

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):

Heiser, S., **C.D. Amsler**, J.B. McClintock, A.J. Shilling, & B.J. Baker. 2020. Every rule has an exception: a cheater in the community-wide mutualism in Antarctic seaweed forests. [Integrative and Comparative Biology 60: in press.](#)

Bory, A., A.J. Shilling, J. Allen, A. Azhari, A. Roth, L.N. Shaw, D.E. Kyle, J.H. Adams, **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2020. Bioactivity of spongian diterpenoid scaffolds from the Antarctic sponge *Dendrilla antarctica*. [Marine Drugs 18: 327.](#)

Shilling, A.J., C.G. Witowski, J.A. Maschek, A. Azhari, B.A. Vesely, D.E. Kyle, **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2020. Spongian diterpenoids derived from the Antarctic sponge *Dendrilla antarctica* are potent inhibitors of the *Leishmania* parasite. [Journal of Natural Products 83: 1553-1562.](#)

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2020. Chemical mediation of Antarctic macroalga-grazer interactions. In: Gómez, I. & P. Huovinen (eds.), *Antarctic Seaweeds: Diversity, Adaptation and Ecosystem Services*. Springer. [pp. 339-363.](#)

McClintock, J.B., **C.D. Amsler**, M.O. Amsler, & W.R. Fraser. 2020. Intertidal foraging by Gentoo penguins in a macroalgal raft. [Antarctic Science 32: 43-44.](#)

Schram, J.B., **C.D. Amsler**, & J.B. McClintock. 2019. Contrasting chemotactic escape responses of the common Antarctic gastropod *Margarella antarctica* to four species of sympatric sea stars (western Antarctic Peninsula). [Polar Science 22: 100486.](#)

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: 315-316.](#)

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: 25582.](#)

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](#).

McDowell, R.E., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2014. Reactive oxygen species as a grazing defense in marine systems: H₂O₂ and wounded *Ascoseira mirabilis* both inhibit feeding by an amphipod grazer. [Journal of Experimental Marine Biology and Ecology 458: 34-38](#).

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](#).

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2014. Chemical mediation of mutualistic interactions between macroalgae and mesograzers structure unique coastal communities along the western Antarctic Peninsula. [Journal of Phycology 50: 1-10](#).

Schoenrock, K.M., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2013. Endophyte presence as a potential stressor on growth and survival in Antarctic macroalgal hosts. [Phycologia 52: 595-599](#).

Amsler, M.O., **C.D. Amsler**, J.L. von Salm, C.F. Aumack, J.B. McClintock, R.M. Young, & B.J. Baker. 2013. Tolerance and sequestration of macroalgal chemical defenses by an Antarctic amphipod: a ‘cheater’ among mutualists. [Marine Ecology Progress Series 490: 79-90](#).

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.

Ducklow, H.W., W.R. Fraser, M.P. Meredith, S.L. Stammerjohn, S.C. Doney, D.G. Martinson, S.F. Sailley, O.M. Schofield, D.L. Steinberg, H.J. Venables, & **C.D. Amsler**. 2013. Palmer LTER: An ice-dependent coastal marine ecosystem in transition. [Oceanography 26\(3\): 190-203](#).

Lebrato, M., J.B. McClintock, M.O. Amsler, J.B. Ries, H. Egilsdottir, **C.D. Amsler**, R.C. Challener, J.B. Schram, C.L. Mah, J. Cuce, & B.J. Baker. 2013. From the Arctic to the Antarctic: Trace and rare elemental geochemistry of echinoderm skeletons. [Ecology 94: 1434](#).

Young, R.M., J.L. von Salm, M.O. Amsler, J. Lopez-Bautista, **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2013. Site-specific variability in the chemical diversity of the Antarctic red alga *Plocamium cartilagineum*. [Marine Drugs 11: 2126-2139](#).

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.

Bucolo, P., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2012. Effects of macroalgal chemical extracts on spore behavior of the Antarctic epiphyte *Elachista antarctica* Phaeophyceae. [Journal of Phycology 48: 1403-1410](#).

