

Curriculum vitae

Priv.-Doz. Dr. Mag. Martin Johann KAINZ

Personal Data

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WasserCluster – Biologische Station Lunz GmbH

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Current Positions

2021 – present Scientific managing director, Inter-university Centre for Aquatic Ecosystem Research, WasserCluster Lunz, Austria

2006 – present Research Scientist, Inter-university Centre for Aquatic Ecosystem Research, WasserCluster Lunz, Austria;
Head 'Aquatic Lipid and Ecotoxicology Research Group (LIPTOX)'

2008 – present Affiliated Professor, University of Washington, Seattle
Environmental Engineering
<https://www.ce.washington.edu/people/faculty/adjunct>

Education

2010 Dozent University of Vienna, Austria

Habilitation: Aquatic Ecotoxicology

2002 PhD Université du Québec à Montréal, Canada

Environmental Sciences

1995 Mag. rer. nat. University of Vienna, Austria

Landscape Ecology

Academic and Professional Career

2010 Invited Professor, Laboratoire Microorganismes: Génome et Environnement, Réseaux trophiques aquatiques.
Université Blaise Pascal, Clermont-Ferrand, France

2006 Post-doctoral fellow, National Water Research Institute, Environment Canada, Burlington, Ontario, Canada (Host: Michael T. Arts)

2002 – 2005 Post-doctoral fellow, University of Victoria, Department of Biology, Victoria, BC, Canada (Host: Asit Mazumder)

2000 Research internship, Ocean Sciences Centre, University of Newfoundland, St. John's, Newfoundland, Canada

1996 – 2002 PhD, Université du Québec à Montréal, Canada, Centre de recherche en géochimie isotopique et en géochronologie (GEOTOP)

Research Interests

- Aquatic food web ecology
- Lipids in aquatic ecosystems
- Aquatic ecotoxicology
- Chemical tracers/biomarkers
- Sustainable fisheries research

Honors and Awards

Funding agency	Year(s)	Title/Description	Award	Associate(s)/PI
GARANT Austria	2022	Development of sustainable fish feeds – effects of fishless feeds on growth and biochemical composition in Rainbow Trout	€28,000	Eduard Schneeberger Hannes Hager
Austrian Science Fund (FWF) – Lise Meitner Program	2019-2022	Consequences of dietary fatty acids and temperature on cognitive capacity and fitness of fishes – SalmoPUFA	€160,000	Libor Zavorka (PI) Martin Kainz (co-PI)
Government Queensland, Australia	2019-21	Hotspots of aquatic primary productivity within the Mitchell river system and the importance of floodplain/floodplain wetland production during the wet season in supporting upstream river ecosystems	€50,000	Jonathan Marshall
GARANT Austria	2019-21	Development of sustainable fish feeds – effects on growth and biochemical composition in Arctic charr	€40,000	Eduard Schneeberger Hannes Hager
Austrian Science Fund (FWF) DACH	2019-2022	Transfer of essential lipids from aquatic to terrestrial ecosystems	€218,000 (€435,000 total)	Dominik Martin-Creuzburg
GARANT Austria	2018	Effects of various fish feeds on growth and biochemical composition of Arctic charr and Rainbow trout	€20,000	Eduard Schneeberger Hannes Hager
Austrian Science Fund (FWF)	2017-2022	The role of chytrids in planktonic food webs	€314,570	Serena Rasconi (PI) Martin Kainz (PI)
Austrian Academy of Science	2017	Effects of microplastics on methyl mercury biomagnification in aquatic organisms	€18,720	Suzana Zizek (beneficiary)
European Union	2017-2020	Network of Leading European AQUATIC MesoCOSM Facilities Connecting Mountains to Oceans from the Arctic to the Mediterranean	€637,376	Jens Neistgaard (PI) Stella Berger Robert Ptacnik (PI WCL)
Austrian Science Fund (FWF) / National Science Foundation (NSF)	2016-2017	Dietary pathways of PCBs to top predators in mountain lakes	€36,660	Ariana Chiapella (beneficiary) Angela Strecker

