

# František Marec

## List of Publications by Year in descending order

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108  
papers

4,618  
citations

94433

37  
h-index

128289

60  
g-index

113  
all docs

113  
docs citations

113  
times ranked

3258  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Mite Species That Consists Entirely of Haploid Females. <i>Science</i> , 2001, 292, 2479-2482.	12.6	258
2	TTAGG telomeric repeats in chromosomes of some insects and other arthropods. <i>Chromosome Research</i> , 1999, 7, 449-460.	2.2	234
3	Genomic evidence for divergence with gene flow in host races of the larch budmoth. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2004, 271, 97-105.	2.6	181
4	Industrial Melanism in British Peppered Moths Has a Singular and Recent Mutational Origin. <i>Science</i> , 2011, 332, 958-960.	12.6	179
5	Sex Chromosomes and Sex Determination in Lepidoptera. <i>Sexual Development</i> , 2007, 1, 332-346.	2.0	156
6	The evolutionary origin of insect telomeric repeats, (TTAGG) N. <i>Chromosome Research</i> , 2005, 13, 145-156.	2.2	134
7	Phylogenetic distribution of TTAGG telomeric repeats in insects. <i>Genome</i> , 2004, 47, 163-178.	2.0	130
8	Evolutionary dynamics of rDNA clusters on chromosomes of moths and butterflies (Lepidoptera). <i>Genetica</i> , 2010, 138, 343-354.	1.1	122
9	Codling moth cytogenetics: karyotype, chromosomal location of rDNA, and molecular differentiation of sex chromosomes. <i>Genome</i> , 2005, 48, 1083-1092.	2.0	106
10	Neo-sex chromosomes and adaptive potential in tortricid pests. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 6931-6936.	7.1	104
11	A chromosome-level genome assembly of <i>Cydia pomonella</i> provides insights into chemical ecology and insecticide resistance. <i>Nature Communications</i> , 2019, 10, 4237.	12.8	102
12	Sex Chromatin in Lepidoptera. <i>Quarterly Review of Biology</i> , 1996, 71, 239-256.	0.1	100
13	Molecular differentiation of sex chromosomes probed by comparative genomic hybridization. <i>Chromosoma</i> , 1999, 108, 173-180.	2.2	97
14	Towards mosquito sterile insect technique programmes: Exploring genetic, molecular, mechanical and behavioural methods of sex separation in mosquitoes. <i>Acta Tropica</i> , 2014, 132, S178-S187.	2.0	90
15	<i>Maleness-on-the-Y</i> ( <i>MoY</i> ) orchestrates male sex determination in major agricultural fruit fly pests. <i>Science</i> , 2019, 365, 1457-1460.	12.6	88
16	The telomere repeat motif of basal Metazoa. <i>Chromosome Research</i> , 2007, 15, 371-82.	2.2	79
17	Repeated losses of TTAGG telomere repeats in evolution of beetles (Coleoptera). <i>Genetica</i> , 2002, 115, 179-187.	1.1	76
18	Inherited Sterility in Insects. , 2005, , 115-146.		74

