Tancredi Caruso

List of Publications by Year
in descending order

106 papers	5,613 citations	109264 35 h-index	91828 69 g-index
112 all docs	112 docs citations	112 times ranked	7671 citing authors

#	Article	IF	Citations
1	Choosing and using diversity indices: insights for ecological applications from the German Biodiversity Exploratories. Ecology and Evolution, 2014, 4, 3514-3524.	0.8	697
2	From the Phenomenology to the Mechanisms of Consciousness: Integrated Information Theory 3.0. PLoS Computational Biology, 2014, 10, e1003588.	1.5	657
3	Soil nematode abundance and functional group composition at a global scale. Nature, 2019, 572, 194-198.	13.7	635
4	Stochastic and deterministic processes interact in the assembly of desert microbial communities on a global scale. ISME Journal, 2011, 5, 1406-1413.	4.4	301
5	Interchange of entire communities: microbial community coalescence. Trends in Ecology and Evolution, 2015, 30, 470-476.	4.2	210
6	Soil microbial community responses to climate extremes: resistance, resilience and transitions to alternative states. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190112.	1.8	146
7	Airborne microbial transport limitation to isolated Antarctic soil habitats. Nature Microbiology, 2019, 4, 925-932.	5.9	114
8	Relative role of deterministic and stochastic determinants of soil animal community: a spatially explicit analysis of oribatid mites. Journal of Animal Ecology, 2012, 81, 214-221.	1.3	101
9	Taxonomic and Functional Diversity of Soil and Hypolithic Microbial Communities in Miers Valley, McMurdo Dry Valleys, Antarctica. Frontiers in Microbiology, 2016, 7, 1642.	1.5	93
10	Arbuscular mycorrhizal fungal communities are phylogenetically clustered at small scales. ISME Journal, 2014, 8, 2231-2242.	4.4	88
11	Eating from the same plate? Revisiting the role of labile carbon inputs in the soil food web. Soil Biology and Biochemistry, 2016, 102, 4-9.	4.2	81
12	Linking the community structure of arbuscular mycorrhizal fungi and plants: a story of interdependence?. ISME Journal, 2017, 11, 1400-1411.	4.4	78
13	Functional role of microarthropods in soil aggregation. Pedobiologia, 2015, 58, 59-63.	0.5	76
14	Can the macro beat the micro? Integrated information across spatiotemporal scales. Neuroscience of Consciousness, 2016, 2016, niw012.	1.4	75
15	Evolution of Integrated Causal Structures in Animats Exposed to Environments of Increasing Complexity. PLoS Computational Biology, 2014, 10, e1003966.	1.5	71
16	Primary assembly of soil communities: disentangling the effect of dispersal and local environment. Oecologia, 2012, 170, 745-754.	0.9	70
17	Compositional divergence and convergence in arbuscular mycorrhizal fungal communities. Ecology, 2012, 93, 1115-1124.	1.5	65
18	Priorities for research in soil ecology. Pedobiologia, 2017, 63, 1-7.	0.5	64

#	Article	IF	Citations
19	Determinants of rootâ€associated fungal communities within <scp>A</scp>steraceae in a semiâ€arid grassland. Journal of Ecology, 2014, 102, 425-436.	1.9	62
20	Soil microbes and community coalescence. Pedobiologia, 2016, 59, 37-40.	0.5	61
21	Plastics everywhere: first evidence of polystyrene fragments inside the common Antarctic collembolan <i>Cryptopygus antarcticus</i>. Biology Letters, 2020, 16, 20200093.	1.0	61
22	Arbuscular mycorrhizal fungal hyphae reduce soil erosion by surface water flow in a greenhouse experiment. Applied Soil Ecology, 2016, 99, 137-140.	2.1	57
23	Hedgerows as Ecosystems: Service Delivery, Management, and Restoration. Annual Review of Ecology, Evolution, and Systematics, 2020, 51, 81-102.	3.8	57
24	Arbuscular mycorrhizal fungi and collembola non-additively increase soilÂaggregation. Soil Biology and Biochemistry, 2012, 47, 93-99.	4.2	56
25	Soil communities (Acari Oribatida; Hexapoda Collembola) in a clay pigeon shooting range. Pedobiologia, 2005, 49, 1-13.	0.5	55
26	Arbuscular mycorrhizal fungi â€“ shortâ€term liability but longâ€term benefits for soil carbon storage?. New Phytologist, 2013, 197, 366-368.	3.5	55
27	The Bergerâ€“Parker index as an effective tool for monitoring the biodiversity of disturbed soils: a case study on Mediterranean oribatid (Acari: Oribatida) assemblages. Biodiversity and Conservation, 2007, 16, 3277-3285.	1.2	54
28	Biotic interactions as a structuring force in soil communities: evidence from the micro-arthropods of an Antarctic moss model system. Oecologia, 2013, 172, 495-503.	0.9	54
29	Micro-arthropod communities under human disturbance: is taxonomic aggregation aÂvaluable tool forÂdetecting multivariate change? Evidence from Mediterranean soil oribatid coenoses. Acta Oecologica, 2006, 30, 46-53.	0.5	50
30	Black-boxing and cause-effect power. PLoS Computational Biology, 2018, 14, e1006114.	1.5	48
31	A global database of soil nematode abundance and functional group composition. Scientific Data, 2020, 7, 103.	2.4	46
32	On the application of network theory to arbuscular mycorrhizal fungiâ€“plant interactions: the importance of basic assumptions. New Phytologist, 2012, 194, 891-894.	3.5	45
33	Disturbance, neutral theory, and patterns of beta diversity in soil communities. Ecology and Evolution, 2014, 4, 4766-4774.	0.8	42
34	Biotic interactions are an unexpected yet critical control on the complexity of an abiotically driven polar ecosystem. Communications Biology, 2019, 2, 62.	2.0	42
35	How causal analysis can reveal autonomy in models of biological systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2017, 375, 20160358.	1.6	41
36	Stochastic and Deterministic Effects of a Moisture Gradient on Soil Microbial Communities in the McMurdo Dry Valleys of Antarctica. Frontiers in Microbiology, 2018, 9, 2619.	1.5	41

