

Franz Hlker

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

141
papers

5,580
citations

39
h-index

70
g-index

153
ext. papers

6,660
ext. citations

4.5
avg, IF

6.11
L-index

#	Paper	IF	Citations
141	Light pollution as a biodiversity threat. <i>Trends in Ecology and Evolution</i> , 2010 , 25, 681-2	10.9	441
140	Artificially lit surface of Earth at night increasing in radiance and extent. <i>Science Advances</i> , 2017 , 3, e1701528	15.28	352
139	The Dark Side of Light: A Transdisciplinary Research Agenda for Light Pollution Policy. <i>Ecology and Society</i> , 2010 , 15,	4.1	279
138	The biological impacts of artificial light at night: the research challenge. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015 , 370,	5.8	258
137	NEW HORIZONS FOR MANAGING THE ENVIRONMENT: A REVIEW OF COUPLED SOCIAL-ECOLOGICAL SYSTEMS MODELING. <i>Natural Resource Modelling</i> , 2012 , 25, 219-272	1.2	197
136	Cloud coverage acts as an amplifier for ecological light pollution in urban ecosystems. <i>PLoS ONE</i> , 2011 , 6, e17307	3.7	177
135	The role of winter phenology in shaping the ecology of freshwater fish and their sensitivities to climate change. <i>Aquatic Sciences</i> , 2012 , 74, 637-657	2.5	144
134	Aerial survey and spatial analysis of sources of light pollution in Berlin, Germany. <i>Remote Sensing of Environment</i> , 2012 , 126, 39-50	13.2	132
133	High-Resolution Imagery of Earth at Night: New Sources, Opportunities and Challenges. <i>Remote Sensing</i> , 2015 , 7, 1-23	5	126
132	The influence of artificial light on stream and riparian ecosystems: questions, challenges, and perspectives. <i>Ecosphere</i> , 2011 , 2, art122	3.1	110
131	Worldwide variations in artificial skyglow. <i>Scientific Reports</i> , 2015 , 5, 8409	4.9	103
130	Tube-dwelling invertebrates: tiny ecosystem engineers have large effects in lake ecosystems. <i>Ecological Monographs</i> , 2015 , 85, 333-351	9	91
129	Redefining efficiency for outdoor lighting. <i>Energy and Environmental Science</i> , 2014 , 7, 1806-1809	35.4	88
128	Spotlight on fish: light pollution affects circadian rhythms of European perch but does not cause stress. <i>Science of the Total Environment</i> , 2015 , 511, 516-22	10.2	85
127	Swimming efficiency and the influence of morphology on swimming costs in fishes. <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 2006 , 176, 17-25	2.2	85
126	Microbial diversity and community respiration in freshwater sediments influenced by artificial light at night. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015 , 370,	5.8	84
125	Insect declines and agroecosystems: does light pollution matter?. <i>Annals of Applied Biology</i> , 2018 , 173, 180-189	2.6	77

