Supplementary Information for: Sampling the limits of spectrally based bathymetric mapping on a large river

December 10, 2018

Carl J. Legleiter[1,2,*] and Ryan L. Fosness[3]

[1] Geomorphology and Sediment Transport Laboratory, U.S. Geological Survey, Golden, Colorado, USA.
[2] Department of Geography, University of Wyoming, Laramie, Wyoming, USA.
[3] Idaho Water Science Center, U.S. Geological Survey, Boise, Idaho, USA.
[*] Corresponding Author: Carl J. Legleiter, cjl@usgs.gov

Contents

Additional Supplementary Information (files uploaded separately)

1. Software S1 (OPTID+PrODcode.zip): Zip archive with MATLAB code for Optimal Band Ratio Analysis (OBRA) of Progressively Truncated Input Depths (OPTID) and logistic regression modeling of the probability of optically deep water, $Pr(OD)$.

Introduction

The Supplementary Information for this article consists of a single component:

1. A zip archive containing MATLAB code for implementing the OPTID and $Pr(OD)$ modeling procedures described in the paper.

Text S1

The MATLAB code compiled in the zip archive included as Supplementary Information for this article was developed by the lead author and is provided to allow interested readers to apply these methods to other data sets. The code is open source and provided as is, without technical support. Please cite this publication any work that makes use of the software.

To use the code, extract the zip archive and add the resulting `OPTID+PrOD` folder to the MATLAB search path. Note that some of the OPTID and PrOD programs require the MATLAB Statistic and Machine Learning Toolbox. The code was developed for MATLAB R2018b and might not be compatible with earlier versions. The main programs of interest are `GenOptidLin.m` and `PrOD.m`.

This software is preliminary or provisional and is subject to revision. It is being provided to meet the need for timely best science. The software has not received final approval by the U.S. Geological Survey (USGS). No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. The software is provided on the condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from the authorized or unauthorized use of the software.

Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.