Bruce J Macfadden

List of Publications by Year
in descending order

146 papers	7,889 citations	47006 47 h-index	51608 86 g-index
152 all docs	152 docs citations	152 times ranked	5748 citing authors

#	Article	IF	Citations
1	Global vegetation change through the Miocene/Pliocene boundary. Nature, 1997, 389, 153-158.	27.8	1,841
2	Rapid late Miocene rise of the Bolivian Altiplano: Evidence for removal of mantle lithosphere. Earth and Planetary Science Letters, 2006, 241, 543-556.	4.4	336
3	Large temperature drop across the Eoceneâ€“Oligocene transition in central North America. Nature, 2007, 445, 639-642.	27.8	213
4	Mammalian herbivore communities, ancient feeding ecology, and carbon isotopes: A 10 million-year sequence from the Neogene of Florida. Journal of Vertebrate Paleontology, 1996, 16, 103-115.	1.0	178
5	Fossil horses from â€œEohippusâ€•(<i>Hyracotherium</i>) to <i>Equus</i>: scaling, Cope's Law, and the evolution of body size. Paleobiology, 1986, 12, 355-369.	2.0	174
6	Fossil horses and carbon isotopes: new evidence for Cenozoic dietary, habitat, and ecosystem changes in North America. Palaeogeography, Palaeoclimatology, Palaeoecology, 1994, 107, 269-279.	2.3	169
7	Digitization of Biodiversity Collections Reveals Biggest Data on Biodiversity. BioScience, 2015, 65, 841-842.	4.9	150
8	Cenozoic Mammalian Herbivores From the Americas: Reconstructing Ancient Diets and Terrestrial Communities. Annual Review of Ecology, Evolution, and Systematics, 2000, 31, 33-59.	6.7	143
9	Lower Miocene Stratigraphy along the Panama Canal and Its Bearing on the Central American Peninsula. PLoS ONE, 2008, 3, e2791.	2.5	128
10	Magnetic Polarity Stratigraphy and Mammalian Fauna of the Deseadan (Late Oligocene-Early Miocene) Salla Beds of Northern Bolivia. Journal of Geology, 1985, 93, 223-250.	1.4	125
11	Land mammal biostratigraphy and magnetostratigraphy of the Etadunna Formation (late Oligocene) of South Australia. Journal of Vertebrate Paleontology, 1994, 13, 483-515.	1.0	124
12	Origin of the white shark <i>Carcharodon</i> (Lamniformes: Lamnidae) based on recalibration of the Upper Neogene Pisco Formation of Peru. Palaeontology, 2012, 55, 1139-1153.	2.2	119
13	Diet and habitat of toxodont megaherbivores (Mammalia, Notoungulata) from the late Quaternary of South and Central America. Quaternary Research, 2005, 64, 113-124.	1.7	116
14	Evolution of the grazing niche in Pleistocene mammals from Florida: evidence from stable isotopes. Palaeogeography, Palaeoclimatology, Palaeoecology, 2000, 162, 155-169.	2.3	112
15	EVOLUTION: Fossil Horses--Evidence for Evolution. Science, 2005, 307, 1728-1730.	12.6	112
16	Ancient feeding ecology and niche differentiation of Pleistocene mammalian herbivores from Tarija, Bolivia: morphological and isotopic evidence. Paleobiology, 1997, 23, 77-100.	2.0	111
17	Ancient latitudinal gradients of C3 /C4 grasses interpreted from stable isotopes of New World Pleistocene horse (Equus) teeth. Global Ecology and Biogeography, 1999, 8, 137-149.	5.8	101
18	South American fossil mammals and carbon isotopes: a 25 million-year sequence from the Bolivian Andes. Palaeogeography, Palaeoclimatology, Palaeoecology, 1994, 107, 257-268.	2.3	98

