

Ludek Berec

List of Publications by Year in descending order

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Version: 2024-02-01

74
papers

4,020
citations

218677

26
h-index

155660

55
g-index

115
all docs

115
docs citations

115
times ranked

3481
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiple Allee effects and population management. <i>Trends in Ecology and Evolution</i> , 2007, 22, 185-191.	8.7	497
2	Single-species Models of the Allee Effect: Extinction Boundaries, Sex Ratios and Mate Encounters. <i>Journal of Theoretical Biology</i> , 2002, 218, 375-394.	1.7	322
3	Dangerously few liaisons: a review of mate-finding Allee effects. <i>Population Ecology</i> , 2009, 51, 355-372.	1.2	252
4	Exploiting Allee effects for managing biological invasions. <i>Ecology Letters</i> , 2011, 14, 615-624.	6.4	218
5	Optimal surveillance and eradication of invasive species in heterogeneous landscapes. <i>Ecology Letters</i> , 2012, 15, 803-812.	6.4	145
6	Eradication of Invading Insect Populations: From Concepts to Applications. <i>Annual Review of Entomology</i> , 2016, 61, 335-352.	11.8	144
7	Techniques of spatially explicit individual-based models: construction, simulation, and mean-field analysis. <i>Ecological Modelling</i> , 2002, 150, 55-81.	2.5	141
8	How predator functional responses and Allee effects in prey affect the paradox of enrichment and population collapses. <i>Theoretical Population Biology</i> , 2007, 72, 136-147.	1.1	124
9	Double Allee Effects and Extinction in the Island Fox. <i>Conservation Biology</i> , 2007, 21, 1082-1091.	4.7	113
10	Impacts of Foraging Facilitation Among Predators on Predator-prey Dynamics. <i>Bulletin of Mathematical Biology</i> , 2010, 72, 94-121.	1.9	108
11	Linking the Allee Effect, Sexual Reproduction, and Temperature-Dependent Sex Determination Via Spatial Dynamics. <i>American Naturalist</i> , 2001, 157, 217-230.	2.1	97
12	Review: Allee effects in social species. <i>Journal of Animal Ecology</i> , 2018, 87, 47-58.	2.8	68
13	Sex determination in <i>Bonellia viridis</i> (Echiura: Bonelliidae): population dynamics and evolution. <i>Oikos</i> , 2005, 108, 473-484.	2.7	64
14	Optimization of exergy and implications of body sizes of phytoplankton and zooplankton in an aquatic ecosystem model. <i>Ecological Modelling</i> , 2001, 140, 219-234.	2.5	62
15	Improved calibration of a eutrophication model by use of the size variation due to succession. <i>Ecological Modelling</i> , 2002, 153, 269-277.	2.5	54
16	Modelling mate-finding Allee effects and populations dynamics, with applications in pest control. <i>Population Ecology</i> , 2009, 51, 445-458.	1.2	54
17	Does Sex-Selective Predation Stabilize or Destabilize Predator-Prey Dynamics?. <i>PLoS ONE</i> , 2008, 3, e2687.	2.5	48
18	Bioeconomic synergy between tactics for insect eradication in the presence of Allee effects. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 2807-2815.	2.6	45

