Andrew J Millar

List of Publications by Year
in descending order

154 papers	16,013 citations	16451 64 h-index	17592 121 g-index
176 all docs	176 docs citations	176 times ranked	9946 citing authors

#	Article	IF	Citations
1	Plant Circadian Clocks Increase Photosynthesis, Growth, Survival, and Competitive Advantage. Science, 2005, 309, 630-633.	12.6	1,302
2	Peroxiredoxins are conserved markers of circadian rhythms. Nature, 2012, 485, 459-464.	27.8	752
3	Circadian clock mutants in Arabidopsis identified by luciferase imaging. Science, 1995, 267, 1161-1163.	12.6	595
4	Circadian rhythms persist without transcription in a eukaryote. Nature, 2011, 469, 554-558.	27.8	460
5	The ELF4 gene controls circadian rhythms and flowering time in Arabidopsis thaliana. Nature, 2002, 419, 74-77.	27.8	436
6	Mapping the Core of the <i>Arabidopsis</i> Circadian Clock Defines the Network Structure of the Oscillator. Science, 2012, 336, 75-79.	12.6	424
7	Conditional Circadian Dysfunction of the Arabidopsis early-flowering 3 Mutant. Science, 1996, 274, 790-792.	12.6	393
8	FKF1 Conveys Timing Information for CONSTANS Stabilization in Photoperiodic Flowering. Science, 2012, 336, 1045-1049.	12.6	392
9	The clock gene circuit in <i>Arabidopsis</i> includes a repressilator with additional feedback loops. Molecular Systems Biology, 2012, 8, 574.	7.2	386
10	Experimental validation of a predicted feedback loop in the multiâ€oscillator clock of Arabidopsis thaliana. Molecular Systems Biology, 2006, 2, 59.	7.2	379
11	The ELF3 zeitnehmer regulates light signalling to the circadian clock. Nature, 2000, 408, 716-720.	27.8	337
12	Extension of a genetic network model by iterative experimentation and mathematical analysis. Molecular Systems Biology, 2005, 1, 2005.0013.	7.2	319
13	The Molecular Basis of Temperature Compensation in the Arabidopsis Circadian Clock. Plant Cell, 2006, 18, 1177-1187.	6.6	315
14	The regulation of circadian period by phototransduction pathways in Arabidopsis. Science, 1995, 267, 1163-1166.	12.6	285
15	Circadian dysfunction causes aberrant hypocotyl elongation patterns in Arabidopsis. Plant Journal, 1999, 17, 63-71.	5.7	277
16	FLOWERING LOCUS C Mediates Natural Variation in the High-Temperature Response of the Arabidopsis Circadian Clock. Plant Cell, 2006, 18, 639-650.	6.6	276
17	Strengths and Limitations of Period Estimation Methods for Circadian Data. PLoS ONE, 2014, 9, e96462.	2.5	268
18	Integration of circadian and phototransduction pathways in the network controlling CAB gene transcription in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 15491-15496.	7.1	258