#	Article	IF	Citations
19	â€œAmount Effectâ€•recorded in oxygen isotopes of Late Glacial horse (Equus) and bison (Bison) teeth from the Sonoran and Chihuahuan deserts, southwestern United States. Palaeogeography, Palaeoclimatology, Palaeoecology, 2004, 206, 337-353.	2.3	97
20	Cenozoic Terrestrial Ecosystem Evolution in Argentina: Evidence from Carbon Isotopes of Fossil Mammal Teeth. Palaios, 1996, 11, 319.	1.3	92
21	Origin and evolution of the grazing guild in new world terrestrial mammals. Trends in Ecology and Evolution, 1997, 12, 182-187.	8.7	89
22	First North American fossil monkey and early Miocene tropical biotic interchange. Nature, 2016, 533, 243-246.	27.8	89
23	Explosive speciation at the base of the adaptive radiation of Miocene grazing horses. Nature, 1988, 336, 466-468.	27.8	87
24	Isotopic discrimination of resource partitioning among ungulates in C3-dominated communities from the Miocene of Florida and California. Paleobiology, 2006, 32, 191-205.	2.0	86
25	Ancient Nursery Area for the Extinct Giant Shark Megalodon from the Miocene of Panama. PLoS ONE, 2010, 5, e10552.	2.5	83
26	Chapter 17: Gigantism, Dwarfism, and Cope's Rule: â€œNothing in Evolution Makes Sense without a Phylogenyâ€• Bulletin of the American Museum of Natural History, 2004, 285, 219-237.	3.4	82
27	Ancient ecology of 15-million-year-old browsing mammals within C3 plant communities from Panama. Oecologia, 2004, 140, 169-182.	2.0	81
28	Neogene paleomagnetism and oroclinal bending of the central Andes of Bolivia. Journal of Geophysical Research, 1995, 100, 8153-8167.	3.3	79
29	Revised age of the Salla beds, Bolivia, and its bearing on the age of the Deseadan South American Land Mammal â€œAgeâ€• Journal of Vertebrate Paleontology, 1998, 18, 189-199.	1.0	79
30	Extinct mammalian biodiversity of the ancient New World tropics. Trends in Ecology and Evolution, 2006, 21, 157-165.	8.7	78
31	Fossil horses, carbon isotopes and global change. Trends in Ecology and Evolution, 1994, 9, 481-486.	8.7	75
32	Body mass predicts isotope enrichment in herbivorous mammals. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20181020.	2.6	75
33	Chronology of Cenozoic primate localities in South America. Journal of Human Evolution, 1990, 19, 7-21.	2.6	73
34	Natural History Museum Visitors' Understanding of Evolution. BioScience, 2007, 57, 875-882.	4.9	68
35	Exceptional preservation of the white shark<i>Carcharodon</i>(Lamniformes, Lamnidae) from the early Pliocene of Peru. Journal of Vertebrate Paleontology, 2009, 29, 1-13.	1.0	68
36	New Data on Miocene Neotropical Provinciality from Cerdas, Bolivia. Journal of Mammalian Evolution, 2009, 16, 175-198.	1.8	67