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19	Linkage map of the peppered moth, <i>Biston betularia</i> (Lepidoptera, Geometridae): a model of industrial melanism. <i>Heredity</i> , 2013, 110, 283-295.	2.6	68
20	Versatility of multivalent orientation, inverted meiosis, and rescued fitness in holocentric chromosomal hybrids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E9610-E9619.	7.1	62
21	Serologic Survey of Birds for West Nile Flavivirus in Southern Moravia (Czech Republic). <i>Vector-Borne and Zoonotic Diseases</i> , 2008, 8, 659-666.	1.5	61
22	Development of Genetic Sexing Strains in Lepidoptera: from Traditional to Transgenic Approaches. <i>Journal of Economic Entomology</i> , 2005, 98, 248-259.	1.8	59
23	Probing the W chromosome of the codling moth, <i>Cydia pomonella</i> , with sequences from microdissected sex chromatin. <i>Chromosoma</i> , 2007, 116, 135-145.	2.2	58
24	Sex Chromosome Differentiation in Some Species of Lepidoptera (Insecta). <i>Chromosome Research</i> , 1997, 5, 283-291.	2.2	55
25	Molecular divergence of the W chromosomes in pyralid moths (Lepidoptera). <i>Chromosome Research</i> , 2007, 15, 917-930.	2.2	55
26	Karyotype, sex chromatin and sex chromosome differentiation in the carob moth, <i>Ectomyelois ceratoniae</i> (Lepidoptera: Pyralidae). <i>Caryologia</i> , 2004, 57, 184-194.	0.3	54
27	Meiotic pairing of sex chromosome fragments and its relation to atypical transmission of a sex-linked marker in <i>Ephestia kuehniella</i> (Insecta: Lepidoptera). <i>Heredity</i> , 2001, 87, 659-671.	2.6	53
28	Chromosomal Evolution in Tortricid Moths: Conserved Karyotypes with Diverged Features. <i>PLoS ONE</i> , 2013, 8, e64520.	2.5	52
29	Dynamic karyotype evolution and unique sex determination systems in <i>Leptidea wood white</i> butterflies. <i>BMC Evolutionary Biology</i> , 2015, 15, 89.	3.2	51
30	Fissions, fusions, and translocations shaped the karyotype and multiple sex chromosome constitution of the northeast-Asian wood white butterfly, <i>Leptidea amurensis</i> . <i>Biological Journal of the Linnean Society</i> , 2016, 118, 457-471.	1.6	49
31	Advances and Challenges of Using the Sterile Insect Technique for the Management of Pest Lepidoptera. <i>Insects</i> , 2019, 10, 371.	2.2	48
32	Sex Chromosome Evolution in Cotton Stainers of the Genus <i>Dysdercus</i> (Heteroptera: Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222	1.1	47
33	Radiation-Induced Inherited Sterility Combined with a Genetic Sexing System in <i>Ephestia kuehniella</i> (Lepidoptera: Pyralidae). <i>Annals of the Entomological Society of America</i> , 1999, 92, 250-259.	2.5	45
34	Mutagenicity of Natural Anthraquinones from <i>Rubia tinctorum</i> in the <i>Drosophila</i> Wing Spot Test. <i>Planta Medica</i> , 2001, 67, 127-131.	1.3	45
35	Improvement of the sterile insect technique for codling moth <i>Cydia pomonella</i> (Linnaeus) (Lepidoptera Tortricidae) to facilitate expansion of field application. <i>Journal of Applied Entomology</i> , 2010, 134, 165-181.	1.8	45
36	Extensive Conserved Synteny of Genes between the Karyotypes of <i>Manduca sexta</i> and <i>Bombyx mori</i> Revealed by BAC-FISH Mapping. <i>PLoS ONE</i> , 2009, 4, e7465.	2.5	45

