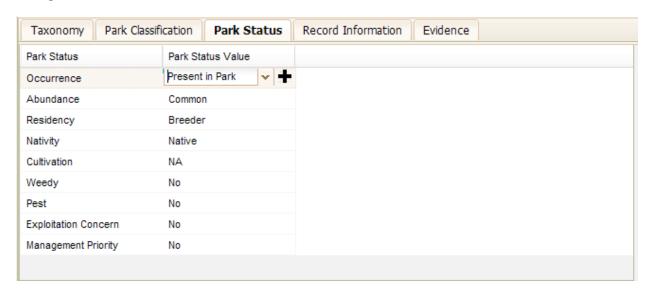
Park Classification tab displays information on Park Accepted Status, Park Accepted Name, and any associated names assigned by park (database artifacts, synonyms, etc). To modify the Park Accepted Status, select another option in the dropdown menu. Assignment of Park Accepted Name is done either automatically by the application or through a popup window depending on the type of Park Accepted Status change being made. Any comments associated with the Park Classification can be entered into the Details and Data Sources fields.



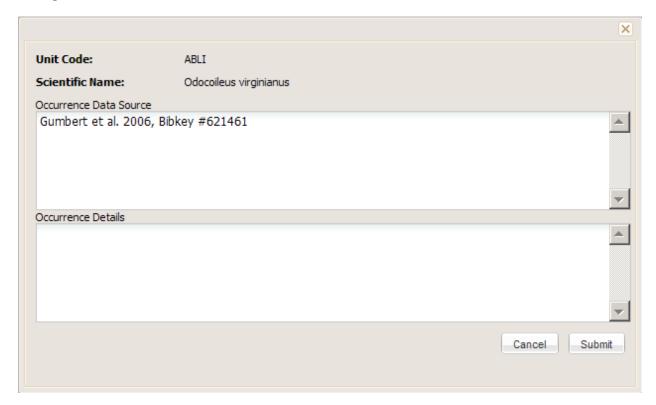
6.4.3 Park Status Tab

Park Status tab displays all Park Status and Management fields, and their associated values for species chosen in relation to park selected. To modify the Park Status Information, select the Park Status value cell for the Park Status Attribute to be modified and select another value in the dropdown menu. Click on the associated "+" icon to the right of the dropdown menu to modify any associated details or data source information.

Editing the Park Status values:

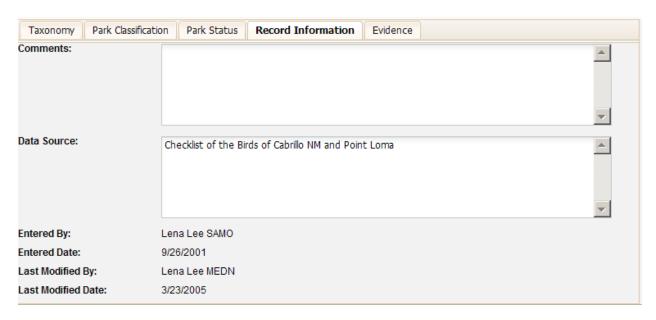


Editing the Details and Data Source for a Park Status Field:



6.4.4 Record Information Tab

The record information tab includes general comments and data source for the profile, including who and when the record was created and last modified. Entered By and Last Modified By are completed by the system as records are created or edited.



6.4.5 Evidence Tab

Park-Species Profiles may have links to observations, vouchers, or references. All of these evidence categories serve to verify and validate the existence of plants and animals in individual park units. Select the evidence type to view details about the existing links to those respective evidence records and to add or remove links to evidence records.

Visibility of Evidence

Some observations, vouchers, and references may not display due to the sensitivity or lifecycle state of those records in the sister applications (i.e. References in the draft state are not visible to anyone but their owner).

Observations with the following attributes will be visible:

- Lifecycle of Active, Legacy, Inactive, and Draft
- Sensitivity of Sensitive, Non-Sensitive, and Authorized Access Only if you have permission to see these

Vouchers with the following attributes will be visible:

- Lifecycle of Active, Legacy, Inactive, and Draft
- Sensitivity of Sensitive, Non-Sensitive, and Authorized Access Only if you have permission to see these

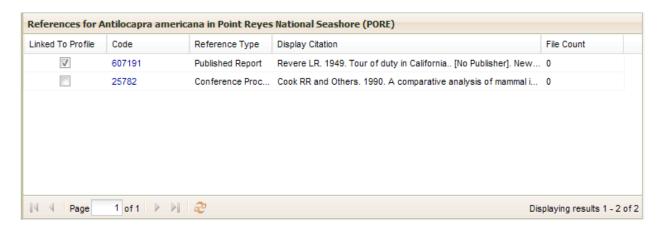
References with the following attributes will be visible:

- Lifecycle of Active, In Review, and Inactive (Quarantined will not and Draft will not, unless you happen to own the Reference.)
- Sensitivity of Sensitive, Unknown and Non-Sensitive
- Quality of High, Medium, Low, Poor and Unknown
- Proprietary Evaluation of Proprietary/Copyrighted, Non-proprietary, and Unknown
- Unit links of Approved and Pending (Denied will not)

Linking and Unlinking Evidence to NPSpecies Park-Species Profiles

The table below will display both those evidence records that are already linked and those that are not yet linked to the Park-Species Profile. Those that are already linked will have a checkmark in the Linked to Profile column and those that are not yet linked will have an empty checkbox.

To link evidence, checkmark the Linked to Profile checkboxes for the evidence records you want to link. To unlink evidence, uncheck the Linked to Profile checkboxes for the evidence records you want to unlink.



Unlinking evidence does not remove or delete the evidence records themselves. If you want to delete them, click on the hyperlinked Code value to open the record in the Observation, Voucher, or Reference application and follow the instructions in those applications for removing records (i.e. set the lifecycle state to Inactive). It is recommended, but not required, that you first unlink the unwanted evidence from the Park-Species profile if you are going to remove records.

Adding New Evidence

It is very important that when you want to create new evidence, that you first search for the record you are about to add to see if it already exists to avoid duplicating evidence records.

Add New Observation button - The Observation application will open, create an Observation, then
come back to this Park-Species Profile and click the Save Edits to Profile Button. Click Edit Profile to
link newly added Observation.



 Add New Voucher button - The Voucher application will open, create a Voucher, then come back to this Park-Species Profile and click the Save Edits to Profile Button. Click Edit Profile to link newly added Voucher.



 Add New Reference button - The Reference application will open, first search for the Reference and create a Reference if necessary, add taxon and unit links there, then come back to this Park-Species Profile and click the Save Edits to Profile button. Click Edit Profile to link newly added Reference.



6.5 How do I delete a species from a Park-Species List?

To remove a species from the species list you must first click on the scientific name to access the Park-Species profile for that species. Review the Park-Species profile to ensure the removal of the correct species record, and then click the Delete Profile button. You will be prompted to confirm the removal before that actually happens.

Delete Profile

7 Visibility of NPSpecies Data

7.1 Authenticated vs. Unauthenticated Users

Authenticated users are those that are recognized by the NRInfo Portal. Unauthenticated users are those that are not recognized by the NRInfo Portal. Authenticated users are those using an NPS computer and may have elevated permissions to take particular actions within an application on the NRInfo Portal (i.e. edit data in NPSpecies for ROMO).

7.2 NPSpecies

All authenticated users may, by default, see (read) any NPSpecies data in any report for any park unit. Confidential species are not visible. Editors, POCs, and NPSpecies Administrators are authenticated users and will inherit all capabilities of a reader. The exception is the ability to see Confidential species in only the parks for which they have been assigned.

