

Charles D. Amsler

Education:

- B.A. Duke University, 1980
- M.S. University of North Carolina at Wilmington, 1983
- Ph.D. University of California at Santa Barbara, 1989

Academic Positions:

- Assistant Research Biologist, University of California at Santa Barbara, 1990
- Postdoctoral Research Associate, University of Illinois at Chicago, 1990-1994
- Assistant Professor, University of Alabama at Birmingham, 1994-2000
- Associate Professor, University of Alabama at Birmingham, 2000-2004
- Professor, University of Alabama at Birmingham, 2004-present
- Program Officer (rotator), National Science Foundation, 2013-2015

Selected Awards and Honors:

- Tyge Christensen Prize in Phycology (International Phycological Society), 2002
- Council for Advancement and Support of Education (CASE), District III Award of Excellence for Overall Website Design and Implementation (Antarctic educational outreach), 2005
- US Board of Geographic Names designated “Amsler Island” Antarctica, 2007
- National 2008 Silver Medal in the CASE Circle of Excellence Awards Program for Creative Use of Technology and New Media (Antarctic educational outreach), 2008
- President, Phycological Society of America, 2009
- Overseas Vice President, British Phycological Society, 2013-2015
- United States Representative to Scientific Committee on Antarctic Research Life Sciences Group, 2016-2022
- Caroline P. and Charles W. Ireland Prize for Scholarly Distinction, UAB, 2016
- Elected Fellow, American Association for the Advancement of Science, 2016
- Graduate Dean’s Award for Excellence in Mentorship, UAB, 2019

Publications (Peer-Reviewed):

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2020. Chemical mediation of Antarctic macroalgal-grazer interactions. In: Gómez, I. & P. Huovinen (eds.), *Antarctic Seaweeds: Diversity, Adaptation and Ecosystem Services*. Springer. *in press*.

Schram, J.B., C.D. Amsler, & J.B. McClintock. 2019 or 2020. Contrasting chemotactic escape responses of the common Antarctic gastropod *Margarella antarctica* to four species of sympatric sea stars (western Antarctic Peninsula). [Polar Science](#), *in press*.

Schram, J.B., M.O. Amsler, A.W.E. Galloway, C.D. Amsler, & J.B. McClintock. 2019. Fatty acid trophic transfer of Antarctic algae to a sympatric amphipod consumer. [Antarctic Science 31: in press](#).

Küpper, F.C., C.D. Amsler, S. Morley, B. de Reviers, A. Reichardt, L.S. Peck, & A.F. Peters. 2019. Juvenile morphology of the large Antarctic canopy-forming brown alga, *Desmarestia menziesii* J. Agardh. [Polar Biology 42: 2097-2103](#).

Ryan, W.H., S. Heiser, M.D. Curtis, **C.D. Amsler**, T. Bayer, G. Bonthond, G. Wang, F. Weinberger, & S.A. Kruger-Hadfield. 2019. The use of photographic color information for high-throughput phenotyping of pigment composition in *Agarophyton vermiculophyllum*. [Cryptogamie, Algologie 40: 73-83](#).

Shilling, A.J., J.L. von Salm, A.R. Sanchez, Y. Kee, **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2019. Anverenes B-E, new polyhalogenated monoterpenes from the Antarctic red alga *Plocamium cartilagineum*. [Marine Drugs 17: 230](#).

Amsler, C.D., M.O. Amsler, M.D. Curtis, J.B. McClintock, & B.J. Baker. 2019. Impacts of gastropods on epiphytic microalgae on the brown macroalga *Himantothallus grandifolius*. [Antarctic Science 31: 89-97](#).

von Salm, J.L., K.M. Schoenrock, J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2019. The status of marine chemical ecology in Antarctica: form and function of unique high-latitude chemistry. Puglisi, M.P. & M.A. Becerro (eds.), [Chemical Ecology: The Ecological Impacts of Marine Natural Products](#). CRC Press. pp. 27-69.

Duquette, A., J.B. McClintock, **C.D. Amsler**, A. Pérez-Huerta, M. Milazzo, & J.M. Hall-Spencer. 2017. Effects of ocean acidification on the shells of four Mediterranean gastropod species near a CO₂ seep. [Marine Pollution Bulletin 124: 917-928](#).

Schram, J.B., K.M. Schoenrock, J.B. McClintock, **C.D. Amsler**, & R.A. Angus. 2017. Ocean warming and acidification alter Antarctic macroalgal biochemical composition but not amphipod grazer feeding preferences. [Marine Ecology Progress Series 581: 45-56](#).

