Web Mapping Tool for Fish Species at Risk in Ontario

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Under the *Species at Risk Act (SARA)*, Fisheries and Oceans Canada (DFO) is responsible for protecting aquatic species at risk (SAR). DFO-Science is required to develop recovery strategies and action plans for aquatic SAR, and DFO-Fish Habitat Management (FHM) is responsible for provisions of *SARA* related to protection and compliance. To protect SAR, it is necessary to understand their distribution, abundance, and life history. Currently, there is no single database that houses all of this information. DFO-Science and DFO-FHM have collaborated to develop a user-friendly fish SAR web mapping tool. This tool is designed to provide distributional information at regional (i.e. tertiary watershed) and local (i.e. stream reach) scales, and to facilitate access to information pertinent to fish SAR (e.g. COSEWIC report pdfs, fact sheets, recovery strategy links). The distribution data is based on an Ontario fish distribution database containing over 200,000 records for over 150 fish species. These records were primarily collected by the Canadian Museum of Nature, Fisheries and Oceans Canada, Ontario Ministry of Natural Resources and Royal Ontario Museum over the last 50 years. At the regional scale, the web mapping tool allows the generation of species lists by watershed or stream reach, and the production of distribution maps shaded by watershed or reach for individual species. Delineation of stream reaches was undertaken by the OMNR using the Aquatic Landscape Inventory System (ALIS) stream segmentation program. As these segments are generally small (<5km on average), many segments have not been sampled and, therefore, lack distribution data. To overcome this shortcoming, models based on in-stream and landscape attributes will be developed to predict the distribution of individual fish SAR in each segment. This mapping tool will assist DFO-Science in developing recovery strategies, and DFO-FHM and its partners in reviewing proposed development projects for potential impacts to fishes and fish habitat under *SARA* and the *Fisheries Act.* The tool will expedite the review process by providing geo-referenced, up-to-date information on fishes, including fish SAR and their recovery plans, so that informed decisions can be made to minimize impacts on fish SAR.