124	Artificial Light at Night Affects Organism Flux across Ecosystem Boundaries and Drives Community Structure in the Recipient Ecosystem. <i>Frontiers in Environmental Science</i> , 2017 , 5,	4.8	76
123	Red is the new black: how the colour of urban skyglow varies with cloud cover. <i>Monthly Notices of the Royal Astronomical Society</i> , 2012 , 425, 701-708	4.3	71
122	The effects of artificial lighting on adult aquatic and terrestrial insects. <i>Freshwater Biology</i> , 2014 , 59, 368-377	3.1	67
121	Impact of different colours of artificial light at night on melatonin rhythm and gene expression of gonadotropins in European perch. <i>Science of the Total Environment</i> , 2016 , 543, 214-222	10.2	66
120	Temperature-related physiological adaptations promote ecological divergence in a sympatric species pair of temperate freshwater fish, <i>Coregonus</i> spp.. <i>Functional Ecology</i> , 2008 , 22, 501-508	5.6	65
119	Intraspecific temperature dependence of the scaling of metabolic rate with body mass in fishes and its ecological implications. <i>Oikos</i> , 2012 , 121, 245-251	4	63
118	Light Pollution, Circadian Photoreception, and Melatonin in Vertebrates. <i>Sustainability</i> , 2019 , 11, 6400	3.6	61
117	Exploring ultimate hypotheses to predict diel vertical migrations in coregonid fish. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2007 , 64, 874-886	2.4	59
116	Tracking the dynamics of skyglow with differential photometry using a digital camera with fisheye lens. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2018 , 209, 212-223	2.1	56
115	Citizen science provides valuable data for monitoring global night sky luminance. <i>Scientific Reports</i> , 2013 , 3, 1835	4.9	56
114	Effects of temperature, swimming speed and body mass on standard and active metabolic rate in vendace (<i>Coregonus albula</i>). <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 2007 , 177, 905-16	2.2	53
113	Imaging and mapping the impact of clouds on skyglow with all-sky photometry. <i>Scientific Reports</i> , 2017 , 7, 6741	4.9	51
112	Emergent properties in individual-based ecological models: introducing case studies in an ecosystem research context. <i>Ecological Modelling</i> , 2005 , 186, 376-388	3	51
111	The future distribution of river fish: The complex interplay of climate and land use changes, species dispersal and movement barriers. <i>Global Change Biology</i> , 2017 , 23, 4970-4986	11.4	50
110	Can feeding of fish on terrestrial insects subsidize the nutrient pool of lakes?. <i>Limnology and Oceanography</i> , 2005 , 50, 2022-2031	4.8	47
109	Energy reserves during food deprivation and compensatory growth in juvenile roach: the importance of season and temperature. <i>Journal of Fish Biology</i> , 2005 , 66, 167-181	1.9	46
108	Synergistic and antagonistic interactions of future land use and climate change on river fish assemblages. <i>Global Change Biology</i> , 2016 , 22, 1505-22	11.4	44
107	Trait-mediated indirect effects of predatory fish on microbial mineralization in aquatic sediments. <i>Ecology</i> , 2006 , 87, 3152-9	4.6	43

106	The metabolic rate of roach in relation to body size and temperature. <i>Journal of Fish Biology</i> , 2003 , 62, 565-579	1.9	43
105	Size-dependent predator-prey relationships between pikeperch and their prey fish. <i>Ecology of Freshwater Fish</i> , 2007 , 16, 307-314	2.1	42
104	Effects of piscivore-mediated habitat use on growth, diet and zooplankton consumption of roach: an individual-based modelling approach. <i>Freshwater Biology</i> , 2002 , 47, 2345-2358	3.1	40
103	Street lighting: sex-independent impacts on moth movement. <i>Journal of Animal Ecology</i> , 2016 , 85, 1352-69	4.9	39
102	Beyond All-Sky: Assessing Ecological Light Pollution Using Multi-Spectral Full-Sphere Fisheye Lens Imaging. <i>Journal of Imaging</i> , 2019 , 5,	3.1	37
101	Influence of light intensity and spectral composition of artificial light at night on melatonin rhythm and mRNA expression of gonadotropins in roach <i>Rutilus rutilus</i> . <i>Fish Physiology and Biochemistry</i> , 2018 , 44, 1-12	2.7	37
100	Spatial and temporal heterogeneity of trophic variables in a deep lake as reflected by repeated singular samplings. <i>Oikos</i> , 2005 , 108, 401-409	4	36
99	Using all-sky differential photometry to investigate how nocturnal clouds darken the night sky in rural areas. <i>Scientific Reports</i> , 2019 , 9, 1391	4.9	36
98	Artificial light as a disturbance to light-naïve streams. <i>Freshwater Biology</i> , 2014 , 59, 2235-2244	3.1	35
97	Species-specific responses of planktivorous fish to the introduction of a new piscivore: implications for prey fitness. <i>Freshwater Biology</i> , 2007 , 52, 1793-1806	3.1	35
96	Influence of activity in a heterogeneous environment on the dynamics of fish growth: an individual-based model of roach. <i>Journal of Fish Biology</i> , 2002 , 60, 1170-1189	1.9	34
95	The underestimated dynamics and impacts of water-based recreational activities on freshwater ecosystems. <i>Environmental Reviews</i> , 2018 , 26, 199-213	4.5	33
94	The concepts of emergent and collective properties in individual-based models: Summary and outlook of the Bornhöved case studies. <i>Ecological Modelling</i> , 2005 , 186, 489-501	3	33
93	Artificial light at night: implications for early life stages development in four temperate freshwater fish species. <i>Aquatic Sciences</i> , 2011 , 73, 143-152	2.5	32
92	Biology of Ruffe (<i>Gymnocephalus cernuus</i> (L.)) – A Review of Selected Aspects from European Literature. <i>Journal of Great Lakes Research</i> , 1998 , 24, 186-204	3	32
91	Is ecological segregation in a pair of sympatric coregonines supported by divergent feeding efficiencies?. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2008 , 65, 2105-2113	2.4	31
90	Modelling energetic costs of fish swimming. <i>Journal of Experimental Zoology Part A, Comparative Experimental Biology</i> , 2005 , 303, 657-64		31
89	Innovation in Citizen Science – Perspectives on Science-Policy Advances. <i>Citizen Science: Theory and Practice</i> , 2018 , 3, 4	2.5	31