Demko, A.M., **C.D. Amsler**, M.E. Hay, J.D. Long, J.B. McClintock, V.J. Paul, & E.E. Sotka. 2017. Declines in plant palatability from polar to tropical latitudes depend on herbivore and plant identity. [Ecology 98: 2312-2321](#).

Aumack, C.F., A.T. Lowe, **C.D. Amsler**, M.O. Amsler, J.B. McClintock, & B.J. Baker. 2017. Gut content, fatty acid, and stable isotope analyses reveal dietary sources of macroalgal-associated amphipods along the western Antarctic Peninsula. [Polar Biology 40: 1371-1384](#).

Schram, J.B., K.M. Schoenrock, J.B. McClintock, **C.D. Amsler**, & R.A. Angus. 2016. Seawater acidification more than warming presents a challenge for two Antarctic macroalgal-associated amphipods. [Marine Ecology Progress Series 554: 81-97](#).

von Salm, J.L., C.G. Witowski, R.M. Fleeman, J.B. McClintock, **C.D. Amsler**, L.N. Shaw, & B.J. Baker. 2016. Darwinolide, a new diterpene scaffold that inhibits methicillin-resistant *Staphylococcus aureus* biofilm from the Antarctic sponge *Dendrilla membranosa*. [Organic Letters 18: 2596-2599](#).

Schram, J.B., M.O. Amsler, **C.D. Amsler**, K.M. Schoenrock, J.B. McClintock, & R.A. Angus. 2016. Antarctic benthic grazer assemblages exhibit resistance following exposure to decreased pH. [Marine Biology 163: 106](#).

Schram, J.B., K.M. Schoenrock, J.B. McClintock, **C.D. Amsler**, & R.A. Angus. 2016. Testing Antarctic resilience: the effects of elevated seawater temperature and decreased pH on two gastropod species. [ICES Journal of Marine Science 73: 739-752](#).

McDowell, R.E., **C.D. Amsler**, M.O. Amsler, Q. Li, & J.R. Lancaster, Jr. 2016. Control of grazing by light availability via light-dependent, wound-induced metabolites: the role of reactive oxygen species. [Journal of Experimental Marine Biology and Ecology 477: 86-91](#).

Schoenrock, K.M., J.B. Schram, **C.D. Amsler**, J.B. McClintock, R.A. Angus, & Y.K. Vohra. 2016. Climate change confers a potential advantage to fleshy Antarctic crustose macroalgae over calcified species. [Journal of Experimental Marine Biology and Ecology 474: 58-66](#).

Schram, J.B., K.M. Schoenrock, J.B. McClintock, **C.D. Amsler**, & R.A. Angus. 2015. Multi-frequency observations of seawater pH, alkalinity, and carbonate chemistry on the central coast of the western Antarctic Peninsula. [Polar Research 34: 255-282](#).

Schoenrock, K.M., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2015. A comprehensive study of Antarctic algal symbioses: minimal impacts of endophyte presence in most species of macroalgal hosts. [European Journal of Phycology 50: 271-278](#).

Young, R.M., K.M. Schoenrock, J.L. von Salm, **C.D. Amsler**, & B.J. Baker. 2015. Structure and function of macroalgal natural products. In: D.B. Stengel & S. Connan (eds.) [Natural Products from Marine Algae: Methods and Protocols](#). Springer, New York. pp. 39-73.

Amsler, M.O., Y.M. Huang, W. Engl, J.B. McClintock, & **C.D. Amsler**. 2015. Abundance and diversity of gastropods associated with dominant subtidal macroalgae from the Western Antarctic Peninsula. [Polar Biology 38: 1171-1181](#).

McDowell, R.E., M.O. Amsler, Q. Li, J.R. Lancaster, Jr., & **C.D. Amsler**. 2015. The immediate wound-induced oxidative burst of *Saccharina latissima* depends on light via photosynthetic electron transport. [Journal of Phycology 51: 431-441](#).

Schoenrock, K.M., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2015. Life history bias in endophyte infection of the Antarctic rhodophyte, *Iridaea cordata*. [Botanica Marina 58: 1-8](#).

Schram, J.B., J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2015. Impacts of acute elevated seawater temperature on the feeding preferences of an Antarctic amphipod toward chemically deterrent macroalgae. [Marine Biology 162: 425-433](#).

