Raymond V Barbehenn

List of Publications by Year
in descending order

46 papers	2,680 citations	218677 26 h-index	243625 44 g-index
47 all docs	47 docs citations	47 times ranked	2856 citing authors

#	Article	IF	Citations
1	Tannins in plantâ€"herbivore interactions. Phytochemistry, 2011, 72, 1551-1565.	2.9	659
2	C3 grasses have higher nutritional quality than C4 grasses under ambient and elevated atmospheric CO2. Global Change Biology, 2004, 10, 1565-1575.	9.5	143
3	Ellagitannins have Greater Oxidative Activities than Condensed Tannins and Galloyl Glucoses at High pH: Potential Impact on Caterpillars. Journal of Chemical Ecology, 2006, 32, 2253-2267.	1.8	133
4	Defensive Roles of Polyphenol Oxidase in Plants. , 2008, , 253-270.		117
5	Phenolic Compounds in Red Oak and Sugar Maple Leaves Have Prooxidant Activities in the Midgut Fluids of Malacosoma disstria and Orgyia leucostigma Caterpillars. Journal of Chemical Ecology, 2005, 31, 969-988.	1.8	96
6	Antioxidant defenses in caterpillars: role of the ascorbate-recycling system in the midgut lumen. Journal of Insect Physiology, 2001, 47, 349-357.	2.0	94
7	Tannin sensitivity in larvae ofMalacosoma disstria (Lepidoptera): Roles of the peritrophic envelope and midgut oxidation. Journal of Chemical Ecology, 1994, 20, 1985-2001.	1.8	91
8	Roles of peritrophic membranes in protecting herbivorous insects from ingested plant allelochemicals. Archives of Insect Biochemistry and Physiology, 2001, 47, 86-99.	1.5	90
9	Gut-based antioxidant enzymes in a polyphagous and a graminivorous grasshopper. Journal of Chemical Ecology, 2002, 28, 1329-1347.	1.8	77
10	Oxygen levels in the gut lumens of herbivorous insects. Journal of Insect Physiology, 2000, 46, 897-903.	2.0	74
11	Hydrolyzable tannins as â€œquantitative defensesâ€: Limited impact against Lymantria dispar caterpillars on hybrid poplar. Journal of Insect Physiology, 2009, 55, 297-304.	2.0	71
12	Tannin Composition Affects the Oxidative Activities of Tree Leaves. Journal of Chemical Ecology, 2006, 32, 2235-2251.	1.8	62
13	Antioxidant defense of the midgut epithelium by the peritrophic envelope in caterpillars. Journal of Insect Physiology, 2004, 50, 783-790.	2.0	60
14	Performance of a generalist grasshopper on a C 3 and a C 4 grass: compensation for the effects of elevated CO 2 on plant nutritional quality. Oecologia, 2004, 140, 96-103.	2.0	60
15	Peritrophic envelope permeability in herbivorous insects. Journal of Insect Physiology, 1995, 41, 303-311.	2.0	57
16	The protective role of the peritrophic membrane in the tannin-tolerant larvae of Orgyia leucostigma (Lepidoptera). Journal of Insect Physiology, 1992, 38, 973-980.	2.0	56
17	Feeding on poplar leaves by caterpillars potentiates foliar peroxidase action in their guts and increases plant resistance. Oecologia, 2010, 164, 993-1004.	2.0	56
18	Tree resistance to LymantriaÂdispar caterpillars: importance and limitations of foliar tannin composition. Oecologia, 2009, 159, 777-788.	2.0	55