88	Dietary changes in predators and scavengers in a nocturnally illuminated riparian ecosystem. <i>Oikos</i> , 2018 , 127, 960-969	4	30
87	Influence of artificially induced light pollution on the hormone system of two common fish species, perch and roach, in a rural habitat 2018 , 6, coy016		30
86	Artificial light at night decreases biomass and alters community composition of benthic primary producers in a sub-alpine stream. <i>Limnology and Oceanography</i> , 2017 , 62, 2799-2810	4.8	30
85	Response of the residential piscivorous fish community to introduction of a new predator type in a mesotrophic lake. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2006 , 63, 2202-2212	2.4	30
84	Adaptive behaviour of chironomid larvae (<i>Chironomus riparius</i>) in response to chemical stimuli from predators and resource density. <i>Behavioral Ecology and Sociobiology</i> , 2005 , 58, 256-263	2.5	30
83	Bright nights and social interactions: a neglected issue. <i>Behavioral Ecology</i> , 2015 , 26, 334-339	2.3	29
82	Lunar skylight polarization signal polluted by urban lighting. <i>Journal of Geophysical Research</i> , 2011 , 116, n/a-n/a		29
81	A spatiotemporal individual-based fish model to investigate emergent properties at the organismal and the population level. <i>Ecological Modelling</i> , 2005 , 186, 406-426	3	29
80	Evaluating the summer night sky brightness at a research field site on Lake Stechlin in northeastern Germany. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2016 , 181, 24-32	2.1	26
79	Out of the Dark: Establishing a Large-Scale Field Experiment to Assess the Effects of Artificial Light at Night on Species and Food Webs. <i>Sustainability</i> , 2015 , 7, 15593-15616	3.6	24
78	An unintended experiment in fisheries science: a marine area protected by war results in Mexican waves in fish numbers-at-age. <i>Die Naturwissenschaften</i> , 2010 , 97, 797-808	2	24
77	Artificial Light at Night Affects Emergence from a Refuge and Space Use in Guppies. <i>Scientific Reports</i> , 2018 , 8, 14131	4.9	24
76	A transition to white LED increases ecological impacts of nocturnal illumination on aquatic primary producers in a lowland agricultural drainage ditch. <i>Environmental Pollution</i> , 2018 , 240, 630-638	9.3	23
75	Estimating the active metabolic rate (AMR) in fish based on tail beat frequency (TBF) and body mass. <i>Journal of Experimental Zoology</i> , 2007 , 307, 296-300		22
74	Mapping the brightness and color of urban to rural skyglow with all-sky photometry. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2020 , 250, 106988	2.1	21
73	Artificial Light at Night Influences Clock-Gene Expression, Activity, and Fecundity in the Mosquito <i>Culex pipiens f. molestus</i> . <i>Sustainability</i> , 2019 , 11, 6220	3.6	21
72	Working with Inadequate Tools: Legislative Shortcomings in Protection against Ecological Effects of Artificial Light at Night. <i>Sustainability</i> , 2020 , 12, 2551	3.6	20
71	An individual-based approach to depict the influence of the feeding strategy on the population structure of roach (<i>Rutilus rutilus</i> L.). <i>Limnologica</i> , 2001 , 31, 69-78	2	20