Unauthenticated users will only see the Certified Species Lists unless those species lists are not ready for public consumption. This determination was made by the NPSpecies Point of Contact for each park in cooperation with park staff. Unauthenticated users will not be able to see confidential species, will not be able to edit data, and will not be able to see any location information other than the park name in the context of a species list.

7.3 Observations

See the Observation Help Manual for details.

Some observations may not display due to the sensitivity of those records in the observation application.

Observations with the following attributes will be visible:

- Lifecycle of Active, Legacy, Inactive, and Draft
- Sensitivity of Sensitive, Non-Sensitive, and Authorized Access Only if you have permission to see these

7.4 Vouchers

See the Voucher Help Manual for details.

Some vouchers may not display due to the sensitivity of those records in the voucher application.

Vouchers with the following attributes will be visible:

- Lifecycle of Active, Legacy, Inactive, and Draft
- Sensitivity of Sensitive, Non-Sensitive, and Authorized Access Only if you have permission to see these

7.5 References

See the Reference Help Manual for details.

Some references may not display due to the sensitivity or lifecycle state of those records in the Reference application (i.e. References in the draft state are not visible to anyone but their owner).

References with the following attributes will be visible:

- Lifecycle of Active, In Review, and Inactive (Quarantined will not and Draft will not, unless you happen own the Reference.)
- Sensitivity of Sensitive, Unknown and Non-Sensitive
- Quality of High, Medium, Low, Poor and Unknown
- Proprietary Evaluation of Proprietary/Copyrighted, Non-proprietary, and Unknown
- Unit links of Approved and Pending (Denied will not)

8 Appendix A - Glossary

Category

A grouping of taxa. Categories may come from the classification source that provided a taxon (i.e. USDA Plants Categories) or they may be added by a separate organization (i.e. NPSpecies Categories). An example of an NPSpecies Category is "Birds".

Certified Species List

A Certified Species List includes Park Accepted Names at the taxonomic rank of species and below (i.e. species, subspecies, varieties, forma, and hybrids) that have been quality-checked and certified by subject-matter experts.

Classification Source

A classification source is a provider of Taxonomy records. In the current Taxonomy Application, there are three Classification Sources: the Integrated Taxonomic Information System (ITIS), NPSpecies Semi-permanent Names (Taxonomy records added by the NPSpecies system owner), and NPSpecies Temporary Names (Taxonomy records added by the NPSpecies user community). USDA Plants will be added as a classification source in a future version of the Taxonomy application.

Full Species List for Working Data

A Full Species List can include any scientific name that is associated with a park, including legacy names, scientific names from any taxonomic classification system, and names at any level of the taxonomic hierarchy (e.g., genus, species, subspecies, variety, hybrids).

ITIS

See Classification source.

Kingdom

A taxonomic rank, typically recognized as the highest rank in biological taxonomy. Typically five or six kingdoms are recognized. An example of a kingdom is Plantae, the plant kingdom.

Management Fields

Fields of Weedy, Pest, Exploitation Concern, and Management Concern.

Observation

An observation is subjective evidence (no physical proof taken) as to the identity and the location of an organism. Observations are managed within the Observation application. Some observations may be linked to NPSpecies Park Species records and some may not.

Park Accepted Names

Scientific names vetted by a park through a certification process and that appear on Park-Species Lists. Park Accepted Names can occur at species or infraspecies (e.g., subspecies, varieties, forma, hybrids) level, and a park can include multiple subspecies or varieties of a species on their species list. Evidence and scientific names based on other classification systems (e.g., synonyms) are cross-walked to these Park Accepted

Names. In NPSpecies 1.0, Park Accepted Names were referred to as the park's Local List names, locally accepted names, or "Organisms".

Park Accepted Status

Current Park Accepted Status for the scientific name that is species or below on the park-species list. Options are Accepted, Not Accepted, Unknown, and Not Applicable (NA). This term was formerly known as Local List in NPSpecies 1.0.

Park Status Fields

Fields of Occurrence, Abundance, Residency, Nativity, and Cultivation that house information on the status of species in parks.

POC

Point of Contact designated by each park, network, and region to be the single "gatekeeper" and coordinator for data entered into NPSpecies. POCs for each park are designated in writing by the park superintendent through Inventory & Monitoring (I&M) network Board of Directors and other mechanisms. In the majority of cases, the I&M Data Manager for an I&M Network is the POC for all parks in the network, although some large parks have designated their own POC.

Rank

An indicator of position within a taxonomic hierarchy. Common ranks in order from highest to lowest include kingdom, division or phylum, class, order, family, genus, and species. Other ranks exist between these ranks and below species, but are less commonly used.

Taxa/Taxon

A taxonomic group or entity. Each record in the Taxonomy application is considered a taxon. Taxa is the plural of taxon.

Taxa/Taxon Code

A unique identifier for a taxon in the Taxonomy application. It is in the form of a positive integer.

Taxon Display Citation

A shortened notation that describes a taxon in the following format:

CategoryName.ScientificName.ClassificationSourceName.RankName-TaxonCode[LifecycleState].

Taxonomic Hierarchy

A listing showing the placement of a taxon and its parentage in descending order by rank, typically all the way to kingdom for biological nomenclature.

Taxonomy

Taxonomy is the science and practice of classification, arranging taxa in hierarchies by ranks following a parentchild relationship.

Taxonomic Serial Number (TSN)

See Code.

Voucher

A voucher is physical evidence used to confirm identity and prove an organism was found in a particular location. Forms of physical evidence include a voucher specimen at a museum or herbarium (including whole or piece of organism), photo image (i.e. digital or harpcopy), or etc. Vouchers are managed within the Voucher application. Some vouchers may be linked to NPSpecies Park Species records and some may not.

Workbench = Species List

Workspace to relate a park-species list, park accepted status, and links to evidence for one taxonomic category and one unit. A workbench may refer to data already certified; data the park is actively editing (e.g. work in progress); data that has been imported using a batch process (e.g. uploading desktop Access files to be

merged with work-in-progress data); or data that is to be used as "sandbox" data for a training session or other temporary purpose.

9 Appendix B - Data Dictionary

9.1 Quick Reference to NPSpecies Park Status Fields

OCCURRENCE			
Present in Park	Extremely high confidence in park; Current, verifiable evidence exists; Extant		
Probably Present	Very high confidence in park; Verifiable evidence may exist, but not current; Park within range; Appropriate habitat exists; Adjacent to park		
Unconfirmed	Very low to high confidence in park; Verifiable evidence may exist, but not current or insufficient		
Encroaching	Extremely low confidence in park; Adjacent to park; Verifiable evidence may exist, but not current		
Historic	Extremely low confidence in park; Verifiable evidence exists but not current		
False Report	Extremely low confidence in park; Evidence exists, but cannot be sufficiently verified		
NA	Not applicable		
ABUNDANCE - ANIMA	LS		
Abundant	Seen daily in appropriate habitat/season; Large numbers		
Common	Seen daily in appropriate habitat/season; Not in large numbers		
Uncommon	Seen monthly in appropriate habitat/season; Locally common		
Rare	Seen only a few times each year		
Occasional	Seen every few years, but not every year		
Unknown	Unknown		
NA	Not applicable		
ABUNDANCE - PLANT	s		
Abundant	Large numbers; Habitats covering large portion of park		
Common	Large numbers; Habitats not covering large portion of park		
Uncommon	Few to moderate numbers; Sporadic; Habitats uncommon in park		
Rare	Few individuals; Habitats rare		
Unknown	Unknown		
NA	Not applicable		
RESIDENCY - ANIMAL	SONLY		
Breeder	Reproduces		
Resident	Non-breeder; Two months/year		
Migratory	Non-breeder; Migratory; Less than two months/year		
Vagrant	Park outside normal range		
Unknown	Unknown		
NA	Not applicable		
NATIVITY			
Native	Native; includes endemic or indigenous		

National Park Service, Natural Resource Program Center

Non-Native	Non-native
Unknown	Unknown
NA	Not applicable
CULTIVATION - NON-N	NATIVE ONLY
Cultivated	Cultivated in the park
Persistent	Persistent from a cultivation in the park
Not Cultivated	Not cultivated in the park
Unknown	Unknown
NA	Not applicable

9.2 Full Data Dictionary

Field and value definitions for all data within the NPSpecies database.

