Aquatic Database

AQUATIC DATA MANAGEMENT SYSTEM (ADAMAS)

Colorado Parks and Wildlife's Aquatic Database

Colorado Parks and Wildlife (CPW) developed a single, centralized computer database - the Aquatic Data Management System (ADAMAS) - to provide current and historic scientific data on the status and trends of the state's fisheries. ADAMAS, which is updated throughout the year, contains information on over 13,000 lakes and stream segments, and all fish managed by CPW for anglers. The objective was to create a single, quick, reliable and easy-to-access database to help CPW managers enhance angling opportunities and provide information for aquatic scientists and other government agencies researching topics that could benefit Colorado anglers across the state.

The actual database is housed on a server in Denver. However the majority of work on the database is conducted by the data analyst within the Aquatic Research Unit at the CPW Fort Collins Research Center.

CPW fish biologists and other fishery professionals - including federal agencies, academics and consultants – continually contribute data to ADAMAS. The database holds all the raw data collected annually from surveys across the state and allows CPW biologists, fishery managers and researchers to monitor changes to effectively manage Colorado's fish resources for anglers.

ADAMAS History

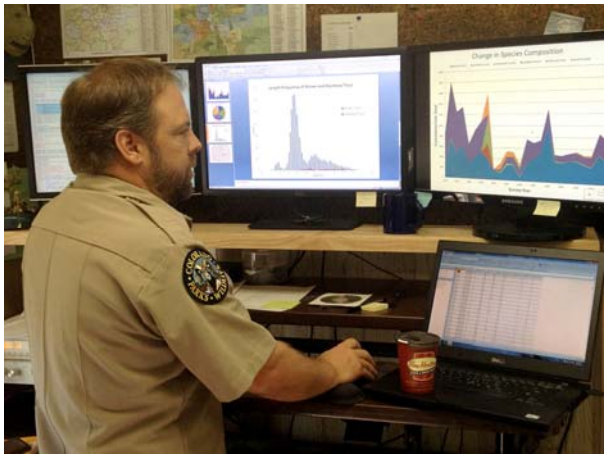
In the 1980's, CPW began to standardize survey and data collection methods, allowing for data from all over the state to be stored together. A database would replace paper files, which typically were lost when biologists retired. CPW leadership decided that a statewide, centralized depository for the entire database would benefit everyone.

The first rendition of the database, called the Stream and lake Databank, was comprised of only related tables. It has continued to evolve and develop into its present form. The database, now residing on a centralized installation of Microsoft SQL DBMS, is made up of hundreds of related tables. While new data is constantly being added and older data is corrected, the actual database design and structure are also constantly evolving to accommodate new data and assessment techniques.

The database currently houses information on over 36,000 individual survey records and over 6 million individual fish, going back all the way to 1875.

ADAMAS Users

- CPW biologists use it to monitor fish populations and manage angling opportunities.
- Consulting companies use it to complete federally required environmental assessments.
- Aquatic research scientists use it on a wide range of projects, from fish health, and water quality, to the effects of climate change and other environmental issues related to fish.
- Water managers use it to inform water management plans and decisions
- The general public utilizes the Colorado Fishing Atlas, which links to the ADAMAS database for information on stocking, species distributions and regulations.
- Scientists who make a formal data request to the data analyst (who coordinates the review and approval of all requests and compiles the data necessary.



ADAMAS Contributors

Eighteen area biologists, four senior biologists, four Aquatic Species Conservation biologists and seven aquatic research scientists contribute data to the database annually. Scientific Collection Permit holders must also submit their data for inclusion into the database in order for any subsequent permits to be processed. This includes federal agencies, academic institutions and private consultants.

ADAMAS Support

A data analyst within CPW's Aquatic Research Section manages ADAMAS, updates and organizes the information, provides technical support for using the data, and coordinates the data request process. The analyst also coordinates the development of new software and provides information to professional fishery scientists focusing on fish health, adaption to climate change and other environmental factors.

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Sources of Data in ADAMAS database