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37	Late Cenozoic Paleomagnetism and Chronology of Andean Basins of Bolivia: Evidence for Possible Oroclinal Bending. Journal of Geology, 1990, 98, 541-555.	1.4	66
38	Effects of Global Warming on Ancient Mammalian Communities and Their Environments. PLoS ONE, 2009, 4, e5750.	2.5	64
39	Spatialâ€“temporal changes in Andean plateau climate and elevation from stable isotopes of mammal teeth. Earth and Planetary Science Letters, 2010, 289, 530-538.	4.4	63
40	Geographical distribution patterns of <i>Carcharocles megalodon</i> over time reveal clues about extinction mechanisms. Journal of Biogeography, 2016, 43, 1645-1655.	3.0	63
41	Systematics and biogeography of crocodylians from the Miocene of Panama. Journal of Vertebrate Paleontology, 2013, 33, 239-263.	1.0	60
42	Magnetic Polarity Stratigraphy of the Middle Pleistocene (Ensenadan) Tarija Formation of Southern Bolivia. Quaternary Research, 1983, 19, 172-187.	1.7	57
43	Patterns of phylogeny and rates of evolution in fossil horses: hipparions from the Miocene and Pliocene of North America. Paleobiology, 1985, 11, 245-257.	2.0	57
44	Temporal Calibration and Biochronology of the Centenario Fauna, Early Miocene of Panama. Journal of Geology, 2014, 122, 113-135.	1.4	55
45	Revised age of the late Neogene terror bird (Titanis) in North America during the Great American Interchange. Geology, 2007, 35, 123.	4.4	52
46	Paleomagnetism, geochronology, and possible tectonic rotation of the middle Miocene Barstow Formation, Mojave Desert, southern California. Bulletin of the Geological Society of America, 1990, 102, 478-493.	3.3	51
47	Middle Pleistocene Climate Change Recorded in Fossil Mammal Teeth from Tarija, Bolivia, and Upper Limit of the Ensenadan Land-Mammal Age. Quaternary Research, 2000, 54, 121-131.	1.7	51
48	3-D FOSSILS FOR Kâ€“12 EDUCATION: A CASE EXAMPLE USING THE GIANT EXTINCT SHARK<i>CARCHAROCLES MEGALODON</i>. The Paleontological Society Papers, 2016, 22, 197-209.	0.6	51
49	Land-Mammal Ages, Faunal Heterochrony, and Temporal Resolution in Cenozoic Terrestrial Sequences. Journal of Geology, 1984, 92, 687-705.	1.4	50
50	Induced Magnetization in the Monarch Butterfly, <i>Danaus Plexippus</i> (Insecta, Lepidoptera). Journal of Experimental Biology, 1982, 96, 1-9.	1.7	47
51	Fossil horses from â€œEohippusâ€•(Hyracotherium) to Equus, 2: rates of dental evolution revisited. Biological Journal of the Linnean Society, 1988, 35, 37-48.	1.6	46
52	North American Miocene land mammals from Panama. Journal of Vertebrate Paleontology, 2006, 26, 720-734.	1.0	43
53	Exploring the influence of teachers' beliefs and 3D printing integrated STEM instruction on studentsâ€™ STEM motivation. Computers and Education, 2020, 158, 103983.	8.3	43
54	Earliest art in the Americas: incised image of a proboscidean on a mineralized extinct animal bone from Vero Beach, Florida. Journal of Archaeological Science, 2011, 38, 2908-2913.	2.4	39

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55	Diets, habitat preferences, and niche differentiation of Cenozoic sirenians from Florida: evidence from stable isotopes. Paleobiology, 2004, 30, 297-324.	2.0	38
56	Physical properties, geochemistry, and diagenesis of xenarthran teeth: Prospects for interpreting the paleoecology of extinct species. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 291, 180-189.	2.3	36
57	Ancient forests and grasslands in the desert: Diet and habitat of Late Pleistocene mammals from Northcentral Sonora, Mexico. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 297, 391-400.	2.3	36
58	Magnetic polarity stratigraphy of Inchasi: a Pliocene mammal-bearing locality from the Bolivian Andes deposited just before the Great American Interchange. Earth and Planetary Science Letters, 1993, 114, 229-241.	4.4	34
59	Horses in the Cloud: big data exploration and mining of fossil and extantEquus(Mammalia: Equidae). Paleobiology, 2017, 43, 1-14.	2.0	34
60	Cladistic Analysis of Primitive Equids, with Notes on Other Perissodactyls. Systematic Zoology, 1976, 25, 1.	1.6	33
61	New turtles (Chelonia) from the late Eocene through late Miocene of the Panama Canal Basin. Journal of Paleontology, 2012, 86, 539-557.	0.8	33
62	Sharks and rays (Chondrichthyes, Elasmobranchii) from the late Miocene Gatun Formation of Panama. Journal of Paleontology, 2013, 87, 755-774.	0.8	33
63	At the Elbows of Scientists: Shaping Science Teachersâ€™ Conceptions and Enactment of Inquiry-Based Instruction. Research in Science Education, 2014, 44, 927-947.	2.3	33
64	Seeking Shared Practice: A Juxtaposition of the Attributes and Activities of Organized Fossil Groups with Those of Professional Paleontology. Journal of Science Education and Technology, 2016, 25, 731-746.	3.9	32
65	Systematics of the Neogene Siwalik hipparions (Mammalia, Equidae) based on cranial and dental morphology. Journal of Vertebrate Paleontology, 1982, 2, 185-218.	1.0	31
66	Pleistocene horses from Tarija, Bolivia, and validity of the genus â€<i>Onohippidium</i>(Mammalia:) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	31
67	Quantification of diagenesis in Cenozoic sharks: Elemental and mineralogical changes. Geochimica Et Cosmochimica Acta, 2006, 70, 4921-4932.	3.9	31
68	Evolutionary and functional morphology of the knee in fossil and extant horses (Equidae). Journal of Vertebrate Paleontology, 1996, 16, 349-357.	1.0	30
69	Extinct peccary<i>â€œCynorcaâ€•occidentale</i>(Tayassuidae, Tayassuinae) from the Miocene of Panama and correlations to North America. Journal of Paleontology, 2010, 84, 288-298.	0.8	29
70	Early Miocene chondrichthyans from the Culebra Formation, Panama: A window into marine vertebrate faunas before closure the Central American Seaway. Journal of South American Earth Sciences, 2013, 42, 159-170.	1.4	28
71	Training the Next Generation of Scientists about Broader Impacts. Social Epistemology, 2009, 23, 239-248.	1.2	26
72	First Central American record of Anthracotheriidae (Mammalia, Bothriodontinae) from the early Miocene of Panama. Journal of Vertebrate Paleontology, 2013, 33, 421-433.	1.0	25