#	Article	IF	Citations
37	Interactive effects of root endophytes and arbuscular mycorrhizal fungi on an experimental plant community. Oecologia, 2014, 174, 263-270.	0.9	40
38	Unifying concepts of biological function from molecules to ecosystems. Oikos, 2017, 126, 1367-1376.	1.2	40
39	Modelling the environmental and soil factors that shape the niches of two common arbuscular mycorrhizal fungal families. Plant and Soil, 2013, 368, 507-518.	1.8	39
40	Drought decreases incorporation of recent plant photosynthate into soil food webs regardless of their trophic complexity. Global Change Biology, 2019, 25, 3549-3561.	4.2	37
41	Contamination and sub-lethal toxicological effects of persistent organic pollutants in the European eel (Anguilla anguilla) in the Orbetello lagoon (Tuscany, Italy). Hydrobiologia, 2005, 550, 237-249.	1.0	36
42	Environmental filtering vs. resource-based niche partitioning in diverse soil animal assemblages. Soil Biology and Biochemistry, 2015, 85, 145-152.	4.2	35
43	Indigenous Arbuscular Mycorrhizal Fungal Assemblages Protect Grassland Host Plants from Pathogens. PLoS ONE, 2011, 6, e27381.	1.1	35
44	Nematodes in a polar desert reveal the relative role of biotic interactions in the coexistence of soil animals. Communications Biology, 2019, 2, 63.	2.0	34
45	Largeâ€scale spatial patterns in the distribution of Collembola (Hexapoda) species in Antarctic terrestrial ecosystems. Journal of Biogeography, 2009, 36, 879-886.	1.4	33
46	Oribatid mites show how climate and latitudinal gradients in organic matter can drive largeâ€scale biodiversity patterns of soil communities. Journal of Biogeography, 2019, 46, 611-620.	1.4	30
47	Air mass source determines airborne microbial diversity at the oceanâ€“atmosphere interface of the Great Barrier Reef marine ecosystem. ISME Journal, 2020, 14, 871-876.	4.4	30
48	Methods and approaches to advance soil macroecology. Global Ecology and Biogeography, 2020, 29, 1674-1690.	2.7	28
49	Just a matter of time: Fungi and roots significantly and rapidly aggregate soil over four decades along the Tagliamento River, NE Italy. Soil Biology and Biochemistry, 2014, 75, 133-142.	4.2	25
50	Parthenogenetic vs . sexual reproduction in oribatid mite communities. Ecology and Evolution, 2019, 9, 7324-7332.	0.8	24
51	Oribatid mites reveal that competition for resources and trophic structure combine to regulate the assembly of diverse soil animal communities. Ecology and Evolution, 2019, 9, 8320-8330.	0.8	23
52	Biomonitoring of polybrominated diphenyl ether (PBDE) pollution: A field study. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2008, 148, 80-86.	1.3	22
53	The size and shape of shells used by hermit crabs: A multivariate analysis of Clibanarius erythropus. Acta Oecologica, 2009, 35, 349-354.	0.5	22
54	Are power laws that estimate fractal dimension a good descriptor of soil structure and its link to soil biological properties?. Soil Biology and Biochemistry, 2011, 43, 359-366.	4.2	22

