May 17th, 2021

Dear Editors of The R Journal,

We are submitting an original research article entitled **The HBV.IANIGLA Hydrological Model** (article id 2020-134) to be considered for publication in **The R Journal**. We confirm that this contribution is original and has not been published elsewhere, nor is it currently being considered for publication in any other journal.

In this paper we presented the hydrological model HBV.IANIGLA for hydroclimatic studies in the Andes, supported by real world case studies. To our knowledge, this is the first decoupled version of the HBV hydrological model. We believe this article is appropriate for publication in **The R Journal** because: (1) it contributes to extend R into the hydrological modeling field; (2) the model incorporates a modular design, which allows users to build a fit purpose models; (3) it has an ice melting module for clean and debris-covered glaciers, two common types of glaciers in the Andes of Argentina and Chile; (4) the modular design allows for a free-scale modeling approach, an aspect illustrated in the submitted paper; (5) it can be used in conjunction with other R packages to implement a single language hydrological workflow (from data retrieval through presentation of results).

In addition, we want to emphasize that this paper could be of interest for a wider audience than the package users because it is a novel, open-source, and Rcpp written implementation of the HBV, a model that has been used continuously over 40 years for hydrological studies around the world. Not less important, its flexible design and the incorporation of the glacier module can be useful beyond the Andean region, as in the Himalayas or Karakoram mountains ranges. Finally, HBV.IANIGLA can be applied for teaching hydrological modeling, as it offers the possibility of building a customized, open-source model that can be adjusted to the different needs of the students.

We have no conflicts of interest to disclose.
Thank you for your consideration of this manuscript.

Sincerely,

Ezequiel Toum
Mariano H. Masiokas
Ricardo Villalba
Pierre Pitte
Lucas Ruiz