



## IDENTIFICATION

Department	Position Title	
Environment and Climate Change	Wildlife Biologist (Bison)	
Position Number	Community	Division/Region
23-3776	Fort Smith	Wildlife Management

## PURPOSE OF THE POSITION

The Wildlife Biologist (Bison) is the Department authority on bison research and management and is responsible for providing overall direction on bison research and management programs in the NWT consistent with the Department's mandate and goals. The incumbent identifies research needed to improve the understanding of the ecology and status of bison populations and habitat, and provides advice on research, management and recovery methods to other biologists, Assistant Director, Wildlife Research and Management and Director, Wildlife and works with Departmental staff and co-management boards to ensure that bison management plans reflect current information on bison ecology and status. The incumbent also advises other divisions, regions, Departments, agencies and co-management boards on bison research and management strategies and serves as a Departmental link to national and international organizations and initiatives dealing with bison and bison disease management including the national recovery program for wood bison.

## SCOPE

The Wildlife Biologist (Bison) reports to the Manager, Wildlife Research and Management, and works collaboratively with regional staff, co-management boards, aboriginal organizations and communities to prepare and implement NWT wide management strategies (e.g. NWT Bison Management Strategy) and herd/population management plans and action plans that identify the research programs and management actions required to effectively manage bison populations in the NWT. The incumbent regularly provides advice on research methods, short and long term planning, co-operative participation with regional staff, interactions with co-management boards, community consultation and developing research partnerships.

Recommendations are made to the Manager, Wildlife Research and Management and Director,



Wildlife. Work is undertaken and developed by the incumbent through verbal and/or written direction, and objectives are negotiated between the incumbent and.

Management approval is with respect to overall consistency with general Department/Division objectives, however ultimate responsibility for scientific validity of the program rests with the incumbent. Professional journals are used to extract comparable data and keep the incumbent informed of current procedures, standards and practices. Competent decisions will ensure that data collected and interpreted is relevant, cost-effective, well supported and suitable for management decisions. Good decisions will facilitate effective co-management and support habitat conservation and sustainable use of wildlife. Bad decisions could lead to inappropriate management actions and could affect the credibility of the Department and the ability to provide leadership in co-management and recovery of species at risk.

## **RESPONSIBILITIES**

### **1. Ensures that NWT bison research and management studies and monitoring programs are compatible and comparable across the NWT by:**

- Preparing territorial management strategies that establish overall direction for bison research, management and recovery programs.
- Supporting regional and territorial wildlife management planning initiatives and preparation of action plans.
- Advising on research and monitoring program design and techniques.
- Identifying and supporting opportunities to obtain and incorporate Traditional Knowledge into research and management programs.
- Advising on the application of theories and principles of resource management.
- Reviewing and advising on data interpretation.
- Making recommendations concerning the study development and management concepts.
- Projecting probable sequences of events, to provide guidance in planning human activities, management policies and operational procedures.

### **2. Using skills developed during postgraduate study, and refined and maintained through experience and current practice, provides advice to ensure that bison habitat and ecosystems are conserved, wildlife abundance and diversity is maintained, and the Department's wildlife policies and strategies are professionally credible by:**

- Identifying conservation problems and gaps in information and knowledge in bison management.
- Making recommendations on resolving conservation problems and closing information gaps.
- Preparing proposals for research and management projects necessary to close information gaps.



- Providing advice on the initiation, expansion or termination of studies.
  - Reviewing local, regional and co-management board requests and proposals.
  - Reviewing and studying scientific literature and developing professional contacts to maintain proficiency in the field of specialization.
  - Reviewing local and traditional knowledge and incorporating it into research planning and analysis.
  - Attending local, regional, territorial, national, and international conferences and meetings as required to present Departmental wildlife strategies and research results.
  - Reviewing and interpreting Territorial wildlife regulations and legislation (and associated amendment proposals) to ensure consistency with conservation principles, and relevant federal legislation.
- 3. Develop partnerships with other agencies, universities, industry representatives, local communities and committees, etc. to conduct bison and habitat research to ensure that management policies, conservation strategies and recommendations have a sound scientific basis by:**
- Working with local and regional staff to design and conduct surveys to define bison populations and determine their abundance, trend, and demographic parameters.
  - Designing and conducting professionally credible surveys to monitor distribution, survival and behaviour using humane techniques.
  - Working with Department staff and other agencies to address bison disease issues including Brucellosis, Tuberculosis and Anthrax.
  - Supervising and ensuring humane capture and handling of live bison during field operations.
  - Undertaking ecological and habitat research necessary to answer management questions and support environmental impact assessments.
  - Writing and publishing progress reports and peer-reviewed journal publications.
  - Ensuring research projects use the most effective techniques available.
  - Designing innovative techniques, sampling protocols and equipment to meet study needs.
- 4. Provides ecological advice to other sections, outside agencies, and users on conservation, environmental impact and management concerns by:**
- Participating in National Wood Bison Recovery Team for species conservation.
  - Participating in IUCN Bison Specialist Group for bison management in North America as required.
  - Evaluating and interpreting studies by other agencies and determining the applicability of information, techniques, and practices.
  - Making recommendations on proposed specifications and design considerations for human activities and facilities.



- Meeting with co-management boards and community wildlife committees on technical issues and briefings.
- Meeting or corresponding with representatives of industry, government agencies, academics, consulting firms and with private individuals to discuss problems and proposed studies.
- Meeting frequently with local user organizations to discuss issues of mutual concern.
- Reviewing and maintaining knowledge of relevant national and international wildlife and endangered species legislation to identify and provide advice on bison management strategies.