#	Article	IF	Citations
55	Spatial patterns and autocorrelation in the response of microarthropods to soil pollutants: The example of oribatid mites in an abandoned mining and smelting area. Environmental Pollution, 2009, 157, 2939-2948.	3.7	21
56	Plant community assembly at small scales: Spatial vs. environmental factors in a European grassland. Acta Oecologica, 2015, 63, 56-62.	0.5	21
57	The role of dispersal and local environment in urban land snail assemblages: an example of three cities in Central Italy. Urban Ecosystems, 2017, 20, 919-931.	1.1	21
58	Oribatid mites show that soil food web complexity and close aboveground-belowground linkages emerged in the early Paleozoic. Communications Biology, 2019, 2, 387.	2.0	21
59	A new formulation of the geometric series with applications to oribatid (Acari, Oribatida) species assemblages from human-disturbed Mediterranean areas. Ecological Modelling, 2006, 195, 402-406.	1.2	19
60	Biomonitoring Aquatic Environmental Quality in a Marine Protected Area: A Biomarker Approach. Ambio, 2007, 36, 308-315.	2.8	19
61	Phase I and II biotransformation enzymes and polycyclic aromatic hydrocarbons in the Mediterranean mussel (Mytilus galloprovincialis, Lamarck, 1819) collected in front of an oil refinery. Marine Environmental Research, 2012, 79, 29-36.	1.1	19
62	Highly diverse urban soil communities: Does stochasticity play a major role?. Applied Soil Ecology, 2017, 110, 73-78.	2.1	19
63	The Euscorpius tergestinus (C.L. Koch, 1837) complex in Italy: Biometrics of sympatric hidden species (Scorpiones: Euscorpiidae). Zoologischer Anzeiger, 2005, 244, 97-113.	0.4	18
64	Soil organic carbon dynamics matching ecological equilibrium theory. Ecology and Evolution, 2018, 8, 11169-11178.	0.8	18
65	Temporal variation in the water chemistry of northern Victoria Land lakes (Antarctica). Aquatic Sciences, 2008, 70, 134-141.	0.6	16
66	Euclidean geometry explains why lengths allow precise body mass estimates in terrestrial invertebrates: The case of oribatid mites. Journal of Theoretical Biology, 2009, 256, 436-440.	0.8	16
67	Effects of soil pollutants, biogeochemistry and microbiology on the distribution and composition of enchytraeid communities in urban and suburban holm oak stands. Environmental Pollution, 2013, 179, 268-276.	3.7	15
68	Community structure, diversity and spatial organization of enchytraeids in Mediterranean urban holm oak stands. European Journal of Soil Biology, 2014, 62, 83-91.	1.4	15
69	The effects of spatial scale on the assessment of soil fauna diversity: data from the oribatid mite community of the Pelagian Islands (Sicilian Channel, southern Mediterranean). Acta Oecologica, 2005, 28, 23-31.	0.5	14
70	Assessing abundance and diversity patterns of soil microarthropod assemblages in northern Victoria Land (Antarctica). Polar Biology, 2007, 30, 895-902.	0.5	14
71	Direct, positive feedbacks produce instability in models of interrelationships among soil structure, plants and arbuscular mycorrhizal fungi. Soil Biology and Biochemistry, 2011, 43, 1198-1206.	4.2	14
72	Compositional Divergence and Convergence in Local Communities and Spatially Structured Landscapes. PLoS ONE, 2012, 7, e35942.	1.1	14