Schoenrock, K.M., J.B. Schram, **C.D. Amsler**, J.B. McClintock, & R.A. Angus. 2015. Climate change impacts on over-story *Desmarestia* spp. from the western Antarctic Peninsula. [Marine Biology 162: 377-389](#).

Wiencke, C., **C.D. Amsler**, & M.N. Clayton. 2014. Macroalgae. In: *Biogeographic Atlas of the Southern Ocean*, De Broyer C., Koubbi P., Griffiths H.J., Raymond B., d'Udekem d'Acoz C., Van de Putte A.P., Danis B., David B., Grant S., Gutt J., Held C., Hosie G., Huettmann F., Post A., & Ropert-Coudert Y. (eds.). Scientific Committee on Antarctic Research, Cambridge, UK. pp. 66-73.

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- Schram, J.B., K.M. Schoenrock, J.B. McClintock, **C.D. Amsler**, & R.A. Angus. 2014. Multiple stressor effects of near-future elevated seawater temperature and decreased pH on righting and escape behaviors of two common Antarctic gastropods. [Journal of Experimental Marine Biology and Ecology 457: 90-96.](#)
- McDowell, R.E., **C.D. Amsler**, D.A. Dickinson, J.B. McClintock, & B.J. Baker. 2014. Reactive oxygen species and the Antarctic macroalgal wound response. [Journal of Phycology 50: 71-80.](#)
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- Pawlik, J.R., **C.D. Amsler**, R. Ritson-Williams, J.B. McClintock, B.J. Baker, & V.J. Paul. 2013. Marine chemical ecology: a science born of scuba. In: *Research and Discoveries: The Revolution of Science through Scuba*. Lang, M.A., R.L. Marinelli, S.J. Roberts, & P.R. Taylor (eds.). ([Smithsonian Contributions to the Marine Sciences, no. 39](#)), Smithsonian Institution Scholarly Press, Washington DC, pp. 53-69.
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- McClintock, J.B., **C.D. Amsler**, & B.J. Baker. 2013. Chemistry and the ecological role of starfish secondary metabolites. In: *Starfish: Biology and Ecology of the Asteroidea*, J. Lawrence (ed.), Johns Hopkins University Press, Baltimore, pp. 81-89.
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Sevak, H.P., **C.D. Amsler**, J.B. McClintock, J.A. Maschek, M.O. Amsler, C.F. Aumack, K.J. Peters, & B.J. Baker. 2012. Algicidal activity and potential antifouling defense in macroalgae from the western Antarctic Peninsula including probable synergistic effects of multiple compounds. [Botanica Marina 55: 311-315.](#)

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Amsler, C.D., J.B. McClintock, & B.J. Baker. 2012. Amphipods exclude filamentous algae from the Western Antarctic Peninsula benthos: experimental evidence. [Polar Biology 35: 171-177.](#)

Aumack, C.F., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2011. Changes in amphipod densities among macroalgal habitats in day versus night collections along the Western Antarctic Peninsula. [Marine Biology 158: 1879-1885.](#)

Aumack, C.F., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2011. Impacts of mesograzers on epiphyte and endophyte growth associated with chemically defended macroalgae from the western Antarctic Peninsula: a mesocosm experiment. [Journal of Phycology 47: 36-41.](#)

Bucolo, P., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2011. Palatability of the Antarctic rhodophyte *Palmaria decipiens* (Reinsch) RW Ricker and its endo/epiphyte *Elachista antarctica* Skottsberg to sympatric amphipods. [Journal of Experimental Marine Biology and Ecology 396: 202-206.](#)

McClintock, J.B., M.O. Amsler, R.A. Angus, R.C. Challener, J.B. Schram, **C.D. Amsler**, C.L. Mah, J. Cuce & B.J. Baker. 2011. The Mg-Calcite composition of Antarctic echinoderms: important implications for predicting the impacts of ocean acidification. [Journal of Geology 119: 457-466.](#)

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Noguez, J.H., T. Diyabalanage, Y. Miyata, X-S. Xie, F. Valeriote, **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2011. Palmerolide macrolides from the Antarctic tunicate *Synoicum adareanum*: structures and bioactivity. [Bioorganic & Medicinal Chemistry](#) 19: 6608-6614.

Koplovitz, G., J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2011. A comprehensive evaluation of the potential chemical defenses of Antarctic ascidians against sympatric fouling microorganisms. [Marine Biology 158: 2661–2671](#).

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