

TABLE OF CONTENTS

I. Introduction

II. General

III. Applicant Qualifications

IV. Project Description

V. Reporting Procedures

VI. Disposition of Collections

Appendix 1 – Detailed Field Notes

Appendix 2 – Fossil Collection Data Sheet

I. Introduction

The purpose of the Heritage Research Permit system is to ensure that any individual exploring for, or recovering, fossils is qualified to undertake the proposed work in a professional manner that will provide maximum, long-term benefits to researchers, educators and the general public.

Heritage Research Permits are granted by the Minister of the Department of Communities, Culture and Heritage and are administered by the Culture and Heritage Develop. Palaeontology permits are available in the following two categories:

- A. Field Research
- B. Professional Research

A. Field Research

Permits may be awarded to knowledgeable and enthusiastic researchers or students who lack professional qualifications, but are interested in developing their skills and contributing to the advancement of palaeontological knowledge in Nova Scotia.

Work that may be undertaken with this permit includes field survey and recovery based on a work plan outlined in the application process. In most instances, field recovery will be limited to extraction from, or collection of, loose material. In rare instances, *in situ* recovery will be permitted with prior approval of the Culture and Heritage Develop.

Unless able to satisfy the criteria established in these guidelines (see Section III of this document), field researchers must commit to working under the guidance of one or more professional researchers (sponsors), whose role is to provide direction, training, advice and assistance where timely and appropriate. Permit holders and their assistants are bound by the provisions of the permit and all research activities are the responsibility of the permit holder.

B. Professional Research

Permits may be awarded to scientists who demonstrate a research interest in some aspect of Nova Scotian geology and palaeontology. This class of permit allows for the collection of *in situ* or loose fossils as part of a scientific investigation into a particular site, strata, time period, or other topic that will advance our knowledge of Nova Scotia's palaeontological and geological history.

For both permit types, the permit holder is responsible for the following:

- Their conduct in the field.

- Accurate recording of field activities.
- Proper cataloguing of collected material.
- Costs for all permit-related activities, as described by the applicant as part of the application process. Costs include, but are not limited to, cataloguing specimens and arranging for their delivery to the Culture and Heritage Develop (1747 Summer Street, Halifax, Nova Scotia, B3H 3A6).
- Project assistants are bound by the provisions of the permit and their activities are the responsibility of the permit holder.

II. General

Applicants must submit an application form, obtainable through the Coordinator, Special Places, Culture and Heritage Develop, or download the [Palaeontology Permit Form](#)

The permit application must be submitted by the individual who will assume responsibility for all aspects of the project and the complete application must be received by the Coordinator, Special Places, Culture and Heritage Develop, no later than three weeks (15 working days) prior to the commencement of the project. A permit is only valid for the requested time period and expires at the end of the calendar year of issue. Any work planned for subsequent calendar years, even for the same project, will require a separate permit for each calendar year.

The application form must be accompanied by a Project Description (see Section IV of this document), which is considered part of the permit. Once approved, a signed copy of the permit application will be returned to the successful applicant and this must be produced for inspection in the field upon request.

A permit application may be made for a palaeontological project involving several locations, however, if research activity that is not described in the original permit application is initiated (even in the same location), another application must be submitted.

Permits shall be issued on the understanding that the applicant, and/or qualified persons under the applicant's direct supervision, will conduct investigations for the sole purpose of recovering information and materials for scientific study and, in doing so, will conform to the best scientific standards within the applicant's ability.

Through the Coordinator, Special Places, Culture and Heritage Develop, a permit holder may apply to the Minister of the Department of Communities, Culture and Heritage to amend an issued permit by expanding the area of research (mapping required) or extending the active period within the calendar year. The Minister may refuse, allow or vary requested amendments in whole, or in part, and may alter the permit accordingly.

The permit holder is bound by all municipal, provincial and federal legislation and regulations as applicable. Obtaining a permit does not grant the right to enter privately owned land without the owner's permission.

III. Applicant Qualifications

Professional Research permits may be issued to an individual who will be responsible for the conduct of problem-oriented research, the communication of its results and the performance of project assistants.