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19	Circadian Clock-Regulated Expression of Phytochrome and Cryptochrome Genes in Arabidopsis. Plant Physiology, 2001, 127, 1607-1616.	4.8	244
20	Guidelines for Genome-Scale Analysis of Biological Rhythms. Journal of Biological Rhythms, 2017, 32, 380-393.	2.6	237
21	Modelling genetic networks with noisy and varied experimental data: the circadian clock in Arabidopsis thaliana. Journal of Theoretical Biology, 2005, 234, 383-393.	1.7	225
22	Temporal Repression of Core Circadian Genes Is Mediated through EARLY FLOWERING 3 in Arabidopsis. Current Biology, 2011, 21, 120-125.	3.9	212
23	The TIME FOR COFFEE Gene Maintains the Amplitude and Timing of Arabidopsis Circadian Clocks[W]. Plant Cell, 2003, 15, 2719-2729.	6.6	199
24	Protocol: Streamlined sub-protocols for floral-dip transformation and selection of transformants in Arabidopsis thaliana. Plant Methods, 2009, 5, 3.	4.3	175
25	Natural allelic variation identifies new genes in the Arabidopsis circadian system. Plant Journal, 1999, 20, 67-77.	5.7	171
26	Functional independence of circadian clocks that regulate plant gene expression. Current Biology, 2000, 10, 951-956.	3.9	170
27	Natural Allelic Variation in the Temperature-Compensation Mechanisms of the Arabidopsis thaliana Circadian ClockSequence data from this article have been deposited with the EMBL/GenBank Data Libraries under accession nos. AY685131 and AY685132.. Genetics, 2005, 170, 387-400.	2.9	153
28	Input signals to the plant circadian clock. Journal of Experimental Botany, 2003, 55, 277-283.	4.8	147
29	Circadian Rhythms of Ethylene Emission in Arabidopsis. Plant Physiology, 2004, 136, 3751-3761.	4.8	147
30	Data assimilation constrains new connections and components in a complex, eukaryotic circadian clock model. Molecular Systems Biology, 2010, 6, 416.	7.2	145
31	The circadian clock controls the expression pattern of the circadian input photoreceptor, phytochrome B. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 14652-14657.	7.1	136
32	The Circadian Clock That Controls Gene Expression in Arabidopsis Is Tissue Specific. Plant Physiology, 2002, 130, 102-110.	4.8	134
33	ELF4 Is Required for Oscillatory Properties of the Circadian Clock. Plant Physiology, 2007, 144, 391-401.	4.8	133
34	Variation in plastic responses of a globally distributed picoplankton species to ocean acidification. Nature Climate Change, 2013, 3, 298-302.	18.8	133
35	The Intracellular Dynamics of Circadian Clocks Reach for the Light of Ecology and Evolution. Annual Review of Plant Biology, 2016, 67, 595-618.	18.7	132
36	Firefly luciferase as a reporter of regulated gene expression in higher plants. Plant Molecular Biology Reporter, 1992, 10, 324-337.	1.8	127

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37	Phytochrome Phototransduction Pathways. Annual Review of Genetics, 1994, 28, 325-349.	7.6	122
38	TIME FOR COFFEE Encodes a Nuclear Regulator in the Arabidopsis thaliana Circadian Clock. Plant Cell, 2007, 19, 1522-1536.	6.6	115
39	Molecular basis of flowering under natural long-day conditions in Arabidopsis. Nature Plants, 2018, 4, 824-835.	9.3	115
40	Modelling the widespread effects of TOC1 signalling on the plant circadian clock and its outputs. BMC Systems Biology, 2013, 7, 23.	3.0	112
41	Prediction of Photoperiodic Regulators from Quantitative Gene Circuit Models. Cell, 2009, 139, 1170-1179.	28.9	111
42	Independent Action of ELF3 and phyB to Control Hypocotyl Elongation and Flowering Time. Plant Physiology, 2000, 122, 1149-1160.	4.8	110
43	The Circadian Clock. A Plant's Best Friend in a Spinning World. Plant Physiology, 2003, 132, 732-738.	4.8	105
44	A Novel Circadian Phenotype Based on Firefly Luciferase Expression in Transgenic Plants. Plant Cell, 1992, 4, 1075.	6.6	105
45	An Arabidopsis Mutant Hypersensitive to Red and Far-Red Light Signals. Plant Cell, 1998, 10, 889-904.	6.6	103
46	Spontaneous spatiotemporal waves of gene expression from biological clocks in the leaf. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6757-6762.	7.1	103
47	Crops In Silico: Generating Virtual Crops Using an Integrative and Multi-scale Modeling Platform. Frontiers in Plant Science, 2017, 8, 786.	3.6	102
48	Quantitative analysis of regulatory flexibility under changing environmental conditions. Molecular Systems Biology, 2010, 6, 424.	7.2	99
49	A Reduced-Function Allele Reveals That <i>EARLY FLOWERING3</i> Repressive Action on the Circadian Clock Is Modulated by Phytochrome Signals in <i>Arabidopsis</i> Â Â. Plant Cell, 2011, 23, 3230-3246.	6.6	95
50	Design principles underlying circadian clocks. Journal of the Royal Society Interface, 2004, 1, 119-130.	3.4	94
51	Attenuation of phytochrome A and B signaling pathways by the Arabidopsis circadian clock.. Plant Cell, 1997, 9, 1727-1743.	6.6	93
52	Weather and Seasons Together Demand Complex Biological Clocks. Current Biology, 2009, 19, 1961-1964.	3.9	93
53	Response regulator homologues have complementary, light-dependent functions in the Arabidopsis circadian clock. Planta, 2003, 218, 159-162.	3.2	91
54	The Arabidopsis SRR1 gene mediates phyB signaling and is required for normal circadian clock function. Genes and Development, 2003, 17, 256-268.	5.9	91

