

CURRICULUM VITAE

PERSONAL DATA

Name: **Klaus Jürgens**
Date of birth: 18th August 1960
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PROFESSIONAL HISTORY

- 1981 - 88 Study of Biology at the University of Konstanz
- 1990 - 94 Research assistant (PhD fellowship) at the Max Planck Institute for Limnology (Plön, Germany) in the department of Prof. Winfried Lampert; Title of thesis: "The significance of heterotrophic nano-flagellates as bacterial consumers and their regulation by predation and resources"
- 1994 – 95 Visiting research scientist at the National Environmental Research Institute, Department of Freshwater Ecology, Silkeborg (with E. Jeppesen) and at the University of Copenhagen, Institute of Freshwater Biology, Hillerød, Denmark (with K. Christoffersen); Research on shallow lake food webs
- 1995 - 02 Research scientist at the Max Planck Institute for Limnology (Plön). Special research field: microbial food webs, plankton ecology, microbial diversity, predator-prey interactions, bacterial defence mechanisms. Habilitation at the University of Kiel.
- Since 2003 Full professor for Biological Oceanography at the University of Rostock and head of the Biological Oceanography Department at the Institute for Baltic Sea Research Warnemünde (IOW)
Research in microbial ecology of the Baltic Sea and other marginal and coastal seas: biogeochemistry of pelagic redoxclines, nitrogen transformations, protist diversity and ecology, and other topics.

PEER-REVIEWED PUBLICATIONS 2002-2007

- Matz, C., Boenigk, J., Arndt, H. & Jürgens, K. (2002): Role of bacterial phenotypic traits in selective feeding of the heterotrophic nanoflagellate *Spumella* sp. *Aquat. Microb. Ecol.* 27: 137-148.
- Boenigk, J., Matz, C., Jürgens, K. & Arndt, H. (2002): Food concentration-dependent regulation of food selectivity of interception-feeding bacterivorous nanoflagellates. *Aquat. Microb. Ecol.* 27: 195-202.
- Matz, C., Deines, P. & Jürgens, K. (2002): Phenotypic variation in *Pseudomonas* sp. CM10 determines microcolony formation and survival under protozoan grazing. *FEMS Microbiol. Ecol.* 39: 57-65.
- Jeppesen, E., Søndergaard, Ma., Søndergaard, Mo., Christoffersen, K. Theil-Nielsen, J. & Jürgens, K. (2002): Cascading trophic interactions in the littoral zone: an enclosure experiment in shallow Lake Stigsholm, Denmark. *Arch. Hydrobiol.* 153: 533-555
- Jürgens, K. & Matz, C. (2002): Predation as a shaping force for the phenotypic and genotypic composition of planktonic bacteria. *Antonie van Leeuwenhoek* 81: 413-434.

- Degans, H., Zöllner, E., v.d. Gucht, K., de Meester, L. & Jürgens, K. (2002): Rapid Daphnia-mediated changes in microbial community structure: an experimental study. *FEMS Microbiol. Ecol.* 42: 137-149.
- Massana, R. & Jürgens, K. (2003): Composition and population dynamics of planktonic bacteria and bacterivorous flagellates in seawater chemostat cultures. *Aquat. Microb. Ecol.* 32: 11-22
- Matz, C. & Jürgens, K. (2003): Interaction of nutrient limitation and protozoan grazing determines the phenotypic composition of a bacterial community. *Microb. Ecol.* 45: 384-398
- Sommer, U., Sommer, F., Santer, B., Zöllner, E., Jürgens, K., Jamieson, C., Boersma, M., Gocke, K. (2003): Daphnia versus copepod impact on summer phytoplankton: functional compensation at both trophic levels. *Oecologia* 135: 639-647
- Zöllner, E., Santer, B., Boersma, M., Hoppe, H.-G., Jürgens, K. (2003): Cascading predation effects of Daphnia and copepods on microbial food web components. *Freshw. Biol.* 48: 2174-2193
- Matz, C., Deines, P., Boenigk, J., Arndt, H., Eberl, L., Kjelleberg, S., Jürgens, K. (2004): Effect of violacein-producing bacteria on survival and feeding of bacterivorous nanoflagellates. *Appl. Environ. Microbiol.* 70: 1593-1599
- Pernthaler, J., Zöllner, E., Warnecke, F. & Jürgens, K. (2004): A bloom of filamentous bacteria in a mesotrophic lake: identity and potential controlling mechanism. *Appl. Environ. Microbiol.* 70: 6272-6281
- Sala, M. & Jürgens, K. (2004): Bacterial growth on macrophyte leachate in the presence and absence of bacterivorous protists. *Arch. Hydrobiol.* 161: 371-389
- Matz, C. & Jürgens, K. (2005): High motility reduces the grazing mortality of planktonic bacteria. *Appl. Environ. Microbiol.* 71: 921-929
- Berglund, J., Jürgens, K., Bruchmüller, I., Wedin, M., Andersson, A. (2005): Use of group-specific PCR primers for identification of chrysophytes by denaturing gradient gel electrophoresis. *Aquat. Microb. Ecol.* 39: 171-182
- Becks, L., Hilkert, F.M., Malchow, H., Jürgens, K., Arndt, H. (2005): Experimental demonstration of chaos in a microbial food web. *Nature* 435: 1226-1229
- Labrenz, M., Jost, G., Pohl, C., Beckmann, S., Martens-Habbena, W. & Jürgens, K. (2005): Impact of varying *in vitro* electron donor/-acceptor conditions on potential chemolithoautotrophic communities from pelagic redoxclines. *Appl. Environ. Microbiol.* 71: 6664-6672.
- Corno, G. & Jürgens, K. (2006): Direct and indirect effects of protist predation on the population size structure of a bacterial strain with high phenotypic plasticity. *Appl. Environ. Microbiol.* 72: 78-86.
- Hannig, M., Braker, G., Dippner, J.W. & Jürgens, K. (2006.): Linking denitrifier community structure and prevalent biogeochemical parameters in the pelagial of the central Baltic Proper (Baltic Sea). *FEMS Microb. Ecol.* 57: 260-271
- Jürgens, K. (2006): Predation on bacteria and bacterial resistance mechanisms: Comparative aspects among different predator groups in aquatic systems. In: *Predatory Prokaryotes*, E. Jurkevitch (ed.). *Microbiology Monographs* 4: 57-92.
- Jeppesen, E., Søndergaard, M., Pedersen, A.R., Jürgens, K., Strelczak, A., Lauridsen, T.L., Johansson, L.S. (2007): Salinity induced regime shift in shallow brackish lagoons. *Ecosystems* (in press).
- Labrenz, M., G. Jost., K. Jürgens (2007): Distribution of abundant prokaryotic organisms in the water column of the central Baltic Sea with an oxic-anoxic interface. *Aquat. Microb. Ecol.* (in press).
- Hannig, M., Lavik, G., Kuypers, M.M.M., Woebken, D., Martens-Habbena, W., Jürgens, K. (in revision): Shift from denitrification to anammox after inflow events in the central Baltic Sea. *Limnol. Oceanogr.* (in revision)