Bucolo, P., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2012. Phototactic responses of *Elachista antarctica* (Phaeophyceae) spores of different ages across a broad irradiance range using new motion analysis software. [Botanica Marina 55: 639-642](#).

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2012. Palatability of living and dead detached Antarctic macroalgae to consumers. [Antarctic Science 24: 589-590](#).

White, B.A., J.B. McClintock, **C.D. Amsler**, C.L. Mah, M.O. Amsler, S. White, L.B. Quetin, & R.M. Ross. 2012. The abundance and distribution of echinoderms in nearshore hard-bottom habitats near Anvers Island, Western Antarctic Peninsula. [Antarctic Science 24: 554-560](#).

Maschek, J.A., E. Mevers, T. Diyabalanage, L. Chen, Y. Ren, J.B. McClintock, **C.D. Amsler**, J. Wu & B.J. Baker. 2012. Palmadorin chemodiversity from the Antarctic nudibranch *Austrodoris kerguelenensis* and inhibition of Jak2/STAT5-dependent HEL leukemia cells. [Tetrahedron 68: 9095-9104](#).

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](#).

Amsler, C.D. 2012. Chemical ecology of seaweeds. In: *Seaweed Biology: Novel Insights into Ecophysiology, Ecology and Utilization*, C. Wiencke & K. Bischof (eds.), Springer-Verlag, Berlin, [pp. 177-188](#).

Wiencke, C. & **C.D. Amsler**. 2012. Seaweeds and their communities in polar regions. In: *Seaweed Biology: Novel Insights into Ecophysiology, Ecology and Utilization*, C. Wiencke & K. Bischof (eds.), Springer-Verlag, Berlin, [pp. 265-294](#).

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.](#)
- Lebar, M.D., K.N. Hahn, T. Mutka, P. Maignan, J.B. McClintock, **C.D. Amsler**, A. van Olphen, D.E. Kyle, & B.J. Baker. 2011. CNS and antimalarial activity of synthetic meridianin and psammopemmin analogs. [Bioorganic & Medicinal Chemistry 19: 5756-5762.](#)
- 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.](#)
- Zamzow, J.P., C.F. Aumack, **C.D. Amsler**, J.B. McClintock, M.O. Amsler, & B.J. Baker. 2011. Gut contents and stable isotope analyses of the Antarctic fish, *Notothenia coriiceps* Richardson, from two macroalgal communities. [Antarctic Science 23: 107-116.](#)
- Lebar, M.D., L. Luttenton, J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2011. Accumulation of vanadium, manganese, and nickel in Antarctic tunicates. [Polar Biology 34: 587-590.](#)
- Maschek, J.A., C. Bucher, A. van Olphen, **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2011. The pursuit of potent anti-influenza activity from the Antarctic red marine alga *Gigartina skottsbergii*. [Recent Advances in Phytochemistry 41: 1-12.](#)
- McClintock, J.B., **C.D. Amsler**, & B.J. Baker. 2010. Overview of the chemical ecology of benthic marine invertebrates along the western Antarctic Peninsula. [Integrative and Comparative Biology 50: 967-980.](#)
- Peters, K.J., **C.D. Amsler**, J.B. McClintock, & B. J. Baker. 2010. Potential chemical defenses of Antarctic sponges against sympatric microorganisms. [Polar Biology 33: 649-658.](#)
- Diyabalanage, T, K.B. Iken, J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2010. Palmadorins A-C, diterpene glycerides from the antarctic nudibranch *Austrodoris kerguelenensis*. [Journal of Natural Products 73: 416-421.](#)
- Zamzow, J.P., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2010. Habitat choice and predator avoidance by Antarctic amphipods: the roles of algal chemistry and morphology. [Marine Ecology Progress Series 400:155-163.](#)
- Aumack, C.F., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2010. Chemically mediated resistance to mesoherbivory in finely branched macroalgae along the western Antarctic Peninsula. [European Journal of Phycology 45: 19-26.](#)
- Amsler, M.O., J.B. McClintock, **C.D. Amsler**, R.A. Angus, & B.J. Baker. 2009. An evaluation of sponge-associated amphipods from the Antarctic Peninsula. [Antarctic Science 21: 579-589.](#)

Iken, K., **C.D. Amsler**, M.O. Amsler, J.B. McClintock, & B.J. Baker. 2009. Field studies on deterrent roles of phlorotannins in Antarctic brown algae. [Botanica Marina 52: 547-557](#).

