

Iowa NatureMapping: Enhancing Comprehensive Wildlife Management through Internet GIS Mapping Technology

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Goals and Objectives:

- Develop a comprehensive, online, Geographic Information System (GIS) wildlife mapping tool to allow access to NatureMapping and other wildlife and natural resource data in formats useful to wildlife professionals.
 - Work with various local and state wildlife and natural resource management agencies and organizations to develop a protocol for reviewing and confirming data submitted through the Iowa NatureMapping Program, using the GIS mapping tool, and adhering to the Iowa Comprehensive Wildlife Conservation Plan (CWCP).
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Introduction:

In 2005, Iowa completed its Comprehensive Wildlife Conservation Plan (CWCP). NatureMapping is Iowa's wildlife monitoring program, which utilizes citizens to gather location data on common wildlife species. NatureMapping is creating a Geographic Information System (GIS) mapping tool that can handle the detailed data access needs of wildlife management planners and researchers charged with implementing the CWCP, as well as the needs of local planners, conservation organizations and partners, and active citizen science monitors.

Progress:

There are two phases to this project. The first is to address unresolved and reoccurring problems and design issues with the current database, including the back-end database tables and the front-end web forms that users see. The second phase involves integrating first phase database and web form improvements with a Geographic Information System (GIS) Mapping Tool, which would greatly improve the ability of users to access and interact with NatureMapping data.

The first phase of the Geographic Information System (GIS) Mapping Tool for Iowa NatureMapping is nearing completion. Mistakes in the data were corrected, and the overall structure of the database was improved to better perform on the user side. Currently, improvements are being made to the web forms for NatureMapping monitors and others needing access to tabular data. These changes are into three categories: "User", "Administration", and "Reviewer." The User pages are for current and future NatureMapping Monitors, and changes improve the overall efficiency and detail of data entry and access. The Administration pages improve efficiency of data queries and look ups for the NatureMapping Coordinator, allowing them to better serve their clients. The Reviewer pages are new to the NatureMapping database, and allow full access to the data by wildlife experts who will have the ability to review and comment on all NatureMapping data. Each of these web form changes will complement the second phase of this project.

The NatureMapping GIS Mapping Tool is the next step in this project. This phase of the project hinges on the outcome of the previously mentioned work. Currently, phase two of the project has been delayed because of setbacks experienced by the Iowa State University GIS Facility, who has been contracted to design the mapping tool. Ironically, the setback involves delays in designing another GIS Mapping Tool for the DNR. The good news is that the delay has allowed us to work in more detail on phase one of the project, resulting in an improved database and web forms. Also, the work being done for the DNR will directly inform what is created for our NatureMapping GIS Mapping Tool. Both will be compatible in the long run and even have the potential to be integrated in the future. Because our project is funded by a State Wildlife Grant (SWG) from the DNR and the other GIS Mapping Tool is funded by the DNR, it is hoped that this delay will be seen as a positive for both projects and the final outcome will be a much improved project than would have otherwise been possible. This project is integral to NatureMapping's future plans to create field-friendly database tools.

Future Plans:

Additional electronic data gathering tools are in the works, including a PDA/GPS handheld data collection device.