



ONTARIO PUBLIC SERVICE  
**CAREERS**

## Job Specification

**Position Title:** FOREST RESEARCH TECHNICIAN

**Job Code:** OPSEU - Resource Technician 3, 41104

**Job ID:** 11515

**Purpose of Position:**

Under general supervision of the Forest Stand Ecology Research Scientist, and in a team environment, to provide technical, laboratory, data management and statistical support to CNFER stand ecology research in support of the Forest Management Class E.A. and other research priorities. Assists in the planning and implementation of laboratory and field studies, and maintains computer files for analyses. Provides group leadership by training and supervising unclassified staff in methodologies and protocols for field sampling, laboratory work and data analysis.

**Duties/Responsibilities:**

1. Conducting a field data collection program by establishing and measuring research plots, by gathering ecological data and collecting field samples according to established designs and sampling standards, maintaining laboratory experiments, sample processing and analyses; calibration of field equipment, technologies and data collection procedures;
2. Provide leadership and expertise to field crews while acting as a field crew supervisor or while directing work in the office or laboratory. Providing leadership to assigned students and unclassified staff, including establishing work assignments and priorities, monitoring the quality and quantity of work, reporting on progress; ensuring staff compliance to the Occupational Health & Safety requirements and any other legislation or policies that apply to the work;
3. Acting as a liaison with forest industry representatives, research partners and collaborators and other MNR staff to ensure program progress and provide feedback to both MNR and partners, including conducting field training sessions and workshops;
4. Utilize knowledge and expertise to make field decisions on survey site suitability and application of survey methodologies;
5. Assuring data quality by: conducting quality assurance assessments of field sampling activities and completed tally sheets; maintaining accurate field records on conduct of field and laboratory work; deploy, maintain and troubleshoot electronic data capture devices and data storage computers; transferring field collected data from electronic data capture devices to data storage media; ongoing evaluation of data integrity and security and correcting inconsistencies;
6. Purchasing and maintaining equipment and supplies, and keeping inventory and appropriate records of vehicle usage; daily personal diaries, attendance and expense records and submitting these as required;

7. Analyzing data by performing statistical analysis, project summaries, review/revision of field protocols, methods and data collection manuals; preparing summary reports of analysis and literature searches which might include tables, graphs, photographs and presentation material.

8. Assisting with the transfer of science knowledge and information and project administration such as budget preparation, monitoring, auditing, and reporting on contractor performance; Keeping records up to date; responding to inquiries.

9. Manager has the right to assign additional duties.

**Working Conditions:**

On an annual basis approximately 50% of time spent in laboratory and office, and 50% in the field. Between May 1st and October 1st more than 70% of time in the field, often on extended trips away from home

The incumbent shall, work in compliance with the Occupational Health and Safety Act and its regulations and any workplace practices as directed by the employer. The incumbent shall ensure that workers take precautions to protect the health and safety of themselves and others by complying with such acts, codes, policy, procedures or accepted workplace practices as may be appropriate. The incumbent shall advise workers of actual and potential dangers in the workplace and take the required precautions.

**Knowledge:**

Job requires field-based knowledge of forest biology, ecology, silviculture, and forest resource management, concepts and practices including proficiency in vegetation identification, soils description and classification, and the use of forest and wetland ecosystem classification and description techniques to assist in the planning and implementation of field and lab studies.

Job requires knowledge and experience of locating, establishing and measuring field plots to conduct a field data program by gathering silviculture and other ecological data and collecting field samples..

Job requires working knowledge of computer usage. Windows operating systems to provide statistical summaries and produce reports using computer software packages (i.e. MSWord, Access, EXCEL, Power Point, PROCITE and data base management software).

Job requires knowledge of principles and use of GIS for mapping and data/information display.

Job requires knowledge of standards and operating practices for information gathering and storage (e.g. data collection and inventory techniques, data preparation and entry/digitizing) to ensure complete, accurate information is available and secure for subsequent use in the development and validation of ecological land classification products, forest growth and productivity models, stand dynamics and succession information and standards related to forest renewal and regeneration.