Austrian Science Fund (FWF)	2016-2021	Trophic pathways of omega-3 fatty acids in stream food webs	€397,000	Martin Kainz (PI) Stuart Bunn Brian Fry Tom Battin
GARANT Austria	2014-2015	Sustainable fish feeds – effects on growth and lipids of Arctic charr (<i>S. alpinus</i>)	€33,500	Eduard Schneeberger Hannes Hager
Austrian Academy of Science	2015-2018	Influence of climate extremes on carbon dynamics across the boundaries of aquatic ecosystems (EXCARB)	€348,000	Tom Battin (PI) Georg Wohlfahrt Günter Blöschl
Province of Lower Austria	2013	Threats to lake food web stability – recent pike invasion to pre-alpine lakes	€112,000	Martin Kainz (PI)
Austrian Science Fund (FWF) - BiodivERsA	2012-2016	LIMNOTIP – Biodiversity dynamics and tipping points in our future freshwater ecosystems	€173,000 (€699,000 total)	Lars-Anders Hansson Rita Adrian Dag Hessen
Federal Ministry for Agriculture, Forestry, Environment and Water	2012-2014	Partial replacement of marine-based oils by local pumpkin seed press cake for freshwater fish production (<i>Salvelinus umbla</i>)	€287,000	Martin Kainz (PI) Eduard Schneeberger Douglas Tocher
Government Queensland, Australia	2011-12	Food web interactions in Australian riverlakes	€50,000	Jonathan Marshall
Finnish Academy of Sciences	2011-2014	Impacts of terrestrial organic matter loading on availability and transfer of polyunsaturated fatty acids in pelagic food webs of large boreal lakes	€115,000	Paula Kankaala (PI)
Hydropower Austria	2010	Membrane competency during cold challenges of greylings (<i>T. thymallus</i>)	€24,000	Günther Unfer
Austrian Science Fund (FWF)	2010-13	LIPTEMP - Temperature and diet effects on <i>Daphnia</i> lipids and fitness	€287,200	Martin Kainz (PI) Michael Arts Irina Guschina
Austrian Ministry of Sciences	2008-10	Start-up grant 'Long-term Ecological Research Program (LTER)'	€75,000	Tom Battin Thomas Hein
Province of Lower Austria	2009-10	FeSchaFISCH – Identification of essential dietary constituents versus potentially toxic compounds in aquatic food webs	€158,000	Martin Kainz (PI)
Austrian Science Fund (FWF)	2008-12	Diet effects on fatty acids and methyl mercury in common carp (<i>C. carpio</i>)	€270,000	Martin Kainz (PI)
Provinces of Lower and Upper Austria, and Styria	2008-11	Effects of artificial lakes on water quality	€421,000	Thilo Hofmann Tom Battin
Lapland Biosphere-Atmosphere (LAPBIAT), Finland	2008-10	Adaptive abilities of <i>Daphnia</i> populations to increasing UVR and temperature	€13,800	Iris Zellmer
Oak Ridge Natl. Lab, Tennessee	2008	Assessing the role of fatty acids of membrane and storage lipids on cold tolerance of shads	\$10,000	S. Marshall Adams
Norwegian Science Foundation	2008-10	Effects of catchment processes and forest management in boreal forests on Hg and MeHg in surface waters (ForestMercury)	€480,000	Heleen de Wit (PI)

National Science Foundation, USA	2007-09	Bioavailability and conversion of fatty acids in <i>Daphnia</i>	\$385,000	Mike T. Brett (PI)
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Reviewing Activities & Board Memberships

I typically review 12-15 manuscripts and 2 research proposals per year:

Reviewer for Journals

- Advances in Polar Ecology
- Applied Geochemistry
- Aquaculture Environment Interactions
- Aquatic Ecology
- Applied Marine Sciences
- Aquatic Microbial Ecology
- Basic and Applied Ecology
- Biogeochemistry
- Canadian Journal of Fisheries and Aquatic Sciences
- Chemosphere
- Comparative Biochemistry and Physiology
- Comprehensive Reviews in Food Science and Food Safety
- Chinese Journal of Oceanography and Limnology
- Ecological Complexity
- Ecological Informatics
- Ecology and Evolution
- Ecology Letters
- Ecosystems
- Environmental Science and Technology
- Environmental Monitoring and Assessment
- Evolutionary Applications
- Food Webs
- Functional Ecology
- Fungal Ecology
- Freshwater Biology
- Geophysical Research Letters
- Global Change Biology
- Hydrobiologia
- ICES Journal of Marine Science
- ISME Journal
- Journal of Experimental Marine Biology and Ecology
- Journal of Marine Systems
- Journal of Experimental Biology
- Journal of Freshwater Ecology
- Journal of Plankton Research
- International Journal of Food Sciences and Nutrition
- Limnologia
- Limnology and Oceanography
- Lipids
- Marine Biology
- Marine Ecology Progress Series
- Oikos
- Phytochemistry
- PLoS ONE
- Polar Biology
- Polar Research
- Polish Journal of Environmental Studies
- Quaternary Science Reviews
- Reviews in Fish Biology and Fisheries
- River Systems
- River Research and Applications
- Science of the Total Environment

	Scientific Reports
Reviewer for funding organizations	NSF – National Science Foundation (USA) NSERC – Natural Science and Engineering Research Council (Canada) CFI – Canadian Foundation for Innovation (Canada) ANR – French Science Agency/Agence Nationale de la Recherche (France) DFG – Deutsche Forschungsgemeinschaft (Germany) FNRS – Fund for Scientific Research (Belgium) NRF – National Research Foundation (South Africa) RSF – Russian Science Foundation (Russia) Czech Science Foundation (Czech Republic) Exxon Valdez Trustee Council (USA) Federal Ministry of the Environment (Austria)
Scientific evaluation of international research institutes/universities/researchers	Evaluator for the National Research Strategy for BIOR (Latvian Institute of Food Safety, Animal Health and Environment), Riga, Latvia (Nov. 2015) Chief evaluator for INRAE – Institut National de la Recherche en agronomie et environnement, Rennes, France (March/April 2021) Faculty of Science, Stockholm University, Sweden : Evaluation for promotion to Associate Professor, Dr. Sofi Jonsson (September 2021)
Editorial board member	Advances in Oceanography and Limnology Inland Waters

Memberships in Professional Societies

- SIL** International Society of Limnology
 - Vice-president (2018-2021)
- SIL-AUSTRIA** Austrian Society of Limnology (SIL Austria)
 - Secretary (2007-2012)
 - President (2012-ongoing), and national representative for SIL
- ASLO** Advancing the Science of Limnology and Oceanography
- ILTER Austria** Long Term Ecological Research
- GLEON** Global Lakes Ecological Observatory Network

