Hynek Burda

List of Publications by Citations

74 papers	1,792 citations	26 h-index	40 g-index
83 ext. papers	2,115 ext. citations	4.1 avg, IF	4.57 L-index

#	Paper	IF	Citations
74	Neuroanatomy of magnetoreception: the superior colliculus involved in magnetic orientation in a mammal. *Science*, **2001**, 294, 366-8	33.3	132
73	Magnetic alignment in grazing and resting cattle and deer. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 13451-5	11.5	108
72	Extremely low-frequency electromagnetic fields disrupt magnetic alignment of ruminants. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 5708-13	11.5	76
71	Sexual activity and reproduction delay ageing in a mammal. *Current Biology*, **2006**, 16, R117-8	6.3	75
70	The magnetic compass mechanisms of birds and rodents are based on different physical principles. *Journal of the Royal Society Interface*, **2006**, 3, 583-7	4.1	72
69	Magnetic alignment in mammals and other animals. *Mammalian Biology*, **2013**, 78, 10-20	1.6	68
68	Cochlea in old world mice and rats (Muridae). *Journal of Morphology*, **1988**, 198, 269-85	1.6	65
67	Silvery mole-rats (Heliophobius argenteocinereus, Bathyergidae) change their burrow architecture seasonally. *Die Naturwissenschaften*, **2003**, 90, 370-3	2	55
66	Directional preference may enhance hunting accuracy in foraging foxes. *Biology Letters*, **2011**, 7, 355-7	3.6	53
65	Dogs are sensitive to small variations of the Earth's magnetic field. *Frontiers in Zoology*, **2013**, 10, 80	2.8	50
64	Extended longevity of reproductives appears to be common in Fukomys mole-rats (Rodentia, Bathyergidae). *PLoS ONE*, **2011**, 6, e18757	3.7	49
63	Living in a "stethoscope": burrow-acoustics promote auditory specializations in subterranean rodents. *Die Naturwissenschaften*, **2007**, 94, 134-8	2	49
62	Magnetic compass in the cornea: local anaesthesia impairs orientation in a mammal. *Journal of Experimental Biology*, **2006**, 209, 4747-50	3	49
61	Magnetoreception in the wood mouse (Apodemus sylvaticus): influence of weak frequency-modulated radio frequency fields. *Scientific Reports*, **2015**, 4, 9917	4.9	44
60	Cost of digging is determined by intrinsic factors rather than by substrate quality in two subterranean rodent species. *Physiology and Behavior*, **2010**, 99, 54-8	3.5	43
59	Cryptochrome 1 in Retinal Cone Photoreceptors Suggests a Novel Functional Role in Mammals. *Scientific Reports*, **2016**, 6, 21848	4.9	40
58	Microclimate in Burrows of Subterranean Rodents Revisited **2007**, 21-33		39

