ZoltÃ¡n Botta-DukÃ¡t

List of Publications by Year
in descending order

112 papers	5,866 citations	147801 31 h-index	82547 72 g-index
118 all docs	118 docs citations	118 times ranked	8847 citing authors

#	Article	IF	Citations
1	Alien species in a warmer world: risks and opportunities. Trends in Ecology and Evolution, 2009, 24, 686-693.	8.7	1,031
2	Rao's quadratic entropy as a measure of functional diversity based on multiple traits. Journal of Vegetation Science, 2005, 16, 533-540.	2.2	896
3	Determination of diagnostic species with statistical fidelity measures. Journal of Vegetation Science, 2002, 13, 79-90.	2.2	589
4	Global traitâ€“environment relationships of plant communities. Nature Ecology and Evolution, 2018, 2, 1906-1917.	7.8	397
5	European Vegetation Archive (EVA): an integrated database of European vegetation plots. Applied Vegetation Science, 2016, 19, 173-180.	1.9	247
6	sPlot â€“ A new tool for global vegetation analyses. Journal of Vegetation Science, 2019, 30, 161-186.	2.2	185
7	A comparative framework for broadâ€scale plotâ€based vegetation classification. Applied Vegetation Science, 2015, 18, 543-560.	1.9	126
8	Alien plant invasions in European woodlands. Diversity and Distributions, 2017, 23, 969-981.	4.1	98
9	OptimClass: Using species-to-cluster fidelity to determine the optimal partition in classification of ecological communities. Journal of Vegetation Science, 2010, 21, 287-299.	2.2	88
10	Towards a more balanced combination of multiple traits when computing functional differences between species. Methods in Ecology and Evolution, 2021, 12, 443-448.	5.2	84
11	Thresholds and interactive effects of soil moisture on the temperature response of soil respiration. European Journal of Soil Biology, 2011, 47, 247-255.	3.2	82
12	Prevalence dependence in model goodness measures with special emphasis on true skill statistics. Ecology and Evolution, 2017, 7, 863-872.	1.9	81
13	Testing the ability of functional diversity indices to detect trait convergence and divergence using individualâ€based simulation. Methods in Ecology and Evolution, 2016, 7, 114-126.	5.2	80
14	Patterns of plant traitâ€“environment relationships along a forest succession chronosequence. Agriculture, Ecosystems and Environment, 2011, 145, 38-48.	5.3	79
15	A grid-based, satellite-image supported, multi-attributed vegetation mapping method (MÃ‰TA). Folia Geobotanica, 2007, 42, 225-247.	0.9	75
16	Which randomizations detect convergence and divergence in traitâ€based community assembly? A test of commonly used null models. Journal of Vegetation Science, 2016, 27, 1275-1287.	2.2	73
17	Invasion Gateways and Corridors in the Carpathian Basin: Biological Invasions in Hungary. Biological Invasions, 2003, 5, 349-356.	2.4	68
18	Improved space-for-time substitution for hypothesis generation: secondary grasslands with documented site history in SE-Hungary. Phytocoenologia, 1998, 28, 1-29.	0.5	65

