

## BRIAN NICHOLAS POPP

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### EDUCATION

**Ph.D. University of Illinois**, Urbana, Illinois, January 1986, Geology  
Thesis: The Record of Carbon, Oxygen, Sulfur, and Strontium Isotopes and Trace Elements in Late Paleozoic Brachiopods.

**M.S. University of Illinois**, Urbana, Illinois, October 1981, Geology  
Thesis: Coordinated Textural, Isotopic, and Elemental Analysis of Constituents in Some Middle Devonian Limestones.

**B.S. University of Michigan**, Ann Arbor, Michigan, December 1978.

### PROFESSIONAL EXPERIENCE

**7/99-present: Professor**, University of Hawaii, Department of Earth Sciences, Stable isotope biogeochemistry. **3/13-present: Faculty** UH Marine Biology graduate program.

**3/15-present** Affiliate Faculty Ecology, Evolution and Conservation Biology.

**7/94-6/99: Associate Professor**, University of Hawaii, Department of Geology and Geophysics, Stable isotope biogeochemistry.

**1/90-6/94: Assistant Professor**, University of Hawaii, Department of Geology and Geophysics, Stable isotope biogeochemistry. **5/91-present: Cooperating Graduate Faculty**, Department of Oceanography.

### PROFESSIONAL SOCIETIES

American Geophysical Union

Association for the Sciences of Limnology and Oceanography

Ecological Society of America

Fellow, Geochemical Society and European Association for Geochemistry, 2006

Geological Society of America

The Oceanography Society

### TEACHING

Course	Instr.	Sem	# students	Schedule	Sum Eval
ERTH/SUST101 Dynamic Earth	Solo	F2024	196	Online	
ERTH/SUST101 Dynamic Earth	Solo	S2024	216	Online	4.65
ERTH/SUST101 Dynamic Earth	Solo	F2023	191	Online	4.72
ERTH639 Stable Isotope Biogeochemistry	Solo	S2023	10	T Th 1:30-2:45	4.75
ERTH101 Dynamic Earth	Solo	F2022	195	Online	4.42
ERTH101 Dynamic Earth	Solo	S2022	136	Online	4.54
ERTH101 Dynamic Earth	Solo	F2021	168	Online	4.70
ERTH639 Stable Isotope Biogeochemistry	Solo	S2021	14	Online	3.83
ERTH101 Dynamic Earth	Solo	F2020	73	Online	4.81
ERTH101 Dynamic Earth	Solo	S2020	93	Online	4.68

GG101 Dynamic Earth	Solo	F2019	78	Online	4.77
GG101 Dynamic Earth	Solo	S2019	48	Online	4.72
GG639 Stable Isotope Biogeochemistry	Solo	S2019	12	T Th 1:30-2:45	4.63
GG101 Dynamic Earth	Solo	F2018	98	Online	4.90
GG101 Dynamic Earth	Solo	S2018	73	Online	4.53
GG101 Dynamic Earth	Solo	F2017	50	Online	4.75
GG639 Stable Isotope Biogeochemistry		S2017	6	T Th 1:30-2:45	4.80

## STUDENT COMMITTEES

B.A./B.S. Students	Employed	Advised
2024	1	1
2023	1	0
2022	1	0
2021	0	0
2020	0	0
2019	2	1
2018	2	1
2017	1	1

Graduate Students	M.S. (Chair)	Ph.D. (Chair)
2024	1 (1)	10 (5)
2023	3 (2)	6 (5)
2022	3 (2)	6 (5)
2021	4 (2)	3 (3)
2020	2 (0)	6 (2)
2019	5 (0)	9 (3)
2018	6 (0)	8 (1)
2017	4 (0)	7 (1)

## CITATIONS (Google Scholar – 08/2024)

Published Papers: **175**. Cumulative citations 1981-2023: **18,060**. Hirsch index: **75**.

## REFEREED SCHOLARSHIP (2017-2023)

1. Edwards P.M., Popp N.C., Pan Y., Weilhoefer C.L., Peterman A.B., Mork L.A., Johnson M., Morgan C.R., Colley M., Thorne C.R. and Popp B.N. (2024) Reconnecting a stream channel to its floodplain: Implications for benthic diatoms and macroinvertebrate trophic structure. *Restoration Ecology* <https://doi.org/10.1111/rec.14123>.
2. Shea C.H., Wojtal P.J., Close H.G., Maas A.E., Stamieszkin K. Cope J.S., Steinberg D.K., Wallsgrove N. and Popp B.N. (2023) Small particles and heterotrophic protists support the mesopelagic zooplankton food web in the subarctic northeast Pacific Ocean. *Limnology and Oceanography* DOI: 10.1002/lno.12397.