#	Article	IF	Citations
73	Improving phosphorus sustainability in intensively managed grasslands: The potential role of arbuscular mycorrhizal fungi. Science of the Total Environment, 2020, 706, 135744.	3.9	13
74	Modelling local-scale determinants and the probability of microarthropod species occurrence in Antarctic soils. Soil Biology and Biochemistry, 2007, 39, 2949-2956.	4.2	11
75	Testing metabolic scaling theory using intraspecific allometries in Antarctic microarthropods. Oikos, 2010, 119, 935-945.	1.2	11
76	Diversity and abundance of soil arthropods in urban and suburban holm oak stands. Urban Ecosystems, 2015, 18, 715-728.	1.1	11
77	Disentangling the factors shaping arbuscular mycorrhizal fungal communities across multiple spatial scales. New Phytologist, 2018, 220, 954-956.	3.5	11
78	Local stability properties of complex, speciesâ€rich soil food webs with functional block structure. Ecology and Evolution, 2021, 11, 16070-16081.	0.8	11
79	Dietary switching of collembola in grassland soil food webs. Soil Biology and Biochemistry, 2008, 40, 2898-2903.	4.2	9
80	The Bergerâ€"Parker index as an effective tool for monitoring the biodiversity of disturbed soils: a case study on Mediterranean oribatid (Acari: Oribatida) assemblages. , 2006, , 35-43.		9
81	Spatial autocorrelation in the response of soft-bottom marine benthos to gas extraction activities: The case of amphipods in the Ionian Sea. Marine Environmental Research, 2012, 79, 79-85.	1.1	9
82	Trees in trimmed hedgerows but not tree health increase diversity of oribatid mite communities in intensively managed agricultural land. Soil Biology and Biochemistry, 2019, 138, 107568.	4.2	8
83	Effects of nutrient fertilization on root decomposition and carbon accumulation in intensively managed grassland soils. Ecosphere, 2020, 11, e03103.	1.0	8
84	Decapoda Anomura Paguridea: Morpho-Functional Relationships and Influence of Epibiotic Anemones on Shell Use Along a Bathymetric Cline. Crustaceana, 2003, 76, 149-165.	0.1	7
85	Metacommunities and symbiosis: hosts of challenges. Trends in Ecology and Evolution, 2012, 27, 588-589.	4.2	7
86	Effects of Paenibacillus polymyxa inoculation on below-ground nematode communities and plant growth. Soil Biology and Biochemistry, 2018, 121, 1-7.	4.2	7
87	â€œJackâ€ofâ€allâ€tradesâ€•is parthenogenetic. Ecology and Evolution, 2022, 12, .	0.8	7
88	Photosynthetic pigments in soils from northern Victoria Land (continental Antarctica) as proxies for soil algal community structure and function. Soil Biology and Biochemistry, 2009, 41, 2105-2114.	4.2	6
89	Identifying appropriate sampling and modelling approaches for analysing distributional patterns of Antarctic terrestrial arthropods along the Victoria Land latitudinal gradient. Antarctic Science, 2010, 22, 742-748.	0.5	6
90	Decapoda Brachyura from Monte Argentario (Mediterranean Sea, central Tyrrhenian). Crustaceana, 2004, 77, 177-186.	0.1	5

#	Article	IF	Citations
91	Do hermit crabs like living in sponges? Paguristes eremita and Suberites domuncula: biometric data from the southern Mediterranean Sea. Journal of the Marine Biological Association of the United Kingdom, 2005, 85, 1353-1357.	0.4	5
92	Population Dynamics of an Urban Population of the Land SnailMarmorana serpentina(Gastropoda:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.2	5
93	Population asynchrony alone does not explain stability in speciesâ€rich soil animal assemblages: The stabilizing role of forest age on oribatid mite communities. Journal of Animal Ecology, 2020, 89, 1520-1531.	1.3	4
94	Upland grassland habitats and agriâ€environment schemes change soil microarthropod abundance. Journal of Applied Ecology, 2021, 58, 2256-2265.	1.9	4
95	Assessing soil ecosystem processes â€“ biodiversity relationships in a nature reserve in Central Europe. Plant and Soil, 2018, 424, 491-501.	1.8	3
96	Scavenging beetles control the temporal response of soil communities to carrion decomposition. Functional Ecology, 2021, 35, 2033-2044.	1.7	3
97	Note on a deep population of Pagurus prideaux Leach, 1815 (Decapoda, Anomura). Crustaceana, 2004, 77, 757-760.	0.1	2
98	Role of Predators, Habitat Attributes, and Spatial Autocorrelation on the Distribution of Eggs in the Northern Spectacled Salamander (Salamandrina perspicillata). Journal of Herpetology, 2011, 45, 389-394.	0.2	2
99	An Update on Sedimentary Pigments in Victoria Land Lakes (East Antarctica). Arctic, Antarctic, and Alpine Research, 2011, 43, 22-34.	0.4	2
100	Variance, locality and structure: Three experimental challenges in the study of the response of soil microbial communities to multiple perturbations. Pedobiologia, 2021, 87-88, 150741.	0.5	2
101	The effect of swidden agriculture on ant communities in Madagascar. Biological Conservation, 2022, 265, 109400.	1.9	2
102	Statistical notes to â€œThe Bergerâ€“Parker index as an effective tool for monitoring the biodiversity of disturbed soils: a case study on Mediterranean oribatid (Acari: Oribatida) assemblagesâ€•[Biodiversity and Conservation DOI 10.1007/s10531-006-9137-3]. Biodiversity and Conservation, 2007, 16, 3933-3934.	1.2	1
103	Algal biomass and pigments along a latitudinal gradient in Victoria Land lakes, East Antarctica. Polar Research, 2016, 35, 20703.	1.6	1
104	Learning a New Selection Rule in Visual and Frontal Cortex. Cerebral Cortex, 2016, 26, 3611-3626.	1.6	1
105	Analysis of macrofungal communities reveals a complex reciprocal influence between Mediterranean montane calcareous grassland and surrounding forest habitats. Journal of Systematics and Evolution, 2021, 59, 278-288.	1.6	1
106	Short-term intensive warming shifts predator communities (Parasitiformes: Mesostigmata) in boreal forest soils. Pedobiologia, 2021, 87-88, 150742.	0.5	1