9.2.1 Park-Species List

This table covers all fields contained in any Search Type = Species List report that is generated.

Label	Definition	Comments
Park Status Fields	Information commonly associated with species status including Occurrence, Abundance, Residency, Nativity and Cultivation.	The possible values for each of the Park Status Fields are mutually exclusive. Therefore, every name on a park's lists should have a value for each of the Park Status fields. Additionally, the Park Status fields are intended to be kept as current as reasonably possible and apply to the current boundary of the park unit. It is recognized that the value of one or more Park Status fields for an organism may not be known with certainty at any given point in time. Additionally, the values that are assigned at any given point in time may vary by the individual that assigned them and their knowledge, and the availability and currency of evidence in NPSpecies, and elsewhere, at the time of the assignment. Consequently, "Unknown" and/or "NA" are valid values for each park status field. The NPSpecies QA procedures accommodate this uncertainty and variability in developing current, complete and accurate species park status.
Taxonomic Category	A grouping of taxa. Categories may come from the classification source that provided a taxon (i.e. USDA Plants Categories) or they may be added by a separate organization (i.e. NPSpecies Categories). An example of an NPSpecies Category is "Birds".	
Order	The taxonomic Order of the scientific name on the park-species list	When the TSN (Taxonomic Serial Number) is positive, then the Order is according to ITIS (Integrated Taxonomic Information System). When the TSN is negative, then the Order is based on another taxonomic source.
Family	The taxonomic Family of the scientific name on the park-species list.	When the TSN (Taxonomic Serial Number) is positive, then the Family is according to ITIS (Integrated Taxonomic Information System). When the TSN is negative, then the Family is based on another taxonomic source.
Code	Taxonomic Serial Number (TSN) identifying the scientific name on the park-species list. All scientific names with positive TSNs originate from ITIS. All scientific names with negative TSNs are from various outside sources.	More information about ITIS can be found at this site: http://www.itis.gov/
Taxa Code	A unique identifier for a taxon in the Taxonomy application. It is in the form of a positive integer.	
Scientific Name	The species or lower scientific name currently accepted by the park on the park-	Unformatted scientific name are without the HTML italic tags.

	species list.	
Common Name	The common name used by the species or lower on the park-species list.	The first three local preferred common names are used first and if they do not exist, then the first three common names from ITIS or another outside source are used.
Occurrence	The current status of each species in each park.	Applicable only to scientific names with Park Accepted Status of "Accepted". Possible values reflect a combination of confidence, and availability and currency of verifiable evidence in NPSpecies.
Park Accepted Status	Current Park Accepted Status for the scientific name that is species or below on the park-species list. Options are Accepted, Not Accepted, Unknown, and Not Applicable (NA).	This term was formerly known as Local List in NPSpecies 1.0.
Accepted	Identifies park accepted scientific name.	When a scientific name is a Park Accepted Name, then Park Accepted Name and scientific name are the same.
Not Accepted	Identifies a taxonomic synonym, database artifact, etc.	When a scientific name has this status then Park Accepted Name identifies scientific name to use for this scientific name
Unknown	Indicates that accepted status for a species or below on a park-species list is not known.	
NA	Indicates that accepted status for scientific name above taxonomic rank of species is not applicable	
Null	Indicates that accepted status for a species or below of a park-species list has not yet been assigned	
Park Accepted Name	Scientific names vetted by a park through a certification process and that appear on Park-Species Lists. Park Accepted Names can occur at species or infraspecies (e.g., subspecies, varieties, forma, hybrids) level, and a park can include multiple subspecies or varieties of a species on their species list. Evidence and scientific names based on other classification systems (e.g., synonyms) are cross-walked to these Park Accepted Names. In NPSpecies 1.0, Park Accepted Names were referred to as the park's Local List names, locally accepted names, or "Organisms".	
Park Accepted Code	The TSN used to refer to the Park Accepted Name.	
Present in Park	Species' occurrence in park is documented and assumed to be extant.	Extremely high confidence that the species is currently in the park. A current, verifiable reference, voucher or observation is included in NPSpecies.
Probably Present	Park is within species' range and contains appropriate habitat. Documented occurrences of the species in the adjoining region of the park give reason to suspect that it probably occurs within the park. The degree of probability may vary within this category, including species that range from common to rare.	Very high confidence that the organism is currently in the park. Verifiable evidence may exist in NPSpecies, but is not considered current enough to elevate the status to Present in Park. Efforts should be made to obtain current, verifiable evidence in NPSpecies to elevate the Occurrence to "Present in Park". If reasonable efforts to obtain current, verifiable evidence are unsuccessful, then the Occurrence should be

		changed to Unconfirmed, Historic, Encroaching or False Report as applicable.
Unconfirmed	Included for the park based on weak ("unconfirmed record") or no evidence, giving minimal indication of the species' occurrence in the park.	Any confidence from very low to high that the organism is currently in the park. Verifiable evidence may exist in NPSpecies, but it is not considered sufficient enough to elevate the status to "Probably Present", nor current enough to elevate the status to "Present in Park". Efforts should be made to obtain current, verifiable evidence in NPSpecies to elevate the Occurrence to "Present in Park". If reasonable efforts to obtain current, verifiable evidence are unsuccessful, then the Occurrence should be changed to Historic, Encroaching or False Report as applicable.
Encroaching	The species is not documented in the park, but is documented as being adjacent to the park and has potential to occur in the park.	Extremely low confidence that the organism is currently in the park, but extremely high confidence that the organism is currently adjacent to the park. Verifiable evidence may exist in NPSpecies documenting the occurrence in the park, but it is not current. Potential invasive organisms are good candidates for this Occurrence designation, either before they enter a park or after they have been eliminated from a park.
Historic	Species' historical occurrence in the park is documented, but recent investigations indicate that the species is now probably absent.	Extremely low confidence that the organism is currently in the park. Verifiable evidence exists in NPSpecies, but is not current. Extinct, extirpated or eliminated species are candidates for a Historic Occurrence designation.
False Report	Species previously reported to occur within the park, but current evidence indicates that the report was based on a misidentification, a taxonomic concept no longer accepted, or some other similar problem of interpretation.	Extremely low confidence that the organism is currently in the park. Evidence exists in NPSpecies, but it cannot be sufficiently verified.
NA	Not Applicable - Occurrence does not apply to the scientific name for the park.	The NA value prevents null values from appearing in NPSpecies and applies to two primary situations:
		An outdated scientific name that is not used in the locale of park for an organism, but is in NPSpecies for a park because of inclusion of vouchers, observations or references that use name. Note that outdated names are reconciled in NPSpecies with the Park Classification system.
		Vouchers, observations or references that use name have not been identified at species level or lower, but are included in NPSpecies with name of a higher taxonomic rank than species level. Names of these higher level taxonomic ranks will disappear from NPSpecies if evidence of the respective name are identified to species level or lower, and are changed appropriately in NPSpecies
Abundance	The current abundance of each organism in each park.	Applicable only to scientific names with a Park Accepted Status of "Accepted" and an Occurrence of "Present in Park". Values attempt to balance abundance with suitable habitat, and temporal/behavioral considerations. In practice, entered value should apply (although there are numerous exceptions) to abundance in the most suitable habitat of organism, and at time that organism is engaged in its principle behavior in (e.g. breeding, migrating, hibernating, etc.), or most important behavior