57	Burrow architecture, family composition and habitat characteristics of the largest social African mole-rat: the giant mole-rat constructs really giant burrow systems. *Acta Theriologica*, **2012**, 57, 121-130		37
56	Patterns of surface temperatures in two mole-rats (Bathyergidae) with different social systems as revealed by IR-thermography. *Physiology and Behavior*, **2007**, 92, 526-32	3.5	37
55	Changing and shielded magnetic fields suppress c-Fos expression in the navigation circuit: input from the magnetosensory system contributes to the internal representation of space in a subterranean rodent. *Journal of the Royal Society Interface*, **2010**, 7, 1275-92	4.1	36
54	Home-Range Dynamics in a Solitary Subterranean Rodent. *Ethology*, **2009**, 115, 217-226	1.7	35
53	Magnetic alignment in carps: evidence from the Czech christmas fish market. *PLoS ONE*, **2012**, 7, e51100	3.7	31
52	Long-lived rodents reveal signatures of positive selection in genes associated with lifespan. *PLoS Genetics*, **2018**, 14, e1007272	6	27
51	Acoustic communication and burrow acoustics are reflected in the ear morphology of the coruro (Spalacopus cyanus, Octodontidae), a social fossorial rodent. *Journal of Morphology*, **2006**, 267, 382-90	1.6	27
50	Odours underground: subterranean rodents may not forage "blindly". *Behavioral Ecology and Sociobiology*, **2002**, 52, 53-58	2.5	26
49	ECOLOGICAL DETERMINANTS OF VOCALISATION PARAMETERS: THE CASE OF THE CORURO SPALACOPUS CYANUS (OCTODONTIDAE), A FOSSORIAL SOCIAL RODENT. *Bioacoustics*, **2000**, 11, 129-148	1.6	26
48	Sociality does not drive the evolution of large brains in eusocial African mole-rats. *Scientific Reports*, **2018**, 8, 9203	4.9	25
47	Directional compass preference for landing in water birds. *Frontiers in Zoology*, **2013**, 10, 38	2.8	22
46	Vocalizations of the giant mole-rat (Fukomys mechowii), a subterranean rodent with the richest vocal repertoire. *Bioacoustics*, **2013**, 22, 87-107	1.6	22
45	Magnetoreception in Mammals. *Advances in the Study of Behavior*, **2014**, 45-88	3.4	21
44	Compass-controlled escape behavior in roe deer. *Behavioral Ecology and Sociobiology*, **2016**, 70, 1345-1355	2.5	19
43	Magnetically induced behaviour of ferritin corpuscles in avian ears: can cuticulosomes function as magnetosomes?. *Journal of the Royal Society Interface*, **2015**, 12, 20141087	4.1	17
42	Health effects of extremely low-frequency magnetic fields: reconsidering the melatonin hypothesis in the light of current data on magnetoreception. *Journal of Applied Toxicology*, **2012**, 32, 952-8	4.1	17
41	Variability of space-use patterns in a free living eusocial rodent, Ansell's mole-rat indicates age-based rather than caste polyethism. *Scientific Reports*, **2016**, 6, 37497	4.9	16
40	Surprisingly low risk of overheating during digging in two subterranean rodents. *Physiology and Behavior*, **2015**, 138, 236-41	3.5	15

39	Ovarian growth and folliculogenesis in breeding and nonbreeding females of a social rodent, the Zambian common mole-rat, Cryptomys sp. *Journal of Morphology*, **1998**, 237, 33-41	1.6	15
38	VOCALISATIONS OF THE SILVERY MOLE-RAT: COMPARISON OF VOCAL REPERTOIRES IN SUBTERRANEAN RODENTS WITH DIFFERENT SOCIAL SYSTEMS. *Bioacoustics*, **2009**, 18, 241-257	1.6	14
37	Unusual ratio between free thyroxine and free triiodothyronine in a long-lived mole-rat species with bimodal ageing. *PLoS ONE*, **2014**, 9, e113698	3.7	14
36	Surprisingly long survival of premature conclusions about naked mole-rat biology. *Biological Reviews*, **2021**, 96, 376-393	13.5	14
35	Magnetic alignment in warthogs Phacochoerus africanus and wild boars Sus scrofa. *Mammal Review* , **2017**, 47, 1-5	5	12
34	A behavioral audiogram of the red fox (Vulpes vulpes). *Hearing Research*, **2015**, 320, 30-7	3.9	12
33	Giant Mole-rats, Fukomys mechowii, 13 Years on the Stage **2007**, 205-219		12
32	Taxonomic status and remarks on ecology of the Malawian mole-ratCryptomys whytei (Rodentia, Bathyergidae). *Acta Theriologica*, **2005**, 50, 529-536		11
31	Attracted by a magnet: Exploration behaviour of rodents in the presence of magnetic objects. *Behavioural Processes*, **2018**, 151, 11-15	1.6	10
30	Does magnetoreception mediate biological effects of power-frequency magnetic fields?. *Science of the Total Environment*, **2012**, 417-418, 299-304	10.2	10
29	Dogs can be trained to find a bar magnet. *PeerJ*, **2018**, 6, e6117	3.1	10
28	Temperature preferences of African mole-rats (family Bathyergidae). *Journal of Thermal Biology*, **2015**, 53, 15-22	2.9	9
27	Higher resting metabolic rate in long-lived breeding Ansell's mole-rats (). *Frontiers in Zoology*, **2017**, 14, 45	2.8	9
26	To mate or not to mate? Mate preference and fidelity in monogamous Ansell's mole-rats,Fukomys anselli, Bathyergidae. *Folia Zoologica*, **2012**, 61, 71-83	1.3	9
25	Directional preference in dogs: Laterality and "pull of the north". *PLoS ONE*, **2017**, 12, e0185243	3.7	9
24	Learned and spontaneous magnetosensitive behaviour in the Roborovski hamster (Phodopus roborovskii). *Ethology*, **2018**, 124, 423-431	1.7	8
23	Do subterranean mammals use the Earth's magnetic field as a heading indicator to dig straight tunnels?. *PeerJ*, **2018**, 6, e5819	3.1	8
22	Does the morphology of the ear of the Chinese bamboo rat (Rhizomys sinensis) show "Subterranean" characteristics?. *Journal of Morphology*, **2016**, 277, 575-84	1.6	7