An applicant for a Professional Research permit must be able to demonstrate relevant ability through documentation of previous training and experience in the following areas:

1. The award of a graduate or post-graduate degree in palaeontology, or other related discipline, from an accredited university or an equivalent combination of training and experience acceptable to the Culture and Heritage Develop.
2. A minimum of 10 weeks participation in palaeontological field projects involving field work and analysis or an equivalent combination of training and experience acceptable to the Culture and Heritage Develop.
3. The demonstrated ability to design, execute and supervise all aspects of a study comparable in scope and nature to the project described in the application, including the preparation and timely submission of a satisfactory report and supporting documents, materials and collection.

The applicant must also have:

1. When relevant, complied with all conditions of previous permits in Nova Scotia.
2. Access to facilities necessary to carry out field work, analysis and report preparation, including the safe storage of palaeontological materials for the duration of the project.
3. Access to specialist services such as conservation and analysis as required by the nature, scope and design of the proposed project.

IV. Project Description

The permit application form shall be accompanied by a Project Description that will use the following headings to describe the proposed project:

1. Name
2. Address
3. Contact Information (phone, email, fax)
4. Date of Commencement of Field Investigations
5. Date of Termination
6. Summary of Project
7. Location(s) of Project on a 1:50000 map (larger scale acceptable)
8. Project Description
 - a) Scope and objective of investigations
 - b) Significance of proposed project
 - c) Proposed research plan and methodology
 - d) Relations of proposed project to previous work or other work in progress
 - e) Anticipated crew size, names of crew and relevant experience
 - f) Schedule of field work and analysis
 - g) Projected conservation requirements and proposed conservation measures
 - h) Financial and other support applied for, or already granted, in support of proposed project
 - i) Curriculum vitae of applicant*
 - j) Previous Heritage Research Permits awarded to applicant

*In the case of multiple permit applications by an individual within any calendar year, a curriculum vitae is only required for the first application in that year.

Please note the following:

- Failure to submit a complete application will delay approval of the permit until such time as all requirements are fulfilled.
- Processing time is calculated from the date of receipt of all required elements of the application.
- Upon permit approval, for the purposes of promoting an appreciation and understanding of special places in Nova Scotia, the Permit Holder, Permit Number and Project Name will be made available to the public.

V. Reporting Procedures

A permit holder shall submit a report of activities to the Coordinator, Special Places, Culture and Heritage Develop, by March 31 of the year following permit's year of issue. A digital version in a format acceptable to the Culture and Heritage Develop must be submitted and will be available to others involved in or interested in palaeontology in Nova Scotia. The report shall contain the following sections:

1. Overview of Activities

This section will provide a brief description of the work undertaken by the permit holder. It must include the purpose of the research, the dates spent in the field, the names of those involved in the work, the location of the work (topographically and geographically) and a general description of the size and nature of any collections.

2. Detailed Field Notes

A photocopy of field notes recorded during the course of the field work, along with associated photographs where relevant and available (see Appendix 1).

3. Field Collecting Form

A Fossil Collection Data Sheet should be submitted for each specimen so that standard information will be recorded to support later cataloguing, preparation and research needs.

The Fossil Collection Data Sheet is available from the Coordinator, Special Places, Culture and Heritage Develop (see appendix 2).

A permit holder shall submit copies of all publications and reports which result, in whole or in part, from palaeontological research conducted under permit to the Coordinator, Special Places, Culture and Heritage Develop. Access to all submitted information will be available to researchers through the provincial repository.

4. Catalogued Specimens

All specimens collected must be deposited at the repository named in the *Special Places Protection Act*, which is, unless otherwise arranged, located at the Museum of Natural History, 1747 Summer Street, Halifax, Nova Scotia, B3H 3A6.

Please note:

- Permit holders are responsible for incurring all costs associated with the transport of specimens to the repository.
- Each specimen must have an individual catalogue number physically attached to it (catalogue numbers are obtained from the Curator of Geology, Nova Scotia Museum).
- Each specimen must have an accompanying electronic catalogue record (see Article 5 below).

- If specimens are required for continued research, exhibit etc., arrangement to do so must be made through the Curator of Geology, Nova Scotia Museum.

5. Electronic Catalogue Records

Electronic catalogue records in an Excel© file (or other format acceptable to the Culture and Heritage Develop) must be submitted for each specimen collected. A template of the electronic file may be obtained for the Curator of Geology, Nova Scotia Museum. Catalogue records must be submitted electronically and also in paper format if collections exceed 100 specimens.