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19	Designing efficient surveys: spatial arrangement of sample points for detection of invasive species. <i>Biological Invasions</i> , 2015, 17, 445-459.	2.4	43
20	A model of gillnet catch in relation to the catchable biomass, saturation, soak time and sampling period. <i>Fisheries Research</i> , 2011, 107, 201-209.	1.7	41
21	Population dynamics of <i>Ips typographus</i> in the Bohemian Forest (Czech Republic): Validation of the phenology model PHENIPS and impacts of climate change. <i>Forest Ecology and Management</i> , 2013, 292, 1-9.	3.2	36
22	Implications of mate search, mate choice and divorce rate for population dynamics of sexually reproducing species. <i>Oikos</i> , 2004, 104, 122-132.	2.7	35
23	Landsat Imagery Spectral Trajectories – Important Variables for Spatially Predicting the Risks of Bark Beetle Disturbance. <i>Remote Sensing</i> , 2016, 8, 687.	4.0	35
24	A Mechanistic Model for Partial Preferences. <i>Theoretical Population Biology</i> , 2000, 58, 279-289.	1.1	34
25	Editorial: Allee effects in ecology and evolution. <i>Journal of Animal Ecology</i> , 2018, 87, 7-10.	2.8	31
26	Density-dependent selection on mate search and evolution of Allee effects. <i>Journal of Animal Ecology</i> , 2018, 87, 24-35.	2.8	30
27	Predator interference and stability of predator-prey dynamics. <i>Journal of Mathematical Biology</i> , 2015, 71, 301-323.	1.9	26
28	Caught between two Allee effects: Trade-off between reproduction and predation risk. <i>Journal of Theoretical Biology</i> , 2010, 264, 787-798.	1.7	21
29	A multi-model method to fault detection and diagnosis: Bayesian solution. An introductory treatise. <i>International Journal of Adaptive Control and Signal Processing</i> , 1998, 12, 81-92.	4.1	20
30	Male-killing bacteria as agents of insect pest control. <i>Journal of Applied Ecology</i> , 2016, 53, 1270-1279.	4.0	20
31	Modelling the Population Dynamics of Root Hemiparasitic Plants Along a Productivity Gradient. <i>Folia Geobotanica</i> , 2010, 45, 425-442.	0.9	19
32	Protection provided by vaccination, booster doses and previous infection against covid-19 infection, hospitalisation or death over time in Czechia. <i>PLoS ONE</i> , 2022, 17, e0270801.	2.5	18
33	Adaptive foraging does not always lead to more complex food webs. <i>Journal of Theoretical Biology</i> , 2010, 266, 211-218.	1.7	16
34	Mixed Encounters, Limited Perception and Optimal Foraging. <i>Bulletin of Mathematical Biology</i> , 2000, 62, 849-868.	1.9	15
35	Fatal or Harmless: Extreme Bistability Induced by Sterilizing, Sexually Transmitted Pathogens. <i>Bulletin of Mathematical Biology</i> , 2013, 75, 258-273.	1.9	14
36	Are great tits (<i>Parus major</i>) really optimal foragers?. <i>Canadian Journal of Zoology</i> , 2003, 81, 780-788.	1.0	12

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37	Impacts of predation on dynamics of age-structured prey: Allee effects and multi-stability. <i>Theoretical Ecology</i> , 2012, 5, 533-544.	1.0	11
38	Double impact of sterilizing pathogens: added value of increased life expectancy on pest control effectiveness. <i>Journal of Mathematical Biology</i> , 2012, 64, 1281-1311.	1.9	11
39	Evolution of mate-finding Allee effect in prey. <i>Journal of Theoretical Biology</i> , 2018, 441, 9-18.	1.7	11
40	Allee effects under climate change. <i>Oikos</i> , 2019, 128, 972-983.	2.7	11
41	Worthy of Their Name: How Floods Drive Outbreaks of Two Major Floodwater Mosquitoes (Diptera: Tj ETQq1 1 0.784314 rgBT / Over	1.8	10
42	Global stability of the coexistence equilibrium for a general class of models of facultative mutualism. <i>Journal of Biological Dynamics</i> , 2017, 11, 339-364.	1.7	10
43	Identification of Reality in Bayesian Context. , 1997, , 181-193.		10
44	Sexually transmitted infections and mate-finding Allee effects. <i>Theoretical Population Biology</i> , 2017, 114, 59-69.	1.1	9
45	Role of trade-off between sexual and vertical routes for evolution of pathogen transmission. <i>Theoretical Ecology</i> , 2015, 8, 23-36.	1.0	8
46	EVALUATION OF SYSTEM PERFORMANCE THROUGH OPTIMIZING ASCENDENCY IN AN AQUATIC ECOSYSTEM MODEL. <i>Journal of Biological Systems</i> , 2001, 09, 269-290.	1.4	7
47	MODELS OF ALLEE EFFECTS AND THEIR IMPLICATIONS FOR POPULATION AND COMMUNITY DYNAMICS. <i>Biophysical Reviews and Letters</i> , 2008, 03, 157-181.	0.8	7
48	Why have parasites promoting mating success been observed so rarely?. <i>Journal of Theoretical Biology</i> , 2014, 342, 47-61.	1.7	7
49	Mate search and mate-finding Allee effect: on modeling mating in sex-structured population models. <i>Theoretical Ecology</i> , 2018, 11, 225-244.	1.0	7
50	Fecundity-Longevity Trade-Off, Vertical Transmission, and Evolution of Virulence in Sterilizing Pathogens. <i>American Naturalist</i> , 2020, 195, 95-106.	2.1	7
51	Are non-sexual models appropriate for predicting the impact of virus-vectorred immunocontraception?. <i>Journal of Theoretical Biology</i> , 2008, 250, 281-290.	1.7	6
52	Evolution favours aging in populations with assortative mating and in sexually dimorphic populations. <i>Scientific Reports</i> , 2018, 8, 16072.	3.3	6
53	A two-sex demographic model with single-dependent divorce rate. <i>Journal of Theoretical Biology</i> , 2010, 265, 647-656.	1.7	5
54	Impacts of infection avoidance for populations affected by sexually transmitted infections. <i>Journal of Theoretical Biology</i> , 2018, 455, 64-74.	1.7	5