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37	Sex chromosome pairing and sex chromatin bodies in W $\times$ Z translocation strains of <i>Ephestia kuehniella</i> (Lepidoptera). <i>Genome</i> , 1994, 37, 426-435.	2.0	44
38	New Insights into the Evolution of the W Chromosome in Lepidoptera. <i>Journal of Heredity</i> , 2017, 108, 709-719.	2.4	44
39	Resolution of sex chromosome constitution by genomic in situ hybridization and fluorescence in situ hybridization with (TTAGC) n telomeric probe in some species of Lepidoptera. <i>Chromosoma</i> , 2005, 114, 193-202.	2.2	41
40	Development of Genetic Sexing Strains in Lepidoptera: from Traditional to Transgenic Approaches. <i>Journal of Economic Entomology</i> , 2005, 98, 248-259.	1.8	38
41	Moth sex chromatin probed by comparative genomic hybridization (CGH). <i>Genome</i> , 2003, 46, 339-342.	2.0	37
42	A Z-linked sterility locus causes sexual abstinence in hybrid females and facilitates speciation in <i>Spodoptera frugiperda</i> . <i>Evolution; International Journal of Organic Evolution</i> , 2016, 70, 1418-1427.	2.3	37
43	The genetic architecture of a host shift: An adaptive walk protected an aphid and its endosymbiont from plant chemical defenses. <i>Science Advances</i> , 2020, 6, eaba1070.	10.3	37
44	Synaptonemal complexes in female and male meiotic prophase of <i>Ephestia kuehniella</i> (Lepidoptera). <i>Heredity</i> , 1993, 71, 394-404.	2.6	35
45	Evolution of multiple sex-chromosomes associated with dynamic genome reshuffling in <i>Leptidea wood-white</i> butterflies. <i>Heredity</i> , 2020, 125, 138-154.	2.6	35
46	Synaptonemal complexes in insects. <i>Arthropod Structure and Development</i> , 1996, 25, 205-233.	0.4	34
47	Chromosomal principle of radiation-induced F <sub>1</sub> sterility in <i>Ephestia kuehniella</i> (Lepidoptera: Pyralidae). <i>Genome</i> , 2001, 44, 172-184.	2.0	33
48	Kinetic organization of metaphase I bivalents in spermatogenesis of Lepidoptera and Trichoptera species with small chromosome numbers. <i>Heredity</i> , 1997, 79, 135-143.	2.6	32
49	Conserved synteny of genes between chromosome 15 of <i>Bombyx mori</i> and a chromosome of <i>Manduca sexta</i> shown by five-color BAC-FISH. <i>Genome</i> , 2007, 50, 1061-1065.	2.0	30
50	Sex Chromosome Turnover in Moths of the Diverse Superfamily Gelechioidea. <i>Genome Biology and Evolution</i> , 2019, 11, 1307-1319.	2.5	30
51	Telomeric and interstitial telomeric sequences in holokinetic chromosomes of Lepidoptera: telomeric DNA mediates association between postpachytene bivalents in achiasmatic meiosis of females. <i>Chromosome Research</i> , 2003, 11, 681-694.	2.2	29
52	Organ growth without cell division: somatic polyploidy in a moth, <i>Ephestia kuehniella</i> . <i>Genome</i> , 2012, 55, 755-763.	2.0	29
53	Cytogenetic and molecular characterization of the MBSAT1 satellite DNA in holokinetic chromosomes of the cabbage moth, <i>Mamestra brassicae</i> (Lepidoptera). <i>Chromosome Research</i> , 2003, 11, 51-56.	2.2	28
54	Divergent location of ribosomal genes in chromosomes of fish thorny-headed worms, <i>Pomphorhynchus laevis</i> and <i>Pomphorhynchus tereticollis</i> (Acanthocephala). <i>Genetica</i> , 2007, 131, 141-149.	1.1	28

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55	Insights into the karyotype and genome evolution of haplogyne spiders indicate a polyploid origin of lineage with holokinetic chromosomes. <i>Scientific Reports</i> , 2019, 9, 3001.	3.3	28
56	Genetic control of the pest lepidoptera: Gamma-ray induction of translocations between sex chromosomes of <i>Ephestia kuehniella</i> Zeller (Lepidoptera: Pyralidae). <i>Journal of Stored Products Research</i> , 1990, 26, 109-116.	2.6	27
57	Universal fluorescence in situ hybridization (FISH) protocol for mapping repetitive DNAs in insects and other arthropods. <i>Molecular Genetics and Genomics</i> , 2021, 296, 513-526.	2.1	27
58	Evidence for Integrity of Parental Genomes in the Diploid Hybridogenetic Water Frog &#x201c; <i>Pelophylax esculentus</i> &#x201d; by Genomic in situ Hybridization. <i>Cytogenetic and Genome Research</i> , 2011, 134, 206-212.	1.1	26
59	Is premeiotic genome elimination an exclusive mechanism for hemiclinal reproduction in hybrid males of the genus <i>Pelophylax</i> ?. <i>BMC Genetics</i> , 2016, 17, 100.	2.7	26
60	White pupae phenotype of tephritids is caused by parallel mutations of a MFS transporter. <i>Nature Communications</i> , 2021, 12, 491.	12.8	25
61	The Role of Satellite DNAs in Genome Architecture and Sex Chromosome Evolution in Crambidae Moths. <i>Frontiers in Genetics</i> , 2021, 12, 661417.	2.3	25
62	Step-by-step evolution of neo-sex chromosomes in geographical populations of wild silkmoths, <i>Samia cynthia</i> ssp.. <i>Heredity</i> , 2011, 106, 614-624.	2.6	24
63	Sex chromosomes and associated rDNA form a heterochromatic network in the polytene nuclei of <i>Bactrocera oleae</i> (Diptera: Tephritidae). <i>Genetica</i> , 2012, 140, 169-180.	1.1	24
64	Novel resistance to <i>Cydia pomonella</i> granulovirus (CpGV) in codling moth shows autosomal and dominant inheritance and confers cross-resistance to different CpGV genome groups. <i>PLoS ONE</i> , 2017, 12, e0179157.	2.5	24
65	Cytogenetic Characterization and AFLP-Based Genetic Linkage Mapping for the Butterfly <i>Bicyclus anynana</i> , Covering All 28 Karyotyped Chromosomes. <i>PLoS ONE</i> , 2008, 3, e3882.	2.5	24
66	Chromosomal distribution of interstitial telomeric sequences as signs of evolution through chromosome fusion in six species of the giant water bugs (Hemiptera, <i>Belostoma</i>). <i>Ecology and Evolution</i> , 2017, 7, 5227-5235.	1.9	23
67	Sex Chromosomes of the Iconic Moth <i>Abraxas grossulariata</i> (Lepidoptera, Geometridae) and Its Congener <i>A. sylvata</i> . <i>Genes</i> , 2018, 9, 279.	2.4	22
68	Genetic control of pest Lepidoptera: construction of a balanced lethal strain in <i>Ephestia kuehniella</i>. <i>Entomologia Experimentalis Et Applicata</i> , 1991, 61, 271-283.	1.4	20
69	W-enriched satellite sequence in the Indian meal moth, <i>Plodia interpunctella</i> (Lepidoptera, Pyralidae). <i>Chromosome Research</i> , 2017, 25, 241-252.	2.2	20
70	Absence of W Chromosome in Psychidae Moths and Implications for the Theory of Sex Chromosome Evolution in Lepidoptera. <i>Genes</i> , 2019, 10, 1016.	2.4	20
71	The fate of W chromosomes in hybrids between wild silkmoths, <i>Samia cynthia</i> ssp.: no role in sex determination and reproduction. <i>Heredity</i> , 2016, 116, 424-433.	2.6	19
72	Rapid turnover of the W chromosome in geographical populations of wild silkmoths, <i>Samia cynthia</i> ssp.. <i>Chromosome Research</i> , 2013, 21, 149-164.	2.2	18

