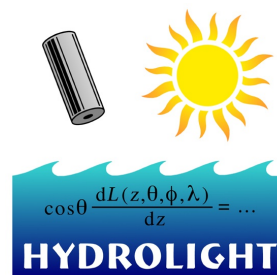


Selected Publications Making Use of

HYDROLIGHT



HydroLight and EcoLight have now been used in hundreds of studies and publications, so I no longer try to keep track of them (and I seldom know about a study unless I happen to see a paper). However, the following list does illustrate the range of uses.

- Albert, A. and C. D. Mobley, 2003. An analytical model for subsurface irradiance and remote sensing reflectance in deep and shallow case-2 waters. *Optics Express*, 11(22), 2873-2890.
- Berwald, J., D. Stramski, C. D. Mobley, and D. A. Kiefer, 1998. The effect of Raman scattering on the underwater light field. *Limnol. Oceanogr.*, 43(4), 564-576.
- Bissett, W. P., R. Arnone, S. DeBra, D. Dye, G. Kirkpatrick, C. Mobley, and O. M. Schofield, 2008. Integration of ocean-colour remote sensing with coastal nowcast/forecast simulations of harmful algal blooms, Chapter 19 in *Real Time Observation Systems for Marine Ecosystem Dynamics and Harmful Algal Blooms: Theory, Instrumentation and Modelling*, M. Babin, J. Cullen, and C. Roesler, Editors. UNESCO Publishing, 860 pps.
- Bissett, W. P., O. Schofield, C. D. Mobley, M. F. Crowley, and M. A. Moline, 2001. Optical remote sensing techniques in biological oceanography. *Meth. Microbiol.*, Vol. 30, 519-538.
- Chang, G. C., T. D. Dickey, E. Boss, C. D. Mobley, and W. S. Pegau. Toward closure of upwelling radiance in coastal waters. *Applied Optics*, 42(9), 1574-1582.
- Dransfeld, S., A. R. Tatnall, I. S. Robinson, and C. D. Mobley, 2004. A comparison of multilayer perceptron and multilinear regression algorithms for the inversion of synthetic ocean color spectra. *Int. J. Rem. Sens*, 25(21), 4829-4834.
- Dransfeld, S., A. R. Tatnall, I. S. Robinson, and C. D. Mobley, 2005. Prioritizing ocean colour channels by neural network input reflectance perturbation. *Int. J. Rem. Sens*, 26(5), 1043-1048.
- Dransfeld, S., A. R. Tatnall, I. S. Robinson, and C. D. Mobley, 2004. Neural network training: Using untransformed or log-transformed training data for the inversion of ocean colour spectra? *Int. J. Rem. Sens*, 27(10), 2011-2016.
- Flatau, P. J., M. Flatau, J. R. V. Zaneveld, and C. D. Mobley, 2000. Remote sensing of bubble clouds in seawater. *Quart. J. Royal Meteor. Soc.*, 126(568), 2511-2524.

- Fujii, M., E. Boss, and F. Chai, 2007. The value of adding optics to ecosystem models: A case study. *Biogeosciences* 4, 817-835.
- Gege, P., 2012. Analytic model of the direct and diffuse components of downwelling spectra irradiance in water. *Applied Optics* 51(9), 1407-1419.
- Hoge, F. E., P. E. Lyon, C. D. Mobley, and L. K. Sundman, 2003. Radiative transfer equation inversion: Theory and shape factor models for retrieval of oceanic inherent optical properties. *J. Geophys. Res.*, 108(C12), 3386-3400.
- Lee, Z. P., K. L. Carder, C. D. Mobley, R. G. Steward, and J. S. Patch, 1998. Hyperspectral remote sensing for shallow waters: 1. A semi-analytical model. *Applied Optics*, 37(27), 6329-6338.
- Lee, Z. P., K. L. Carder, C. D. Mobley, R. G. Steward, and J. S. Patch, 1999. Hyperspectral remote sensing for shallow waters: 2. Deriving depths and optical properties by optimization. *Applied Optics*, 38(18), 3831-3843.
- Lesser, M. P. and C. D. Mobley, 2007. Bathymetry, water optical properties, and benthic classification of coral reefs using hyperspectral remote sensing imagery. *Coral Reefs*, 26, 819-829.
- Liu, C-C, J. D Woods, and C. D. Mobley, 1999. Optical model for use in oceanic ecosystem models. *Applied Optics*, 38(21), 4475-4485.
- Louchard, E., R. P. Reid, F. C. Stephens, C. O. Davis, R. A. Leathers, and T. V. Downes, 2003. Optical remote sensing of benthic habitats and bathymetry in coastal environments at Lee Stocking Island, Bahamas: A comparative spectral classification approach. *Limnol. Oceanogr.*, 48(1), part 2, 511-521.
- Max, N., C. Mobley, B. Keating, and E.-H. Wu, 1997. Plane parallel radiance transport for global illumination in vegetation. *Rendering '97*, J. Dorsey and P. Slusallek, editors. Springer Verlag.
- McKee, D. and A. Cunningham, 2005. Evidence for wavelength dependence of the scattering phase function and its implication for modeling radiance transfer in shelf seas. *Applied Optics*, 44(1), 126-135.
- Mobley, C. D., 1999. Estimation of the remote-sensing reflectance from above-surface measurements. *Applied Optics*, 38(36), 7442-7445.
- Mobley, C. D., 2001. *Radiative Transfer in the Ocean*, In *Encyclopedia of Ocean Sciences*, J. H. Steele, Editor in Chief, Academic Press, 2321-2330.

