

ACADIA NATIONAL PARK NPSPECIES DATA ENTRY STANDARDS

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INTRODUCTION

NPSpecies database documents the occurrence of vertebrates and vascular plants and has the capabilities to document multiple supporting evidence including references, vouchers, and observations for each species recorded in each park unit. This database will allow managers to get up-to-date checklists of all vertebrates and vascular plants in their park, including legal status, list of exotic species present in park, abundance, and other basic information. Also information on where voucher specimens are stored and the coordinates where species were observed or collected will be available and exportable to Arcview GIS.

The standards for entering data in the NPSpecies database as outlined in this document are designed specifically for Acadia National Park. Users should also consult the extensive documentation and data dictionary for this database at the following web site: <http://www.nature.nps.gov/im/apps/npspp/index.htm>. This document will detail the source of information that should be used for input into the Acadia database and the standards for entering these data in a consistent format.

We split the NPSpecies database for Acadia National Park into 6 separate databases representing different administrative units within the park. As a result, users will have to work with all 6 databases to get park-wide information on species. Once the administrative unit option is operational in the online NPSpecies database

(<https://science.nature.nps.gov/npspecies/>; estimated operational by fall 2002), these 6 separate databases will be merged into a single database for the park with details down to administrative unit level. The 6 databases are:

AcadiaMDI: Mount Desert Island

AcadiaSCH: Schoodic Peninsula

AcadiaIAH: Isle au Haut

AcadiaISL: Offshore islands from Penobscot Bay to the east side of Schoodic Peninsula.

AcadiaEAS: Easement parcels held by Acadia National Park in any of the above locations.

AcadiaSACR: St. Croix Island International Historic site

Each of these databases document species within park boundaries as well as on adjacent lands. In these databases, each species is either documented as unconfirmed (reported in the area but not within park boundaries) or as present or historic within park boundaries. A species can be considered present or historic in the park if there is a written record of the species within park boundaries; on lakes, ponds, or streams within or bordering park lands; in the airspace above park lands; or in the intertidal zone down to mean low water directly adjacent to park lands. If a species is reported from a general area with extensive private property, e.g. "Isle au Haut", and it is uncertain if the species occurred within a park parcel or on adjacent private land, the species is included on the park species list but the park status is reported as unconfirmed.

All animals entered in the databases are referenced to the species (and not subspecies) level of taxonomy; all plants are recorded to subspecies and varieties when known.

PARK SPECIES LIST FORM

PARK CODE: ACAD

TSN: Taxonomic Serial Number. All nomenclature follows the sources listed below, even if ITIS does not recognize the names.

Birds: Sibley, D.A. 2000. The Sibley guide to birds. Chanticleer Press, New York.

Amphibians and Reptiles: Hunter et al. 1999. Maine amphibians and Reptiles. The University of Maine Press, Orono, Maine.

Mammals: Whitaker, J.O., Jr and W.J. Hamilton, Jr. 1998. Mammals of the eastern United States. Cornell University Press, Ithaca, New York.

Freshwater Fish: Scott and Crossman. 1973. Freshwater fishes of Canada. Fisheries Research Board of Canada, Ottawa.

Saltwater Fish: Robins et al. 1986. A field guide to Atlantic coast fishes – North America. Houghton Mifflin Co.

Plants: Haines and Vining. 1998. Flora of Maine. V.F. Thomas Co. Bar Harbor, Maine.

ITIS RECOGNIZED NAMES: Scientific and Common names recognized by ITIS.

PREFERRED LOCAL NAMES: Latin name and first common name is from one of the following references. Additional common and local names are listed as encountered.

Birds: Sibley, D.A. 2000. The Sibley guide to birds. Chanticleer Press, New York.

Amphibians and Reptiles: Hunter et al. 1999. Maine amphibians and Reptiles. The University of Maine Press, Orono, Maine.

Mammals: Whitaker, J.O., Jr and W.J. Hamilton, Jr. 1998. Mammals of the eastern United States. Cornell University Press, Ithaca, New York.

Freshwater Fish: Scott and Crossman. 1973. Freshwater fishes of Canada. Fisheries Research Board of Canada, Ottawa.

Saltwater Fish: Robins et al. 1986. A field guide to Atlantic coast fishes – North America. Houghton Mifflin Co.