Updated version of above also published in: 2011. [Biology of Polar Benthic Algae](#), C. Wiencke (ed.), Walter de Gruyter GmbH & Co. KH, Göttingen. pp. 121-138.

Amsler, C.D., K. Iken, J.B. McClintock, & B.J. Baker. 2009. Defenses of polar macroalgae against herbivores and biofoulers. [Botanica Marina 52: 535-545](#).

Updated version of above also published in: 2011. [Biology of Polar Benthic Algae](#), C. Wiencke (ed.), Walter de Gruyter GmbH & Co. KH, Göttingen. pp. 101-119

Hommersand, M.H., R.L. Moe, **C.D. Amsler**, & S. Fredericq. 2009. Notes on the systematics and biogeographical relationships of Antarctic and sub-Antarctic Rhodophyta with descriptions of four new genera and five new species. [Botanica Marina 52: 509-534](#).

Updated version of above also published in: 2011. [Biology of Polar Benthic Algae](#), C. Wiencke (ed.), Walter de Gruyter GmbH & Co. KH, Göttingen. pp. 51-98.

Koplovitz, G., J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2009. Palatability and chemical anti-predatory defenses in common ascidians from the Antarctic Peninsula. [Aquatic Biology 7: 81-92](#).

Ma, W.A., T. Mutka, B. Vesley, M.O. Amsler, J.B. McClintock, **C.D. Amsler**, J.A. Perman, M.P. Singh, W.M. Maiese, M.J. Zaworotko, D.E. Kyle, & B.J. Baker. 2009. Norselic acids A-E, highly oxidized anti-infective steroids that deter mesograzed predation, from the Antarctic sponge *Crella* sp. [Journal of Natural Products 72: 1842-1846](#).

McClintock, J.B., M.O. Amsler, G. Koplovitz, **C.D. Amsler**, & B.J. Baker. 2009. Observations on an association between the dexaminid amphipod *Polycheria antarctica* f. *acanthopoda* and its ascidian host *Distaplia cylindrica*. [Journal of Crustacean Biology 29: 605-608](#).

McClintock, J.B., R.A. Angus, M.R. McDonald, **C.D. Amsler**, S.A. Catledge, & Y.K. Vohra. 2009. Rapid dissolution of shells of weakly calcified antarctic benthic macroorganisms indicates high vulnerability to ocean acidification. [Antarctic Science 21: 449-456](#).

Amsler, C.D., M.O. Amsler, J.B. McClintock, & B.J. Baker. 2009. Filamentous algal endophytes in macrophytic Antarctic algae: prevalence in hosts and palatability to mesoherbivores. [Phycologia 48: 324-334](#).

McDonald, M.R., J.B. McClintock, **C.D. Amsler**, D. Rittschof, R.A. Angus, B. Oriheula, & K. Lutostanski. 2009. Effects of ocean acidification over the life history of the barnacle *Amphibalanus amphitrite*. [Marine Ecology Progress Series 385: 179-187](#).

Peters, K.J., **C.D. Amsler**, J.B. McClintock, R.W.M. van Soest, & B. J. Baker. 2009. Palatability and chemical defenses of sponges from the western Antarctic Peninsula. [Marine Ecology Progress Series 385: 77-85](#).

McClintock, J.B., R.A. Angus, C. Ho, **C.D. Amsler**, & B.J. Baker. 2008. Intraspecific agonistic arm-fencing behavior in the Antarctic keystone sea star *Odontaster validus* influences prey acquisition. [Marine Ecology Progress Series 371: 297-300](#).