		to, park. A future generation of NPSpecies will address the coding of Abundance (and associated Residency) to separate out temporal and behavioral aspects. Data Source field for Abundance is available to provide a citation that specifically addresses Abundance in more detail.
Abundant	Animals: May be seen daily, in suitable habitat and season, and counted in relatively large numbers. Plants: Large number of individuals; wide ecological amplitude or occurring in habitats covering a large portion of the park.	
Common	Animals: May be seen daily, in suitable habitat and season, but not in large numbers. Plants: Large numbers of individuals predictably occurring in commonly encountered habitats but not those covering a large portion of the park.	
Uncommon	Animals: Likely to be seen monthly in appropriate season/habitat. May be locally common. Plants: Few to moderate numbers of individuals; occurring either sporadically in commonly encountered habitats or in uncommon habitats.	
Rare	Animals: Present, but usually seen only a few times each year. Plants: Few individuals, usually restricted to small areas of rare habitat.	
Occasional	Animals: Occurs in the park at least once every few years, but not necessarily every year. Plants: Not applicable.	
Unknown	Abundance unknown.	
NA	Not Applicable – Abundance does not apply to the scientific name in the park.	All names on a park's list that do not have an Occurrence of "Present in Park" should have a Residency of "NA".
Residency	Current residency classification for each ANIMAL species in each park.	Applicable only to ANIMALS with a Park Accepted Status of "Accepted" and an Occurrence of "Present in Park". Values attempt to balance temporal and behavioral considerations. In practice, entered value should apply (although there are numerous exceptions) to residency of organism at the time that organism is engaged in its principle behavior (e.g. breeding, migrating, hibernating, etc.) in, or most important behavior to, park. A future generation of NPSpecies will address the coding of Residency (and associated Abundance) to separate out temporal and behavioral aspects. The Data Source field for Residency is available to provide a citation that specifically addresses Residency in more detail.
Breeder	Population reproduces in the park.	
Resident	A significant population is maintained in the park for more than two months each year, but it is not known to breed there.	
Migratory	Migratory species that occurs in park approximately two months or less each	

	year and does not breed there.	
Vagrant	Park is outside of the species' usual range.	
Unknown	Residency status in park is unknown.	
NA	Not Applicable – Residency does not apply to the scientific name in the park.	All names on a park's list that do not have an Occurrence of "Present in Park" should have a Residency of "NA".
Nativity	Nativity classification for each organism for each park.	Applicable only to scientific names with Park Accepted Status of "Accepted". If Occurrence of an organism is not "Present in Park", then nativity represents nativity if organism were eventually confirmed in park.
Native	The organism is native, or would be native, to the park (either endemic or indigenous).	
Non-Native	The organism is not native, or would not be native, to the park (neither endemic nor indigenous).	Cultivated organisms as defined under the Cultivation field are also considered non-native.
Unknown	Nativity is unknown relative to the park.	
NA	Not Applicable	Applies to names that do not represent organism names for the locale of the park.
Cultivation	Cultivation classification for each non- native organism in each park.	Applicable only to scientific names with a Park Accepted Status of "Accepted", an Occurrence of "Present in Park" or "Probably Present" and a Nativity of "Non-Native". Cultivation is intended to distinguish between non-native organisms that were introduced as part of a park's mission, and non-native organisms that occur in park naturally. Cultivation was not intended to apply to organisms that are cultivated for landscape purposes and have not persisted into natural environment, for example, plants in gardens or terrariums, or animals in enclosures. In general, it was not intended that NPSpecies to include controlled, "domestic" organisms.
Cultivated	A non-native species that is currently cultivated in the park.	
Persistent	A non-native species that persists in the park (either reproducing or non-reproducing) from a previous cultivation in the park.	
Not Cultivated	A non-native species that is not currently cultivated in the park.	
Unknown	A non-native species for which the cultivation in the park is currently unknown.	
NA	Not Applicable – Cultivation does not apply to the non-native scientific name in the park.	All names on a park's list that do not have an Occurrence of "Present in Park" or "Probably Present" and a Nativity of "Non-native" should have a Cultivation of "NA".
Management Fields	Information related to the management of organisms at a park such as Weedy Plant, Pest, Management Priority and Exploitation Concern.	Applicable only to organisms with the Local List checkbox checked.
Weedy Plant?	Yes/No field for plant species only. Plant species are considered "weedy" or	The definition of Weedy Plant has been found to be too general to be of use from both an ecological and

	"invasive" if they (a) occur almost exclusively in disturbed habitats, (b) relatively recently occupied natural habitats in competition with native species, or (c) occur across a broad range of ecological conditions.	managerial perspective. The Pest field was added to provide a more narrowly definition that was specifically oriented to management. No similarly narrow counterpart to the ecological aspects of the definition of Weedy Plant is currently in NPSpecies.
Pest?	Yes/No if a species is a "pest" in the park. "Pests are living organisms that interfere with the purposes or management objectives of a specific site within a park, or that jeopardize human health and safety." (NPS Management Policies 2001. Section 4.4.5.1)	Organisms identified by the park's Chief of Natural Resources or Invasive Species Management Team, or addressed in a park's Resource Management Plan or APCAM database are good candidates for having Management Priority checked in NPSpecies.
Management Priority?	Yes/No flag if a species is a management priority in the park.	Organisms identified by the park's chief of Natural Resources or addressed in a park's Resource Management Plan are good candidates for having Management Priority checked in NPSpecies.
Exploitation Concern	Yes/No if a species is an exploitation concern in the park.	Organisms identified by a park's law enforcers or contained within the Critical Incident Report System database are good candidates for having the Exploitation Concern checked in NPSpecies.
Match List Fields		
TESS Status Code	USFWS Federal Listing Status from the Threatened and Endangered Species Database System (TESS).	In the legacy NPSpecies 1.0 this was the TnE Status Data Source: U.S. Fish and Wildlife Service. 2009. Threatened and Endangered Species Database System (TESS). XQUERY was used to retrieve species Federal Listing Status and the Federal Status look up data.
State Status	Status of the species by state or US territory. When the park selected crosses state boundaries there will be a State Status column for each state the park represents.	
GRANK	Global Conservation Status Rank (GRANK) stewarded by NatureServe and its member programs.	Data Source: NatureServe. 2006. NatureServe's Central Databases. Arlington, VA. U.S.A. Acknowledgement: This information is provided by NatureServe (www.natureserve.org) and its network of Natural Heritage member programs, a leading source of information about rare and endangered species, and threatened ecosystems.
Ozone Sensitive	Species that typically exhibit foliar injury at or near ambient ozone concentrations in fumigation chambers and/or are species for which ozone foliar injury symptoms in the field have been documented by more than one expert observer.	Data Source: Porter, Ellen. 2003. Ozone Sensitive Plant Species on National Park Service and U.S. Fish and Wildlife Service Lands: Results of a June 24-25, 2003 Workshop Baltimore, Maryland. Natural Resource Report NPS/NRARD/NRR-2003/01.
Biological Indicator	A Subset of the Ozone Sensitive species. Sensitive species that exhibit foliar symptoms in the field at ambient ozone concentrations that can be easily recognized as ozone injury by subject matter experts; species whose ozone sensitivity has been confirmed at realistic ozone concentrations in exposure chamber; species that are widely distributed regionally; and, species that are	Data Source: Porter, Ellen. 2003. Ozone Sensitive Plant Species on National Park Service and U.S. Fish and Wildlife Service Lands: Results of a June 24-25, 2003 Workshop Baltimore, Maryland. Natural Resource Report NPS/NRARD/NRR-2003/01.

easily identified in the field.	