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73	Mapping of single-copy genes by TSA-FISH in the codling moth, <i>Cydia pomonella</i> . <i>BMC Genetics</i> , 2014, 15, S15.	2.7	18
74	A chromosome study and localization of 18S rDNA in <i>Khawia saurogobii</i> (Cestoda: Caryophyllidea). <i>Parasitology Research</i> , 2010, 106, 587-593.	1.6	17
75	High recombinagenic activities of three antiviral agents, adenine derivatives, in the <i>Drosophila</i> wing spot test. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 1994, 311, 305-317.	1.0	15
76	The effect of repeated microwave irradiation on the frequency of sex-linked recessive lethal mutations in <i>Drosophila melanogaster</i> . <i>Mutation Research - Genetic Toxicology Testing and Biomonitoring of Environmental Or Occupational Exposure</i> , 1985, 157, 163-167.	1.2	14
77	Visualization of polyfusomes in gonads of a moth, <i>Ephestia kuehniella</i> Z. (Lepidoptera : Pyralidae), by a microspreading technique and electron microscopy. <i>Arthropod Structure and Development</i> , 1993, 22, 487-496.	0.4	14
78	Rapid assessment of the sex of codling moth <i>Cydia pomonella</i> (Linnaeus) (Lepidoptera: Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54	1.8	14
79	A conserved role of the duplicated Masculinizer gene in sex determination of the Mediterranean flour moth, <i>Ephestia kuehniella</i> . <i>PLoS Genetics</i> , 2021, 17, e1009420.	3.5	14
80	Chromosome structure in spermatogenesis of <i>Anabolia furcata</i> (Trichoptera). <i>Genome</i> , 1992, 35, 46-52.	2.0	13
81	Extensive variation in chromosome number and genome size in sexual and parthenogenetic species of the jumpingâ€bristletail genus <i>Machilis</i> (Archaeognatha). <i>Ecology and Evolution</i> , 2014, 4, 4093-4105.	1.9	13
82	Large-scale comparative analysis of cytogenetic markers across Lepidoptera. <i>Scientific Reports</i> , 2021, 11, 12214.	3.3	13
83	Degenerated, Undifferentiated, Rearranged, Lost: High Variability of Sex Chromosomes in Geometridae (Lepidoptera) Identified by Sex Chromatin. <i>Cells</i> , 2021, 10, 2230.	4.1	13
84	XX/XY System of Sex Determination in the Geophilomorph Centipede <i>Strigamia maritima</i> . <i>PLoS ONE</i> , 2016, 11, e0150292.	2.5	13
85	Insights into the Structure of the Spruce Budworm ( <i>Choristoneura fumiferana</i> ) Genome, as Revealed by Molecular Cytogenetic Analyses and a High-Density Linkage Map. <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 2539-2549.	1.8	12
86	Jekyll or Hyde? The genome (and more) of <i>Nesidiocoris tenuis</i> , a zoophytophagous predatory bug that is both a biological control agent and a pest. <i>Insect Molecular Biology</i> , 2021, 30, 188-209.	2.0	12
87	Patterns of Sex Chromosome Differentiation in Spiders: Insights from Comparative Genomic Hybridisation. <i>Genes</i> , 2020, 11, 849.	2.4	11
88	Chromosomal principle of radiation-induced F&sub&gt;1&sub&gt; sterility in &Ephestia kuehniella& (Lepidoptera: Pyralidae). <i>Genome</i> , 2001, 44, 172-184.	2.0	11
89	The Synaptonemal Complex Complement of the Wax Moth, <i>Galleria Mellonella</i> . <i>Hereditas</i> , 2004, 118, 113-119.	1.4	10
90	Developing Transgenic Sexing Strains for the Release of Non-Transgenic Sterile Male Codling Moths <i>Cydia pomonella</i> . , 2007, , 103-111.		8