3. Wojtal P.K., Doherty S.C., Shea C.H., Popp B.N., Benitez-Nelson C.R., Buesseler K.O., Estapa M.L., Roca-Martí M., Close H.G. (2023) Deconvolving mechanisms of particle flux attenuation using nitrogen isotope analyses of amino acids. *Limnology and Oceanography* DOI: 10.1002/lno.12398.
4. Okuhata B.K., El-Kadi A.I., Thomas D.M., Dulai H., Lee J. and Popp B.N. (2023) Evidence of volcanic CO<sub>2</sub> influence on old apparent groundwater ages using <sup>14</sup>C and <sup>δ</sup><sup>13</sup>C of DIC from West Hawai'i Island. *Journal of Hydrometeorology: Regional Studies* (in revision 10/06/2022).
5. Chang C-T., Drazen J.C., Chiang W-C., Madigan D.J., Carlisle A.B., Wallsgrove N.J., Hsu H-H., Ho Y-H, and Popp B.N. (2023) Ontogenetic and seasonal shifts in diets of sharptail mola, *Masturus lanceolatus*, in waters off Taiwan. *Marine Ecology Progress Series* doi: 10.3354/meps14356.
6. Torri G, Nugent A.G. and Popp B.N. (2023) The isotopic composition of rainfall on a subtropical mountainous island. *Journal of Hydrometeorology*, doi: <https://doi.org/10.1175/JHM-D-21-0204.1>.
7. Motta L.C., Blum J.D., Popp B.N., Umhau B.P., Benitez-Nelson C.R., Close H.G., Washburn S.J., Drazen J.C. (2022) Mercury isotopic evidence for the importance of particles as a source of mercury to marine organisms. *Proceeding of the National Academy of Sciences* 119 (44): e2208183119 <https://doi.org/10.1073/pnas.2208183119>.
8. Akiona A.K., Popp B.N., Toonen R.J., Kotubetey K. Kawelo H., and Franklin E.C. (2022) Predatory fish diets shift towards invasive mullet in a traditional Hawaiian aquaculture system. *Aquaculture, Fish, and Fisheries* doi: 10.1002/aff2.68.
9. Gelippi M., Caraveo-Patino J., Gauger M.F.W., Popp B.N., Panigada S., and Marcin-Medina R. (2022) Isotopic composition of eastern grey whale epidermis indicates contribution of prey outside Arctic feeding grounds. *Scientific Reports* 12:7055, <https://doi.org/10.1038/s41598-022-10780-1>.
10. Okuhata B.K., Thomas D.M., Dulai H., Popp B.N., Lee J. and El-Kadi A.I. (2022) Inference of young groundwater ages and modern groundwater proportions using chlorofluorocarbon and tritium/helium-3 tracers from West Hawai'i Island. *Journal of Hydrology* 609:127755, doi.org/10.1016/j.jhydrol.2022.127755.
11. Chang C-T., Chiang W-C., Musyl M.K., Popp B.N., Lam C-H., Lin S-J., Watanabe Y., Ho Y-H. and Chen J-R. (2021) Water column structure influences long-distance latitudinal migration patterns and habitat use of bumphead sunfish *Mola alexandrini* in the Pacific Ocean. *Scientific Reports* 11:21934, <https://doi.org/10.1038/s41598-021-01110-y>.
12. Tejada J.V., Flynn J.J., MacPhee R., O'Connell T., Cerling R., Bermudez L., Capunay C., Wallsgrove N. and Popp B.N. (2021) Isotope data from amino acids indicate Darwin's ground sloth *Mylodon* was not an herbivore. *Scientific Reports* 11:18,944, <https://doi.org/10.1038/s41598-021-97996-9>.
13. Siegel, D.A., I. Cetinić, J.R. Graff, C.M. Lee, N. Nelson, M.J. Perry, I. Soto Ramos, D.K. Steinberg, K. Buesseler, R. Hamme, A.J. Fassbender, D. Nicholson, M.M. Omand, M. Robert, A. Thompson, V. Amaral, M. Behrenfeld, C. Benitez-Nelson, K. Bisson, E.