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73	Confirmation of a Late Oligocene-Early Miocene Age of the Deseadan Salla Beds of Bolivia. Journal of Geology, 1987, 95, 825-828.	1.4	24
74	Dispersal of Pleistocene Equus (Family Equidae) into South America and Calibration of GABI 3 Based on Evidence from Tarija, Bolivia. PLoS ONE, 2013, 8, e59277.	2.5	24
75	<i>Astrohippus</i>and<i>Dinohippus</i>from the YepÃ³mera local fauna (Hemphillian, Mexico) and implications for the phylogeny of one-toed horses. Journal of Vertebrate Paleontology, 1984, 4, 273-283.	1.0	23
76	Seasonal and geographic climate variabilities during the Last Glacial Maximum in North America: Applying isotopic analysis and macrophysical climate models. Palaeogeography, Palaeoclimatology, Palaeoecology, 2009, 283, 15-27.	2.3	21
77	Geographic variation in diets of ancient populations of 5-million-year-old (early Pliocene) horses from southern North America. Palaeogeography, Palaeoclimatology, Palaeoecology, 2008, 266, 83-94.	2.3	20
78	Evolutionary and functional morphology of the shoulder region and stay-apparatus in fossil and extant horses (Equidae). Journal of Vertebrate Paleontology, 1992, 12, 377-386.	1.0	19
79	A reappraisal of the systematics, biogeography, and evolution of fossil horses. Paleobiology, 1982, 8, 315-327.	2.0	18
80	Miocene/Pliocene shift: one step or several?. Nature, 1998, 393, 127-127.	27.8	18
81	Incremental growth and diagenesis of skeletal parts of the lamnoid shark Otodus obliquus from the early Eocene (Ypresian) of Morocco. Palaeogeography, Palaeoclimatology, Palaeoecology, 2004, 206, 179-192.	2.3	18
82	Calibration of mammoth (<i>Mammuthus</i>) dispersal into North America using rare earth elements of Plio-Pleistocene mammals from Florida. Quaternary Research, 2009, 71, 41-48.	1.7	17
83	Paleomagnetism and Neogene clockwise rotation of the Northern Cady Mountains, Mojave Desert of southern California. Journal of Geophysical Research, 1990, 95, 4597-4608.	3.3	16
84	Magnetic polarity stratigraphy and correlation of the Arikaree Group, Arikareean (late) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 Td (Olig		16
85	Reply to Comment on â€œRapid late Miocene rise of the Bolivian Altiplano: Evidence for removal of mantle lithosphereâ€•by Garzione et al. (2006), Earth Planet. Sci. Lett. 241 (2006) 543â€“556. Earth and Planetary Science Letters, 2007, 259, 630-633.	4.4	16
86	Three-toed browsing horse<i>Anchitherium</i>(Equidae) from the Miocene of Panama. Journal of Paleontology, 2009, 83, 489-492.	0.8	16
87	New floridatragulines (Mammalia, Camelidae) from the early Miocene Las Cascadas Formation, Panama. Journal of Vertebrate Paleontology, 2012, 32, 456-475.	1.0	16
88	Late Miocene chondrichthyans from Lago Bayano, Panama: Functional diversity, environment and biogeography. Journal of Paleontology, 2017, 91, 512-547.	0.8	16
89	Late Hemphillian monodactyl horses (Mammalia, Equidae) from the Bone Valley Formation of central Florida. Journal of Paleontology, 1986, 60, 466-475.	0.8	15
90	Cranium of<i>Equus insulatus</i>(Mammalia, Equidae) from the middle Pleistocene of Tarija, Bolivia. Journal of Vertebrate Paleontology, 1987, 7, 325-334.	1.0	14