Peer-Reviewed Articles

1. Vesely, L., Ercoli, F., Ruukonen, T., Blaha, M., Duras, J., **Kainz, M. J.**, Buric, M., Kouba, A. (2022): Strong temporal variation of consumer $\delta^{13}\text{C}$ signal in an oligotrophic reservoir is related to water level fluctuation. *Proceedings B.*, in review.
2. Zavorka, L., Wallerius, M. L., **Kainz, M. J.**, Höjesjö, J. (2022): Linking omega-3 polyunsaturated fatty acids in natural diet with brain size in wild consumers. *Proceedings B.*, in review.
3. Zheng, S.; Wang, R.; **Kainz, M. J.**; Liu, C.; Li, P.; Li, Z.; Yan, H.; Yin, D. (2022): How phytoplankton biomass controls metal(loid) bioaccumulation in size-fractionated plankton in anthropogenic-impacted eutrophic lakes: a comprehensive study in the Yangtze River Delta, China. *ES&T*, in review.
4. Vesterinen, J., Strandberg, U., Taipale, S., **Kainz, M. J.**, Kankaala, P. (2022): Periphyton as a key diet source of essential fatty acids for macroinvertebrates across a nutrient and DOC gradient. *Limnol. Oceanogr.*, in review.
5. O'Mara, K., Venarsky, M., Stewart-Koster, B., McGregor, G., Schulz, C., Marshall, J., Bunn, S. E., **Kainz, M. J.** (2022): Dietary energy flow through food webs and across habitats in a tropical river system. *Freshw. Biol.*, in review.
6. Zhang, J., **Kainz, M. J.**, Tan, X., Liu, Y., He, Y., Wang, X., Zhang, Q. (2022): Fatty acids reveal effects of light and nutrients on benthic food webs in headwater streams. *Aquatic Sci.*, in review.
7. Mathieu, F., Guo, F., **Kainz, M. J.** (2022): Storage lipids in zooplankton track dietary fatty acids, but membrane lipids show regulatory response to diet and temperature. *Freshw. Biol.*, in revision.
8. Abonyi, A., **Kainz, M. J.**, Ptačnik, R., Rasconi, S. (2022): The functional importance of chytrid algal parasites scales with diet quality, edibility, and biodiversity effects at the phytoplankton-zooplankton interface: A new conceptual view. *Freshw. Biol.*, in revision.
9. **Kainz, M. J.**, Schultz, S., Rasconi, S. (2022): Jumping a trophic link – aqueous, not particulate sources predict methylmercury in zooplankton. *PloS ONE*, in revision.
10. Shipley, J. R., Twining, C., Mathieu-Resuge, M., Preet Parmar, T., **Kainz, M. J.**, Martin-Creuzburg, D., Weber, C., Winkler, D. W., Graham, C. H., Matthew, B. (2022): Climate change shifts the timing of nutritional flux from aquatic insects. *Current Biol.*, in press.
11. Guo, F., Ebn, N., Fry, B., Bunn, S. E., Brett, M. T., Ouyang, X., Hager, H., **Kainz, M. J.** (2022): Basal resources of river food webs largely affect the fatty acid composition of freshwater fish. *Sci. Total Env.* 812, <https://doi.org/10.1016/j.scitotenv.2021.152450>.
12. Pilecky, M., Kämmer, S.-K., Mathieu-Resuge, M., Taipale, S., Martin-Creuzburg, D., Wassenaar, L., **Kainz, M. J.** (2021): Hydrogen isotopes (d^2H) of polyunsaturated fatty acids track bioconversion by zooplankton. *Funct. Ecol.*, <https://doi.org/10.1111/1365-2435.13981>
13. Vad, C., Schneider, C., Fischer, R., **Kainz, M. J.**, Ptačnik, R. (2021): From adverse to beneficial – contrasting dietary effects of freshwater mixotrophs on zooplankton. *Freshw. Biol.* 66:2272–2282, <https://doi.org/10.1111/fwb.13832>
14. Mathieu-Resuge, M., Pilecky, M., Twining, C., Parmar, T.-P., Martin-Creuzburg, D., Vitecek, S., **Kainz, M. J.** (2021): Dietary availability determines metabolic conversion of long-chain polyunsaturated fatty acids in spiders: a dual compound-specific stable isotope approach. *Oikos*, <https://doi.org/10.1111/oik.08513>
15. Mathieu-Resuge, M., Martin-Creuzburg, D., Twining, C., Parmar, T.-P., Hager, H., **Kainz, M. J.** (2021): Taxonomic composition and lake morphometry influence fatty acid export via emerging insects. *Freshw. Biol.* 66:2199–2209, <https://doi.org/10.1111/fwb.13819>
16. Twining, C., Parmar, T.-P., Mathieu-Resuge, M., **Kainz, M. J.**, Shipley, J., Martin-Creuzburg, D. (2021): Use of fatty acids from aquatic prey varies with foraging strategy. *Front. Ecol. Evol.*, <https://doi.org/10.3389/fevo.2021.735350>
17. Guo, F., Ebn, N., Bunn, S. E., Brett, M. T., Hager, H. H., **Kainz, M. J.** (2021): Longitudinal variation in the nutritional quality of basal food sources and its effect on invertebrates and fish in subalpine rivers. *J. Animal Ecol.*, <https://doi.org/10.1111/1365-2656.13574>
18. Scholz, K., Ejarque, E., Hammerle, A., **Kainz, M. J.**, Schelker, J., Wohlfahrt, G. (2021): Atmospheric CO_2 exchange of a small mountain lake: limitations of eddy covariance and boundary layer modeling methods in complex terrain. *J. Geophys. Res. – Biogeosci.* 126; <https://doi.org/10.1029/2021JG006286>
19. Wu, P., **Kainz, M. J.**, Valdez, F., Zheng, S., Wang, R., Branfireun, B., Chen, C. Y., Bishop, K. (2021): Elevated temperature and brownification increase dietary methylmercury, but decrease essential fatty acids at the base of lake food webs. *Nature Sci. Rep.*, <https://doi.org/10.1038/s41598-021-95742-9>