**5. Administers the activities associated with management studies and field projects being conducted by the incumbent to ensure that the objectives and requirements of the studies are being fulfilled by:**

- Interviewing and selecting candidates for employment in relation to the studies such as permanent or term technician employees, and casuals.
- Supervising and assigning work priorities to these subordinates and designating their responsibilities.
- Evaluating work performance and appraising subordinates.
- Providing field support and supervision to collaborating researchers including agency biologists and University graduate students.
- Preparing and documenting annual estimates and forecasts for study funds, equipment, facilities and staff.
- Controlling annual expenditures in amounts ranging up to \$500,000
- Allocating equipment and facilities to projects within the studies.
- Developing and administering service contracts, contribution agreements and Memorandums of Understanding in support of field research objectives.
- Consulting with other professional staff and reviewing interim reports to determine work progress.
- Conducting study reviews of co-operative activities with other wildlife agencies to evaluate progress toward meeting objective and to project future requirements for wildlife resources being studied.

**WORKING CONDITIONS**

**Physical Demands**

Hiking long stretches, load and unload snowmobile on airplane, ATV on truck, loading and unloading fuel drums and gear into aircraft, capturing wildlife (bison weigh over 900kg). Bi-monthly 2-5 days.

Supervising and conducting bison handling and disease-testing projects, which may involve working bison through a corral system and manual-restraining squeeze. Annually. 6-10 days.



### **Environmental Conditions**

Exposure to extreme temperature in isolated camps. Danger of infection from zoonotic diseases (i.e., bovine tuberculosis, brucellosis, and anthrax) from handling bison and conducting post-mortem examinations. Danger of physical injury particularly when working with live bison during herd round-ups and disease-tests. Chemical immobilization and euthanizing bison involves powerful drugs and loaded firearms. Exposure to high decibel noise and fumes from aircraft, snowmobiles ATVs, and working around heavy equipment.

### **Sensory Demands**

Use of potentially dangerous field equipment and chemicals may require rapid and competent judgment under strenuous conditions. Bad decisions can endanger health and safety of incumbent, colleagues and support staff.

Aerial surveys and radio tracking. Headsets are worn for many hours at a stretch listening for signals from radio collars. Visually searching for wildlife tracks from an aircraft for many hours at a stretch.

### **Mental Demands**

The incumbent may be away from home for extended periods of time while in the field or on conference/meeting trips. There is expectation to work irregular or long hours, or to work on weekends or holidays when field activities require.

Data analysis using specialized algorithms, report deadlines, and representing GNWT on research and/or management issues to scientific forums, other agencies and the media can be stressful.

Disruption to family life due to field sessions and travel. Living in isolated camps, lack of privacy, no medical facilities.

### **KNOWLEDGE, SKILLS AND ABILITIES**

- Demonstrated knowledge of conservation biology, wildlife population dynamics, and wildlife management issues, including field sampling, aerial survey, and statistical techniques and computer software.
- Demonstrated field knowledge of animal behavior and humane animal handling procedures, and general post-mortem examination techniques.
- Demonstrated knowledge of recent advances in research and analytical approaches contained in published literature, including conservation genetics, applied wildlife disease epidemiology and risk assessment methodologies.
- Demonstrated writing and editorial skills and command of the English language to convey technical concepts and recommendations.



- Proven analytical, critical thinking and research skills
- Organizational skills and an attention to detail.
- Oral communication skills and a proven ability to express ideas.
- Ability to work with a wide range of computer applications including word processing, spreadsheet, GIS and database software.
- Ability to work independently and without close supervision in a co-operative environment both within the Department and external to the Department.
- Ability to exercise sound judgment and diplomacy on controversial wildlife management issues.
- Ability to present results of research to both public laymen and scientific audiences.
- Ability to administer budgets, estimate study costs, and supervise and motivate support staff.
- Ability to communicate effectively with wildlife users, band councils, wildlife committees, co-management boards and special interest groups.
- Ability to commit to actively upholding and consistently practicing personal diversity, inclusion and cultural awareness, as well as safety and sensitivity approaches in the workplace.

**Typically, the above qualifications would be attained by:**

The knowledge, skills and abilities required for this position are usually obtained through completion of a Master of Science degree in Wildlife Ecology or Conservation Biology, plus a minimum of five (5) years of related experience including design of field research, data management and analysis, public consultation and publication of peer-reviewed studies.

The knowledge, skills and abilities required for this position may also be obtained through completion of a Bachelor of Science degree in Wildlife Ecology or Conservation Biology, plus seven years of related experience including design of field research, data management and analysis, public consultation and publication of peer-reviewed studies.

Equivalent combinations of education and experience will be considered.

**ADDITIONAL REQUIREMENTS**

**Position Security (check one)**

- ☒ No criminal records check required
- ☐ Position of Trust – criminal records check required
- ☐ Highly sensitive position – requires verification of identity and a criminal records check

**French language (check one if applicable)**

- ☐ French required (must identify required level below)



Level required for this Designated Position is:

ORAL EXPRESSION AND COMPREHENSION

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

READING COMPREHENSION:

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

WRITING SKILLS:

Basic (B) ☐ Intermediate (I) ☐ Advanced (A) ☐

☐ French preferred

**Indigenous language:** Select language

☐ Required

☐ Preferred