

PUBLICATION-LIST of Gerhard J. Herndl as of 15 Mar 2018Publications in Scholarly Journals

- 224) Romera-Castillo, C., M Pinto, T.M. Langer, X.A. Alvarez-Salgado, G.J. Herndl, 2018: Dissolved organic carbon leaching from plastics stimulates microbial activity in the ocean. *Nature Communications*,
- 223) Winter, C., N. Köstner, C.-P. Kruspe, D. Urban, S. Muck, T. Reinthaler, G.J. Herndl, 2018: Mixing alters the lytic activity of viruses in the dark ocean. *Ecology*, 99:700-713
- 222) Guerrero-Feijóo, E., E. Sintes, G.J. Herndl, M.M. Varela, 2018: High dark inorganic carbon fixation rates by specific microbial groups off the Galician coast (NW Iberian margin). *Environ. Microbiol.*, 20: 602-611
- 221) De Corte, D., A. Sristava, M. Koski, J.A.L. Garcia, Y. Takaki, T. Yokokawa, T. Nunoura, N.H. Elisabeth, G.J. Herndl, E. Sintes, 2018: Metagenomic insights into zooplankton-associated bacterial communities. *Environ. Microbiol.*, 20: 492-505
- 220) Bergauer, K., A. Fernandez-Guerra, J.A. Garcia, R.R. Sprenger, R. Stepanauskas, M. Pachiadaki, O.N. Jensen, G.J. Herndl, 2018: Organic matter processing by microbial communities throughout the Atlantic water column as revealed by metaproteomics. *Proc. Natl. Acad. Sci. USA*, 115(3): E400-E408
- 219) Pachiadaki, M., E. Sintes, K. Bergauer, J.M. Brown, N.R. Record, B.K. Swan, M.E. Mathyer, S.J. Hallam, P. Lopez-Garcia, Y. Takaki, T. Nunoura, T. Woyke, G.J. Herndl, R. Stepanauskas, 2017: Major role of nitrite-oxidizing bacteria in the dark ocean carbon fixation. *Science*, 358: 1046-1051; DOI: 10.1126/science.aan8260
- 218) Clifford, E.L., D. Hansell, M.M. Varela, M. Nieto-Cid, G.J. Herndl, E. Sintes, 2017: Dissolved taurine release by crustacean zooplankton in the oceanic water column. *Limnol. Oceanogr.*, 62: 2745-2758; doi: 10.1002/lno.10603
- 217) Elling, F.J., M. Könneke, G.W. Nicol, M. Stieglmeier, B. Bayer, E. Spieck, J.R. de la Torre, K.W. Becker, M. Thomm, J.I. Prosser, G.J. Herndl, C. Schleper, K.-U. Hinrichs, 2017: Chemotaxonomic characterization of the thaumarchaeal lipidome. *Environ. Microbiol.*, 19: 2681-2700; doi: 10.1111/1462-2920.13759

- 216) Köstner, N., L. Scharnreitner, K. Jürgens, M. Labrenz, G.J. Herndl, C. Winter, 2017: High viral abundance as a consequence of low viral decay in the Baltic Sea redoxcline. *PLoS One*, 12(6): e0178467.
- 215) Landry Z., B.K. Swan, G.J. Herndl, R. Stepanauskas, S. Giovannoni, 2017: SAR202 genomes from the dark ocean predict pathways for the oxidation of recalcitrant dissolved organic matter. *mBIO*, 8 (2), e00413-17
- 214) Glasl, B., P. Bongaerts, N.H. Elisabeth, O. Hoegh-Guldberg, G.J. Herndl, P.R. Frade, 2017: Microbiome variation in corals with distinct depth-distribution ranges across a shallow-mesophotic gradient (15-85 m). *Coral Reefs*, 36: 447-452; doi: 10.1007/s00338-016-1517-x
- 213) Debeljak, P., M. Pinto, M. Proitti, J. Reisser, F.F. Ferrari, B. Abbas, M.C.M. van Loosdrecht, B. Slat, G.J. Herndl, 2017: Extracting DNA from ocean microplastics: a method comparison study. *Analytical Methods*, 9: 1521-1526; doi: 10.1039/C6AY03119f
- 212) Bochdansky, A.B., M.A. Clouse, G.J. Herndl, 2017: Eukaryotic microbes, principally fungi and labyrinthulomycetes, dominate biomass on bathypelagic marine snow. *The ISME J.*, 11: 362-373; doi:10.1038/ismej.2016.113
- 211) Glasl, B., G.J. Herndl, P.R. Frade, 2016: The microbiome of coral surface mucus plays a key role in mediating holobiont health and survival upon disturbance. *The ISME J.*, 10: 2280-2292; doi:10.1038/ismej.2016.9