Plants: Haines and Vining. 1998. Flora of Maine. V.F. Thomas Co. Bar Harbor, Maine.

PARK STATUS:

Present: For animals, documented within park boundaries in the past 25 years. Species found on lakes, ponds, streams, and intertidal areas within or bordering the park are included in this category. For plants, all species recorded on park property or adjacent lands are included in this category, and one of the following statements will be added under park status details: "Documented within park boundaries" or "Documented within park boundaries and on adjacent lands" or "Documented on non-park adjacent lands".

Historic: For animals, historic record within park boundaries is documented, but no recent records within park boundaries in the past 25 years. For plants, all species historically recorded on park property or adjacent lands are included in this category, and one of the following will be added under park status details: "Historically documented within park

boundaries" or "Historically documented within park boundaries and on adjacent lands" or "Historically documented on non-park adjacent lands".

Probably Present: This category is not used in the ACAD databases.

Unconfirmed: Species has been reported in area but no current or historic records confirm species within park boundaries.

False Report: Misidentification or taxonomic concept no longer accepted, or some similar problem of interpretation.

PARK STATUS DETAILS: Description of most recent record of species within the park.

ABUNDANCE: Use abundance information from most recent reference if available.

ANIMALS

Abundant: (animals) May be seen daily in suitable habitat and season and in relatively large numbers.

Common: (animals) May be seen daily in suitable habitat and season but not in large numbers.

Uncommon: (animals) Likely to be seen monthly in appropriate seasons and habitat; may be locally common.

Rare: (animals) Present, but usually seen only a few times each year or less.

Occasional: (animals) This category not used in ACAD databases.

Unknown: (animals) Abundance unknown.

PLANTS

Abundant: (plants): This category not used in ACAD databases.

Common: (plants) Species that are widespread and occurring in large numbers in commonly encountered habitats.

Occasional (plants): Species that are sporadic or scattered in suitable habitats.

Uncommon: (plants) Species that occur infrequently in common habitats or more frequently in uncommon habitats.

Rare: (plants) A species usually restricted to small areas, specialized habitats, or consisting of one or a few populations. This category will include all state listed Threatened or Endangered species and all species considered locally rare. For each species listed as rare, one of the following will be entered under abundance details: "Locally rare" or "State listed".

Unknown: (plants) Abundance unknown.

ABUNDANCE DETAILS: Description of most recent record of species abundance within the park.

RESIDENCY: Use best or most recent residency information.

Breeder: Population reproduces in the park. See below for evidence needed.

Birds: Evidence needed for listing as a breeder: Singing bird (7 June – 30 June); pair observed (7 June – 30 June); bird carrying nesting material; nest observed; nest observed with eggs; birds carrying food to young; birds carrying fecal sac material; nest observed with young.

Amphibians and Reptiles: If a species is regularly observed within the park, then it can be considered a breeder, even without direct evidence.

Mammals:

Small mammals or mammals with small home ranges: If a species is regularly observed within the park, then it may be considered a breeder, even without direct evidence.

Very mobile mammals (large mammals, bats, seals): There needs to be some direct evidence of breeding, such as young observed.

Fish: If a species is regularly observed within the park, then it may be considered a breeder, even without direct evidence.

Resident: Present in park at least 2 months each year, but not known to breed there.

Migratory: A migratory species that is regularly found in the park in spring and/or fall, but is not a breeding resident. For birds, Sibley (2000), and Adamus (1983; Atlas of breeding birds in Maine 1978-1983) will be used to help discern between breeding, migratory, and vagrant species and to add a more region-wide perspective on residency. Fish that migrate to park streams to breed should be labeled as a breeder rather than migratory.

Vagrant: Park is outside the species usual range. For birds, Sibley (2000), and Adamus (1983) will be used to help discern between breeding, migratory, and vagrant species and to add a more region-wide perspective on residency.

Unknown: Residency status is unknown.

RESIDENCY DETAILS: Description of most recent record of species residency within the park.

NATIVITY: Use the following references for sources of information on nativity:

Birds: Long, J.L. 1981. *Introduced Birds of the World: The worldwide history, distribution and influence of birds introduced to new environments*. Universe Books: New York, NY.

