

Bioinformatics

The development of an on-line database to investigate the spatial and temporal distribution of South Dakota bird records

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ABSTRACT The South Dakota Ornithologists' Union collects seasonal reports of bird observations from competent observers across the state. These observations are compiled and published in their quarterly publication, South Dakota Bird Notes. Previously, this data was provided to the Seasonal Reports Editor on paper forms that were then individually examined to prepare the compiled report for publication. This was an extremely time consuming and laborious process. The goal of this project was to develop a web-based system for collecting, storing, and analyzing this data. This provides a permanent and accessible on-line database of bird records for the state and facilitates investigation of spatial and temporal trends in the distribution of bird species in South Dakota. The site has three levels of access: Public, Observer, and Administrator. An Administrator can manage users of the site, manage the data submitted to the site, manage the species checklist, and generate reports from the species database. Approved Observers are able to submit sightings for inclusion into the database. The Public may query the records in the database, generate a listing of early/late arrival dates, and produce a graph of the temporal distribution or a map of the spatial distribution of the records in the database.