- Boss, P.W. Boyd, M. Brzezinski, K. Buck, A. Burd, S. Burns, S. Caprara, C. Carlson, N. Cassar, H. Close, E. D'Asaro, C. Durkin, Z. Erickson, M.L. Estapa, E. Fields, J. Fox, S. Freeman, S. Gifford, W. Gong, D. Gray, L. Guidi, N. Haëntjens, K. Halsey, Y. Huot, D. Hansell, B. Jenkins, L. Karp-Boss, S. Kramer, P. Lam, J.-M. Lee, A. Maas, O. Marchal, A. Marchetti, A. McDonnell, H. McNair, S. Menden-Deuer, F. Morison, A.K. Niebergall, U. Passow, B. Popp, G. Potvin, L. Resplandy, M. Roca-Martí, C. Roesler, T. Rynearson, S. Traylor, A. Santoro, K. Duncan Seraphin, H.M. Sosik, K. Stamieszkin, B. Stephens, W. Tang, B. Van Mooy, Y. Xiong and X. Zhang (2021) An operational overview of the EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) Northeast Pacific field deployment. *Elementa Science of the Anthropocene*, 9: 1. DOI: <https://doi.org/10.1525/elementa.2020.00107>.
14. Romero-Romero S., Miller E., Black J., Popp B.N. and Drazen J.C. (2021) Deposit feeders as secondary consumers in the abyssal food web: what is the role of gut microbes? *Scientific Reports* 11:12594, doi.org/10.1038/s41598-021-91927-4.
  15. Doherty S.C, Maas A.E, Steinberg D.K., Popp B.N., and Close H.G. (2021) Distinguishing zooplankton fecal pellets as a component of the biological pump using compound-specific isotope analysis of amino acids. *Limnology and Oceanography* doi: 10.1002/lno.11793.
  16. Wall C.B, Wallsgrove N.J., Gates R.D., and Popp B.N. (2021) Amino acid  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  analyses reveal distinct species-specific patterns of trophic plasticity in a marine symbiosis. *Limnology and Oceanography* 66: 2033-2050. doi: 10.1002/lno.11742.
  17. Seminoff J.A., Komoroske L.M., Amorocho D., Dutton P.H., Donoso M., Heidemeyer M., Hoeffler G., Jones T.T., Kelez S., Lemons G.E., de Paz N., Rguez-Baron J.M., Sampson L., Santos Baca L., Vejar Rubio M., Zárata P., Zavala-Norzagaray A., and Popp B.N. (2021) Large-scale patterns in the trophic ecology of green turtles in the eastern Pacific: Insights from bulk tissue and compound specific stable isotope analysis. *Ecosphere* 12:e03479. doi: 10.1002/esc2.3479.
  18. Blum J.D., Drazen J.C., Johnson M.W., Popp B.N., Motta L.C., and Jamieson A.J. (2020) Mercury isotopes identify near-surface mercury in deep sea trench biota. *Proceeding of the National Academy of Sciences* 117:29292-29298. doi: 10.1073/pnas.2012773117.
  19. Dores D., Glenn C.R., Torri G., Whittier R.B. and Popp B.N. (2020) Implications for groundwater recharge from stable isotopic composition of precipitation in Hawai'i during the 2017-2018 La Niña. *Hydrological Processes* 34:4675-4696, doi: 10.1002/hyp.13907.
  20. Gelippi M., Popp B.N., Gauger M.F.W. and Caraveo-Patino J. (2020) Tracing gestation and lactation in free ranging gray whales using the stable isotopic composition of epidermis layers. *PLoS ONE* 15(10): e0240171, <https://doi.org/10.1371/journal.pone.0240171>.
  21. Lemons G., Lewison R., Coppenrath C., Seminoff J. and Popp B.N. (2020) Nitrogen isotope fractionation of amino acids in a highly migratory marine ectotherm, the green turtle (*Chelonia mydas*). *Marine Biology* 167:149, <https://doi.org/10.1007/s00227-020-03745-3>.

