



December 23, 2022

Dear Editor of Methods in Ecology and Evolution,

I would like to submit the accompanying manuscript titled “ohun: an R package for diagnosing and optimizing automatic sound event detection”, for consideration as an Application in Methods in Ecology and Evolution. The R package described in this manuscript has been recently made available on CRAN, but has not been submitted for publication elsewhere.

The R package ohun is intended to facilitate the automated detection of sound events. The most important contribution of the package 1) a friendly implementation of two widely used methods for automated acoustic detection in a platform familiar to the scientific community and 2) an analytical workflow for diagnosing detection performance and applying it to detection optimization, which can be applied to detections from other software. These tools can be extremely helpful for comparing different detection approaches and identifying the right method for a particular study system and research question. Given the growing availability of detection methods and the wide usage of bioacoustic approaches in ecological and evolutionary research, the package ohun can be of special interest to the journals’ audience.

The package ohun is also the result of a personal journey exploring the potential of programming approaches in bioacoustic research, and making those approaches accessible to a wider audience using R as a lingua franca that reaches researchers with limited programming skills. Luckily, these tools have been well received by the community. This reflects the need for free open-source software that allow to implement analyses that better fit the existing diversity of research questions and study systems. In designing ohun, I strived to broaden the audience that can access this R package, by carefully documenting each function, thoroughly commenting the code, writing a vignette with detailed examples and including functions to provide multiple options for data importation, manipulation and analysis.

If considered for review, we suggest the manuscript could be evaluated by: Dr. Dan Stowell (d.stowell@tilburguniversity.edu), Dr. Simeon Smeele (simeonqs@hotmail.com), and Dr. Mitchel Aide (tmaide@yahoo.com).

Thank you for your consideration.

Kind regards,

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