#	ARTICLE	IF	CITATIONS
55	Organ specificity in the plant circadian system is explained by different light inputs to the shoot and root clocks. New Phytologist, 2016, 212, 136-149.	7.3	91
56	Forward Genetic Analysis of the Circadian Clock Separates the Multiple Functions of ZEITLUPE. Plant Physiology, 2006, 140, 933-945.	4.8	90
57	Multiscale digital <i>Arabidopsis</i> predicts individual organ and whole-organism growth. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4127-36.	7.1	88
58	Linked circadian outputs control elongation growth and flowering in response to photoperiod and temperature. Molecular Systems Biology, 2015, 11, 776.	7.2	87
59	Light inputs shape the Arabidopsis circadian system. Plant Journal, 2011, 66, 480-491.	5.7	78
60	Network balance <i>via</i> CRY signalling controls the <i>Arabidopsis</i> circadian clock over ambient temperatures. Molecular Systems Biology, 2013, 9, 650.	7.2	78
61	Conditional Circadian Regulation of <i>PHYTOCHROME A</i>Gene Expression. Plant Physiology, 2001, 127, 1808-1818.	4.8	75
62	Photoperiodic control of the <i>Arabidopsis</i> proteome reveals a translational coincidence mechanism. Molecular Systems Biology, 2018, 14, e7962.	7.2	74
63	Uncovering the design principles of circadian clocks: Mathematical analysis of flexibility and evolutionary goals. Journal of Theoretical Biology, 2006, 238, 616-635.	1.7	73
64	HIGH EXPRESSION OF OSMOTICALLY RESPONSIVE GENES1 Is Required for Circadian Periodicity through the Promotion of Nucleo-Cytoplasmic mRNA Export in Arabidopsis. Plant Cell, 2013, 25, 4391-4404.	6.6	73
65	Distinct regulation ofCABandPHYBgene expression by similar circadian clocks. Plant Journal, 2002, 32, 529-537.	5.7	72
66	Full genome re-sequencing reveals a novel circadian clock mutation in Arabidopsis. Genome Biology, 2011, 12, R28.	9.6	69
67	Circadian Control of cab Gene Transcription and mRNA Accumulation in Arabidopsis. Plant Cell, 1991, 3, 541.	6.6	67
68	Digital clocks: simple Boolean models can quantitatively describe circadian systems. Journal of the Royal Society Interface, 2012, 9, 2365-2382.	3.4	67
69	Plants <i>in silico</i>: why, why now and what?â€"an integrative platform for plant systems biology research. Plant, Cell and Environment, 2016, 39, 1049-1057.	5.7	66
70	Non-transcriptional oscillators in circadian timekeeping. Trends in Biochemical Sciences, 2012, 37, 484-492.	7.5	63
71	Proteasome Function Is Required for Biological Timing throughout the Twenty-Four Hour Cycle. Current Biology, 2011, 21, 869-875.	3.9	61
72	Photoperiodâ€dependent changes in the phase of core clock transcripts and global transcriptional outputs at dawn and dusk in <i>Arabidopsis</i>. Plant, Cell and Environment, 2016, 39, 1955-1981.	5.7	60