Huang, J.P., J.B. McClintock, **C.D. Amsler**, & Y.M. Huang. 2008. Mesofauna associated with the marine sponge *Amphimedon viridis*. Do its physical or chemical attributes provide a prospective refuge from fish predation? [Journal of Experimental Marine Biology and Ecology 362: 95-100.](#)

McClintock, J.B., R.A. Angus, C. Ho, **C.D. Amsler**, & B.J. Baker. 2008. A laboratory study of interactions of the Antarctic keystone sea star *Odontaster validus* with three sympatric predatory sea stars. [Marine Biology 154: 1077-1084.](#)

Amsler, C.D. (Editor) 2008. [Algal Chemical Ecology](#). Springer-Verlag, Berlin. xviii + 313 pp.

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2008. Macroalgal chemical defenses in polar marine communities. In: *Algal Chemical Ecology*, C.D. Amsler (ed.), Springer-Verlag, Berlin. [pp. 91-103.](#)

Amsler, C.D. 2008. Algal sensory chemical ecology. In: *Algal Chemical Ecology*, C.D. Amsler (ed.), Springer-Verlag, Berlin. [pp. 297-309.](#)

Miyata, Y., T. Diyabalanage, **C.D. Amsler**, J.B. McClintock, F.A. Valeriote, & B.J. Baker. 2007. Ecdysteroids from the Antarctic tunicate *Synoicum adareanum*. [Journal of Natural Products 70: 1859-1864.](#)

Gavand, M.R., J.B. McClintock, **C.D. Amsler**, R.W. Peters, & R.A. Angus. 2007. Effects of sonication and advanced chemical oxidants on the unicellular green alga *Dunaliella tertiolecta* and cysts, larvae and adults of the brine shrimp *Artemia salina*: a prospective treatment to eradicate invasive organisms from ballast water. [Marine Pollution Bulletin 54: 1777-1788.](#)

Huang, Y.M., M.O. Amsler, J.B. McClintock, **C.D. Amsler**, & B.J. Baker. 2007. Patterns of gammaridean amphipod abundance and species composition associated with dominant subtidal macroalgae from the western Antarctic Peninsula. [Polar Biology 30: 1417-1430.](#)

Iken, K., **C.D. Amsler**, J.M. Hubbard, J.B. McClintock, & B.J. Baker. 2007. Allocation patterns of phlorotannins in Antarctic brown algae. [Phycologia 46: 386-395.](#)

Wiencke, C., M.N. Clayton, I. Gómez, K. Iken, U. Lüder, **C.D. Amsler**, U. Karsten, D. Hanelt, K. Bischof, & K. Dunton. 2007. Life strategy, ecophysiology and ecology of seaweeds in polar waters. [Reviews in Environmental Science and Biotechnology 6: 95-126.](#)

Fairhead, V.A., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2006. Lack of defense or phlorotannin induction by UV radiation or mesograzers in *Desmarestia anceps* and *D. menziesii* (Phaeophyceae). [Journal of Phycology 42: 1174-1183.](#)

Amsler, M.O., **C.D. Amsler**, D. Rittschof, M. Becerro, & J.B. McClintock. 2006. The use of computer-assisted motion analysis for quantitative studies of the behaviour of barnacle (*Balanus amphitrite*) larvae. [Marine and Freshwater Behaviour and Physiology 39: 259-268.](#)

McClintock, J.B., M.O. Amsler, **C.D. Amsler**, & B.J. Baker. 2006. Biochemical composition, energy content and chemical antifeedant defenses of the common Antarctic Peninsular sea stars *Granaster nutrix* and *Neosmilaster georgianus*. [Polar Biology 29: 615-623.](#)

Diyabalanage, D., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2006. Palmerolide A, a cytotoxic macrolide from the Antarctic tunicate *Synoicum adareanum*. [Journal of the American Chemical Society 128: 5630-5631.](#)