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91	Horses, the Fossil Record, and Evolution. , 1988, , 131-158.		14
92	A Computational- and Storage-Cloud for Integration of Biodiversity Collections. , 2013, , .		14
93	Sr-isotopic, paleomagnetic, and biostratigraphic calibration of horse evolution: Evidence from the Miocene of Florida. Geology, 1991, 19, 242.	4.4	13
94	Middle Pleistocene age of the fossiliferous sedimentary sequence from Tarija, Bolivia. Quaternary Research, 2013, 79, 268-273.	1.7	13
95	Magnetic Butterflies A Case Study of the Monarch (Lepidoptera, Danaidae). Topics in Geobiology, 1985, , 407-415.	0.5	12
96	Applications of 3D Paleontological Data at the Florida Museum of Natural History. Frontiers in Earth Science, 2020, 8, .	1.8	12
97	Integrated Chronology, Flora and Faunas, and Paleoecology of the Alajuela Formation, Late Miocene of Panama. PLoS ONE, 2017, 12, e0170300.	2.5	10
98	Terrestrial Mammalian Herbivore Response to Declining Levels of Atmospheric CO2 During the Cenozoic: Evidence from North American Fossil Horses (Family Equidae). , 2005, , 273-292.		9
99	Humans were contemporaneous with late Pleistocene mammals in Florida: evidence from rare earth elemental analyses. Journal of Vertebrate Paleontology, 2012, 32, 708-716.	1.0	9
100	Fossil Horses, Orthogenesis, and Communicating Evolution in Museums. Evolution: Education and Outreach, 2012, 5, 29-37.	0.8	9
101	New early Miocene protoceratids (Mammalia, Artiodactyla) from Panama. Journal of Vertebrate Paleontology, 2015, 35, e970688.	1.0	9
102	Not Looking a Gift Horse in the Mouth: Exploring the Merits of a Studentâ€"Teacherâ€"Scientist Partnership. Journal of Biological Education, 2016, 50, 174-184.	1.5	9
103	Giant short-faced bears (<i>Arctodus simus</i>) in Pleistocene Florida USA, a substantial range extension. Journal of Paleontology, 2010, 84, 79-87.	0.8	8
104	Ancient latitudinal gradients of C3/C4 grasses interpreted from stable isotopes of New World Pleistocene horse (Equus) teeth. Global Ecology and Biogeography, 1999, 8, 137.	5.8	8
105	Earliest known Hipparion from Holarctica. Nature, 1977, 265, 532-533.	27.8	7
106	Evolution, museums and society. Trends in Ecology and Evolution, 2008, 23, 589-591.	8.7	7
107	Comparative Diagenesis and Rare Earth Element Variation in Miocene Invertebrate and Vertebrate Fossils from Panama. Journal of Geology, 2015, 123, 491-507.	1.4	7
108	Late Miocene three-toed horse <i>Protohippus</i> (Mammalia, Equidae) from southern Alabama. Journal of Paleontology, 1998, 72, 149-152.	0.8	6