22. Shih J.L and Popp B.N (2020) Assessment of an invasive tropical sponge on coral reefs in Hawaii. *Pacific Science* 74(2):175-187, doi:10.2984/74.2.7.
23. Tokuda A.K., Drazen J.C., Geringer M.E., Popp B.N., Grammatopoulou E. and Mayor D.J. (2020) Trophic interactions of megafauna in the Mariana and Kermadec trenches inferred from stable isotope analysis. *Deep Sea Research I* 164:103360, <https://doi.org/10.1016/j.dsr.2020.103360>.
24. Romero-Romero S., Ka'apu-Lyons C.A., Umhau B.P. Benitez-Nelson C.R., Hannides C.C.S, Close H.G., Drazen J.C. and Popp B.N. (2020) Deep zooplankton rely on small particles in response to low particle flux. *Limnology and Oceanography Letters* 5:410-416, doi: 10.1002/lol2.10163.
25. Motta L.C., Blum J.D., Popp B.N., Drazen J.C., and Close H.G. (2020) Mercury stable isotopes in flying fish as a monitor of phytochemical degradation of methylmercury in the Atlantic and Pacific Oceans. *Marine Chemistry* 223:103790, <https://doi.org/10.1016/j.marchem.2020.103790>.
26. Fackrell J., Glenn C., Thomas D., Whittier R. and Popp B.N. (2020) Stable isotopes of precipitation and groundwater provide new insight into groundwater recharge and flow in a structurally complex hydrogeologic system; West Hawaii, USA. *Hydrology Journal* 28:1191-1207, doi/10.1007/s10040-020-02143-9.
27. Hannides C.C.S., Popp B.N., Close H.G, Benitez-Nelson C.R., Ka'apu-Lyons C.A., Gloeckler K., Wallsgrove N., Umhau B., Palmer E., and Drazen J.C., (2020) Seasonal dynamics of midwater zooplankton and relation to particle cycling in the North Pacific Subtropical Gyre. *Progress in Oceanography* 182:102266, <https://doi.org/10.1016/j.pocean.2020.102266>.
28. Wall C.B., Kaluhiokalani M., Popp B.N., Donahue M. and Gates R.D. (2020) Divergent symbiont communities determine the physiology and isotope values of a reef coral across a light-availability gradient. *The ISME Journal* <https://doi.org/10.1038/s41396-019-0570-1>.
29. Shih J.L., Selph K.E., Wall C.B., Wallsgrove N.J., Lesser M.P and Popp B.N. (2020) Trophic ecology of the tropical Pacific sponge *Mycale grandis* inferred from amino acid compound specific isotopic analyses. *Microbial Ecology* 79:495-510, <https://doi.org/10.1007/s00248-019-01410-x>.
30. Umhau B.P., Benitez-Nelson C.R., Close H.G., Hannides C.C.S, Motta L., Popp B.N., Blum J.D. and Drazen J.C. (2019) Seasonal and spatial changes in carbon and nitrogen fluxes estimated using  $^{234}\text{Th}$ : $^{238}\text{U}$  disequilibria in the North Pacific Subtropical Gyre. *Marine Chemistry* 217:103705 <https://10.1016/j.marchem.2019.103705>.
31. Motta L.C., Blum J.D., Johnson M.W., Umhau B.P., Popp B.N., Washburn S.J., Drazen J.C., Benitez-Nelson C.R., Hannides C.C.S, Close H.G., and Lamborg C.H. (2019) Mercury cycling in the North Pacific subtropical gyre as revealed by mercury stable isotope ratios. *Global Biogeochemical Cycles* 33:777-794. <https://doi.org/10.1029/2018GB006057>.
32. Wall C.B., Ritson-Williams R., Popp B.N., and Gates R.D. (2019) Spatial variation in the biochemical and isotopic composition of corals during bleaching and recovery. *Limnology and Oceanography* 64:2011-2018, doi: 10.1002/lno.11166.