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73	Online Period Estimation and Determination of Rhythmicity in Circadian Data, Using the BioDare Data Infrastructure. Methods in Molecular Biology, 2014, 1158, 13-44.	0.9	59
74	Reconstruction of transcriptional dynamics from gene reporter data using differential equations. Bioinformatics, 2008, 24, 2901-2907.	4.1	58
75	Bridging the gap between omics and earth system science to better understand how environmental change impacts marine microbes. Global Change Biology, 2016, 22, 61-75.	9.5	58
76	Shotgun proteomic analysis of the unicellular alga Ostreococcus tauri. Journal of Proteomics, 2011, 74, 2060-2070.	2.4	56
77	Multiple light inputs to a simple clock circuit allow complex biological rhythms. Plant Journal, 2011, 66, 375-385.	5.7	56
78	A Suite of Photoreceptors Entrains the Plant Circadian Clock. Journal of Biological Rhythms, 2003, 18, 217-226.	2.6	55
79	Modelling non-stationary gene regulatory processes with a non-homogeneous Bayesian network and the allocation sampler. Bioinformatics, 2008, 24, 2071-2078.	4.1	55
80	Biological clocks in Arabidopsis thaliana. New Phytologist, 1999, 141, 175-197.	7.3	52
81	FLOWERING LOCUS C-dependent and -independent regulation of the circadian clock by the autonomous and vernalization pathways. BMC Plant Biology, 2006, 6, 10.	3.6	50
82	Clocks in Algae. Biochemistry, 2015, 54, 171-183.	2.5	49
83	Multiple circadian clock outputs regulate diel turnover of carbon and nitrogen reserves. Plant, Cell and Environment, 2019, 42, 549-573.	5.7	49
84	New models in vogue for circadian clocks. Cell, 1995, 83, 361-364.	28.9	48
85	Stochastic properties of the plant circadian clock. Journal of the Royal Society Interface, 2012, 9, 744-756.	3.4	48
86	Robustness from flexibility in the fungal circadian clock. BMC Systems Biology, 2010, 4, 88.	3.0	47
87	Defining the robust behaviour of the plant clock gene circuit with absolute RNA timeseries and open infrastructure. Open Biology, 2015, 5, 150042.	3.6	42
88	Hybrid regulatory models: a statistically tractable approach to model regulatory network dynamics. Bioinformatics, 2013, 29, 910-916.	4.1	40
89	Functional Analysis of Casein Kinase 1 in a Minimal Circadian System. PLoS ONE, 2013, 8, e70021.	2.5	39
90	A switchable light-input, light-output system modelled and constructed in yeast. Journal of Biological Engineering, 2009, 3, 15.	4.7	38

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91	Model selection reveals control of cold signalling by eveningâ€phased components of the plant circadian clock. Plant Journal, 2013, 76, 247-257.	5.7	38
92	Development of a novel biosensor for the detection of arsenic in drinking water. IET Synthetic Biology, 2007, 1, 87-90.	0.2	37
93	Microarray data can predict diurnal changes of starch content in the picoalga Ostreococcus. BMC Systems Biology, 2011, 5, 36.	3.0	37
94	Functional Characterization of Phytochrome Interacting Factor 3 for the Arabidopsis thaliana Circadian Clockwork. Plant and Cell Physiology, 2005, 46, 1591-1602.	3.1	36
95	Circadian Genetics in the Model Higher Plant, Arabidopsis thaliana. Methods in Enzymology, 2005, 393, 23-35.	1.0	36
96	Arabidopsis thaliana Circadian Clock Is Regulated by the Small GTPase LIP1. Current Biology, 2007, 17, 1456-1464.	3.9	36
97	Timeâ€resolved interaction proteomics of the <scp>GIGANTEA</scp> protein under diurnal cycles in <i>Arabidopsis</i>. FEBS Letters, 2019, 593, 319-338.	2.8	35
98	Phytochrome-induced intercellular signalling activates cab::luciferase gene expression. Plant Journal, 1997, 12, 839-849.	5.7	31
99	Isoform switching facilitates period control in the <i>Neurospora crassa</i> circadian clock. Molecular Systems Biology, 2008, 4, 164.	7.2	31
100	Ubiquitin ligase switch in plant photomorphogenesis: A hypothesis. Journal of Theoretical Biology, 2011, 270, 31-41.	1.7	29
101	Regulatory principles and experimental approaches to the circadian control of starch turnover. Journal of the Royal Society Interface, 2014, 11, 20130979.	3.4	29
102	The genetics of phototransduction and circadian rhythms in arabidopsis. BioEssays, 1997, 19, 209-214.	2.5	28
103	How plants tell the time. Current Opinion in Plant Biology, 2000, 3, 43-46.	7.1	24
104	Watching the hands of the Arabidopsis biological clock. Genome Biology, 2001, 2, reviews1008.1.	9.6	24
105	Partners in Time: EARLY BIRD Associates with ZEITLUPE and Regulates the Speed of the Arabidopsis Clock Â Â. Plant Physiology, 2011, 155, 2108-2122.	4.8	24
106	Genomic Transformation of the Picoeukaryote Ostreococcus tauri. Journal of Visualized Experiments, 2012, , e4074.	0.3	24
107	Analysis of Circadian Leaf Movement Rhythms in Arabidopsis thaliana. Methods in Molecular Biology, 2007, 362, 103-113.	0.9	23
108	Light and circadian regulation of clock components aids flexible responses to environmental signals. New Phytologist, 2014, 203, 568-577.	7.3	23