9.2.2 Park-Species Profile

This table covers all fields contained in the Search Type = Park-Species Profile report.

Label	Definition	Comments
Taxonomy Tab	Summary of taxonomic information about the species regardless of the park from the Taxonomy application.	Taxonomy is the science and practice of classification, arranging taxa in hierarchies by ranks following a parent-child relationship.
Taxa Code	A unique identifier for a taxon in the Taxonomy application. It is in the form of a positive integer.	
Scientific Name	A name used to identify a taxon that consists of one or more parts, written in Latin and typically underlined or italicized. Scientific names are supposed to uniquely identify a taxon, though some exceptions occur. Scientific names are also designed to be used globally, regardless of the native language of those using the names.	
Scientific Name with Authority	A scientific name with embedded authorities. Authorities refer to the name of the author of a scientific name, cited after the name.	
Classification Source	A classification source is a provider of Taxonomy records. In the current Taxonomy Application, there are three Classification Sources: the Integrated Taxonomic Information System (ITIS), NPSpecies Semi-permanent Names (Taxonomy records added by the NPSpecies system owner), and NPSpecies Temporary Names (Taxonomy records added by the NPSpecies user community). USDA Plants will be added as a classification source in a future version of the Taxonomy application.	
TSN	Taxonomic Serial Number identifying the scientific name on the park-species list. All scientific names with positive TSNs originate from ITIS. All scientific names with negative TSNs are from various outside sources.	More information about ITIS can be found at this site: http://www.itis.gov/
Status	Information provided by a classification source about the usage or state of a taxon within that classification source.	
Category	A grouping of taxa. Categories may come from the classification source that provided a taxon (i.e. USDA Plants Categories) or they may be added by a separate	

	organization (i.e. NPSpecies Categories). An example of an NPSpecies Category is "Birds".	
Rank	An indicator of position within a taxonomic hierarchy. Common ranks in order from highest to lowest include kingdom, division or phylum, class, order, family, genus, and species. Other ranks exist between these ranks and below species, but are less commonly used.	
Taxonomic Hierarchy	A listing showing the placement of a taxon and its parentage in descending order by rank, typically all the way to kingdom for biological nomenclature.	
Common Names	A vernacular name for a taxon that is in general use within a community as contrasted with scientific name. Examples of common names are "river otter", "white fir", and "Western Tanager".	
Preferred Common Names	A vernacular name for a taxon preferred by the specific park that is in general use within a community as contrasted with scientific name. Examples of common names are "river otter", "white fir", and "Western Tanager".	
Synonyms	Different scientific names used for a single taxon. In the Taxonomy application, these are typically names that are not currently recognized as valid (junior synonyms from zoology), and so a synonym will have one or more accepted names.	
Accepted Names	A name that is recognized by a classification source as a current valid name for a synonym.	
Crosswalks	A link between a taxon record from one classification source and a taxon record from a different classification source.	
Park Classification from NPSpecies	Park assigned Accepted Name and any park assigned taxonomic synonyms.	
Park Classification Tab		
Park Accepted Status	Current Park Accepted Status for the scientific name that is species or below on the park-species list. Options are Accepted, Not Accepted, Unknown, and Not Applicable (NA).	This term was formerly known as Local List in NPSpecies 1.0.
Accepted	Identifies park accepted scientific name.	When a scientific name is a Park Accepted Name, then Park Accepted Name and scientific name are the same.
Not Accepted	Identifies a taxonomic synonym, database artifact, etc.	When a scientific name has this status then Park Accepted Name identifies scientific name to use for this scientific name
Unknown	Indicates that accepted status for a species or below on a park-species list is	

	not known.	
NA	Indicates that accepted status for scientific name above taxonomic rank of species is not applicable	
Null	Indicates that accepted status for a species or below of a park-species list has not yet been assigned	
Park Accepted Name	Scientific name vetted by a park through a certification process and that appear on Park-Species Lists. Park Accepted Names can occur at species or infraspecies (e.g., subspecies, varieties, forma, hybrids) level, and a park can include multiple subspecies or varieties of a species on their species list. Evidence and scientific names based on other classification systems (e.g., synonyms) are cross-walked to these Park Accepted Names.	In NPSpecies 1.0, Park Accepted Names were referred to as the park's Local List names, locally accepted names, or "Organisms".
Details	Comments about the assigned Park Accepted Status or Park Accepted Name.	
Data Source	Data Source for the assigned Park Accepted Status or Park Accepted Name.	
Park Assigned Synonyms	Scientific Names that are considered taxonomic synonyms with the park.	
Park Status Tab		
Park Status Fields	Information commonly associated with species status including Occurrence, Abundance, Residency, Nativity and Cultivation.	The possible values for each of the Park Status Fields are mutually exclusive. Therefore, every name on a park's lists should have a value for each of the Park Status fields. Additionally, the Park Status fields are intended to be kept as current as reasonably possible and apply to the current boundary of the park unit. It is recognized that the value of one or more Park Status fields for an organism may not be known with certainty at any given point in time. Additionally, the values that are assigned at any given point in time may vary by the individual that assigned them and their knowledge, and the availability and currency of evidence in NPSpecies, and elsewhere, at the time of the assignment. Consequently, "Unknown" and/or "NA" are valid values for each park status field. The NPSpecies QA procedures accommodate this uncertainty and variability in developing current, complete and accurate species park status.
Occurrence	The current status of each species in each park.	Applicable only to scientific names with Park Accepted Status of "Accepted". Possible values reflect a combination of confidence, and availability and currency of verifiable evidence in NPSpecies.
Present in Park	Species' occurrence in park is documented and assumed to be extant.	Extremely high confidence that the species is currently in the park. A current, verifiable reference, voucher or observation is included in NPSpecies.
Probably Present	Park is within species' range and contains appropriate habitat. Documented occurrences of the species in the adjoining region of the park give reason to suspect that it probably occurs within the park. The	Very high confidence that the organism is currently in the park. Verifiable evidence may exist in NPSpecies, but is not considered current enough to elevate the status to Present in Park. Efforts should be made to obtain current, verifiable evidence in NPSpecies to