Palmer, R.S. 1976. *Handbook of North American Birds*. Yale University Press: New Haven, CT.

Palmer, R.S. 1949. Maine birds. *Bulletin of the Museum of Comparative Zoology* 102, Cambridge, Mass.

Amphibians and Reptiles: Hunter et al. 1999. *Maine amphibians and reptiles*. The University of Maine Press, Orono, Maine.

Mammals: Godin, A.J. 1977. *Wild mammals of New England*. The John Hopkins University Press. Baltimore, Maryland.

Fish: Bowes et al. 1999. *Fishes and other aquatic resources of Acadia National Park: a synopsis of published and unpublished information*. Technical Report NPS/BSO-RNR/NRTR/00-6.

Plants: Haines and Vining. 1998. *Flora of Maine*. V.F. Thomas Co. Bar Harbor, Maine.

Native: The species is native to the park. Consider a species native to park if there is no evidence that it was or may have been introduced, stocked, or released in the region. Occasional or vagrant species that are very rarely observed in the park can be considered native if there is some evidence of historic occurrence in the region.

Non-Native: The species is not native to the park. Some evidence species was introduced, stocked, or released in the region.

Unknown: Nativity classification in park is unknown.

CULTIVATION: Only for non-native plants

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). A naturalized species.

WEEDY OR INVASIVE: Only for plant species. This category is not currently used in the ACAD databases.

Yes: Non-native species spreading into disturbed or natural communities.

No: Not as described above.

NATIVITY DETAILS: Summary of the best regional nativity information for species.

DATA SOURCE: Chronological (by author and date) list of references that have any information specific to this species within park boundaries. If list exceeds limit of this field, place older references under the comments field, prefaced with "Data Source (continued)".

COMMENTS: List and summarize chronologically (by author and date) all references regarding the taxonomy, status, abundance, residency, and nativity of species.

ENTERED BY: Name of last person to enter or update the record in the format: G. Mittelhauser

ENTERED DATE: Date when park-species record was most recently updated; (MM/DD/YYYY).

MANAGEMENT PRIORITY: Check box for the most invasive exotic plants and any species that is federally or state listed as rare.

MANAGEMENT PRIORITY DETAILS: Give details regarding why this species is a park priority.

EXPLOITATION CONCERN: No species will be included in this category until further study regarding exploitation of species within the park.

EXPLOITATION CONCERN DETAILS: No species will be included in this category until further study regarding exploitation of species within the park.

VOUCHER FORM

Use this form for museum specimens, herbarium specimens, or other voucher-type specimens (photos, recordings) that scientists will be able to examine in the future. If the collection location is very general, Bar Harbor for example, and it is not known if the specimen was collected from within the park, then do not include it in the voucher database. All vouchers that have been collected from within park boundaries (with adequate details) should be included in this database.

PARK CODE: ACAD

ITIS SCIENTIFIC NAME: ITIS scientific name as recorded in the species database.

TSN: Taxonomic Serial Number.

SENSITIVITY LEVEL:

Public: No access restrictions; All species (except threatened & endangered species) unless there is a reason for restricting access to protect the species.

NPS Only: Restricted to National Park Service Employees; do not use.

Park Only: Restricted to specified individuals; All evidence for threatened and endangered species should be restricted to Park Only

SPECIMEN IDENTIFICATION:

Specimen owner/location: Acronym (if known), name, and address of herbarium, museum, collection, or other location where voucher specimen is stored.

Specimen ID: ID number provided by the repository.

EVENT INFORMATION:

Scientific name: Latin or common name that was used when the species was collected (the name on the original record).

Date: Date of the collection. If no day of month recorded, then use 01. If no month recorded, then use 01. If no year recorded, then make your best guess as to the year and note this uncertainty in the comments field at the end of the form.

Time: Time of collection. Use 24-hour clock. If no time recorded, then leave field blank.

Collector: Name of the collector.

Collector ID number: Collection number provided by the collector. If no collection number is available, type "s.n."

Habitat: Description of habitat where collection was made. Leave blank if no description is available.

Elevation: Elevation where collection was made.

Units: Units for the elevation; a pull-down menu for either feet or meters.

LOCATION WHEN COLLECTED:

Description: Location where specimen was collected, as noted on specimen label.