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109	Circadian biology: Clocks for the real world. Current Biology, 1999, 9, R633-R635.	3.9	22
110	Circadian clock components control daily growth activities by modulating cytokinin levels and cell divisionâ€associated gene expression in <i>Populus</i> trees. Plant, Cell and Environment, 2018, 41, 1468-1482.	5.7	22
111	Detection and resolution of genetic loci affecting circadian period in Brassica oleracea. Theoretical and Applied Genetics, 2007, 114, 683-692.	3.6	21
112	Multi-scale modelling to synergise Plant Systems Biology and Crop Science. Field Crops Research, 2017, 202, 77-83.	5.1	21
113	The Contributions of Interlocking Loops and Extensive Nonlinearity to the Properties of Circadian Clock Models. PLoS ONE, 2010, 5, e13867.	2.5	20
114	SBSI: an extensible distributed software infrastructure for parameter estimation in systems biology. Bioinformatics, 2013, 29, 664-665.	4.1	20
115	Labelâ€free quantitative analysis of the casein kinase 2â€responsive phosphoproteome of the marine minimal model species <i>Ostreococcus tauri</i>. Proteomics, 2015, 15, 4135-4144.	2.2	20
116	An explanatory model of temperature influence on flowering through whole-plant accumulation of FLOWERING LOCUS T in Arabidopsis thaliana. In Silico Plants, 2019, 1, .	1.9	20
117	The Circadian Clock Gene Circuit Controls Protein and Phosphoprotein Rhythms in Arabidopsis thaliana. Molecular and Cellular Proteomics, 2022, 21, 100172.	3.8	20
118	Practical steps to digital organism models, from laboratory model species to â€˜Crops in silico. Journal of Experimental Botany, 2019, 70, 2403-2418.	4.8	19
119	The reduced kinome of Ostreococcus tauri: core eukaryotic signalling components in a tractable model species. BMC Genomics, 2014, 15, 640.	2.8	18
120	Real-time imaging of transcription in living cells and tissues. Biochemical Society Transactions, 1996, 24, 411S-411S.	3.4	17
121	Circadian rhythms: PASsing time. Current Biology, 1997, 7, R474-R476.	3.9	17
122	A Bayesian approach for structure learning in oscillating regulatory networks. Bioinformatics, 2015, 31, 3617-3624.	4.1	17
123	Expanding the bioluminescent reporter toolkit for plant science with NanoLUC. Plant Methods, 2019, 15, 68.	4.3	13
124	A multi-model framework for the Arabidopsis life cycle. Journal of Experimental Botany, 2019, 70, 2463-2477.	4.8	13
125	Molecular Intrigue Between Phototransduction and the Circadian Clock. Annals of Botany, 1998, 81, 581-587.	2.9	12
126	Circadian Clock Parameter Measurement: Characterization of Clock Transcription Factors Using Surface Plasmon Resonance. Journal of Biological Rhythms, 2011, 26, 91-98.	2.6	12