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19	Conceptual Frameworks and Methods for Advancing Invasion Ecology. Ambio, 2013, 42, 527-540.	5.5	62
20	Changes in assembly rules along a stress gradient from open dry grasslands to wetlands. Journal of Ecology, 2016, 104, 507-517.	4.0	60
21	The influence of environment, management and site context on species composition of summer arable weed vegetation in <scp>H</scp>ungary. Applied Vegetation Science, 2012, 15, 136-144.	1.9	57
22	Silhouette width using generalized meanâ€"A flexible method for assessing clustering efficiency. Ecology and Evolution, 2019, 9, 13231-13243.	1.9	52
23	Invasion of alien species to Hungarian (semi-)natural habitats. Acta Botanica Hungarica, 2008, 50, 219-227.	0.3	51
24	Assemblage structure and habitat use of fishes in a Central European submontane stream: a patch-based approach. Ecology of Freshwater Fish, 2003, 12, 141-150.	1.4	47
25	Dimensions of invasiveness: Links between local abundance, geographic range size, and habitat breadth in Europeâ€™s alien and native floras. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	47
26	Rao's quadratic entropy as a measure of functional diversity based on multiple traits. Journal of Vegetation Science, 2005, 16, 533.	2.2	47
27	A higherâ€level classification of the Pannonian and western Pontic steppe grasslands (Central and) Tj ETQq1 1 0.784314 rgBT /Overlo	1.9	46
28	Experimental warming does not enhance soil respiration in a semiarid temperate forest-steppe ecosystem. Community Ecology, 2008, 9, 29-37.	0.9	43
29	Cautionary note on calculating standardized effect size (SES) in randomization test. Community Ecology, 2018, 19, 77-83.	0.9	42
30	Semiâ€supervised classification of vegetation: preserving the good old units and searching for new ones. Journal of Vegetation Science, 2014, 25, 1504-1512.	2.2	41
31	Semiâ€dry grasslands along a climatic gradient across Central Europe: Vegetation classification with validation. Journal of Vegetation Science, 2007, 18, 835-846.	2.2	36
32	Tree plantations are hot-spots of plant invasion in a landscape with heterogeneous land-use. Agriculture, Ecosystems and Environment, 2016, 226, 88-98.	5.3	32
33	The effect of abandonment on vegetation composition and soil properties in Molinion meadows (SW) Tj ETQq1 1 0.784314 rgBT /Ov	2.5	31
34	Effects of environmental factors on weed species composition of cereal and stubble fields in western Hungary. Open Life Sciences, 2010, 5, 283-292.	1.4	28
35	Weed vegetation of poppy (Papaver somniferum) fields in Hungary: effects of management and environmental factors on species composition. Weed Research, 2011, 51, 621-630.	1.7	28
36	Plantation forests cannot support the richness of forest specialist plants in the forest-steppe zone. Forest Ecology and Management, 2020, 461, 117964.	3.2	27

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37	Determination of diagnostic species with statistical fidelity measures. Journal of Vegetation Science, 2002, 13, 79.	2.2	27
38	Temperature Dependence of Soil Respiration Modulated by Thresholds in Soil Water Availability Across European Shrubland Ecosystems. Ecosystems, 2016, 19, 1460-1477.	3.4	25
39	Weed vegetation and its conservation value in three management systems of Hungarian winter cereals on baseâ€rich soils. Weed Research, 2009, 49, 544-551.	1.7	24
40	Statistical and biological consequences of preferential sampling in phytosociology: Theoretical considerations and a case study. Folia Geobotanica, 2007, 42, 141-152.	0.9	23
41	On the reliability of the Elements of Metacommunity Structure framework for separating idealized metacommunity patterns. Ecological Indicators, 2018, 85, 853-860.	6.3	23
42	People move but cultivated plants stay: abandoned farmsteads support the persistence and spread of alien plants. Biodiversity and Conservation, 2014, 23, 1289-1302.	2.6	21
43	New plant trait records of the Hungarian flora. Acta Botanica Hungarica, 2016, 58, 397-400.	0.3	21
44	Using the natural capital index framework as a scalable aggregation methodology for regional biodiversity indicators. Journal for Nature Conservation, 2012, 20, 144-152.	1.8	20
45	Can management intensity be more important than environmental factors? A case study along an extreme elevation gradient from central Italian cereal fields. Plant Biosystems, 2013, 147, 343-353.	1.6	20
46	The natural capital index of Hungary. Acta Botanica Hungarica, 2008, 50, 161-177.	0.3	19
47	The generalized replication principle and the partitioning of functional diversity into independent alpha and beta components. Ecography, 2018, 41, 40-50.	4.5	19
48	Coâ€occurrenceâ€based measure of species' habitat specialization: robust, unbiased estimation in saturated communities. Journal of Vegetation Science, 2012, 23, 201-207.	2.2	18
49	Traitâ€based approach confirms the importance of propagule limitation and assembly rules in oldâ€field restoration. Restoration Ecology, 2019, 27, 840-849.	2.9	18
50	Determinants of floating island vegetation and succession in a recently flooded shallow lake, Kis-Balaton (Hungary). Aquatic Botany, 2004, 79, 357-366.	1.6	17
51	Grazing Effects on Vegetation Composition and on the Spread of Fire on Open Sand Grasslands. Arid Land Research and Management, 2008, 22, 273-285.	1.6	15
52	Hungarian landscape types: classification of landscapes based on the relative cover of (semiâ€) natural habitats. Applied Vegetation Science, 2011, 14, 537-546.	1.9	15
53	Estimating aboveground herbaceous plant biomass via proxies: The confounding effects of sampling year and precipitation. Ecological Indicators, 2017, 79, 355-360.	6.3	15
54	Trait convergence and trait divergence in lake phytoplankton reflect community assembly rules. Scientific Reports, 2020, 10, 19599.	3.3	15