- Mobley, C. D., L. K. Sundman, and E. Boss, 2002. Phase function effects on oceanic light fields. *Applied Optics*, 41(6), 1035-1050.
- Mobley, C. D. and E. Boss, 2012. Improved irradiances for use in ocean heating, primary production, and photo-oxidation calculations. *Applied Optics*, accepted.
- Mobley, C. D. and L. K. Sundman, 2003. Effects of optically shallow bottoms on upwelling radiances: Effects of inhomogeneous and sloping bottoms. *Limnol. Oceanogr.*, 48(1), part 2, 329-336.
- Mobley, C. D., L. K. Sundman, W. P. Bissett, and B. Cahill, 2009. Fast and accurate irradiance calculations for ecosystem models. *Biogeosci. Discuss.* 6, 10625-10662.
- Mobley, C. D., L. K. Sundman, C. O. Davis, J. H. Bowles, T. V. Downes, R. A. Leathers, M. J. Montes, W. P. Bissett, D. D. R. Kohler, R. P. Reid, E. M. Louchard, and A. Gleason, 2005. Interpretation of hyperspectral remote-sensing imagery via spectrum matching and look-up tables. *Applied Optics*, 44(17), 3576-3592.
- Mobley, C. D., H. Zhang, and K. J. Voss, 2003. Effects of optically shallow bottoms on upwelling radiances: Bidirectional reflectance distribution function effects. *Limnol. Oceanogr.*, 41(1), part 2, 337-345.
- Mobley, C. D., G. F. Cota, T. C. Grenfell, R. A. Maffione, W. S. Pegau, D. K. Perovich, 1998. Modeling light propagation in sea ice. *IEEE Trans. Geosci. Rem. Sens.*, 36(5), 1743-1749.
- Mobley, C. D. and D. Stramski, 1997. Effects of microbial particles on oceanic optics: Methodology for radiative transfer modeling and example simulations. *Limnol. Oceanogr.*, 42(3), 550-560, 1997.
- Moline, M. A., M. J. Oliver, C. D. Mobley, L. Sundman, T. Bensky, T. Bergmann, W. P. Bissett, J. Case, E. H. Raymond, and O. M. Schofield, 2007. Bioluminescence in a complex coastal environment: 1. Temporal dynamics of nighttime water-leaving radiance. *J. Geophys. Res.* 112, C11016, doi:10.1029/2007JC004138.
- Ohlmann, J. C., D. A. Siegel, and C. D. Mobley, 1999. Ocean radiant heating: 1. Optical influences. *J. Phys. Ocean.*, 30, 1833-1848.
- Ohlmann, J. C., and D. A. Siegel, 2000, Ocean radiant heating: Part 2. Parameterizing solar radiation transmission through the upper ocean. *J. Phys. Oceanogr.*, 30, 1849-1865.
- Oliver, M. J., M. A. Moline, C. D. Mobley, L. Sundman, and O. M. Schofield, 2007. Bioluminescence in a complex coastal environment: 2. Prediction of bioluminescent source depth from spectral water-leaving radiance. *J. Geophys. Res.* 112, C11017, doi:10.1029/2007JC004136.

- Smith, R. C. and C. D. Mobley, 2008. Underwater light, Chapter 7 in *Photobiology: The Science of Life and Light*, 2nd Edition, L. O. Björn, Editor. Springer, 684 pps.
- Stephany, S., F. M. Ramos, H. F. de Campos Velho, and C. D. Mobley, 1998. A methodology for internal light source estimation. *Comp. Model. Simul. Engin.*, 3(3), 161-165.
- Stephany, S., F. M. Ramos, H. F. de Campos Velho, and C. D. Mobley, 2000. Identification of inherent optical properties and bioluminescence source term in a hydrologic optics problem. *J. Quant. Spectros. Rad. Trans.*, 67(2), 113-123.
- Stramska, M., D. Stramski, B. G. Mitchell, and C. D. Mobley, 2000. Estimation of the absorption and backscattering coefficients from in-water radiometric measurements. *Limnol. Oceanogr.*, 45(3), 628-641.
- Tanaka, A., 2010. Numerical model based on successive order of scattering method for computing radiance distribution of underwater light fields. *Optics Express* 18(10), 10127-10136.
- Tzortziou, M., J. R. Herman, C. L. Gallegos, P. J. Neale, A. Subramaniam, L. W. Harding Jr., and Z. Ahmad, 2006. Bio-optics of the Chesapeake Bay from measurements and radiative transfer closure. *Estuarine, Coastal and Shelf Science*, 68, 348-362.
- Tyrrell, T., P. M. Holligan, and C. D. Mobley, 1999. Optical impacts of oceanic coccolithophore blooms. *J. Geophys. Res.*, 104(C2), 3223-3241.
- Voss, K. J., C. D. Mobley, L. K. Sundman, J. E. Ivey, and C. H. Mazel, 2003. The spectral upwelling radiance distribution in optically shallow waters. *Limnol. Oceanogr.*, 48(1), part 2, 364-373.