70	Snowglow-The Amplification of Skyglow by Snow and Clouds Can Exceed Full Moon Illuminance in Suburban Areas. <i>Journal of Imaging</i> , 2019 , 5,	3.1	19
69	Improved river continuity facilitates fishes' abilities to track future environmental changes. <i>Journal of Environmental Management</i> , 2018 , 208, 169-179	7.9	19
68	Life in turbulent flows: interactions between hydrodynamics and aquatic organisms in rivers. <i>Wiley Interdisciplinary Reviews: Water</i> , 2017 , 4, e1213	5.7	18
67	Simulation of trait- and density-mediated indirect effects induced by piscivorous predators. <i>Basic and Applied Ecology</i> , 2005 , 6, 289-300	3.2	18
66	How dark is a river? Artificial light at night in aquatic systems and the need for comprehensive night-time light measurements. <i>Wiley Interdisciplinary Reviews: Water</i> , 2019 , 6, e1388	5.7	17
65	Population Density of the Crayfish, <i>Orconectes limosus</i> , in Relation to Fish and Macroinvertebrate Densities in a Small Mesotrophic Lake – Implications for the Lake's Food Web. <i>International Review of Hydrobiology</i> , 2005 , 90, 523-533	2.3	17
64	Artificial light and nocturnal activity in gammarids. <i>PeerJ</i> , 2014 , 2, e279	3.1	17
63	Can skyglow reduce nocturnal melatonin concentrations in Eurasian perch?. <i>Environmental Pollution</i> , 2020 , 262, 114324	9.3	16
62	Dietary niche partitioning in a piscivorous fish guild in response to stocking of an additional competitor – The role of diet specialisation. <i>Limnologica</i> , 2012 , 42, 56-64	2	16
61	Temperature stability of the sky quality meter. <i>Sensors</i> , 2013 , 13, 12166-74	3.8	16
60	Effects of body size and temperature on metabolism of bream compared to sympatric roach. <i>Animal Biology</i> , 2006 , 56, 23-37	0.7	16
59	Measuring Light Pollution with Fisheye Lens Imagery from A Moving Boat – A Proof of Concept. <i>International Journal of Sustainable Lighting</i> , 2017 , 19, 15-25	1.5	16
58	What makes the Asian bush mosquito <i>Aedes japonicus japonicus</i> feel comfortable in Germany? A fuzzy modelling approach. <i>Parasites and Vectors</i> , 2019 , 12, 106	4	15
57	High female survival promotes evolution of protogyny and sexual conflict. <i>PLoS ONE</i> , 2015 , 10, e0118354	5.7	15
56	Comment on "Impacts of biodiversity loss on ocean ecosystem services". <i>Science</i> , 2007 , 316, 1285; author reply 1285	33.3	15
55	Determinants of habitat use in large roach. <i>Journal of Fish Biology</i> , 2006 , 69, 1136-1150	1.9	15
54	Evidence That Reduced Air and Road Traffic Decreased Artificial Night-Time Skyglow during COVID-19 Lockdown in Berlin, Germany. <i>Remote Sensing</i> , 2020 , 12, 3412	5	15
53	Long-Term Comparison of Attraction of Flying Insects to Streetlights after the Transition from Traditional Light Sources to Light-Emitting Diodes in Urban and Peri-Urban Settings. <i>Sustainability</i> , 2019 , 11, 6198	3.6	15