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127	Clock proteins: Turned over after hours?. Current Biology, 2000, 10, R529-R531.	3.9	11
128	Chromar, a language of parameterised agents. Theoretical Computer Science, 2019, 765, 97-119.	0.9	11
129	Isoform switching facilitates period control in the <i>Neurospora crassa</i> circadian clock. Molecular Systems Biology, 2008, 4, .	7.2	9
130	Better research by efficient sharing: evaluation of free management platforms for synthetic biology designs. Synthetic Biology, 2019, 4, ysz016.	2.2	9
131	Sample Preparation for Phosphoproteomic Analysis of Circadian Time Series in Arabidopsis thaliana. Methods in Enzymology, 2015, 551, 405-431.	1.0	8
132	Light responses of a plastic plant. Nature Genetics, 2001, 29, 357-358.	21.4	7
133	QTL for timing: a natural diversity of clock genes. Trends in Genetics, 2002, 18, 115-118.	6.7	6
134	The Input Signal Step Function (ISSF), a Standard Method to Encode Input Signals in SBML Models with Software Support, Applied to Circadian Clock Models. Journal of Biological Rhythms, 2012, 27, 328-332.	2.6	6
135	Functional analysis of the rodent CK1tau mutation in the circadian clock of a marine unicellular alga. BMC Cell Biology, 2013, 14, 46.	3.0	6
136	Consistent Robustness Analysis (CRA) Identifies Biologically Relevant Properties of Regulatory Network Models. PLoS ONE, 2010, 5, e15589.	2.5	6
137	The wild-type circadian period of Neurospora is encoded in the residual network of the null frq mutants. Journal of Theoretical Biology, 2004, 229, 413-420.	1.7	5
138	Chromar, a Rule-based Language of Parameterised Objects. Electronic Notes in Theoretical Computer Science, 2018, 335, 49-66.	0.9	5
139	Testing the inferred transcription rates of a dynamic, gene network model in absolute units. In Silico Plants, 2021, 3, .	1.9	5
140	Efficient utility-based clustering over high dimensional partition spaces. Bayesian Analysis, 2009, 4, .	3.0	5
141	An Arabidopsis Mutant Hypersensitive to Red and Far-Red Light Signals. Plant Cell, 1998, 10, 889.	6.6	4
142	PyOmeroUpload: A Python toolkit for uploading images and metadata to OMERO. Wellcome Open Research, 2020, 5, 96.	1.8	4
143	The grant is dead, long live the data - migration as a pragmatic exit strategy for research data preservation. Wellcome Open Research, 2019, 4, 104.	1.8	4
144	PlaSMo: Making existing plant and crop mathematical models available to plant systems biologists. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2009, 153, S225-S226.	1.8	3

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145	Valuing the project: a knowledge-action response to network governance in collaborative research. Public Money and Management, 2017, 37, 23-30.	2.1	3
146	SynBio2Easyâ€”a biologist-friendly tool for batch operations on SBOL designs with Excel inputs. Synthetic Biology, 2022, 7, ysac002.	2.2	3
147	Biological clocks in theory and experiments. BMC Bioinformatics, 2005, 6, S2.	2.6	2
148	Period Estimation and Rhythm Detection in Timeseries Data Using BioDare2, the Free, Online, Community Resource. Methods in Molecular Biology, 2022, 2398, 15-32.	0.9	2
149	The grant is dead, long live the data - migration as a pragmatic exit strategy for research data preservation. Wellcome Open Research, 2019, 4, 104.	1.8	2
150	PyOmeroUpload: A Python toolkit for uploading images and metadata to OMERO. Wellcome Open Research, 2020, 5, 96.	1.8	2
151	The <i>Arabidopsis</i> Framework Model version 2 predicts the organism-level effects of circadian clock gene mis-regulation. In Silico Plants, 2022, 4, .	1.9	2
152	Attenuation of Phytochrome A and B Signaling Pathways by the Arabidopsis Circadian Clock. Plant Cell, 1997, 9, 1727.	6.6	0
153	Corrigendum for the paper â€˜Digital clocks: simple Boolean models can quantitatively describe circadian systemsâ€™. Journal of the Royal Society Interface, 2012, 9, 3578-3578.	3.4	0
154	Analysis of Circadian Leaf Movement Rhythms in <i>Arabidopsis thaliana</i>. , 0, , 103-114.		0