- Sorscher, E.J., J. Harris, M. Alexander, A. Rottgers, K. Hardy, S. Ponnazhagan, J.F. Collawn, J.B. McClintock, **C.D. Amsler**, A. Webster, J. Maddry, B.J. Baker, & J.S. Hong. 2006. Activators of viral gene expression in polarized epithelial monolayers identified by rapid-throughput drug screening. [Gene Therapy 13: 781-788](#).
- Greer, S.P., K. Iken, J.B. McClintock, & **C.D. Amsler**. 2006. Bioassay-guided fractionation of antifouling compounds using computer-assisted motion analysis of brown algal spore swimming. [Biofouling 22: 125-132](#).
- McKamey, K.A & **C.D. Amsler**. 2006. Effects of temperature and light on growth of the Antarctic algae *Geminocarpus geminatus* (Ectocarpales: Phaeophyceae) and *Cladophora repens* (Cladophorales: Cladophorophyceae) in culture. [Phycologia 45: 225-232](#).
- Huang, Y.M., J.B. McClintock, **C.D. Amsler**, K.J. Peters, & B.J. Baker. 2006. Feeding preferences of common Antarctic gammarid amphipods on ecologically important sympatric macroalgae. [Journal of Experimental Marine Biology and Ecology 329: 55-65](#).
- Amsler, C.D.** & V.A. Fairhead. 2006. Defensive and sensory chemical ecology of brown algae. [Advances in Botanical Research 43: 1-91](#).
- Amsler, C.D.**, I.N. Okogbue, D.M. Landry, M.O. Amsler, J.B. McClintock, & B.J. Baker. 2005. Potential chemical defenses against diatom fouling in antarctic macroalgae. [Botanica Marina 48: 318-322](#).
- Fairhead, V.A., **C.D. Amsler**, J.B. McClintock & B.J. Baker. 2005. Variation in phlorotannin content within two species of brown macroalgae (*Desmarestia anceps* and *D. menziesii*) from the Western Antarctic Peninsula. [Polar Biology 28: 680-686](#).
- Peters, K.J., **C.D. Amsler**, M.O. Amsler, J.B. McClintock, R.B. Dunbar, & B.J. Baker. 2005. A comparative analysis of the nutritional and elemental composition of macroalgae from the western Antarctic Peninsula. [Phycologia 44: 453-463](#).
- Fairhead, V.A., **C.D. Amsler**, J.B. McClintock & B.J. Baker. 2005. Within-thallus variation in chemical and physical defenses in two species of ecologically dominant brown macroalgae from the Antarctic Peninsula. [Journal of Experimental Marine Biology and Ecology 322: 1-12](#).
- Amsler, C.D.**, K. Iken, J.B. McClintock, M.O. Amsler, K.J. Peters, J.M. Hubbard, F.B. Furrow, & B.J. Baker. 2005. Comprehensive evaluation of the palatability and chemical defenses of subtidal macroalgae from the Antarctic Peninsula. [Marine Ecology Progress Series 294: 141-159](#).
- McClintock, J.B., **C.D. Amsler**, B.J. Baker, & R.W.M. van Soest. 2005. Ecology of antarctic marine sponges: an overview. [Integrative and Comparative Biology 45: 359-368](#).
- McClintock, J.B., M.O. Amsler, **C.D. Amsler**, K.J. Southworth, C. Petrie, & B.J. Baker. 2004. Biochemical composition, energy content and chemical antifeedant and antifoulant defenses of the circumpolar colonial Antarctic ascidian *Distaplia cylindrica*. [Marine Biology 145: 885-894](#).
- Ankisetty, S., S. Nandiraju, H. Win, Y.C. Park, **C.D. Amsler**, J.B. McClintock, J.A. Baker, T. Diyabalange, A. Passeribu, M.P. Singh, W.M. Maiese, R.D. Walsh, M.J. Zaworotko, & B.J. Baker. 2004. Chemical investigation of predator-deterred macroalgae from the Antarctic Peninsula. [Journal of Natural Products 67: 1295-1302](#).