#	ARTICLE	IF	CITATIONS
19	Plantâ€derived differences in the composition of aphid honeydew and their effects on colonies of aphidâ€tending ants. Ecology and Evolution, 2014, 4, 4065-4079.	1.9	46
20	Effects of elevated atmospheric CO 2 on the nutritional ecology of C 3 and C 4 grass-feeding caterpillars. Oecologia, 2004, 140, 86-95.	2.0	45
21	Oxidation of Ingested Phenolics in the Tree-Feeding Caterpillar Orgyia leucostigma Depends on Foliar Chemical Composition. Journal of Chemical Ecology, 2008, 34, 748-756.	1.8	45
22	Reassessment of the roles of the peritrophic envelope and hydrolysis in protecting polyphagous grasshoppers from ingested hydrolyzable tannins. Journal of Chemical Ecology, 1996, 22, 1901-1919.	1.8	42
23	Limited impact of elevated levels of polyphenol oxidase on tree-feeding caterpillars: assessing individual plant defenses with transgenic poplar. Oecologia, 2007, 154, 129-140.	2.0	39
24	Antioxidants in grasshoppers: higher levels defend the midgut tissues of a polyphagous species than a graminivorous species. Journal of Chemical Ecology, 2003, 29, 683-702.	1.8	35
25	Fenton-type reactions and iron concentrations in the midgut fluids of tree-feeding caterpillars. Archives of Insect Biochemistry and Physiology, 2005, 60, 32-43.	1.5	33
26	Relative nutritional quality of C3 and C4 grasses for a graminivorous lepidopteran, Paratrytone melane (Hesperiidae). Oecologia, 1992, 92, 97-103.	2.0	31
27	Antioxidants in the midgut fluids of a tannin-tolerant and a tannin-sensitive caterpillar: effects of seasonal changes in tree leaves. Journal of Chemical Ecology, 2003, 29, 1099-1116.	1.8	28
28	Importance of protein quality versus quantity in alternative host plants for a leaf-feeding insect. Oecologia, 2013, 173, 1-12.	2.0	25
29	Non-absorption of ingested lipophilic and amphiphilic allelochemicals by generalist grasshoppers: The role of extractive ultrafiltration by the peritrophic envelope. Archives of Insect Biochemistry and Physiology, 1999, 42, 130-137.	1.5	24
30	Formation of insoluble and colloidally dispersed tannic acid complexes in the midgut fluid ofManduca sexta (Lepidoptera: Sphingidae): An explanation for the failure of tannic acid to cross the peritrophic envelopes of lepidopteran larvae. Archives of Insect Biochemistry and Physiology, 1998, 39, 109-117.	1.5	23
31	Evaluating Ascorbate Oxidase as a Plant Defense Against Leaf-Chewing Insects Using Transgenic Poplar. Journal of Chemical Ecology, 2008, 34, 1331-1340.	1.8	21
32	Measurement of protein in whole plant samples with ninhydrin. Journal of the Science of Food and Agriculture, 1995, 69, 353-359.	3.5	20
33	Chitinolytic enzymes fromStreptomyces albidoflavusexpressed in tomato plants: effects onTrichoplusia ni. Entomologia Experimentalis Et Applicata, 2001, 99, 193-204.	1.4	19
34	Linking Phenolic Oxidation in the Midgut Lumen with Oxidative Stress in the Midgut Tissues of a Tree-Feeding Caterpillar <I>Malacosoma disstria</I> (Lepidoptera: Lasiocampidae). Environmental Entomology, 2008, 37, 1113-1118.	1.4	19
35	Linking Phenolic Oxidation in the Midgut Lumen with Oxidative Stress in the Midgut Tissues of a Tree-Feeding Caterpillar<i>Malacosoma disstria</i>(Lepidoptera: Lasiocampidae). Environmental Entomology, 2008, 37, 1113-1118.	1.4	19
36	Physiological benefits of feeding in the spring by Lymantria dispar caterpillars on red oak and sugar maple leaves: nutrition versus oxidative stress. Chemoecology, 2013, 23, 59-70.	1.1	18

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37	Searching for synergism: effects of combinations of phenolic compounds and other toxins on oxidative stress in Lymantria dispar caterpillars. Chemoecology, 2013, 23, 219-231.	1.1	14
38	Permeability of the Peritrophic Envelopes of Herbivorous Insects to Dextran Sulfate: a Test of the Polyanion Exclusion Hypothesis. Journal of Insect Physiology, 1997, 43, 243-249.	2.0	13
39	ALLOCATION OF CYSTEINE FOR GLUTATHIONE PRODUCTION IN CATERPILLARS WITH DIFFERENT ANTIOXIDANT DEFENSE STRATEGIES: A COMPARISON OF <i>Lymantria dispar</i> AND <i>Malacosoma disstria</i>. Archives of Insect Biochemistry and Physiology, 2013, 84, 90-103.	1.5	13
40	Grasshoppers efficiently process C4 grass leaf tissues: implications for patterns of host-plant utilization. Entomologia Experimentalis Et Applicata, 2005, 116, 209-217.	1.4	11
41	Acquiring nutrients from tree leaves: effects of leaf maturity and development type on a generalist caterpillar. Oecologia, 2017, 184, 59-73.	2.0	10
42	Nutrients are assimilated efficiently by <i><scp>L</scp>ymantria dispar</i> caterpillars from the mature leaves of trees in the <scp>S</scp>alicaceae. Physiological Entomology, 2015, 40, 72-81.	1.5	9
43	Physiological factors affecting the rapid decrease in protein assimilation efficiency by a caterpillar on newlyâ€mature tree leaves. Physiological Entomology, 2014, 39, 69-79.	1.5	8
44	Effects of leaf maturity and wind stress on the nutrition of the generalist caterpillar <i><scp>L</scp>ymantria dispar</i> feeding on poplar. Physiological Entomology, 2015, 40, 212-222.	1.5	8
45	LIMITED EFFECT OF REACTIVE OXYGEN SPECIES ON THE COMPOSITION OF SUSCEPTIBLE ESSENTIAL AMINO ACIDS IN THE MIDGUTS OF <scp>L</scp>ymantria Dispar CATERPILLARS. Archives of Insect Biochemistry and Physiology, 2012, 81, 160-177.	1.5	7
46	6. Digestive and excretory systems. , 2003, , 165-188.		4