33. Hetherington E.D., Kurle C.M., Ohman M.D., and Popp B.N. (2019) Effects of chemical preservation on bulk and amino acid isotope values of zooplankton, fish and squid tissues. *Rapid Communications in Mass Spectrometry* 33:935-945, doi: 10.1002/rcm.8408.
34. Romero-Romero S., Choy C.A., Hannides C.C.S., Popp B.N., and Drazen J.C. (2019) Differences in the trophic ecology of micronekton driven by diel vertical migration. *Limnology and Oceanography* 64:1473-1483, doi: 10.1002/lno.11128.
35. Damashek J., Tolar B.B., Liu Q., Okotie-Oyekan A., Wallsgrove N.J., Popp B.N., and Hollibaugh J.T. (2019) Microbial oxidation of nitrogen supplied as select nitrogen compounds in the South Atlantic Bight. *Limnology and Oceanography* 64:982-995, doi: 10.1002/lno11089.
36. Hetherington E.D., Seminoff J., Dutton P., Robison L., Popp B.N., and Kurle C. (2018) Long-term trends in the foraging ecology and habitat use of an endangered species: an isotopic perspective. *Oecologia* 188:1273-1285, <https://doi.org/10.1007/s00442-018-4279-z>.
37. Wongkiew S., Popp B.N., and Khanal S.K. (2018) Nitrogen recovery and nitrous oxide (N<sub>2</sub>O) emissions from aquaponics systems: Influence of plant species and dissolved oxygen. *International Journal of Biodeterioration and Biodegradation* 134:117-126, <https://doi.org/10.1016/j.ibiod.2018.08.008>.
38. Vane K., Wallsgrove N.J., Ekau W., and Popp B.N. (2018) Reconstructing lifetime nitrogen baselines and trophic position of *Cynoscion acoupa* from  $\delta^{15}\text{N}$  values of amino acids in otoliths. *Marine Ecology Progress Series* 597:1-11, <https://doi.org/10.3354/meps12625>.
39. Gómez C., Larsen T., Popp B.N., Hobson K.A., and Cadena K.D. (2018) Assessing seasonal changes in animal diets with stable-isotope analysis of amino acids: a migratory boreal songbird switches diet over its annual cycle. *Oecologia* 187:1-13, <https://doi.org/10.1007/s00442-018-4113-7>.
40. Dolgova S., Popp B.N., Espie R., Straka J., Wilkie S., and Hebert C. (2018) Spatial trends in biomagnifying contaminants: Insights from the application of amino acid compound specific stable nitrogen isotope analysis. *Environmental Toxicology and Chemistry* 37:1466-1475, doi: 10.1002/etc.4113.
41. Hebert C., and Popp B.N. (2018) Temporal trends in a biomagnifying contaminant: Application of amino acid compound-specific stable nitrogen isotope analysis to the interpretation of bird mercury levels. *Environmental Toxicology and Chemistry* 37:1458-1465, doi: 10.1002/etc.4092.
42. Liu Q., Tolar B.B., Ross M.J., Cheek J.B., Sweeney C.M., Wallsgrove N.J., Popp B.N., and Hollibaugh J.T. (2018) Light and temperature control the seasonal distribution of thaumarchaeota in the South Atlantic bight. *The ISME Journal* <https://doi.org/10.1038/s41396-018-0066-4>.
43. Sackett D.K., Drazen J.C., Popp B.N., Choy C.A., Blum J.D., and Johnson M.W. (2018) Carbon, nitrogen and mercury isotope evidence for the biogeochemical history of