20. Závorka, L., Crespel, A., Dawson, N., Papatheodoulou, M., Killen, S., **Kainz, M. J.** (2021): Climate change induced deprivation of dietary essential fatty acids can reduce growth and mitochondrial efficiency of wild juvenile salmon. *Funct. Ecol.*, <https://doi.org/10.1111/1365-2435.13860>
21. Pilecky, M., Winter, K., Wassenaar, L., **Kainz, M. J.** (2021): Compound-specific stable hydrogen ($\delta^2\text{H}$) isotope analyses of fatty acids: a new method and perspectives for trophic and movement ecology. *Rapid Commun. Mass Spectrom.*, e9135. <https://doi.org/10.1002/rcm.9135>
22. O'Mara, K., Venarsky, M., Stewart-Koster, B., McGregor, G., Schulz, C., **Kainz, M. J.**, Marshall, J., Bunn, S. E. (2021): Connectivity of fish communities in a tropical floodplain river system and predicted impacts of dams. *Sci. Total Env.* 788, 147785. <https://doi.org/10.1016/j.scitotenv.2021.147785>
23. Twining, C., Bernhardt, J., Derry, A., Hudson, C., Ishikawa, A., Kabeya, N., **Kainz, M. J.**, Kitano, J., Kowarik, C., Ladd, S. N., Leal, M., Scharnweber, K., Shipley, J., Matthews, B. (2021). The evolutionary ecology of fatty-acid variation: implications for consumer adaptation and diversification. *Ecol. Letters*, <https://doi.org/10.1111/ele.13771>
24. Laubichler, M. D., Jäger, C., **Kainz, M. J.**, Schernhammer, E., Yang, S., Zenk, L., Zhang, Z., Steiner, G. (2021): COVID-19 reveals the need for One Health network governance. *Global Sustainability*, in press.
25. Pilecky, M., Závorka, L., Arts, M. T., **Kainz, M. J.** (2021): Dietary omega-3 polyunsaturated fatty acids are central to neurophysiological development and behavior leading to strong and pervasive downstream effects on trophic ecology - A multi-perspective synthesis. *Biol. Rev.* 96; 2127-2145. <https://doi.org/10.1111/brv.12747>
26. Taipale, S. J., Kers, E., Peltomaa, E., Loehr, J. A., **Kainz, M. J.** (2021): Selective fatty acid retention and turnover in the freshwater amphipod *Pallasea Quadraspinosa*. *Biomolecules*, 11, 478. <https://doi.org/10.3390/biom11030478>
27. Guo, F., Bunn, S. E., Brett, M. T., Fry, B., Hager, H. H., **Kainz, M. J.** (2021): The dark side of rocks: an underestimated high quality food resource in river ecosystems. *J. Ecol.* 109, 2395-2404; <https://doi.org/10.1111/1365-2745.13647>
28. Jing, M., Lin, D., Wu, P., **Kainz, M. J.**, Bishop, K., Yan, H., Li, Q., Feng, X. (2021): Diet influence on mercury bioaccumulation as revealed by polyunsaturated fatty acids in zoobenthos from two contrasting environments: Chinese reservoirs and Swedish lakes. *Sci. Total Environ.*, <https://doi.org/10.1016/j.scitotenv.2021.146410>