	degree of probability may vary within this category, including species that range from common to rare.	elevate the Occurrence to "Present in Park". If reasonable efforts to obtain current, verifiable evidence are unsuccessful, then the Occurrence should be changed to Unconfirmed, Historic, Encroaching or False Report as applicable.
Unconfirmed	Included for the park based on weak ("unconfirmed record") or no evidence, giving minimal indication of the species' occurrence in the park.	Any confidence from very low to high that the organism is currently in the park. Verifiable evidence may exist in NPSpecies, but it is not considered sufficient enough to elevate the status to "Probably Present", nor current enough to elevate the status to "Present in Park". Efforts should be made to obtain current, verifiable evidence in NPSpecies to elevate the Occurrence to "Present in Park". If reasonable efforts to obtain current, verifiable evidence are unsuccessful, then the Occurrence should be changed to Historic, Encroaching or False Report as applicable.
Encroaching	The species is not documented in the park, but is documented as being adjacent to the park and has potential to occur in the park.	Extremely low confidence that the organism is currently in the park, but extremely high confidence that the organism is currently adjacent to the park. Verifiable evidence may exist in NPSpecies documenting the occurrence in the park, but it is not current. Potential invasive organisms are good candidates for this Occurrence designation, either before they enter a park or after they have been eliminated from a park.
Historic	Species' historical occurrence in the park is documented, but recent investigations indicate that the species is now probably absent.	Extremely low confidence that the organism is currently in the park. Verifiable evidence exists in NPSpecies, but is not current. Extinct, extirpated or eliminated species are candidates for a Historic Occurrence designation.
False Report	Species previously reported to occur within the park, but current evidence indicates that the report was based on a misidentification, a taxonomic concept no longer accepted, or some other similar problem of interpretation.	Extremely low confidence that the organism is currently in the park. Evidence exists in NPSpecies, but it cannot be sufficiently verified.
NA	Not Applicable - Occurrence does not apply to the scientific name for the park.	The NA value prevents null values from appearing in NPSpecies and applies to two primary situations: An outdated scientific name that is not used in the locale of park for an organism, but is in NPSpecies for a park because of inclusion of vouchers, observations or references that use name. Note that outdated names are reconciled in NPSpecies with the Park Classification system. Vouchers, observations or references that use name have not been identified at species level or lower, but are included in NPSpecies with name of a higher taxonomic rank than species level. Names of these higher level taxonomic ranks will disappear from NPSpecies if evidence of the respective name are identified to species level or lower, and are changed appropriately in NPSpecies
Occurrence Data Source	Data Source for the assigned Occurrence value	
Occurrence Details	Comments about the assigned Occurrence value.	

Abundance	The current abundance of each organism in each park.	Applicable only to scientific names with a Park Accepted Status of "Accepted" and an Occurrence of "Present in Park". Values attempt to balance abundance with suitable habitat, and temporal/behavioral considerations. In practice, entered value should apply (although there are numerous exceptions) to abundance in the most suitable habitat of organism, and at time that organism is engaged in its principle behavior in (e.g. breeding, migrating, hibernating, etc.), or most important behavior to, park. A future generation of NPSpecies will address the coding of Abundance (and associated Residency) to separate out temporal and behavioral aspects. Data Source field for Abundance is available to provide a citation that specifically addresses Abundance in more detail.
Abundant	Animals: May be seen daily, in suitable habitat and season, and counted in relatively large numbers. Plants: Large number of individuals; wide ecological amplitude or occurring in habitats covering a large portion of the park.	
Common	Animals: May be seen daily, in suitable habitat and season, but not in large numbers. Plants: Large numbers of individuals predictably occurring in commonly encountered habitats but not those covering a large portion of the park.	
Uncommon	Animals: Likely to be seen monthly in appropriate season/habitat. May be locally common. Plants: Few to moderate numbers of individuals; occurring either sporadically in commonly encountered habitats or in uncommon habitats.	
Rare	Animals: Present, but usually seen only a few times each year. Plants: Few individuals, usually restricted to small areas of rare habitat.	
Occasional	Animals: Occurs in the park at least once every few years, but not necessarily every year. Plants: Not applicable.	
Unknown	Abundance unknown.	
NA	Not Applicable – Abundance does not apply to the scientific name in the park.	All names on a park's list that do not have an Occurrence of "Present in Park" should have a Residency of "NA".
Abundance Data Source	Data Source for the assigned Abundance value.	
Abundance Details	Comments about the assigned Abundance value.	
Residency	Current residency classification for each ANIMAL species in each park.	Applicable only to ANIMALS with a Park Accepted Status of "Accepted" and an Occurrence of "Present in Park". Values attempt to balance temporal and behavioral considerations. In practice, entered value should apply (although there are numerous exceptions) to residency of organism at the time that organism is engaged in its principle behavior (e.g. breeding,

		migrating, hibernating, etc.) in, or most important behavior to, park. A future generation of NPSpecies will address the coding of Residency (and associated Abundance) to separate out temporal and behavioral aspects. The Data Source field for Residency is available to provide a citation that specifically addresses Residency in more detail.
Breeder	Population reproduces in the park.	
Resident	A significant population is maintained in the park for more than two months each year, but it is not known to breed there.	
Migratory	Migratory species that occurs in park approximately two months or less each year and does not breed there.	
Vagrant	Park is outside of the species' usual range.	
Unknown	Residency status in park is unknown.	
NA	Not Applicable – Residency does not apply to the scientific name in the park.	All names on a park's list that do not have an Occurrence of "Present in Park" should have a Residency of "NA".
Residency Data Source	Data Source for the assigned Residency value	
Residency Details	Comments about the assigned Residency value.	
Nativity	Nativity classification for each organism for each park.	Applicable only to scientific names with Park Accepted Status of "Accepted". If Occurrence of an organism is not "Present in Park", then nativity represents nativity if organism were eventually confirmed in park.
Native	The organism is native, or would be native, to the park (either endemic or indigenous).	
Non-Native	The organism is not native, or would not be native, to the park (neither endemic nor indigenous).	Cultivated organisms as defined under the Cultivation field are also considered non-native.
Unknown	Nativity is unknown relative to the park.	
NA	Not Applicable	Applies to names that do not represent organism names for the locale of the park.
Nativity Data Source	Data Source for the assigned Nativity value	
Nativity Details	Comments about the assigned Nativity value.	
Cultivation	Cultivation classification for each non- native organism in each park.	Applicable only to scientific names with a Park Accepted Status of "Accepted", an Occurrence of "Present in Park" or "Probably Present" and a Nativity of "Non-Native". Cultivation is intended to distinguish between non-native organisms that were introduced as part of a park's mission, and non-native organisms that occur in park naturally. Cultivation was not intended to apply to organisms that are cultivated for landscape purposes and have not persisted into natural environment, for example, plants in gardens or terrariums, or animals in enclosures. In general, it was not intended that NPSpecies to include controlled, "domestic" organisms.

Cultivated	A non-native species that is currently cultivated in the park.	
Persistent	A non-native species that persists in the park (either reproducing or non-reproducing) from a previous cultivation in the park.	
Not Cultivated	A non-native species that is not currently cultivated in the park.	
Unknown	A non-native species for which the cultivation in the park is currently unknown.	
NA	Not Applicable – Cultivation does not apply to the non-native scientific name in the park.	All names on a park's list that do not have an Occurrence of "Present in Park" or "Probably Present" and a Nativity of "Non-native" should have a <i>Cultivation</i> of "NA".
Cultivation Data Source	Data Source for the assigned Cultivation value.	
Cultivation Details	Comments about the assigned Cultivation value.	
Management Fields	Information related to the management of organisms at a park such as Weedy Plant, Pest, Management Priority and Exploitation Concern.	Applicable only to organisms with the Local List checkbox checked.
Weedy Plant?	Yes/No field for plant species only. Plant species are considered "weedy" or "invasive" if they (a) occur almost exclusively in disturbed habitats, (b) relatively recently occupied natural habitats in competition with native species, or (c) occur across a broad range of ecological conditions.	The definition of Weedy Plant has been found to be too general to be of use from both an ecological and managerial perspective. The Pest field was added to provide a more narrowly definition that was specifically oriented to management. No similarly narrow counterpart to the ecological aspects of the definition of Weedy Plant is currently in NPSpecies.
Weedy Data Source	Data Source for the assigned Weedy value.	
Weedy Details	Comments about the assigned Weedy value.	
Pest?	Yes/No if a species is a "pest" in the park. "Pests are living organisms that interfere with the purposes or management objectives of a specific site within a park, or that jeopardize human health and safety." (NPS Management Policies 2001. Section 4.4.5.1)	Organisms identified by the park's Chief of Natural Resources or Invasive Species Management Team, or addressed in a park's Resource Management Plan or APCAM database are good candidates for having Management Priority checked in NPSpecies.
Pest Data Source	Data Source for the assigned Pest value.	
Pest Details	Comments about the assigned Pest value.	
Management Priority?	Yes/No flag if a species is a management priority in the park.	Organisms identified by the park's chief of Natural Resources or addressed in a park's Resource Management Plan are good candidates for having Management Priority checked in NPSpecies.
Management Priority Data Source	Data Source for the assigned Management Priority value.	