52	Study of Biological Action of Light on Fish. <i>Journal of Light and Visual Environment</i> , 2013 , 37, 194-204		14
51	Urban Lighting Research Transdisciplinary Framework-A Collaborative Process with Lighting Professionals. <i>International Journal of Environmental Research and Public Health</i> , 2021 , 18,	4.6	12
50	The ecological effect of phenotypic plasticity [Analyzing complex interaction networks (COIN) with agent-based models. <i>Ecological Informatics</i> , 2008 , 3, 35-45	4.2	11
49	Assessing long-term effects of artificial light at night on insects: what is missing and how to get there. <i>Insect Conservation and Diversity</i> , 2021 , 14, 260-270	3.8	11
48	Eutrophication, Research and Management History of the Shallow Ypacara Lake (Paraguay). <i>Sustainability</i> , 2018 , 10, 2426	3.6	10
47	Two camera system for measurement of urban uplight angular distribution 2013 ,		10
46	Impact of Chaoborus flavicans -Predation on the Zooplankton in a Mesotrophic Lake [A Three Year Study. <i>International Review of Hydrobiology</i> , 2011 , 96, 191-208	2.3	10
45	Slugs (Arionidae) benefit from nocturnal artificial illumination. <i>Journal of Experimental Zoology Part A: Ecological and Integrative Physiology</i> , 2018 , 329, 429-433	1.9	10
44	Application of a bioenergetics model to roach. <i>Journal of Applied Ichthyology</i> , 2004 , 20, 548-550	0.9	9
43	11 Pressing Research Questions on How Light Pollution Affects Biodiversity. <i>Frontiers in Ecology and Evolution</i> , 2021 , 9,	3.7	8
42	Citizen science technologies and new opportunities for participation 2018 , 303-320		8
41	Impact of artificial illumination on the development of a leafmining moth in urban trees. <i>International Journal of Sustainable Lighting</i> , 2019 , 21, 1-10	1.5	8
40	Parasite community and mortality of overwintering young-of-the-year roach (<i>Rutilus rutilus</i>). <i>Journal of Parasitology</i> , 2007 , 93, 985-91	0.9	7
39	Impact of Lighting on Flora and Fauna 2017 , 957-989		7
38	The Use of Sentinel-2 for Chlorophyll-a Spatial Dynamics Assessment: A Comparative Study on Different Lakes in Northern Germany. <i>Remote Sensing</i> , 2021 , 13, 1542	5	7
37	Altered sex-specific mortality and female mating success: ecological effects and evolutionary responses. <i>Ecosphere</i> , 2017 , 8, e01820	3.1	6
36	Ecological commonalities among pelagic fishes: comparison of freshwater ciscoes and marine herring and sprat. <i>Marine Biology</i> , 2012 , 159, 2583-2603	2.5	6
35	A global agenda for advancing freshwater biodiversity research. <i>Ecology Letters</i> , 2021 ,	10	6

34	A pigment composition analysis reveals community changes in pre-established stream periphyton under low-level artificial light at night. <i>Limnologica</i> , 2018 , 69, 55-58	2	6
33	Revisiting global trends in freshwater insect biodiversity. <i>Wiley Interdisciplinary Reviews: Water</i> , 2021 , 8, e1506	5.7	6
32	Impact of Lighting on Flora and Fauna 2016 , 1-33		5
31	Light Pollution Reduction 2014 , 1-17		5
30	Impact of Different Wavelengths of Artificial Light at Night on Phototaxis in Aquatic Insects. <i>Integrative and Comparative Biology</i> , 2021 , 61, 1182-1190	2.8	5
29	The Impact Of Light Pollution On Bats Varies According To Foraging Guild And Habitat Context. <i>BioScience</i> ,	5.7	5
28	SMART Research: Toward Interdisciplinary River Science in Europe. <i>Frontiers in Environmental Science</i> , 2020 , 8,	4.8	4
27	Light intensity and spectral distribution affect chytrid infection of cyanobacteria modulation of host fitness. <i>Parasitology</i> , 2020 , 147, 1206-1215	2.7	4
26	Assessing how uncertainty and stochasticity affect the dispersal of fish in river networks. <i>Ecological Modelling</i> , 2017 , 359, 220-228	3	4
25	The effect of temperature on mortality in small perch marked with coded wire tags. <i>Journal of Fish Biology</i> , 2006 , 69, 1255-1260	1.9	4
24	Microplastic inclusion in birch tree roots. <i>Science of the Total Environment</i> , 2021 , 808, 152085	10.2	4
23	Can data from native mosquitoes support determining invasive species habitats? Modelling the climatic niche of <i>Aedes japonicus japonicus</i> (Diptera, Culicidae) in Germany. <i>Parasitology Research</i> , 2020 , 119, 31-42	2.4	4
22	In situ estimation of gastric evacuation and consumption rates of burbot (<i>Lota lota</i>) in a summer-warm lowland river. <i>Journal of Applied Ichthyology</i> , 2011 , 27, 1236-1241	0.9	3
21	Window illumination should be expected to poorly correlate with satellite brightness measurements. <i>Chronobiology International</i> , 2012 , 29, 87-8; author reply 88-90	3.6	3
20	The role of insectivorous fish in fostering the allochthonous subsidy of lakes. <i>Limnology and Oceanography</i> , 2007 , 52, 2718-2721	4.8	3
19	A Systematic Review for Establishing Relevant Environmental Parameters for Urban Lighting: Translating Research into Practice. <i>Sustainability</i> , 2022 , 14, 1107	3.6	3
18	Light Pollution Reduction 2017 , 991-1010		3
17	European Wilderness in a Time of Farmland Abandonment 2015 , 25-46		3

