

Aquatic Amphibian Monitoring Protocol for Klondike Gold Rush National Historical Park
Standard Operating Procedure (SOP) No. 6
Data Management
Version 1.0 (April 2009)

Revision History Log

Previous Version #	Revision Date	Author	Changes Made	Reasons for Change	New Version #

6.1 Data Management

This Standard Operating Procedure documents the database KLGOtoads, and provides instructions for the development, maintenance, and distribution of monitoring data associated with the Amphibian Monitoring Protocol for Klondike Gold Rush National Historical Park.

6.1 KLGOtoads Database – Data Model

The database consists of a Microsoft Access Database containing forms, queries and data tables. The primary table for storing site information is “Events”. The table contains one record for each amphibian survey and includes all field data collected for that survey. Related tables are linked to the Events table by an Event_ID number, which is automatically generated by the database upon data entry. Secondary tables associated with the primary “Events” table are: Water Temperature, Species, Locations, and IndivCaps. The IndivCaps Table is linked to the Species Table through a Species_ID number and contains data on individual amphibian captures. The Locations Table is linked to the Events Table through the Location_ID field (Figure 6.1).

6.2 Database Administration

Field data is entered into the database, checked for inconsistencies with field notes, organized, and managed by the Biological Science Technician conducting amphibian monitoring each season. Copies of the database may be sent to other organizations to be analyzed or added to other amphibian-related databases.

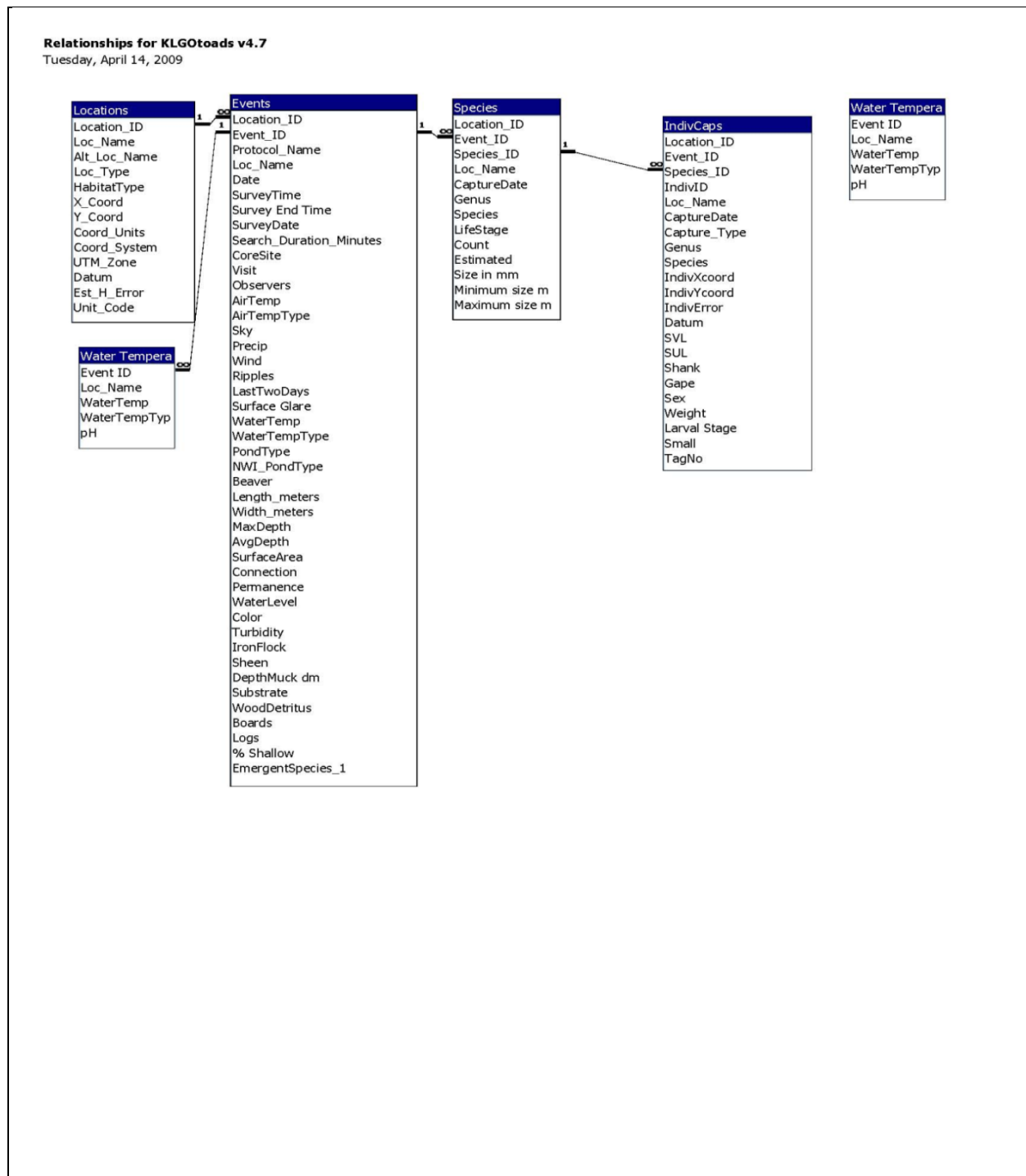


Figure 6.1. Relationships among the primary tables in the database

Data Management Plan

Version Control

Prior to any major changes of a data set, a copy is stored with the appropriate version number

to allow for tracking of changes over time. Naming of archived data set versions is handled by adding a 'v' (version) and number (e.g.1.0) to the end of the file name. Each additional version is assigned a sequentially higher number.

Data Logs and Backups

Backups of the amphibian project database are made by creating a copy of the database, adding "backup" or "copy" to the end of the file name, and storing it in the same network file folder as the original. Maintaining a current backup of the data is useful for protecting data files from corruption or accidental deletion, and should be created if changes are being made to the database structure or formatting. Files on the KLGO network drive are automatically backed up by the computer network each night, and are stored electronically on a server at the regional office in Anchorage. Past versions of corrupt files may be retrieved by the Information Technology Specialist at the Park, but it is also helpful to have a regularly-updated backup version available on the local network if a file becomes corrupt.

6.3 Documentation of Database Tables

Table: Events

Description: Primary table storing routine amphibian survey information including weather, habitat, and observer information. There is one record for each routine amphibian survey.

Table: Species

Description: Secondary table storing field data collected on amphibian observations during a routine amphibian survey including number of egg masses, larvae stages, and larvae sizes.

Table: IndivCaps

Description: Secondary table storing field data collected for individual amphibian captures during a routine amphibian survey including SVL, Gape, Forearm, Weight, Tags, and Swabs.

Table: Water Tempera

Description: Secondary table storing water temperature data collected during routine amphibian surveys.

Table: Locations

Description: Secondary table storing location data for each amphibian monitoring site including Latitude, Longitude, Site name, and Habitat type.

6.4 Field data sheets

Completed field data sheets are archived at the end of each monitoring season after the data has been properly entered and stored in the electronic database.