

Subject: Conservation Letters - Decision on Manuscript ID CONL-19-0173
From: Michael Bode <onbehalf@manuscriptcentral.com>
Date: 2019-06-06, 17:53
To: richard.schuster@glel.carleton.ca
CC: egame@TNC.ORG

06-Jun-2019

Dear Dr. Schuster:

Thank you for the recent submission of your manuscript entitled "Integer Linear programming outperforms simulated annealing for solving conservation planning problems" (CONL-19-0173) to Conservation Letters.

Each manuscript submitted to Conservation Letters undergoes an initial assessment to determine its suitability for publication. The journal seeks manuscripts that detail novel policy-relevant studies of either the science underpinning, or the practice of, conservation that are clearly articulated, of broad interest, and rigorous in terms of the methods applied.

I found your manuscript to be rigorous and well-motivated, and the magnitude of the differences you're finding (both computational time and performance) are eye-opening. I'm also quite ready to believe that SA has a better theoretical reputation than practical track-record. However, this article isn't quite right for Conservation Letters - it's primarily theoretical (despite the real data used for the case-study). It is better suited for a more methodological or modelling-focused journal. So I'm returning it without review.

Also (although this was not a factor in my decision, just my thoughts on your MS), the language and tone of the piece felt too narrowly negative towards SA. I'm not saying you went over-the-top in your criticisms, but there are limitations to every method, including ILP. The "L" in the method limits (although doesn't preclude) its applicability to particular conservation planning problems: those with nonlinear constraints, compactness goals, or connectivity, for example. It was those factors - particularly the desire to create compact protected areas - that motivated Ball's use of the SA algorithm, if I recall correctly. A discussion of why SA was originally used in conservation planning, an inclusion of these factors in your own analysis (did you use a boundary length modifier in your comparison, and if so, how did you model that as an ILP?) and some consideration of the limitations of ILP as an alternative, feel missing.

Thank you for considering Conservation Letters for the publication of your study. The journal welcomes the submission of future manuscripts from you and your colleagues.

Sincerely,

Michael Bode, Senior Associate Editor
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