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55	An indicator framework for the climatic adaptive capacity of natural ecosystems. Journal of Vegetation Science, 2011, 22, 711-725.	2.2	14
56	Weed species composition of conventional soyabean crops in Hungary is determined by environmental, cultural, weed management and site variables. Weed Research, 2016, 56, 470-481.	1.7	14
57	Relating Ambrosia artemisiifolia and other weeds to the management of Hungarian sunflower crops. Journal of Pest Science, 2013, 86, 621-631.	3.7	13
58	The impact of management on weeds and aquatic plant communities in <scp>H</scp>ungarian rice crops. Weed Research, 2014, 54, 388-397.	1.7	13
59	Comparing the accuracy of three non-destructive methods in estimating aboveground plant biomass. Community Ecology, 2017, 18, 56-62.	0.9	13
60	Joint optimization of cluster number and abundance transformation for obtaining effective vegetation classifications. Journal of Vegetation Science, 2018, 29, 336-347.	2.2	13
61	Trait-based community assembly of epiphytic diatoms in saline astatic ponds: a test of the stress-dominance hypothesis. Scientific Reports, 2019, 9, 15749.	3.3	13
62	Unusual behaviour of phototrophic picoplankton in turbid waters. PLoS ONE, 2017, 12, e0174316.	2.5	13
63	The potential of common ragweed for further spread: invasibility of different habitats and the role of disturbances and propagule pressure. Biological Invasions, 2019, 21, 137-149.	2.4	12
64	Effects of simulated grazing on open perennial sand grassland. Community Ecology, 2006, 7, 133-141.	0.9	11
65	Assembly rules during old-field succession in two contrasting environments. Community Ecology, 2007, 8, 31-40.	0.9	11
66	Hard traits of three Bromus species in their source area explain their current invasive success. Acta Oecologica, 2011, 37, 441-448.	1.1	11
67	Phenotypic divergences induced by different residence time in invasive common ragweeds. Journal of Plant Ecology, 2012, 5, 174-181.	2.3	11
68	A performance comparison of sampling methods in the assessment of species composition patterns and environmentâ€“vegetation relationships in species-rich grasslands. Acta Societatis Botanicorum Poloniae, 2017, 86, .	0.8	11
69	Do short-lived and long-lived alien plant species differ regarding the traits associated with their success in the introduced range?. Biological Invasions, 2010, 12, 611-623.	2.4	10
70	Density-dependence in the establishment of juvenile Allium ursinum individuals in a monodominant stand of conspecific adults. Acta Oecologica, 2009, 35, 621-629.	1.1	9
71	On the possible role of local effects on the species richness of acidic and calcareous rock grasslands in northern Hungary. Folia Geobotanica, 2003, 38, 453-467.	0.9	8
72	Use of mesotrione and tembotrione herbicides for post-emergence weed control in alkaloid poppy (Papaver somniferum). International Journal of Pest Management, 2014, 60, 187-195.	1.8	8