Local Location Code: Can be used in lieu of coordinates when numerous records need to be added.

UTM: Note: Use UTM (NAD83) coordinates if possible.

X: Easting coordinate. E.g., 565000

Y: Northing coordinate. E.g., 4913000

Zone: Zone 19 for ACAD.

Datum: Pull-down menu for either NAD27 or NAD83.

Coordinate error (meters): Estimated accuracy of the location coordinates in meters.

If the location description is very general, then give a very large coordinate error. Measure error in Arcview map of region.

COMMENTS: General comments for this record, list other details regarding specimen.

DATA SOURCE: The source of the voucher data information, in complete bibliographic citation format.

ENTERED BY: Name of last person to enter or update the voucher record in the format: G. Mittelhauser.

ENTERED DATE: Date when voucher record was most recently updated (MM/DD/YYYY).

OBSERVATION FORM

Use for observations (from field notes, bibliographic references, etc.) of species within park. Only enter an observation if you have a location (site name at least) and at least a year of the observation. If the collection location is very general, Bar Harbor for example, and it is not known if the specimen was collected from within the park, then do not include it in the observation database. Only add observations of species that have been made since 1980.

PARK CODE: ACAD

ITIS SCIENTIFIC NAME: ITIS scientific name as recorded in species database.

TSN: Taxonomic Serial Number.

SENSITIVITY LEVEL:

Public: No access restrictions; All species (except threatened & endangered species) unless there is a reason for restricting access to protect the species.

NPS Only: Restricted to National Park Service Employees; do not use.

Park Only: Restricted to specified individuals; All evidence for threatened and endangered species should be restricted to Park Only

OBSERVATION IDENTIFICATION:

Observation Number: Observation number provided by the observer. If no number, type in "s.n."

EVENT INFORMATION:

Scientific name: Latin or common name that was used when the species was observed (the name on the original record).

Date: Date of the observation. If no day of month recorded, then use 01. If no Month recorded, then use 01. If no year recorded, then make your best guess as to the year and note this in the comments field at the end of the form.

Time: Time of observation. Use 24-hour clock. If no time recorded, then leave field blank.

Observer: Name of the observers; first initial followed by last name

Habitat: Description of habitat where observation was made. Leave blank if no description is available.

Elevation: Elevation where collection was made.

Units: Units for the elevation; a pull-down menu for either feet or meters.

LOCATION WHERE OBSERVED:

Description: Location where species was observed as noted in reference.

Local Location Code: Can be used in lieu of coordinates when numerous records need to be added.

UTM: Use UTM (NAD83) coordinates if possible.

X: Easting coordinate. E.g., 565000

Y: Northing coordinate. E.g., 4913000

Zone: Zone 19 for ACAD.

Datum: Pull-down menu for either NAD27 or NAD83.

Coordinate error (meters): Estimated accuracy of the location coordinates in meters. If the location description is very general, then give a very large coordinate error. Measure error in Arcview map of ANP region.

COMMENTS: General comments for this record, list other details regarding observation.

DATA SOURCE: The source of the observation information, in complete bibliographic citation format.

ENTERED BY: Name of last person to enter or update the voucher record in the format: G. Mittelhauser.

ENTERED DATE: Date when voucher record was most recently updated (MM/DD/YYYY).

REFERENCES FORM

Use for bibliographic references of species within park. Use best sources of species information and go through in detail. Each reference also needs to be entered in the ANP Procite bibliography.

NPBIB ID: The NPBIB ID number from the online NPBIB database. This gets entered in the format "NPBIB-10000". This will link this record to the NPS NRBib database. If unknown, leave blank.

CITATION: Full citation for the reference (Author, date, title). Copy directly from output in current ANP Procite bibliography

SENSITIVITY LEVEL:

Public: No access restrictions;

NPS Only: Restricted to National Park Service Employees; All reports on threatened and endangered species should be restricted to NPS Only

PARK CODE: ACAD

ITIS SCIENTIFIC NAME: ITIS scientific name, as recorded in species database.

TSN: Taxonomic Serial Number.

NAMES AS DOCUMENTED:

Scientific Name: The scientific name as printed in the reference. If referred to by just common name, then leave this field blank.

Common Name: The common name as printed in the reference. If referred to by just scientific name, then leave this field blank.