

PUBLICATION-LIST of Gerhard J. Herndl as of 05 Jan 2022Publications in Peer-Reviewed Journals

- 269) Pinto, M., Z. Zhao, K. Klun, E. Libowitzky, G.J. Herndl, in press: Microbial communities of putative degraders of low-density polyethylene-associated compounds in the ocean. *mSystems*,
- 268) Martinez-Perez, C., C. Greening, Z. Zhao, R.L. Lappan, S.K. Bay, D. DeCorte, C. Hulbe, C. Ohneiser, C. Stevens, B. Thomson, R. Stepanauskas, J.M. Gonzalez, R. Logares, G.J. Herndl, S.E. Morales, F. Baltar, in press: Lifting the lid: Nitrifying archaea sustain diverse microbial communities below the Ross Sea Ice Shelf. *Nature Comm.*,
- 267) Alekseyeva, K.S, B. Mähnert, F. Berthiller, E. Breyer, G.J. Herndl, F. Baltar, 2021: Adapting an ergosterol extraction method for the quantification of oceanic fungal biomass. *J. Fungi*, 7: 690; doi: doi.org/10.3390/jof7090690
- 266) De Corte, D., S. Muck, J. Tiroch, C. Mena, G.J. Herndl, E. Sintes, 2021: Microbes mediating the sulfur cycle in the deep Atlantic Ocean and their link to chemolithoautotrophy. *Environ. Microbiol.*, 23: 7152-7167; doi:10.1111/1462-2920.15759
- 265) Korlevic, M., M. Markovski, Z. Zhao, G.J. Herndl, M. Najdek, 2021: Seasonal dynamics of epiphytic microbial communities on marine macrophyte surfaces. *Front. Microbiol.* 12:671342. doi: 10.3389/fmicb.2021.671342
- 264) Braun, A., M. Spona-Friedl, M. Avramov, M. Elsner, F. Baltar, T. Reinthaler, G.J. Herndl, C. Griebler, 2021: Reviews and syntheses: Heterotrophic fixation of inorganic carbon – significant but invisible flux in global carbon cycling. *Biogeosciences*, 18: 3689-3700; doi:org/10.5194/bg-18-3689-2021
- 263) Srivastava, A., D.M. Saavedra, B. Thomson, J.A.L. Garcia, Z. Zhao, W.M. Patrick, G.J. Herndl, F. Baltar, 2021: Enzyme promiscuity in natural environments: alkaline phosphatase in the ocean. *The ISME J.*; doi: 10.1038/s41396-021-01013-w
- 262) Korlevic, M., M. Markovski, Z. Zhao, G.J. Herndl, M. Najdek, 2021: Selective DNA and protein isolation from marine macrophyte surfaces. *Frontiers Microbiol.*, 12:665999; doi: 10.3389/fmicb.2021.665999
- 261) Baltar, F., Z. Zhao, G.J. Herndl, 2021: Potential and expression of carbohydrate utilization by marine fungi in the global ocean. *Microbiome*, 9: 106; <https://doi.org/10.1186/s40168-021-01063-4>

- 260) Tinta, T., K. Klun, G.J. Herndl, 2021: The importance of jellyfish-microbe interactions for biogeochemical cycles in the ocean. *Limnol. Oceanogr.*, 66: 2011-2032; doi: 10.1002/lno.11741
- 259) Jiao, N., J. Liu, B. Edward, Z. Lv, R. Cai, Y. Liu, X. Xiao, J. Wang, F. Jiao, R. Wang, X. Huang, B. Guo, J. Sun, R. Zhang, Y. Zhang, K. Tang, Q. Zheng, F. Azam, J. Batt, W.-J. Cai, C. He, G.J. Herndl, P. Hill, D. Hutchins, J. LaRoche, M. Lewis, H. MacIntyre, L. Polimene, C. Robinson, Q. Shi, C.A. Suttle, H. Thomas, D. Wallace, L. Legendre, 2021: Correcting a major error in assessing organic carbon pollution in natural waters. *Science Advances*, 7: eabc7318; doi: 10.1126/sciadv.abc7318
- 258) Baltar, F., X.A. Alvarez-Salgado, J. Aristegui, R. Benner, D.A. Hansell, G.J. Herndl, C. Lønborg, 2021: What is refractory organic matter in the ocean? *Front. Mar. Sci.*, 8: 642637; doi: 10.3389/fmars.2021.642637
- 257) Glatzel, S., G.J. Herndl, 2021: Recognizing the complexity of soil organic carbon dynamics in vegetated coastal habitats. *Glob. Change Biol.*, 27: 3-4; doi: org/10.1111/gcb.15348
- 256) Najdek, M., M. Korlević, P. Paliaga, M. Markovski, I. Ivančić, L. Iveša, I. Felja, G.J. Herndl, 2020: Effects of the invasion of *Caulerpa cylindracea* in a *Cymodocea nodosa* meadow in the Northern Adriatic Sea. *Front. Mar. Sci.*, 7: 602055; doi: 10.3389/fmars.2020.602055
- 255) Steiner, P., J. Geijo, E. Fadeev, A. Obiol, E. Sintes, T. Rattei, G.J. Herndl, 2020: Functional seasonality of free-living and particle-associated prokaryotic communities in the coastal Adriatic Sea. *Front. Microbiol.*, 11: 584222; doi: 10.3389/fmicb.2020.584222
- 254) Tinta, T., Z. Zhao, A. Escobar, K. Klun, B. Bayer, C. Amano, L. Bamonti, G.J. Herndl, 2020: Microbial processing of jellyfish detritus in the ocean. *Front. Microbiol.*, 11:590995; doi: 10.3389/fmicb.2020.590995
- 253) Pinto, M. P. Zenner, T. Langer, J. Harrison, M. Simon, M.M. Varela, G.J. Herndl, 2020: Putative degraders of low-density polyethylene-derived compounds are ubiquitous members of plastic-associated bacterial communities in the marine environment. *Environ. Microbiol.*, 22: 4779-4793; doi:10.1111/1462-2920.15232
- 252) Thomson, B., J. Wenley, S. Lockwood, I. Twigg, K. Currie, G.J. Herndl, C.D. Hepburn, F. Baltar, 2020: Relative importance of phosphodiesterase vs.