Management Priority Details	Comments about the assigned Management Priority value.	
Exploitation Concern	Yes/No if a species is an exploitation concern in the park.	Organisms identified by a park's law enforcers or contained within the Critical Incident Report System database are good candidates for having the Exploitation Concern checked in NPSpecies.
Exploitation Concern Data Source	Data Source for the assigned Exploitation Concern value	
Exploitation Concern Details	Comments about the assigned Exploitation Concern value.	
Units Tab		
Unit Code	A 4 to 10 character code that uniquely identifies a park, office, network, region, or program.	
Unit Name	Display name (e.g. Rocky Mountain) and the designation (e.g. National Park) of an NPS unit. Example: Rocky Mountain National Park	
Park Accepted Status	Current Park Accepted Status for the scientific name that is species or below on the park-species list. Options are Accepted, Not Accepted, Unknown, and Not Applicable (NA).	This term was formerly known as Local List in NPSpecies 1.0.
Accepted	Identifies park accepted scientific name.	When a scientific name is a Park Accepted Name, then Park Accepted Name and scientific name are the same.
Not Accepted	Identifies a taxonomic synonym, database artifact, etc.	When a scientific name has this status then Park Accepted Name identifies scientific name to use for this scientific name
Unknown	Indicates that accepted status for a species or below on a park-species list is not known.	
NA	Indicates that accepted status for scientific name above taxonomic rank of species is not applicable	
Null	Indicates that accepted status for a species or below of a park-species list has not yet been assigned	
Park Accepted Name	Scientific name vetted by a park through a certification process and that appear on Park-Species Lists. Park Accepted Names can occur at species or infraspecies (e.g., subspecies, varieties, forma, hybrids) level, and a park can include multiple subspecies or varieties of a species on their species list. Evidence and scientific names based on other classification systems (e.g., synonyms) are cross-walked to these Park Accepted Names.	In NPSpecies 1.0, Park Accepted Names were referred to as the park's Local List names, locally accepted names, or "Organisms".
Unformatted Park Accepted Name	The Park Accepted Name without embedded HTML italics tags.	
Common Names	The first three local preferred common	

	names are used first and if they do not exist, then the first three common names from ITIS or another outside source are used.	
Occurrence	The current status of each species in each park.	
Abundance	The current abundance of each organism in each park.	
Record Information Tab		
Comments	Additional information pertinent to the values entered in an ENTIRE PARK-SPECIES PROFILE if clarification or elaboration is desired.	
Data Source	The principle source of the ENTIRE PARK-SPECIES PROFILE.	
Entered By	The name of the person that created the new record, or for reference links, the name of the person that created the first link between a reference and a species.	
Entered Date	The date that a record was first entered, or for reference links, the date that the first link was created between a reference and a species.	
Last Modified By	The name of the person that last modified the existing record, or for reference links, the name of the person that last modified an existing link between a reference and a species.	
Last Modified Date	The date that a record was last modified, or for reference links, the date that an existing link between a reference and a species was last modified.	
Evidence Tab		
Observation Count	Total number of observations linked to this Park-Species Profile in this unit.	Click on the hyperlink to view the observations.
Voucher Count	Total number of vouchers linked to this Park-Species Profile in this unit.	
Reference Count	Total number of references linked to this Park-Species Profile in this unit.	Click on the hyperlink to view the references.
Match List Tab		
TESS Status Code	USFWS Federal Listing Status from the Threatened and Endangered Species Database System (TESS).	In the legacy NPSpecies 1.0 this was the TnE Status Data Source: U.S. Fish and Wildlife Service. 2009. Threatened and Endangered Species Database System (TESS). XQUERY was used to retrieve species Federal Listing Status and the Federal Status look up data.
State Status	Status of the species by state or US territory. When the park selected crosses state boundaries there will be a State Status column for each state the park	

	represents.		
GRANK	Global Conservation Status Rank (GRANK) stewarded by NatureServe and its member programs.	Data Source: NatureServe. 2006. NatureServe's Central Databases. Arlington, VA. U.S.A. Acknowledgement: This information is provided by NatureServe (www.natureserve.org) and its network of Natural Heritage member programs, a leading source of information about rare and endangered species, and threatened ecosystems.	
Ozone Sensitive	Species that typically exhibit foliar injury at or near ambient ozone concentrations in fumigation chambers and/or are species for which ozone foliar injury symptoms in the field have been documented by more than one expert observer.	Data Source: Porter, Ellen. 2003. Ozone Sensitive Plant Species on National Park Service and U.S. Fish and Wildlife Service Lands: Results of a June 24-25, 2003 Workshop Baltimore, Maryland. Natural Resource Report NPS/NRARD/NRR-2003/01.	
Biological Indicator	A Subset of the Ozone Sensitive species. Sensitive species that exhibit foliar symptoms in the field at ambient ozone concentrations that can be easily recognized as ozone injury by subject matter experts; species whose ozone sensitivity has been confirmed at realistic ozone concentrations in exposure chamber; species that are widely distributed regionally; and, species that are easily identified in the field.	Data Source: Porter, Ellen. 2003. Ozone Sensitive Plant Species on National Park Service and U.S. Fish and Wildlife Service Lands: Results of a June 24-25, 2003 Workshop Baltimore, Maryland. Natural Resource Report NPS/NRARD/NRR-2003/01.	

10 Appendix C - Frequently Asked Questions

Frequently Asked Questions (FAQ) list common questions and answers that will help you use NPSpecies.

10.1 What is the difference between NPSpecies 1.0, NPSpecies 2.x, and NPSpecies 3.x?

The NPSpecies 1.0 is the original online silo version of NPSpecies that is being rebuilt using web services. NPSpecies 2.x is a temporary transition read-only version that is accessible from the NRInfo Portal and over time will include more and more functionality as it goes through iterative software design. NPSpecies 1.0 will be decommissioned in 2010, at that time NPSpecies 3.x will take the place of NPSpecies 1.0.

10.2 Will the public be able to see this information?

Yes, using web services these data may be accessible from any public facing web page. Stay tuned for more on this. Additionally, the NRInfo Portal displays Certified Species Lists using the Park Status View for public viewers.

10.3 How can I make a correction or add to my park's data?

You may make edits using NPSpecies 3.0 on the NRInfo Portal. If you do not have permission to edit a species list for a park, please contact your park's <u>NPSpecies Point of Contact</u>.