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73	Aerobic anoxygenic phototrophs are highly abundant in hypertrophic and polyhumic waters. FEMS Microbiology Ecology, 2019, 95, .	2.7	8
74	Climate and socioâ€economic factors explain differences between observed and expected naturalization patterns of European plants around the world. Global Ecology and Biogeography, 2021, 30, 1514-1531.	5.8	8
75	Conservation biology research priorities for 2050: A Central-Eastern European perspective. Biological Conservation, 2021, 264, 109396.	4.1	8
76	Traitâ€based numerical classification of mesic and wet grasslands in Poland. Journal of Vegetation Science, 2020, 31, 319-330.	2.2	7
77	Semi-dry grasslands along a climatic gradient across Central Europe: Vegetation classification with validation. Journal of Vegetation Science, 2007, 18, 835.	2.2	7
78	Drivers of Ambrosia artemisiifolia abundance in arable fields along the Austrian-Hungarian border. Preslia, 2019, 91, 369-389.	2.8	7
79	Patch and landscape factors affecting the naturalness-based quality of three model grassland habitats in Hungary. Acta Botanica Hungarica, 2008, 50, 179-197.	0.3	6
80	Exploring the relationship between macrofungi diversity, abundance, and vascular plant diversity in semiâ€natural and managed forests in northâ€east Hungary. Ecological Research, 2013, 28, 543-552.	1.5	6
81	When herbicides don't really matter: Weed species composition of oil pumpkin (Cucurbita pepo L.) fields in Hungary. Crop Protection, 2018, 110, 236-244.	2.1	6
82	Changing assembly rules during secondary succession: evidence for non-random patterns. Basic and Applied Ecology, 2021, 52, 46-56.	2.7	6
83	How do locally infrequent species influence numerical classification? A simulation study. Community Ecology, 2012, 13, 64-71.	0.9	5
84	Long-term weather sensitivity of open sand grasslands of the KiskunsÃ¡g Sand Ridge forest-steppe mosaic after wildfires. Community Ecology, 2014, 15, 121-129.	0.9	5
85	Weed Composition in Hungarian Phacelia (Phacelia tanacetifolia Benth.) Seed Production: Could Tine Harrow Take over Chemical Management?. Agronomy, 2022, 12, 891.	3.0	5
86	Growth ofHimantoglossum adriaticumandH. caprinumindividuals, and relationship between sizes and flowering. Acta Botanica Hungarica, 2008, 50, 257-274.	0.3	4
87	Spatial Pattern and Temporal Dynamics of Bryophyte Assemblages in Saline Grassland. Folia Geobotanica, 2013, 48, 189-207.	0.9	4
88	Morphological plasticity in the rhizome system of Solidago gigantea (Asteraceae): Comparison of populations in a wet and a dry habitat. Acta Botanica Hungarica, 2016, 58, 227-240.	0.3	4
89	ANALYSING ASSOCIATIONS AMONG MORE THAN TWO SPECIES. Applied Ecology and Environmental Research, 2006, 4, 1-19.	0.5	4
90	Composition and Diversity of Lawn Flora in Differently Managed Village Yards â€“ A Case Study from Southwestern Hungary. Folia Geobotanica, 2013, 48, 209-227.	0.9	3

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91	Reduction in primary production followed by rapid recovery of plant biomass in response to repeated mid-season droughts in a semiarid shrubland. Plant Ecology, 2018, 219, 517-526.	1.6	3
92	Comparison of silhouetteâ€based reallocation methods for vegetation classification. Journal of Vegetation Science, 2021, 32, e12984.	2.2	3
93	Endangered lowland oak forest steppe remnants keep unique bird species richness in Central Hungary. Journal of Forestry Research, 2022, 33, 343-355.	3.6	3
94	Validation of hierarchical classifications by splitting dataset. Acta Botanica Hungarica, 2008, 50, 73-80.	0.3	2
95	Different impacts of moderate human land use on the plant biodiversity of the characteristic Pannonian habitat complexes. Flora: Morphology, Distribution, Functional Ecology of Plants, 2020, 267, 151591.	1.2	2
96	Optimal pooling of data for the reliable estimation of trait probability distributions. Global Ecology and Biogeography, 2021, 30, 1344-1352.	5.8	2
97	Disturbance reshapes the productivityâ€“diversity relationship. Journal of Vegetation Science, 2021, 32, e13030.	2.2	2
98	Are traits drivers or consequences of competition? Comments to Carmona et al. Journal of Ecology, 2021, 109, 2540-2549.	4.0	1
99	CoenoDat Hungarian Phytosociological Database. Biodiversity and Ecology = Biodiversitat Und Okologie, 2012, 4, 394-394.	0.3	1
100	Devil in the details: how can we avoid potential pitfalls of CATS regression when our data do not follow a Poisson distribution?. PeerJ, 2022, 10, e12763.	2.0	1
101	Intersexual segregation in winter foraging of great spotted woodpecker Dendrocopos major in riparian forests infested with invasive tree species. Scandinavian Journal of Forest Research, 2021, 36, 354-363.	1.4	0
102	Woodpecker foraging activity in oak-dominated hill forests in Hungary. Ornis Hungarica, 2021, 29, 82-97.	0.4	0
103	Robust coexistence and population regulation. , 2016, , 170-199.		0
104	Population structure and exponential growth. , 2016, , 48-70.		0
105	Growth regulation, feedbacks, and their dynamical consequences. , 2016, , 95-120.		0
106	Diversity patterns and population regulation. , 2016, , 250-274.		0
107	Stochasticity due to finiteness. , 2016, , 231-249.		0
108	Ecological tolerance and the distribution of species. , 2016, , 71-92.		0

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109	Exponential growth of unstructured populations. , 2016, , 33-47.		0
110	Trade-offs and adaptations. , 2016, , 144-169.		0
111	Population regulation and the ecological niche. , 2016, , 200-228.		0
112	Sources and treatment of complexity. , 2016, , 18-30.		0