- phosphomonoesterase (alkaline phosphatase) activities for dissolved organic phosphorus hydrolysis in epi- and mesopelagic waters. *Frontiers Earth Science*, doi: 10.3389/feart.2020.560893
- 251) Clifford, E.L., D. DeCorte, V. Ortiz, P. Paliaga, I. Ivancic, M. Najdek, G.J. Herndl, E. Sintes, 2020: Mesozooplankton taurine production and prokaryotic uptake in the northern Adriatic Sea. *Limnol. Oceanogr.*, 65: 2730-2747; doi: 10.1002/lno.11544
- 250) Mooshammer, M., R.J.E. Alves, B. Bayer, M. Melcher, M. Stieglmeier, L. Jochum, S. K.-M.R. Rittmann, M. Watzka, C. Schleper, G.J. Herndl, W. Wanek, 2020: Nitrogen isotope fractionation during archaeal ammonia oxidation: coupled estimates from measurements of residual ammonium and accumulated nitrite. *Frontiers Microbiology*, 11, 1710; doi: 10.3389/fmicb.2020.01710
- 249) Najdek, M., M. Korlević, P. Paliaga, M. Markovski, I. Ivančić, L. Iveša, I. Felja, G.J. Herndl, 2020: Dynamics of environmental conditions during a decline of a *Cymodocea nodosa* meadow. *Biogeoscience*, 17: 3299-3315, doi:10.5194/bg-17-32999-2020
- 248) Weinbauer, M.G., C. Griebler, H.M. van Aken, G.J. Herndl, 2020: Viral infection of prokaryotic plankton during early formation of the North West Atlantic Deep Water. *Aquat. Microb. Ecol.*, 84: 175-189; doi: doi.org/10.3354/ame01934
- 247) Zhao, Z., F. Baltar, G.J. Herndl, 2020: Linking extracellular enzymes to phylogeny indicates a predominantly particle-associated lifestyle of deep-sea prokaryotes. *Science Advances*, 6: eaaz4354
- 246) Chen, M.L., E.D. Becraft, M. Pachiadaki, J.M. Brown, J.K. Jarett, J.M. Gasol, N.V. Ravin, D.P. Moser, T. Nunoura, G.J. Herndl, T. Woyke, R. Stepanauskas, 2020: Hiding in plain sight: the globally distributed bacterial candidate phylum PAUC34f. *Frontiers Microbiol.*, 11:376; doi: 10.3389/fmicrob.2020.00376
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- 244) Bellou, N., J.A. Garcia, F. Colijn, G.J. Herndl, 2020: Seasonality combined with the orientation of surfaces influences the microbial community structure of biofilms in the deep Mediterranean Sea. *Deep Sea Res. II*, 171:104703
- 243) Bochdansky, A.B., R.B. Dunbar, D.A. Hansell, G.J. Herndl, 2019: Estimating carbon flux from optically recording total particle volume at depths below the primary pycnocline. *Front. Mar. Sci.*, 6: 778; doi: 10.3389/fmars.2019.00778
- 242) Bayer, B., R.L. Hansman, M.J. Bittner, B.E. Noriega-Ortega, J. Niggemann, T. Dittmar, G.J. Herndl, 2019: Ammonia-oxidizing archaea release a suite of organic compounds potentially fueling prokaryotic heterotrophy in the ocean. *Environ. Microbiol.*, 21: 4062-4075; doi:10.1111/1462-2920.14755
- 241) Baltar, F., B. Bayer, N. Bednarsek, S. Deppeler, R. Escribano, C.E. Gonzalez, R.L. Hansman, R. Kanta Mishra, M.A. Moran, D.J. Repeta, C. Robinson, E. Sintes, C. Tamburini, L.E. Valentin, G.J. Herndl, 2019: Towards integrating evolution, metabolism and climate change studies of marine ecosystems. *Trends Ecology and Evolution*, 34: 1022-1033; doi.org/10.1016/j.tree.2019.07.003
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- 239) Steiner, P.A., E. Sintes, Daniele de Corte, D. Marić-Pfannkuchen, I. Ivancic, M. Najdek, R. Simo, G.J. Herndl, 2019: Seasonal dynamics of the marine snow-associated and free-living demethylating bacterial community in the coastal Mediterranean Sea. *Environ. Microbiol. Rep.*, 11: 699-707; doi: 10.1111/1758-2229.12783
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- 228) Morales, S.E., A. Biswas, G.J. Herndl, F. Baltar, 2019: Global structuring of phylogenetic and functional diversity by depth and temperature of pelagic fungi. *Front. Mar. Sci.*, 6: Article # 131; doi: 10.3389/frmars.2019.00131
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