- Ankisetty, S., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2004. Further membranolid diterpenes from the antarctic sponge *Dendrilla membranosa*. [Journal of Natural Products 67: 1172-1174](#).
- Greer, S.P. & **C.D. Amsler**. 2004. Clonal variation in phototaxis and settlement behaviors of *Hincksia irregularis* (Phaeophyceae) spores. [Journal of Phycology 40: 44-53](#).
- Greer, S.P., K. Iken, J.B. McClintock, & **C.D. Amsler**. 2003. Individual and coupled effects of echinoderm extracts and surface hydrophobicity on spore settlement and germination in the brown alga *Hincksia irregularis*. [Biofouling 19: 315-326](#).
- Iken, K., S.P. Greer, **C.D. Amsler**, & J.B. McClintock. 2003. A new antifouling bioassay monitoring brown algal spore swimming behavior in the presence of echinoderm extracts. [Biofouling 19: 327-334](#).
- McClintock, J.B., A.R. Mahon, K.J. Peters, **C. D. Amsler**, & B.J. Baker. 2003. Chemical defenses in embryos and juveniles of two common Antarctic sea stars and an isopod. [Antarctic Science 15: 339-344](#).
- Furrow, F.B., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2003. Surface sequestration of chemical feeding deterrents in the Antarctic sponge *Latrunculia apicalis* as an optimal defense against sea star spongivory. [Marine Biology 143: 443-449](#).
- Mahon, A.R., **C.D. Amsler**, J.B. McClintock, M.O. Amsler & B.J. Baker. 2003. Tissue-specific palatability and chemical defenses against macropredators and pathogens in the common articulate brachiopod *Liothyrella uva* from the Antarctic Peninsula. [Journal of Experimental Marine Biology and Ecology 290: 197-210](#).
- Mahon, A.R., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2002. Chemo-tactile predator avoidance responses of the common antarctic limpet *Nacella concinna*. [Polar Biology 25: 469-473](#).
- Greer, S.P. & **C.D. Amsler**. 2002. Light boundaries and the coupled effects of surface hydrophobicity and light on spore settlement in the brown alga *Hincksia irregularis* (Phaeophyceae). [Journal of Phycology 38: 116-124](#).
- Vickery, M.C.L., M.S. Vickery, **C.D. Amsler**, & J.B. McClintock. 2001. Regeneration in echinoderm larvae. [Microscopy Research and Technique 55: 464-473](#).
- Iken, K., **C.D. Amsler**, S.P. Greer, & J.B. McClintock. 2001. Quantitative and qualitative studies of the swimming behaviour of *Hincksia irregularis* (Phaeophyceae) spores: ecological implications and parameters for quantitative swimming assays. [Phycologia 40: 359-366](#).
- Amsler, C.D.** & K.B. Iken. 2001. Chemokinesis and chemotaxis in marine bacteria and algae. In: *Marine Chemical Ecology*, J.B. McClintock & B.J. Baker (eds.). CRC Press, Boca Raton, Florida. [pp. 413-430](#).
- Amsler, C.D.**, K.B. Iken, J.B. McClintock, & B.J. Baker. 2001. Secondary metabolites from antarctic marine organisms and their ecological implications. In: *Marine Chemical Ecology*, J.B. McClintock & B.J. Baker (eds.). CRC Press, Boca Raton, Florida. [pp. 267-300](#).
- Amsler, C.D.** 2001. Induced defenses in macroalgae: the herbivore makes a difference. [Journal of Phycology 37: 353-356](#).

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2001. Secondary metabolites as mediators of trophic interactions among antarctic marine organisms. [American Zoologist 41: 17-26.](#)

Vickery, M.C.L., M.S. Vickery, J.B. McClintock, & **C.D. Amsler**. 2001. Utilization of a novel deuterostome model for the study of regeneration genetics: Molecular cloning of genes that are differentially expressed during early stages of larval sea star regeneration. [Gene 262: 73-80.](#)

De Marino, S., M. Iorizzi, F. Zollo, **C.D. Amsler**, S.P. Greer. & J.B. McClintock. 2000. Starfish saponins, LVI. Three new asterosaponins from the starfish *Goniopecten demonstrans*. [European Journal of Organic Chemistry 2000: 4093-4098.](#)

Amsler, C.D., J.B. McClintock, & B.J. Baker. 2000. Chemical defenses of antarctic marine organisms: a reevaluation of the latitudinal hypothesis. In: Davison, W., C. Howard-Williams, & P. Broady (eds.), *Antarctic Ecosystems: Models for Wider Ecological Understanding*, Proceedings of the Seventh SCAR International Biology Symposium. N.Z. Natural Sciences, Christchurch, New Zealand. pp. 158-164.