16	Turbulence, instream wood and fish: Ecohydraulic interactions under field conditions. <i>Ecohydrology</i> , 2020 , 13, e2211	2.5	2
15	Citizen science to monitor light pollution is a useful tool for studying human impacts on the environment 2018 , 353-366		2
14	Misbalance of thyroid hormones after two weeks of exposure to artificial light at night in Eurasian perch 2021 , 9, coaa124		2
13	Innate immunity, oxidative stress and body indices of Eurasian perch <i>Perca fluviatilis</i> after two weeks of exposure to artificial light at night. <i>Journal of Fish Biology</i> , 2021 , 99, 118-130	1.9	2
12	Resources of dark skies in German climatic health resorts. <i>International Journal of Biometeorology</i> , 2017 , 61, 11-22	3.7	1
11	Influence of activity in a heterogeneous environment on the dynamics of fish growth: an individual-based model of roach. <i>Journal of Fish Biology</i> , 2002 , 60, 1170-1189	1.9	1
10	Linking a compartment model for West Nile virus with a flight simulator for vector mosquitoes. <i>Ecological Modelling</i> , 2022 , 464, 109840	3	1
9	Impact of light pollution on moth morphology: A 137-year study in Germany. <i>Basic and Applied Ecology</i> , 2021 , 56, 1-10	3.2	1
8	Spatial and seasonal patterns of water isotopes in northeastern German lakes. <i>Earth System Science Data</i> , 2022 , 14, 1857-1867	10.5	1
7	A plea for a worldwide development of dark infrastructure for biodiversity: Practical examples and ways to go forward. <i>Landscape and Urban Planning</i> , 2022 , 219, 104332	7.7	0
6	Evaluating Multiple Stressor Effects on Benthic and Pelagic Freshwater Communities in Systems of Different Complexities: Challenges in Upscaling. <i>Water (Switzerland)</i> , 2022 , 14, 581	3	0
5	Design and implementation of an illumination system to mimic skyglow at ecosystem level in a large-scale lake enclosure facility. <i>Scientific Reports</i> , 2021 , 11, 23478	4.9	0
4	The rising moon promotes mate finding in moths.. <i>Communications Biology</i> , 2022 , 5, 393	6.7	0
3	Angular distribution of uplight at 10,000 ft over Berlin. <i>Proceedings of the International Astronomical Union</i> , 2012 , 10, 738-738	0.1	
2	Nächtliches Licht und Lichtverschmutzung in und um Gewässer 2018 , 1-26		
1	Response to Letter to the Editor "Instigating reflections on microplastics uptake and translocations".. <i>Science of the Total Environment</i> , 2022 , 825, 154873	10.2	