29. Chiapella, A. M, **Kainz, M. J.**, Strecker, A. L. (2021): Fatty acid stable isotopes add clarity, but also complexity, to tracing energy pathways in aquatic food webs. *Ecosphere* 12/2: <https://doi.org/10.1002/ecs2.3360>
30. Ejarque, E., Scholz, K., Wohlfahrt, G., Battin, T. J., **Kainz, M. J.**, Schelker, J. (2021): Hydrology controls the carbon mass balance of a mountain lake in the Eastern European Alps. *Limnol. Oceanogr.* 66/6, 2110-2125; <https://doi.org/10.1002/lno.11712>
31. Ebm, N., Guo, F., Brett, M. T., Bunn, S. M., **Kainz, M. J.** (2021): Selective retention of algal polyunsaturated fatty acids along stream food webs and within fish organs. *Hydrobiologia* 848(2): 371-383; <https://doi.org/10.1007/s10750-020-04445-1>
32. Zenk, L., Steiner, G., Pina e Cunha, M., Laubichler, M. D., Bertau, M., **Kainz, M. J.**, Jäger, C., Schernhammer, E. (2020): Fast response to Superspreading: Uncertainty and complexity in the context of COVID-19. *Int. J. Environ. Res. Public Health* 17 (21), 7884; <https://doi.org/10.3390/ijerph17217884>
33. Rasconi, S, Ptacnik, R., Danner, S., Van den Wyngaert, S., Rohrlack, T., **Kainz, M. J.** (2020): Parasitic chytrids convey and upgrade primary produced carbon during inedible algae proliferation. *Protist* 171, 125768; <https://doi.org/10.1016/j.protis.2020.125768>
34. Parzanini, C., Colombo, S. M., **Kainz, M. J.**, Wacker, A., Parrish, C. C., Arts, M. T. (2020): Discrimination between freshwater and marine fish using fatty acids: ecological implications and future perspectives. *Environ. Rev.* <https://doi.org/10.1139/er-2020-0031>
35. Guo, F., Lee, S. Y., **Kainz, M. J.**, Brett, M. T. (2020): Fatty acids as dietary biomarkers in mangrove ecosystems: current status and future perspective. *Sci. Total Environ.* 735; <https://doi.org/10.1016/j.scitotenv.2020.139907>
36. Vad, C., Schneider, C., Lukic, D., Horvath, Z., **Kainz, M. J.**, Stibor, H., Ptacnik, R. (2020). Grazing resistance and low food quality of the widespread mixotrophic chrysophyte (*Dinobryon divergens*) impairs zooplankton secondary production. *Oecologia*, 93:489-502 [10.1007/s00442-020-04677-X](https://doi.org/10.1007/s00442-020-04677-X)
37. Jardine, T. D., Galloway, A., **Kainz, M. J.** (2020): Unlocking the power of fatty acids as dietary tracers and metabolic signals in fishes and aquatic invertebrates. *Phil. Trans. R. Soc. B.* 375 : 1804, <https://doi.org/10.1098/rstb.2019.0639>