Amsler, C.D., C.B. Moeller, J.B. McClintock, K.B. Iken, & B.J. Baker. 2000. Chemical defenses against diatom fouling in antarctic marine sponges. [Biofouling 16: 29-45.](#)

McClintock, J.B., B.J. Baker, **C.D. Amsler**, & T.L. Barlow. 2000. Chemotactic tube-foot responses of the spongivorous sea star *Perknaster fuscus* to organic extracts of sponges from McMurdo Sound, Antarctica. [Antarctic Science. 12: 41-46.](#)

Amsler, C.D., J.B. McClintock, & B.J. Baker. 1999. An antarctic feeding triangle: defensive interactions between macroalgae, sea urchins, and sea anemones. [Marine Ecology Progress Series. 183: 105-114.](#)

Amsler, C.D., K.L. Shelton, C.J. Britton, N.Y. Spencer & S.P. Greer. 1999. Nutrients do not influence swimming behavior or settlement rates of *Ectocarpus siliculosus* spores (Phaeophyceae). [Journal of Phycology 35: 239-244.](#)

Amsler, C.D., J.B. McClintock, & B.J. Baker. 1998. Chemical defense against herbivory in the antarctic marine macroalgae *Iridaea cordata* and *Phyllophora antarctica* (Rhodophyceae). [Journal of Phycology 34: 53-59.](#)

De Marino, S., M. Iorizzi, F. Zollo, L. Minale, **C.D. Amsler**, B.J. Baker, & J.B. McClintock. 1997. Isolation, structure elucidation, and biological activity of the steroid oligoglycosides and polyhydroxysteroids from the antarctic starfish *Acodontaster conspicuus*. [Journal of Natural Products 60: 959-966.](#)

Zhu, X., **C.D. Amsler**, K. Volz, & P. Matsumura. 1996. Tyrosine 106 of CheY plays an important role in chemotaxis signal transduction in *Escherichia coli*. [Journal of Bacteriology 178: 4208-4215.](#)

Amsler, C.D. 1996. Use of computer-assisted motion analysis for quantitative measurements of swimming behavior in peritrichously flagellated bacteria. [Analytical Biochemistry 235: 20-25.](#)

Zhao, R., **C.D. Amsler**, P. Matsumura, & S. Khan. 1996. Distribution of *Salmonella typhimurium* FliG and FliM proteins in the cell and flagellar basal bodies. [Journal of Bacteriology 178: 258-265.](#)

Amsler, C.D., R.J. Rowley, D.R. Laur, L.B. Quetin, & R.M. Ross. 1995. Vertical distribution of Antarctic peninsular macroalgae: cover, biomass, and species composition. [Phycologia 34: 424-430.](#)

Amsler, C.D. & P. Matsumura. 1995. Chemotactic signal transduction in *Escherichia coli* and *Salmonella typhimurium*. In: J.A. Hoch & T.J. Silhavy (eds.), Two-Component Signal Transduction. ASM Press. [pp. 89-103](#).

Amsler, C.D., M. Cho, & P. Matsumura. 1993. Multiple factors underlying the maximum motility of *Escherichia coli* as cultures enter post-exponential growth. [Journal of Bacteriology 175: 6238-6244](#).

Brzezinski, M.A., D.C. Reed, & **C.D. Amsler**. 1993. Neutral lipids as major storage products in zoospores of the giant kelp, *Macrocystis pyrifera*. [Journal of Phycology 29: 16-23](#).

Amsler, C.D., D.C. Reed, & M. Neushul. 1992. The microclimate inhabited by macroalgal propagules. [British Phycological Journal 27: 253-270](#).

Reed, D.C., **C.D. Amsler**, & A.W. Ebeling. 1992. Dispersal in kelps: factors affecting spore swimming and competency. [Ecology 73: 1577-1585](#).

Neushul, M., **C.D. Amsler**, D.C. Reed, & R.J. Lewis. 1992. The introduction of marine plants for aquacultural purposes. In: A. Rosenfield & R. Mann (eds.), Dispersal of Living Organisms into Aquatic Ecosystems. Maryland Sea Grant College. pp. 103-135.

Amsler, C.D. 1991. Family Ectocarpaceae. In: C.W. Schneider & R.B. Searles, [Seaweeds of the Southeastern United States: Cape Hatteras to Cape Canaveral](#). Duke University Press. pp. 111-128.