- 210) Baltar, F., D. Lundin, J. Palovaara, I. Lekunberri, T. Reinthaler, G.J. Herndl, J. Pinhassi, 2016: Prokaryotic responses to ammonium and organic carbon reveal alternative CO₂ fixation pathways and importance of alkaline phosphatase in the mesopelagic North Atlantic. *Frontiers. Microbiol.*, 7:1670. doi: 10.3389/fmicb.2016.01670
- 209) Lønborg, C., L. A. Cuevas, T. Reinthaler, G.J. Herndl, J.M. Gasol, X.A.G. Moran, N.R. Bates, X.A. Alvarez-Salgado, 2016: Depth dependent relationships between temperature and ocean heterotrophic prokaryotic production. *Frontiers Mar. Sci.*, 3: doi.org/10.3389/fmars.2016.00090
- 208) Piquet, A.M-T., D.S. Maat, V. Confurius-Guns, E. Sintes, G.J. Herndl, W.H. van de Poll, C. Wiencke, A.G.J. Buma, H. Bolhuis, 2016: Springtime dynamics, productivity and activity of prokaryotes in two Arctic fjords. *Polar Biol.*, 10: 1749-1763; DOI 10.1007/s00300-015-1866-x

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- 206) Frank, A.H., J.A. Garcia, G.J. Herndl, T. Reinthaler, 2016: Connectivity between surface and deep waters determines prokaryotic diversity in the North Atlantic Deep Water. *Environ. Microbiol.*, 18: 2052-2063; DOI: 10.1111/1462-2920.13237
- 205) Bayer, B., J. Vojvoda, P. Offre, R.J.E. Alves, N. Elisabeth, J.A. Garcia, J.-M. Volland, A. Srivastava, C. Schleper, G.J. Herndl, 2016: Physiological and genomic characterization of two novel marine thaumarchaeal strains indicates niche differentiation. *The ISME J.*, 10: 1051-1063 doi: 10.1038/ismej.2015.200
- 204) Frade, P.R., V. Schwaninger, B. Glasl, E. Sintes, R.W. Hill, R. Simó, G.J. Herndl, 2016: Coral dimethylsulfoniopropionate: responses to light and stress, and interrelations with bacterial assemblages in surface mucus. *Environ. Chem.*, 13: 252-265, <http://dx.doi.org/10.1071/EN15023>
- 203) De Corte, D., E. Sintes, T. Yokokawa, I. Lekunberri, G.J. Herndl, 2016: Large-scale distribution of microbial and viral populations in the South Atlantic Ocean. *Environ. Microbiol. Rep.*, 8: 305-315; doi:10. 1111/1758-2229.12381
- 202) Bochdansky, A.B., M.A. Clouse, G.J. Herndl, 2016: Dragon kings of the deep ocean: marine particles deviate markedly from the common number – size spectrum. *Scientific Reports*, 6:22633, doi: 10.1038/srep22633
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- 200) Frade, P.R., K. Roll, K. Bergauer, G.J. Herndl, 2016: Archaeal and bacterial communities associated with the surface mucus of Caribbean corals differ in their degree of host specificity and community turnover over reefs. *PLoS One*, 11: e0144702. doi:10.1371/journal.pone.0144702
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- 197) Sintes, E., D. De Corte, N. Ouillon, G.J. Herndl, 2015: Macroecological patterns of archaeal ammonia oxidizers in the Atlantic Ocean. *Mol. Ecol.*, 24: 4931-4942, DOI: 10.1111/mec.13365
- 196) Malits, A., R. Cattaneo, E. Sintes, J.M. Gasol, G.J. Herndl, M.G. Weinbauer, 2015: Potential impacts of black carbon on the marine microbial community. *Aquat. Microb. Ecol.*, 75: 27-42
- 195) Arrieta, J.M., E. Mayol, C.M. Duarte, R. Hansman, G.J. Herndl, T. Dittmar, 2015: Dilution limits dissolved organic carbon utilization in the deep ocean. *Science*, 348: 331-333
- 194) Lønborg, C., T. Yokokawa, G.J. Herndl, X.A. Álvarez-Salgada, 2015: Production and degradation of fluorescent dissolved organic matter in surface waters of the eastern North Atlantic Ocean. *Deep Sea Res Pt 1*, 96: 28-37
- 193) Vojvoda, J., D. Lamy, E. Sintes, J.A. Garcia, V. Turk, G.J. Herndl, 2014: Seasonal variation of marine snow-associated and ambient water prokaryotic communities in the northern Adriatic Sea. *Aquat. Microb. Ecol.*, 73: 211-224