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55	Delays, Masks, the Elderly, and Schools: First Covid-19 Wave in the Czech Republic. <i>Bulletin of Mathematical Biology</i> , 2022, 84, .	1.9	5
56	Evolution of early male-killing in horizontally transmitted parasites. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2015, 282, 20152068.	2.6	4
57	Host-pathogen dynamics under sterilizing pathogens and fecundity-longevity trade-off in hosts. <i>Journal of Theoretical Biology</i> , 2018, 450, 76-85.	1.7	4
58	Differences in the pattern of evolution in six physically linked genes of <i>Drosophila melanogaster</i> . <i>Gene</i> , 2006, 381, 24-33.	2.2	3
59	Modeling population dynamics of two cockroach species: Effects of the circadian clock, interspecific competition and pest control. <i>Journal of Theoretical Biology</i> , 2007, 249, 473-486.	1.7	3
60	The impact of sexually abstaining groups on persistence of sexually transmitted infections in populations with ephemeral pair bonds. <i>Journal of Theoretical Biology</i> , 2012, 292, 1-10.	1.7	3
61	Neglecting uncertainty behind Allee effect estimation may generate false predictions of population extinction risk. <i>Oikos</i> , 2013, 122, 845-856.	2.7	3
62	Control period selection: Verification on coupled tanks. , 1997, , .		2
63	A toolbox for model-based fault detection and isolation. , 1999, , .		2
64	Allee Effects. , 2019, , 6-13.		2
65	Importance of vaccine action and availability and epidemic severity for delaying the second vaccine dose. <i>Scientific Reports</i> , 2022, 12, 7638.	3.3	2
66	POPULATION DYNAMICS ON COMPLEX FOOD WEBS. , 2010, , .		1
67	MODELS OF ALLEE EFFECTS AND THEIR IMPLICATIONS FOR POPULATION AND COMMUNITY DYNAMICS. , 2008, , .		1
68	A multi- ϵ model method to fault detection and diagnosis: Bayesian solution. An introductory treatise. <i>International Journal of Adaptive Control and Signal Processing</i> , 1998, 12, 81-92.	4.1	1
69	Response to Beran et al. <i>Journal of Infectious Diseases</i> , 2022, 226, 944-945.	4.0	1
70	Is more better? Higher sterilization of infected hosts need not result in reduced pest population size. <i>Journal of Mathematical Biology</i> , 2015, 70, 1381-1409.	1.9	0
71	Evolution of infection avoidance in populations affected by sexually transmitted infections. <i>Theoretical Ecology</i> , 2021, 14, 233-246.	1.0	0
72	Predation has small, short-term, and in certain conditions random effects on the evolution of aging. <i>Bmc Ecology and Evolution</i> , 2021, 21, 87.	1.6	0

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73	Impacts of Infections and Predation on Dynamics of Sexually Reproducing Populations. , 2020, , 43-70.		0
74	Reply to Llibre et al. Journal of Infectious Diseases, 0, , .	4.0	0