Amsler, C.D. & M. Neushul. 1991. Photosynthetic physiology and chemical composition of spores of the kelps *Macrocystis pyrifera*, *Nereocystis luetkeana*, *Laminaria farlowii*, and *Pterygophora californica* (Phaeophyceae). [Journal of Phycology 27: 26-34](#).

Amsler, C.D. & M. Neushul. 1990. Nutrient stimulation of spore settlement in the kelps *Pterygophora californica* and *Macrocystis pyrifera*. [Marine Biology, 107: 297-304](#).

Amsler, C.D. & M. Neushul. 1989. Diel periodicity of spore release from the kelp *Nereocystis luetkeana* (Mertens) Postels et Ruprecht. [Journal of Experimental Marine Biology and Ecology 134: 117-127](#).

Amsler, C.D. & M. Neushul. 1989. Chemotactic effects of nutrients on spores of the kelps *Macrocystis pyrifera* and *Pterygophora californica*. [Marine Biology 102: 557-564](#).

Amsler, C.D. 1985. Field and laboratory studies of *Giffordia mitchelliae* (Phaeophyceae) in North Carolina. [Botanica Marina 28: 295-301](#).

Amsler, C.D. & D.F. Kapraun. 1985. *Giffordia onslowensis* sp. nov. (Phaeophyceae) from the North Carolina continental shelf and the relationship between *Giffordia* and *Acinetospora*. [Journal of Phycology 21: 94-99](#).

Searles, R.B., M.M. Hommersand, & **C.D. Amsler**. 1984. The occurrence of *Codium fragile* (subsp. *tomentosoides*) and *C. taylorii* (Chlorophyta) in North Carolina. [Botanica Marina 27: 185-187](#).

Amsler, C.D. 1984. Culture and field studies of *Acinetospora crinita* (Carmichael) Sauvageau (Ectocarpaceae, Phaeophyceae) in North Carolina (USA). [Phycologia 23: 377-382](#).

Amsler, C.D. & R.B. Searles. 1980. Vertical distribution of seaweed spores in a water column offshore of North Carolina. [Journal of Phycology 16: 617-619](#).

Publications (Not Peer-Reviewed):

Schoenrock, K.M., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2012. Experimental marine ecology along the open coastline of the Western Antarctic Peninsula. In: D. Steller & L. Lobel (eds.), Diving for Science 2012. [Proceedings of the American Academy of Underwater Sciences 31st Symposium](#). Dauphin Island, AL. pp. 186-192.

McClintock, J.B., **C.D. Amsler**, A.L. Moran, H.A. Woods, & B.J. Baker. 2010. Introduction to the symposium: Advances in Antarctic marine biology. [Integrative and Comparative Biology 50: 948-949](#).

Vickery, M.C.L., **C.D. Amsler**, J.B. McClintock, & B.J. Baker. 2005. Secondary metabolite biosynthesis at ambient temperature in antarctic sponge-derived bacterium, *Pseudomonas aeruginosa*. [Antarctic Journal of the United States 33](#): 47-50.

McClintock, J.B., **C.D. Amsler**, & B.J. Baker. 2001. Introduction to the symposium: Antarctic marine biology. [American Zoologist 41: 1-2](#).

Amsler, C.D., J.B. McClintock, D. Tedeschi, K.H. Dunton, & B.J. Baker. 1997. Quantitative estimation of the phlorotannin content of three antarctic brown macroalgae. *Antarctic Journal of the United States* 32: 84-85.

Amsler, C.D., D.R. Laur, L.B. Quetin, R.J. Rowley, R.M. Ross, & M. Neushul. 1990. Quantitative analysis of the vertical distribution of overstory macroalgae near Anvers Island, Antarctica. [Antarctic Journal of the United States 25: 201-202](#).

Kennicutt, M.C., ..., **C.D. Amsler**, et al. (27 authors). 1990. Oil spillage in Antarctica: Initial report of the National Science Foundation-sponsored Quick Response Team on the grounding of the Bahia Paraiso. [Environmental Science and Technology 24: 620-624](#).