- mercury in bottom fish. *Environmental Science & Technology* 51:13976-13984, doi: 10.1021/acs.est.7b04893. (18)
44. Gloeckler K., Choy C.A., Hannides C.C.S, Close H.G., Goetze E., Popp B.N., and Drazen J.C. (2018) Stable isotope analysis of micronekton around Hawaii reveals suspended particles are an important nutritional source in the lower mesopelagic and upper bathypelagic zones. *Limnology and Oceanography* 63:1168-1180, doi: 10.1002/lno.10762.
  45. Tolar B.B., Wallsgrave N.J. Popp B.N., and Hollibaugh J.T. (2017) Oxidation of urea-derived nitrogen by thaumarchaeota-dominated marine nitrifying communities. *Environmental Microbiology* 19:4838-4850 doi: 10.1111/1462-2920.13457.
  46. Geringer M.E., Andrews A.H., Huss G.R., Nagashima K., Popp B.N., Gallo N.D., Clark M.R., Linley T.D., Jamieson A.J., and Drazen J.C. (2017) Life history of abyssal and hadal fishes from otolith growth zones and oxygen isotopic compositions. *Deep-Sea Research Part I* 132:37-50 <https://doi.org/10.1016/j.dsr.2017.12.002>.
  47. Fehren-Schmitz L., Jarman C.L., Harkins K.M., Kayser M., Popp B.N., and Skoglund P. (2017) Genetic ancestry of Rapanui before and after European contact. *Current Biology* 27:1-7 <http://dx.doi.org/10.1016/j.cub.2017.09.029>.
  48. Peavey L.E., Popp B.N., Pitman R.L., Gaines S.D., Arthur K.E., Kelez S., and Seminoff J.A. (2017) Opportunism on the high seas: foraging ecology of olive ridley turtles in the eastern Pacific Ocean. *Frontiers in Marine Science* 4:348 doi: 10.3389/fmars.2017.00348.
  49. Ohkouchi N., Chikaraishi Y., Close H., Fry B., Larsen T., Madigan D.J., McCarthy M.D., McMahon K.W., Nagata T., Naito Y.I., Ogawa N.O., Popp B.N., Steffan S., Takano Y., Tayasu I., Wyatt A.S.J., Yamaguchi Y.T., and Yokoyama Y. (2017) Advances in the application of amino acid nitrogen isotopic analysis in ecological and biogeochemical studies. *Organic Geochemistry* 113:150-174. <http://dx.doi.org/10.1016/j.orggeochem.2017.07.009>.
  50. Richardson C.M, Dulai H., Popp B.N., Ruttenberg K., and Fackrell J.K. (2017) Submarine groundwater discharge drives biogeochemistry in two Hawaiian reefs. *Limnology and Oceanography* 62:S348-S363, doi: 10.1002/lno.10654.
  51. Rowe J.A., Litton C.M., Lepczyk C.A., and Popp B.N. (2017) Impacts of endangered seabirds on nutrient cycling in montane forest ecosystems of Hawaii. *Pacific Science* 71:495-509, doi:10.2984/71.4.7.
  52. Wongkiew S., Popp B.N., Kim H-J., and Khanal S.K. (2017) Fate of nitrogen in floating-raft aquaponic systems using natural abundance nitrogen isotopic compositions. *International Journal of Biodeterioration and Biodegradation* 125:24-32, <https://doi.org/10.1016/j.ibiod.2017.08.006>.
  53. Jarman C.L., Larsen T., Hunt T., Lipo C., Solsvik R., Wallsgrave N.J., Ka'apu-Lyons C., Close H.G., and Popp B.N. (2017) Diet of the prehistoric population of Rapa Nui (Easter Island, Chile) shows environmental adaptation and resilience. *American Journal of Physical Anthropology* 164:343-361, <https://doi.org/10.1002/ajpa.23273>.

54. Gerrerger M.E., Popp B.N., Linley T.D., Jamieson A.J., and Drazen J.C. (2017) Comparative feeding ecology of abyssal and hadal fishes through stomach content and amino acid isotope analysis. *Deep-Sea Research Part I* 121:110-120, doi: 10.1016/j.dsr.2017.01.003.
55. Hetherington E.D., Olson R.J., Drazen J.C., Lennert-Cody C.E., Balance L.T., Kaufmann R.S., and Popp B.N. (2017) Spatial food web structure in the eastern tropical Pacific Ocean based on compound-specific nitrogen isotope analysis of amino acids. *Limnology and Oceanography* 62:541-560, doi: 10.1002/lno.10443.

## GRANTS & CONTRACTS (2015-2023)

### Active Grants

1. BALEEN: Balaenopterids – A layered Exposures and Effects Nexus. K. West is PI, B.N. Popp is co-PI. 5/2020-4/2024. \$1,174,875. Office of Naval Research. Two graduate students supported.
2. Collaborative Research: Isotopic indicators for mechanisms of organic matter degradation under high productivity and high carbon flux conditions (EXPORTS). B.N. Popp is PI/PD and K.D. Seraphin co-PI are joint with H. Close (RSMAS), 08/01/2021 – 07/31/2024, UH share \$507,547. NSF-OCE. One graduate student supported.
3. MRI: Track 1 Acquisition of a Stable Isotope Mass Spectrometer for Earth and Ocean Science Research. B.N. Popp is PI/PD. 8/2023-7/2024. \$209,705. NSF-MRI.

### *Pending*

1. None

### *Previous Grants (now inactive)*

1. Characterization and monitoring of the water column ecosystem in the eastern CCZ (NORI –D). J.C. Drazen is PI, C. Carter, M. Hatta, E. Goetze, B.N. Popp and A. White co-PIs. 04/2020-03/2023. \$2,872,734. DeepGreen Metals Inc. Three graduate students supported.
2. Collaborative Research: Assessing the relative importance of small vs large particles as sources of nutrition to abyssal communities. J.C. Drazen is PI/PD, B.N. Popp and C.R. Smith co-PIs, 09/2019-08/2023, \$1,070,925, NSF-OCE Biological Oceanography. Two graduate students, one undergraduate student and 1 postdoc supported.
3. Understanding Chondria spread at Papahānaumokuākea Marine National Monument (HI). A. Sherwood is PI/PD, A. Kealoha and B.N. Popp are co-PI. 06/2022-12/2023, \$115,969. NOAA through the National Fish and Wildlife Foundation. One graduate student supported.