10.4 Where can I find information about youchers and observations?

- 1. Select Search on left navigation menu while on Biology tab
- 2. Select Search Type = Species List
- 3. Select Search = Full Species List for Working Data
- 4. Select Layout = Evidence Counts View
- 5. Select a Park Unit
- 6. Select a Taxonomic Category (may include "All")
- 7. Click Search button

10.5 When will I be able to add or edit information on the NRInfo Portal?

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10.6 How do I obtain a Certified Species List?

- 1. Select Search on left navigation menu
- 2. Select Search Type = Species List
- 3. Select Search = Certified Species List
- 4. Select Layout = Park Status View, for example
- 5. Select a Park Unit
- 6. Select a Taxonomic Category (may include "All")
- 7. Click Search

10.7 How do I download a Certified Species List?

- 1. In the results table click on Download button.
- Select Excel spreadsheet (xlsx) or Comma-separated values (csv)
- 3. Select open or save to save the file on your computer

10.8 What is a Certified Species List?

A certified species list is snapshot of the species lists at the time of the latest certification where both the Park Accepted Status and Occurrence fields were certified. It is comprised of park-accepted scientific names with information on the current status of those species in the park, including occurrence, abundance, residency, nativity, and cultivation. The term 'species' is used loosely and means scientific names that are at the taxonomic rank of species and below. Park-accepted scientific names are those scientific names that the park recognizes at the time of certification.

10.9 What is the certification process?

This is the basic quality assurance certification process:

- 1. A taxa expert reviews the species list for accuracy.
- 2. The species list is run through a series of checks for logical inconsistencies. Only after these checks pass the next step may begin.
- 3. The POC submits a certification submission form to the Natural Resource Program Center (NRPC) data manager. The content of this form is used to create a certification record that lists the park status fields being certified, the date of the certification, and who participated in the review process. If a certification is as a result of a new field inventory, park boundary change, or natural disaster, that information is also recorded.
- 4. The species list is then copied as a record of the data at the time of the certification.
- 5. Finally the species list is evaluated for its merits to become publically accessible.

This QA Certification process only applies to vertebrates and vascular plants at this time. However, there is a need to also evaluate species lists for other taxonomic categories. The information that results from the certification process is based upon the premise that the information is current, complete and accurate to the best knowledge of the reviewers at the time of the review. Because NPSpecies is a dynamic database which will continue to be populated into the future, it is necessary to document when, and which data have been reviewed for completeness and accuracy so that users can qualify the use of the data for scientific, management and interpretive purposes.

In order to maintain information in such a dynamic system, data need to be entered and reviewed on an intermittent or periodic basis. At minimum, a certification will be completed after the first formal review of park species list. Review is done by taxonomic category and includes a review of the park status values recorded for each species on the list. The need for subsequent reviews and certification will vary depending on changes to park boundaries, man-made or natural events affecting biodiversity, and the extent of data added or edited after the time of the previous review.

10.10 Why does my Certified Species List not reflect changes since I certified?

There are now multiple workbenches for a park and taxa category in this NRInfo Portal version of NPSpecies, and those snapshots of previously certified data have been imported. Therefore, Certified Species Lists now reflect data frozen at the time of the certification. See What is a Certified Species List for more information.

10.11 What terminology from NPSpecies 1.0 has changed in NPSpecies 3.x?

The following table describes changes to terminology used in NPSpecies 1.0 represented as a crosswalk.

NPSpecies 1.0	NPSpecies 3.x	Definition
Local Classification		Information entered to define which names are used locally to represent organisms and which names are synonyms.
Local List	Park Accepted Status	Current Park Accepted Status for scientific name that is species or below on park-species list. Options are Accepted, Not Accepted, Unknown, and

		Not Applicable (NA).
Local Accepted Name	Park Accepted Name	Scientific names vetted by a park through certification process and that will appear on park species lists. Park Accepted Names can occur at species or infraspecies (e.g., subspecies, varieties, forma, hybrids) level, and a park can include multiple subspecies or varieties of a species on their species list. Evidence and scientific names based on other classification systems (e.g., synonyms) are mapped to these Park Accepted Names. In NPSpecies 1.0, Park Accepted Names were referred to as the parks Local List names or "Organisms".
Park Status field	Occurrence field	Stores the current status of each species in each park.
Checklist fields	Park Status fields	Term that will be used to refer to what was formerly known as "Checklist Fields" in NPSpecies 1.0. These fields include Occurrence (labeled "Park Status" in NPSpecies 1.0), Abundance, Residency, Nativity, and Cultivation.
Park-Name Profile	Park-Species Profile	Screen that shows all detail about a species in a park for one workbench, including Park Status fields, Management fields, comments, data sources, and change history.

10.12 How do I cite NPSpecies data?

Format/style of examples is adopted from:

The Chicago Manual of Style; 15th edition. 2003. The University of Chicago Press, Chicago and London p.753-54. 17.358 Scientific Databases

In sciences especially, it has become customary to cite databases as follows. List, at a minimum, in this order: name of database, URL, a descriptive phrase or record locator (such as a data marker or accession number) indicating the part of database being cited or explaining nature of reference, and finally an access date. In bibliographies or reference lists, list under name of database.

- NPSpecies Proper: NPSpecies The National Park Service Biodiversity Database. NRInfo Portal version. https://nrinfo.nps.gov/Species.mvc/Welcome (accessed November 24, 2008).
- Certified Species List: NPSpecies The National Park Service Biodiversity Database. NRInfo Portal version. https://nrinfo.nps.gov/Species.mvc/Search (certified species list - park status view; accessed November 24, 2008).
- Park-Species List: NPSpecies The National Park Service Biodiversity Database. NRInfo Portal version. https://nrinfo.nps.gov/Species.mvc/Search (park-species list - evidence counts; accessed November 24, 2008).
- Statistics: NPSpecies The National Park Service Biodiversity Database. NRInfo Portal version. https://nrinfo.nps.gov/Portal/Species.mvc/Search (statistics - species richness; accessed November 24, 2008).
- List of Units: NPSpecies The National Park Service Biodiversity Database. NRInfo Portal version. https://nrinfo.nps.gov/Species.mvc/Search (list of units - list of units for one species; accessed November 24, 2008).

10.13 Why does the certified species list contain more than just species that are Present in Park?

Part of the certification process is to evaluate and review all NPSpecies data gathered for the park at the time of the certification. During this evaluation it may be found that some species may not currently exist in the park. By providing species regardless of the Occurrence status those with needs to answer questions of any Occurrence value may find answers. Please refer to the Occurrence column to view the current status of species in the park.

An option resides in the species list grid to further refine the search to exclude species for which you do not wish to view.

Certified species lists are being filtered to just those species that have an Occurrence value of Present in Park or Probably Present for all public viewers.

10.14 Where can I find field definitions?

Field definitions for each report layout can be found in <u>NPSpecies Search</u> help under the heading "Layouts in Detail" or in appendix B of this help manual.

10.15 How do I remove the italics tags from scientific names?

To remove the italics tags from scientific names in a report that you downloaded to CSV or XLSX you have two options:

- Open the file in Excel, use the find and replace function (Control-F), in the "Find what:" space type and leave the "Replace with:" blank, then select the "Replace All" button, and repeat for the end italics tag by entering in the "Find what:" space type and leave the "Replace with:" blank, then select the Replace All button again; or
- prior to downloading the report hide the formatted scientific name and unhide the unformatted scientific name, then download the report. To do this hover your mouse over a column header in the table results to activate the dropdown arrow options, select the columns option from the dropdown and uncheck the scientific name column and check the unformatted scientific name column, then download the report.