21	Magnetic Compass: A Useful Tool Underground **2007**, 161-174		7
20	Increased longevity due to sexual activity in mole-rats is associated with transcriptional changes in the HPA stress axis. *ELife*, **2021**, 10,	8.9	7
19	Retinal S-opsin dominance in Ansell's mole-rats (Fukomys anselli) is a consequence of naturally low serum thyroxine. *Scientific Reports*, **2018**, 8, 4337	4.9	5
18	Morphology of the carpal region in some rodents with special emphasis on hystricognaths. *Acta Zoologica*, **2014**, 95, 220-238	0.8	5
17	Direction indicator and magnetic compass-aided tracking of the sun by flamingos?. *Folia Zoologica*, **2017**, 66, 79-86	1.3	5
16	Magnetoreception in Mammals **2020**, 421-444		5
15	Non-Breeding Eusocial Mole-Rats Produce Viable Sperm--Spermiogram and Functional Testicular Morphology of Fukomys anselli. *PLoS ONE*, **2016**, 11, e0150112	3.7	5
14	Functional anatomy of the middle and inner ears of the red fox, in comparison to domestic dogs and cats. *Journal of Anatomy*, **2020**, 236, 980-995	2.9	4
13	Directional orientation of pheasant chicks at the drinking dish and its potential for research on avian magnetoreception. *Folia Zoologica*, **2017**, 66, 175-182	1.3	4
12	How to eat a carrot? Convergence in the feeding behavior of subterranean rodents. *Die Naturwissenschaften*, **1999**, 86, 325-327	2	4
11	Magnetic alignment enhances homing efficiency of hunting dogs. *ELife*, **2020**, 9,	8.9	4
10	Vocal recognition of a nest-predator in black grouse. *PeerJ*, **2019**, 7, e6533	3.1	4
9	Brain atlas of the African mole-rat Fukomys anselli. *Journal of Comparative Neurology*, **2019**, 527, 1885-1900	3.4	3
8	Light-independent magnetosensitive behaviour in the Djungarian hamster (Phodopus sungorus). *Mammalian Biology*, **2018**, 91, 91-94	1.6	3
7	Effect of exposure to extremely low frequency magnetic fields on melatonin levels in calves is seasonally dependent. *Scientific Reports*, **2015**, 5, 14206	4.9	3
6	The HPA stress axis shapes aging rates in long-lived, social mole-rats		2
5	Turning preference in dogs: North attracts while south repels. *PLoS ONE*, **2021**, 16, e0245940	3.7	2
4	Functional histology of the skin in the subterranean African giant mole-rat: thermal windows are determined solely by pelage characteristics. *PeerJ*, **2020**, 8, e8883	3.1	1

3	Observation of rescue behaviour in wild boar (Sus scrofa). *Scientific Reports*, **2021**, 11, 16217	4.9	1
2	Investigating the impact of weak geomagnetic fluctuations on pigeon races.. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **2022**, 208, 177	2.3	0
1	Sensory perception of mole-rats and mole rats: assessment of a complex natural global evolutionary experiment **2021**, 161-191		