4. Collaborative Research: Isotopic indicators for mechanisms of organic matter degradation in the northeast Pacific (EXPORTS). B.N. Popp is PI/PD, 07/2018-06/2022, \$430,812. NSF-OCE Chemical Oceanography. One graduate student and one undergraduate student supported.
5. Collaborative Research: Chemoautotrophy in Antarctic bacterioplankton communities supported by the oxidation of urea-derived nitrogen. B.N. Popp is PI/PD, 10/2017-09/2020, \$164,510. NSF-OPP Antarctic Organisms and Ecosystems. One undergraduate student supported.
6. The role of sponges in the nitrogen cycle in Kaneohe Bay, Oahu, B.N. Popp is PI/PD, 02/2016 - 01/2019, \$45,408, SeaGrant. One graduate student supported.
7. Collaborative Research: Direct oxidation of organic nitrogen by marine ammonia oxidizing organisms, B.N. Popp is PI/PD, 01/2016 - 12/2018, \$232,316, NSF-OCE Chemical Oceanography. One undergraduate student supported.
8. REU Supplement to Collaborative Research: Isotopic insights to mercury in marine food webs and how it varies with ocean biogeochemistry, B. N. Popp is PI/PD, C. Hannides, J.C. Drazen and K. Seraphin are co-PIs \$10,400, 08/2014 - 09/2018, NSF-OCE Chemical Oceanography. Two undergraduate students supported.
9. Collaborative Research: Isotopic insights to mercury in marine food webs and how it varies with ocean biogeochemistry, B. N. Popp is PI/PD, C. Hannides, J. C. Drazen and K. Seraphin are co-PIs \$399,730, 08/2014 - 09/2018, NSF-OCE Chemical Oceanography. One graduate student and one undergraduate student supported.
10. Evaluating the relative importance of suspended and sinking particles to the meso and bathypelagic food web in the central North Pacific, J. C. Drazen is PI/PD, H. Close, C. Hannides, K. Seraphin and B.N. Popp are co-PIs \$558,548, 01/2014 - 12/2016. One graduate and two undergraduate students supported.

*Number of Grant Application Submitted but not Funded*

2024 - 0  
 2023 - 1  
 2022 - 0  
 2021 - 0  
 2020 - 0  
 2019 - 0  
 2018 - 0  
 2017 - 1

**AWARDS AND HONORS**

- Blum *et al.* (2013) Recognized by Web of Science, Highly cited paper in Geosciences
- Editorial Board, ACS Earth and Space Chemistry (2017-2020)
- Editor, Special Volume, ACS Earth and Space Chemistry (2019-2021)
- Tejada *et al.* (2021) Top 100 downloaded ecology papers in 2021, *Scientific Reports*
- University of Hawaii Board of Regents Excellence in Research Award (2022)

## **SERVICE, SYNERGISTIC ACTIVITIES**

2024

Member, Faculty Success Committee  
 Chair, Paleoclimatology Faculty Search Committee  
 Member, SOEST Ship Operations Committee  
 Member, SOEST Research Council

2023

Member, Faculty Success Committee  
 Member, Geophysics Faculty Search Committee  
 Member, SOEST Ship Operations Committee  
 Member, SOEST Research Council

2022

Member, Faculty Success Committee  
 Chair, Coastal Geology Faculty Search Committee  
 Member, SOEST Ship Operations Committee  
 Member, SOEST Research Council

2021

Chair, Departmental Personnel and Planning Committee  
 Member, SOEST Ship Operations Committee  
 Member, SOEST Research Council

2020

Chair, Departmental Personnel and Planning Committee  
 Co-Chair, Departmental Faculty Search Committee (3 faculty positions)  
 Guest Editor, Earth and Space Chemistry Special Issue

2019

Member, Departmental Personnel and Planning Committee  
 Member, Departmental Curriculum Committee  
 Member, J. M. Hayes Awards Committee, Geochemical Society

2018

Chair, Departmental Personnel and Planning Committee  
 Member, J. M. Hayes Awards Committee, Geochemical Society

Proposal Review Panel Member, Innovations Canada

2017

Chair, Departmental Personnel and Planning Committee

Proposal Review Panel Member, NSF Chemical Oceanography