Specification for Class of

FISHERIES BIOMETRICIAN
Abolished Effective July 1, 2007

<u>Definition</u>: Serves as a principal research methods advisor to Fish & Wildlife Assistant Directors and staff by using advanced and evolving mathematical statistical sampling theory, experimental design and computer applications within an eco-sysem management approach.

<u>Typical Work</u>

Acts as advisor and consultant to staff in statistical methodology and application of electronic data procedures to fisheries research and management;

Formulates research programs and mathematical methods for use in estimating and forecasting marine fish and shellfish populations, movements, locations, and results of natural and artificial controls;

Confers with representatives of other agencies, interstate and international, for resolution of scientific aspects of fish migration, ownership, and harvest control issues;

Examines potential research areas to determine degrees of inter-relationships and multi-project applicability of possible research; recommends extent, procedure, and order of studies to be undertaken;

Examines current and past research to assure optimum use of sampling data presented and to advance techniques of data handling which will facilitate additional or improved use of data already gathered;

Prepares scientific reports on statistical theory and mathematical models related to fisheries research and management;

Performs other work as required.

<u>Knowledge and Abilities</u>

Knowledge of: advanced mathematics and statistical analytic procedures and theory, stochastic processes, building of mathematic models of animal populations, heuristic programming with respect to population dynamics; biostatistical research involving extension and correlation of principles and synthesis of orders of probability; computer programming of research problems.

Ability to: define parameters of population dynamics; evaluate pertinence of available data; determine and estimate costs of solution of population dynamics problems by alternative approaches to data gathering and processing; speak and write clearly and negotiate effectively on international scientific committees for resolution of fish population and migration issues.

Minimum Qualifications

A Doctoral degree with a major in mathematics or statistics, with major emphasis in animal population or management.

OR

A Doctoral degree with a major in fisheries science or fisheries management, with emphasis in mathematics or statistics relative to animal population biology or management.

OR

A Master's degree with a major in mathematics, statistics or population biology and three years of experience designing statistical or mathematical research in population biology or population management.

Revised minimum qualifications: 4-1-66
Revised definition and minimum qualifications: 9-7-73
Revised definition: 8-18-75
Revised definition and minimum qualifications: 9-14-90
Revised definition: 6-11-99; effective 7-1-99