Fisheries Magazine

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Fisheries Magazine Editorial Team,

We are pleased to submit our manuscript “hatchR: A toolset for predicting fish hatch and emergence” for consideration as a Feature for *Fisheries*.

hatchR is a software ecosystem designed to help fisheries managers and researchers predict the embryonic phenology of fishes. It bridges traditional aquaculture models and accumulated thermal unit approaches, offering highly accurate predictions in wild environments. The tool takes user-provided temperature regimes and spawn timing, applying an effective value model to estimate hatch and emergence timing. The software comes with 51 preloaded salmonid parametrizations and provides extensive guidance on integrating literature-based data or user-generated experiments, enabling customization for any species or population.

The software is available in two forms: 1) An R package, already on CRAN, providing the greatest flexibility for advanced applications. 2) A Shiny-based graphical user interface, designed for fisheries managers seeking an intuitive, applied tool. Both versions allow users to perform data checks, visualize trends, use existing models, or create custom parameterizations.

To showcase the utility of hatchR, our manuscript presents two case studies. The first is a management-focused example, demonstrating how a forest manager might plan roadwork near the spawning grounds of an ESA-listed species. The second is a large-scale application, illustrating predictions across 139 sites, three spawning periods, and four years of continuous temperature data—totaling 1,668 parameter combinations over a broad geographic range.

Beyond the manuscript, we have developed online resources guiding users from basic to advanced application of hatchR. As such, the manuscript presents only the core functionality with a total length of 4,360 words and includes one table and six figures.

We believe our manuscript will be of broad interest to *Fisheries* readers, given hatchR’s applicability across diverse professional contexts from localized, management-driven decisions to large-scale ecological or evolutionary research. A primarily goal of publishing in *Fisheries* is to reach the wide spectrum of practitioners who could benefit from this tool.

If our manuscript is selected for review, we would like to suggest the following subject matter editors and referees, all of which possess the necessary expertise to evaluate our work objectively. To the best of our knowledge, none of the suggested individuals have any conflict of interest.

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