- 192) Mayol, E., M.A. Jimenez, G.J. Herndl, C.M. Duarte, J.M. Arrieta, 2014: Resolving the abundance and air-sea fluxes of airborne microorganisms in the North Atlantic Ocean. *Frontiers in Microbiology*, 5, Article 557
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- 190) De Corte, D., I. Lekunberri, J.A. Garcia, E. Sintes, S. Gonzales, G.J. Herndl, 2014: Linkage between copepods and bacteria in the North Atlantic. *Aquat. Microb. Ecol.*, 72: 215-225
- 189) Muck, S., T. Griessler, N. Köstner, A. Klimiuk, C. Winter, G.J. Herndl, 2014: Fracture Zones in the Mid Atlantic Ridge lead to alterations in prokaryotic and viral parameters in deep-water masses. *Frontiers Microbiol.*, 5: Article 264
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- 187) Reinthaler, T., X.A. Alvarez-Salgado, M. Alvarez Rodriguez, H.M. van Aken, G.J. Herndl, 2013: Impact of water mass mixing on the biogeochemistry and microbiology of the Northeast Atlantic Deep Water. *Global Biogeochem. Cycles*, 27: 1151-1162
- 186) Assmy, P., V. Smetacek, M. Montresor, C. Klaas, J. Henjes, V.H. Strass, J.M. Arrieta, U. Bathmann, G.M. Berg, E. Breitbarth, B. Cisewski, L. Friedrichs, N. Fuchs, G.J. Herndl, S. Jansen, S. Krägefsky, M. Latasa, I. Peeken, R. Röttgers, R. Scharek, S.E. Schüller, S. Steigenberger, A. Webb, D. Wolf-Gladrow, 2013: Thick-shelled, grazer-protected diatoms decouple ocean carbon and silicon cycles in the iron-limited Antarctic Circumpolar Current. *Proc. Natl. Acad. Sci. USA*, 110: 20633-20638
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- 183) Herndl, G.J., T. Reinthaler, 2013: Microbial control of the dark end of the biological pump. *Nature Geoscience*, 6: 718-724
- 182) Morgan-Smith, D., M.A. Clouse, G.J. Herndl, A.B. Bochdansky, 2013: Diversity and distribution of microbial eukaryotes in the deep tropical and subtropical North Atlantic. *Deep-Sea Res. I*, 78: 58-69
- 181) Bergauer, K., E. Sintes, J. v. Bleijswijk, H. Witte, T. Reinthaler, G.J. Herndl, 2013: Abundance and distribution of archaeal acetyl-CoA/propionyl-CoA carboxylase genes indicative for putatively chemoautotrophic Archaea in the tropical Atlantic's interior. *FEMS Microb. Ecol.*, 84: 461-473
- 180) Baltar, F., T. Reinthaler, G.J. Herndl, J. Pinhassi, 2013: Major effect of hydrogen peroxide on prokaryotic carbon processing in the epi-, meso-, and bathypelagic Northeast Atlantic. *PLoS ONE*, doi:10.1371/journal.pone.0061051
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- 177) Baltar, F., J. Aristegui, J.M. Gasol, T. Yokokawa, G.J. Herndl, 2013: Bacterial *versus* archaeal origin of extracellular enzymatic activity in the northeast Atlantic deep waters. *Microb. Ecol.*, 65: 277-288.
- 176) Bochdansky, A.B., M.H. Jericho, G.J. Herndl, 2013: Development and deployment of a point-source digital inline holographic microscope for the study of plankton and particles to a depth of 6000 m. *Limnol. Oceanogr.:Methods*, 11: 28-40
- 175) Sintes, E., H. Witte, K. Stoderegger, P. Steiner, G.J. Herndl, 2013: Temporal dynamics in the free-living bacterial community composition in the coastal North Sea. *FEMS Microb. Ecol.*, 83: 413-424
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- 172) Smetacek, V., C. Klaas, V.H. Strass, P. Assmy, M. Montresor, B. Cisewski, N. Savoye, A. Webb, F. d'Ovidio, J.M. Arrieta, U. Bathmann, R. Bellerby, G.M. Berg, P. Croot, F. d'Ovidio, S. Gonzalez, J. Henjes, G.J. Herndl, L.J. Hoffmann, H. Leach, M. Losch, M.M. Mills, C. Neill, I. Peeken, R. Röttgers, O. Sachs, E. Sauter, M.M. Schmidt, J. Schwarz, A. Terbrüggen, D. Wolf-Gladrow, 2012: Deep carbon export from a Southern Ocean iron-fertilized diatom bloom. *Nature*, 487: 313-319
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