38. Kühmayer, T., Guo, F., Ebm, N., Battin, T. J., Brett, M. T., Bunn, S. E., Fry, B., **Kainz, M. J.** (2020): Preferential retention of algal carbon in benthic invertebrates – stable isotopes and fatty acids evidence from an outdoor flume experiment. *Freshw. Biol.*, 65; 1200-1209 <https://doi.org/10.1111/FWB.13492>
39. Twining, C. W., Taipale, S. J., Ruess, J., Bec, A., Martin-Creuzberg, D., **Kainz, M. J.** (2020): Stable isotopes and fatty acids – current and future perspectives for advancing trophic ecology. *Phil. Trans. R. Soc. B.* 375:20190641, <http://dx.doi.org/10.1098/rstb.2019.0641>
40. Stadler, M., Ejarque, B., **Kainz, M. J.** (2020): In-lake transformations of dissolved organic matter composition in a sub-alpine lake do not change its biodegradability. *Limnol. Oceanogr.*, <https://doi.org/10.1002/lno.11406>
41. Tao, J., Kennard, M. J., Roberts, D. T., Fry, B., **Kainz, M. J.**, Chen, Y., Bunn, S. E. (2020): Quality and contribution of food sources to Australian lungfish evaluated using fatty acids and stable isotopes. *Aquat. Sci.* 82:8. <https://doi.org/10.1007/s00027-019-0680-x>
42. Jing, M., Lin, D., Wu, P., **Kainz, M. J.**, Bishop, K., Yan, H., Wang, R., Wang, Q., Li, Q. (2020): Effect of aquaculture on mercury and polyunsaturated fatty acids in fishes from reservoirs in Southwest China. *Env. Poll.* <https://doi.org/10.1016/j.envpol.2019.113543>
43. Taipale, S. J., Peltomaa E., Kukkonen, J. V. K., **Kainz, M. J.**, Kautonen, P., and Tirola, M. (2019): Microbial transformation of microplastic into cell membranes of aquatic consumers - implications for aquatic food webs. *Nature Sci. Rep.*, 9:19894. <https://doi.org/10.1038/s41598-019-55990-2>.
44. Thomas, S., **Kainz, M. J.**, Amundsen, P.-A., Hayden, B., Taipale, S., Kahilainen, K. (2019): Ecological speciation of a dominant secondary consumer divides energy flow pathways in lake food webs: evidence from diet, stable isotope and fatty acid analyses. *PLoS ONE* 14(8): e0221338. <https://doi.org/10.1371/journal.pone.0221338>
45. Závorka, L., Koeck, B., Killen, S. S., **Kainz, M. J.** (2019): Aquatic predators influence flux of essential micronutrients. *Trends Ecol. Evol.* 2563, <https://doi.org/10.1016/j.tree.2019.06.005>
46. Mathieu-Resuge, M., Schaal, G., Kraffe, E., Corvaisier, R., Lebeau, O., Lluch-Cota, S. E., García, R. S. L., **Kainz, M. J.**, Le Grand, F. (2019): Different particle sources in a bivalve species of a coastal lagoon: evidence from stable isotopes, fatty acids, and compound-specific stable isotopes. *Mar. Biol.* 166, 89. <https://doi.org/10.1007/s00227-019-3535-z>
47. Moser, K., Baron, J., Brahney, J., Olesky, I., Saros, J., Hundey, B., Sadro, S., Kopacek, J., Sommaruga, R., **Kainz, M. J.**, Strecker, A., Chandra, S., Walters, D., Preston, D., Michelutti, N., Lepori, F., Spaulding, S., Hik, D., Christianson, K., Melack, J., Smol, J. (2019): Mountain Lakes: Eyes on Global Environmental Change. *Global and Planetary Change* 178, 77-95. DOI: 10.1016/j.gloplacha.201904.001
48. Wu, P., **Kainz, M. J.**, Åkerblom, S., Bravo, A. G., Sonesten, L., Branfireun, B., Deininger, A., Bergström, A.-K., Bishop, K. (2019): Terrestrial food sources matter for mercury bioaccumulation in zooplankton and macroinvertebrates in lakes with differing dissolved organic carbon concentrations. *Sci. Total Env.* 669, 821-832. DOI: 10.1016/j.scitotenv.2019.03.171
49. Rasconi, S., Ptacnik, R., **Kainz, M. J.** (2018): Phytoplankton responses to recent temperature changes in subalpine Lake Lunz, Austria. *Water Resour. Res.*, doi: 10.1029/2017WR020959
50. Schultz, S., Koussoroplis, A.-M., **Kainz, M. J.** (2018): Dietary fatty acid compositions are more strongly reflected in fatty than lean muscle tissues of common carp (*Cyprinus carpio* L.). *Lipids*, 53: 727–735. doi: 10.1002/lipd.12080
51. Wu, P., **Kainz, M. J.**, Bravo, A. G., Åkerblom, S., Sonesten, S., Bishop, K. (2018): Bioconcentration of aqueous methylmercury in seston predicts methylmercury in fish. *STOTEN*, 646, 357-367. doi: 10.1016/j.scitotenv.2018.07.328
52. Murray, D., **Kainz, M. J.**, Hebberecht, L., Sales, K. R., Hindar, K, Gage, M. J. G. (2018): Comparisons of reproductive function and fatty acid fillet quality between triploid and diploid Atlantic salmon (*Salmo salar*). *Royal Soc. Open Sci.*, 5: 180493. <http://dx.doi.org/10.1098/rsos.180493>
53. Guo, F., Bunn, S., Brett, M. T., Fry, B., Hager, H., Ouyang, X., **Kainz, M. J.** (2018): Stream macroinvertebrates are integrators of high quality food sources. *Limnol. Oceanogr.*, doi: 10.1002/lno.10818
54. **Kainz, M. J.**, Hager, H. H., Schneeberger, E. (2018): Poultry by-product meals as partial fish meal replacement increase somatic growth in hybrid charr (*Salvelinus alpinus* X *fontinalis*). *Open J. Animal Sci.*, 8, 191-205; doi: 10.4236/ojas.2018.83014
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