Job requires knowledge of field equipment operations to perform training, field maintenance, adjustments and repair of equipment such as global Positioning System locators, hand held data computers, laser height finders, vehicles, outboard motors and boats, all-terrain vehicles in accordance with users manuals (e.g. change spark plugs, tires, adjust fuel mix, change snow machine belts) to provide calibration or to return equipment to appropriate formal maintenance location from field operations.

Job requires knowledge of the Occupational Health and Safety Act and its regulations and any workplace practices as directed by the employer to ensure that workers take precautions to protect the health and safety of themselves and others by complying with such acts, codes, policy, procedures or accepted

workplace practices as may be appropriate. The incumbent shall advise workers of actual and potential dangers in the workplace and take the required precautions.

**Staffing and Licensing Requirements:**

Valid drivers license.  
Must possess or have the ability to obtain a small watercraft certificate for vessel operation.

**Skills:**

Job requires analytical and problem solving skills to make project-level decisions to determine the nature and extent of deviations from existing data collection standards and protocols and recommend corrective action; review standards, policies and procedural guidelines, acts and regulations to determine the approach to a task or to resolve an issue, or to apply them to program operations in field conditions (e.g. plot locations and buffers); resolve technical problems in operational field situations by gathering/analyzing information on site, determining options, selecting a course of action and documenting position/rationale (e.g. quality assurance inspections in temporary or permanent sample plots; and to deal with issues and problem situations, particularly in remote field situations.

Job requires group leadership skills to assign work to students and unclassified staff on behalf of the supervisor, including training, assigning daily work, monitoring the quality and quantity of work and reporting on progress.

Job requires interpersonal skills to deal with requests and concerns of clients/partners (e.g. contractors, consultants, other MNR staff and the forest industry). Must have interpretive skills and ability to communicate effectively, orally and in writing.

Job requires developed skills in forest research laboratory and field procedures associated with studies conducted in the area of forest ecology to provide technical, laboratory, data management and statistical support and to assist in the planning and implementation of laboratory and field studies..

Job requires ability to instruct others in the use of survey methods, computer software as well as other sophisticated field and laboratory equipment such as field mapping systems and surveying instruments, office and drafting equipment, digital cameras and accessories, microscopes and camera attachments, chemicals and stains, distillation apparatus, pH meters, precision balances, electronic test instruments, water and soil test kits, hand and power tools and electronic data capture devices.

Job requires oral and written communication skills to respond to resource industry and internal inquiries by providing both oral and written information on matters such as reports, resource data and maps; make presentations, communicating and sharing information with professional staff and clients in resource management programs and partnerships to further understanding of projects; conduct field tours, training sessions and represent the Ministry at displays; and to present information/ideas and recommendations when dealing with industry, resource contractors and consultants.

Job requires planning and coordinating skills to organize, schedule and coordinate human and equipment resources (e.g. boats/motors, pumps, vehicle transportation, aircraft, base camp equipment) for field projects (e.g. establishment or re-measurement of permanent sample plots) with resource agencies involved in natural resources assessment and management.

Job requires ability to undertake physically demanding field work in all types of weather conditions.

**Freedom of Action:**

Under the general supervision of the project scientist/biologist has the ability to make decisions regarding field staff scheduling and deployment, survey site suitability, application of survey

methodology and on site issue resolution. Job requires situations clearly outside established policies and procedures, program issues to be referred to supervisor and/or program specialists (e.g. issues which will be controversial / sensitive to client groups).

Job requires working within established practices and procedural controls, Ministry and Government policies, legislation, guidelines and directives, when making decisions on project-level procedures such as project data collection.

Job requires providing ongoing updates to manager and other team members through regular meetings, discussions and periodic reviews, to deal with problem area. Work is reviewed for progress and results by supervisor, especially any actions directly related to data quality or required changes to existing data collection procedures.