6. Confidentiality and Privacy

The disclosure of the final report and enclosures, once approved by the Minister of Communities, Culture and Heritage, are subject to the *Freedom of Information and Protection of Privacy Act*. Under this Act, a permit holder can request that any personal, private business information, or conservation information be kept confidential. It is the permit holder's responsibility to submit justification with the report as to why the information should be kept confidential.

VI. Disposition of Collections and Collections Catalogue Records

All fossils collected under a Heritage Research Permit become the property of the Province of Nova Scotia, *Special Places Protection Act*, R.S.N.S., c. 438, s. 8(3)(d) and must be delivered to the Culture and Heritage Develop or another repository named by the Minister of the Department of Communities, Culture and Heritage.

Unless otherwise arranged through the Curator of Geology, Nova Scotia Museum, all specimens must be submitted by March 31 in the calendar year following the active field season covered by the permit. Arrangements for loans, specimen preparation, exhibition and other uses will be made through the Curator of Geology, Nova Scotia Museum, as described in the [Nova Scotia Museum Collection Management Policy](#)

Cultural material recovered under the Terms and Conditions of this permit may not be exported from Canada without possession of a Cultural Property Export Permit, as required by the *Cultural Property Import and Export Act* administered by the Cultural Property Export Review Board of the Department of Canadian Heritage. Export permits must be arranged by Culture and Heritage Develop. Please note, under the *Cultural Property Import and Export Act*, fossils are considered cultural material.

Appendix 1 – Detailed Field Notes

All geological field trips should be described in field notes and although the necessary level of detail can vary, it is critical to document all findings in a standardized manner so that basics such as date, location, weather and companions are clearly recorded.

Information such as field observations and descriptions of rock types (colour, grain size, bedding direction, etc.) should also be diligently recorded, particularly when collecting fossils. What may seem like a minor observation during a field trip could prove valuable when determining a specimen's significance, therefore, all speculations should be written down.

Additionally, descriptions of any fossils (size, shape, colour, condition) should be included in field notes and every specimen should be assigned a field number that is used to label the bag the fossil is placed in. While field identifications can be very useful, they often cannot be verified until a later time and, therefore, do not need to be included in field notes.

It is also helpful to provide information about the stratigraphy of the fossil, such as age, formation and strata. Researchers are encouraged to provide sketches, whether of the fossil, the location or interesting geological features.

Finally, provide a GPS reading of the location whenever possible. Triangulating on visible features of the site (points of land, churches, lighthouses, etc.) make it possible to obtain a reasonably accurate record of the location and this allows scientists and Heritage staff to track erosion rates, identify fossiliferous areas and undertake long-term palaeontology research.

GPS receivers should be set to NAD 83 and the preferred method for recording coordinates is in decimal degrees (eg. dd.ddddd). If the receiver does not allow for this option, a WGS 84 setting may be used and other formats for recording coordinates such as decimal minutes (eg. dd.mm.mm), decimal seconds (eg. dd.mm.ss.s) or UTM co-ordinates (eg. 20T #####) are acceptable.

In the event that the preferred setting and coordinate recording method (NAD 83 and decimal degrees) cannot be used, ensure that the alternate setting and recording method is clearly indicated in all notes. If access to a GPS receiver is not possible, a detailed description of the site's location should be submitted in writing.

While a photocopy or scanned copy of the researcher's field book must be submitted with the permit report, the Fossil Collection Data Sheet (Appendix 3) can be used to record much of this required information. All submitted field

books and data sheets will be maintained in the province's permanent repository and for use by future researchers.

Appendix 3 - Fossil Collection Data Sheet

General Information

Name of Collector:	Permit Number:
Field Number:	Date:

Location

Name of Site:
Local Description:
Distance from cliff/embankment in metres (where applicable):
GPS Coordinates (NAD83, Zone 20):
<div style="display: flex; justify-content: space-between;"> dd.ddddd dd.mm.mm dd.mm.ss.s 20T ##### </div>

Specimen Description

Size of host block:	
cm	x
Rock Type:	Rock Colour:
Stratigraphy (Group/Formation):	
General Description:	

Fossil Description

Fossil Type:	
Plant	Vertebrae
Trace	Invertebrate
Unknown	
Size:	
cm	x
cm	x
Condition:	Field Identification:

NOTE: In your report, include a detailed sketch of the sample site showing the original location and orientation of the host rock and fossil(s) as applicable

Title: Palaeontology Professional Research Guidelines
Date: 22 May 2014
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