

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼
HUMAN RESOURCES ENTERPRISE

NATURAL RESOURCES BIOMETRICIAN

DEFINITION

Performs advanced level professional work in planning, designing, and conducting surveys and field research projects; creates and/or maintains databases of historical data; performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES

Coordinates entire effort of post-season harvest surveys, attitude surveys, public use surveys, and mass mailings directed towards natural resource enthusiasts; consults with biologists and administrators concerning survey scheduling, objectives, design, and layout; identifies methods for reducing bias through appropriate questionnaire design; extracts sampling frame from electronic licensing database; determines appropriate sampling methods, sample size requirements, and proper sampling procedures; maintains quality control of sampling frame; establishes protocol for data coding and data entry; identifies methods for increasing response rates; determines the appropriate analyses for survey data; provides proper interpretation of survey results.

Writes computer programs to perform all functions related to surveys, including the selection of statistical samples, identification of non-respondents, data quality control, missing value imputation, and final analysis of harvest data.

Establishes and maintains printing, mailing, telephone and data entry contracts, oversees postage accounts; coordinates all aspects of business reply mailings with the post office.

Examines survey data for potential bias arising from regional and/or demographic differences among respondents.

Monitors and evaluates the workflow and processes associated with harvest surveys and makes recommendations to improve the efficiency of the overall process.

Creates and maintains an historical record of both survey procedures and survey data.

Extracts electronic licensing data to perform analyses of license purchasing patterns among natural resource enthusiasts; summarizes data and provides information to biologists and administrators.

Researches, reviews, and recommends advanced software for scientific and statistical applications; purchases and maintains licenses for advanced software; provides users with consultation on using advanced software.

Provides technical assistance to research section employees for software, hardware, and network-related problems.

Prepares technical reports on completed projects and programs, popular articles of public information, or manuscripts suitable for publication in scientific outlets of national scope; reviews manuscripts for scientific publications and for biologists.

Promotes public relations to increase public understanding and acceptance of Departmental goals and programs pertaining to wildlife and fisheries biology; writes articles and gives interviews for the Iowa Conservationist and local newspapers; speaks on radio and television or addresses public organizations; responds promptly to all inquires and complaints in a positive and informative manner.

Prepares and submits oral and written reports to inform agency personnel about project status, to document work accomplished, and to provide a basis for long-range planning; describes work performed; prepares supplementary graphs and tables; summarizes accomplishments; makes recommendations.

Directs the acquisition of materials and equipment for hatchery, research, and fish and wildlife management projects to insure their efficient and timely implementation within budget limitations; keeps a current inventory of equipment; orders materials and monitors their delivery to project sites; checks expenditures against budgeted allocations.

Consults with biologists and administrators to recommend appropriate research design and statistical procedures for ecosystem, population, habitat, and habitat-species relationship projects.

Serves as facility manager.

COMPETENCIES REQUIRED

Knowledge of mathematical and statistical methods and techniques.

Knowledge of research methodology.

Knowledge of scientific, experimental, and research techniques.

Knowledge of current literature on research activities related to fisheries or wildlife.

Knowledge of mechanical and electronic equipment used in processing data.

Knowledge of data sources and methods of obtaining data.

Knowledge of the principles, practices, and current trends in fisheries and wildlife science.

Knowledge of fisheries and wildlife management techniques as practiced in Iowa.

Knowledge of the current principles and practices of conservation in Iowa.

Knowledge of facility maintenance practices and operations.

Knowledge of Microsoft Windows Operating Systems, Microsoft Office software, SAS statistical software, database software, and antivirus software.

Knowledge of networking computers in a small office environment.

Ability to prioritize multiple tasks and maintain the status of all competing tasks.

Ability to meet deadlines.

Ability to detect gaps in current data; recommend projects to obtain needed data.

Ability to troubleshoot and repair software, hardware, and network-related problems.

Ability to plan and design short and long-term fisheries and wildlife research and investigative projects.

Ability to perform the various tests and operations associated with fisheries and wildlife functions.

Ability to direct the work of subordinates including such activities as planning work assignments, training, and evaluating performance.

Ability to make fish or wildlife management decisions, such as recommending fish stocking projects or changes in fishing or hunting regulations.

Ability to plan budgets and make financial determinations on expenditures for areas of responsibility.

Displays high standards of ethical conduct. Exhibits honesty and integrity. Refrains from theft-related, dishonest or unethical behavior. Conforms to the highest professional standards in the design, analysis and interpretation of research and survey data.

Works and communicates with internal and external clients and customers to meet their needs in a polite, courteous, and cooperative manner. Committed to quality service.

Displays a high level of initiative, effort and commitment towards completing assignments efficiently. Works with minimal supervision. Demonstrates responsible behavior.

Responds appropriately to supervision. Follows policy and cooperates with supervisors.

Aligns behavior with the needs, priorities and goals of the organization.

Encourages and facilitates cooperation, pride, trust, and group identity. Fosters commitment and team spirit.

Expresses information to individuals or groups effectively, taking into account the audience and nature of the information. Listens to others and responds appropriately.

EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS

Graduation from an accredited college or university with a master's degree in Biostatistics, Statistical Ecology, Quantitative Ecology, Wildlife Biology, Fisheries Biology, or a related field, and two years of professional experience in wildlife or fisheries biology;

OR

graduation from an accredited college or university with a degree in Biostatistics, Statistical Ecology, Quantitative Ecology, or related field, and two years professional experience in Biostatistics, Statistical Ecology, or Quantitative Ecology and two years professional experience in wildlife biology or fisheries biology;

OR

graduation from an accredited college or university with a degree in Biostatistics, Statistical Ecology, Quantitative Ecology, or related field substituting fifteen hours of graduate work for each year of the required experience in Biostatistics, Statistical Ecology, or Quantitative Ecology and two years professional experience in wildlife biology or fisheries biology;

OR

graduation from an accredited college or university with a doctorate in Biostatistics, Statistical Ecology, Quantitative Ecology, Wildlife Biology, or Fisheries Biology.

Effective Date: 02/08 JG