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109	Gomphothere proboscidean (<i>Gomphotherium</i>) from the late Neogene of Panama. Journal of Paleontology, 2015, 89, 360-365.	0.8	6
110	Preorbital facial fossae, â€Onohippidium, and origin of South American Pleistocene horses: response to Alberdi and Prado. Journal of Vertebrate Paleontology, 1998, 18, 673-675.	1.0	5
111	Devil's Den, Florida: Rare Earth Element Analysis Indicates Contemporaneity of Humans and Latest Pleistocene Fauna. PaleoAmerica, 2015, 1, 266-275.	1.5	4
112	University Natural History Museums: The Public Education Mission. Curator, 2000, 43, 123-138.	0.6	3
113	The â€œGallop Pollâ€ Using Evaluation to Develop Fossil Horses in Cyberspace, An Online Exhibition. Curator, 2000, 43, 211-230.	0.6	3
114	Systematics, phylogeny, and evolution of fossil horses: a rational alternative to Eisenmann et al. (1987). Journal of Vertebrate Paleontology, 1987, 7, 230-235.	1.0	2
115	A large eagle (Aves, Accipitridae) from the early Miocene of Panama. Journal of Paleontology, 2016, 90, 1012-1015.	0.8	2
116	Chronology of Cenozoic primate localities in South America. , 1990, , 7-21.		1
117	Paleoecology of New Chondrichthyan Fauna from Middle Miocene (Barstovian), Gadsen County, Florida, USA. The Paleontological Society Special Publications, 2014, 13, 102-102.	0.0	1
118	Quaternary gomphotheres (Mammalia: Proboscidea: Gomphotheriidae) from the continental shelf, Pearl Islands, Panama. Quaternary International, 2016, 392, 335-348.	1.5	1
119	INCREASING THE RESEARCH POTENTIAL OF DIGITIZED FOSSILS: A PILOT STUDY USING SPECIFY TO ATTACH STABLE ISOTOPE DATA TO VOUCHERED MUSEUM SPECIMENS. , 2016, , .		1
120	Origin and Evolution of the Grazing Guild in Terrestrial Mammals: Morphological and Isotopic Evidence. The Paleontological Society Special Publications, 1996, 8, 252-252.	0.0	0
121	Equine dental evolution. , 2011, , 3-10.		0
122	Engaging Undergraduates in Informal Learning Experiences. The Paleontological Society Special Publications, 2012, 12, 247-256.	0.0	0
123	The Early Miocene Protoceratids (Mammalia, Artiodactyla) from the Panama Canal Basin. The Paleontological Society Special Publications, 2014, 13, 164-164.	0.0	0
124	Fossilâ€"A National Network of Fossil Clubs and Professional Paleontologists in the U.S.. The Paleontological Society Special Publications, 2014, 13, 128-128.	0.0	0
125	Expansion of the Panama Canal and the Rise of the Isthmus. The Paleontological Society Special Publications, 2014, 13, 132-133.	0.0	0
126	Ecology of Miocene Amazonian Mammals Based on Evidence from Stable Isotopes. The Paleontological Society Special Publications, 2014, 13, 43-44.	0.0	0

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127	Digitizing Paleontological Collections for New Audiences: Past Practices and the Potential for Public Participation. The Paleontological Society Special Publications, 2014, 13, 127-128.	0.0	0
128	Presentation of the 2018 Paleontological Society Pojeta Award to Eugenie C. Scott. Journal of Paleontology, 2019, 93, 1033-1033.	0.8	0
129	Were You Successful? Evaluation and Metrics. , 2019, , 236-248.		0
130	Introduction: Science, STEM, and Society. , 2019, , 1-15.		0
131	NSF and Broader Impacts. , 2019, , 16-28.		0
132	Innovation, Opportunity, and Integration. , 2019, , 29-41.		0
133	Communication and Dissemination. , 2019, , 42-56.		0
134	Promoting Yourself and Optimizing Impact. , 2019, , 57-67.		0
135	Collaboration, Authorship, and Networks. , 2019, , 68-80.		0
136	Strategic versus Curiosity Science. , 2019, , 81-92.		0
137	Know Your Audience. , 2019, , 93-106.		0
138	Diversity, Equity, and Inclusion. , 2019, , 107-120.		0
139	Mentoring and Role Models. , 2019, , 121-135.		0
140	Formal Kâ€"12 Education and Partners. , 2019, , 136-149.		0
141	Informal STEM Learning in Museums and Beyond. , 2019, , 159-177.		0
142	Public Participation and Community (Citizen) Science. , 2019, , 178-193.		0
143	Computers and Cyberimpacts. , 2019, , 194-209.		0
144	Developing a Broader Impacts Plan. , 2019, , 210-223.		0

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145	Project Management and Sustainability. , 2019, , 224-235.		0
146	Wrap-Up, the Future, and Broader Impacts 3.0. , 2019, , 249-258.		0