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91	Molecular cytogenetic analysis of a triploid population of the human broad tapeworm, <i>Dibothriocephalus latus</i> (Diphyllobothriidea). <i>Parasitology</i> , 2021, 148, 787-797.	1.5	7
92	Genotoxicity of the anti-juvenile hormone agent precocene II as revealed by the <i>Drosophila</i> wing spot test. <i>Mutagenesis</i> , 1989, 4, 216-220.	2.6	6
93	Suppression of the <i>Drosophila</i> Curly mutation by fluorescent light. <i>Hereditas</i> , 2004, 124, 191-197.	1.4	6
94	Yellow eye, a new pigment mutation in <i>Ephestia kuehniella</i> Zeller (Lepidoptera: Pyralidae). <i>Hereditas</i> , 2008, 113, 97-100.	1.4	6
95	Limited intrinsic postzygotic reproductive isolation despite chromosomal rearrangements between closely related sympatric species of small ermine moths (Lepidoptera: Yponomeutidae). <i>Biological Journal of the Linnean Society</i> , 2019, 128, 44-58.	1.6	6
96	Analysis of the genotoxic activity of <i>Bacillus thuringiensis</i> $\delta$ -exotoxin by means of the <i>Drosophila</i> wing spot test. <i>Journal of Invertebrate Pathology</i> , 1989, 53, 347-353.	3.2	5
97	Female silkworms have the sex factor. <i>Nature</i> , 2014, 509, 570-571.	27.8	5
98	Activity and inactivity of moth sex chromosomes in somatic and meiotic cells. <i>Chromosoma</i> , 2019, 128, 533-545.	2.2	5
99	The effect of population density on the elimination dynamics of a recessive lethal mutation I(2)M167 DTS from experimental populations of <i>Drosophila melanogaster</i> . <i>Russian Journal of Genetics</i> , 2005, 41, 249-255.	0.6	4
100	Kinetic organization of metaphase I bivalents in spermatogenesis of Lepidoptera and Trichoptera species with small chromosome numbers. <i>Heredity</i> , 1997, 79, 135-143.	2.6	4
101	Analysis of radiation-induced W chromosome aberrations in the codling moth, <i>Cydia pomonella</i> (L.), by fluorescence in situ hybridization techniques. <i>Journal of Pest Science</i> , 2008, 81, 143-151.	3.7	3
102	Tephritid Fruit Flies (Diptera). , 2014, , 1-62.		3
103	New cytogenetic data on <i>Caryophyllaeus laticeps</i> and <i>Paracaryophyllaeus gotoi</i> , parasites of evolutionary interest. <i>Parasitology</i> , 2022, 149, 1094-1105.	1.5	3
104	Mutagenicity testing of the juvenoid methoprene (ZR-515) by means of the <i>Drosophila</i> wing spot test. <i>Mutation Research - Genetic Toxicology Testing and Biomonitoring of Environmental Or Occupational Exposure</i> , 1987, 188, 209-214.	1.2	2
105	“Black distal area”, a new mutation affecting wing pattern of <i>Ephestia kuehniella</i> Zeller (Lepidoptera:). <i>Tj ETQq</i> , 1, 0.784314 rgBT	1.6	1
106	The Effect of Male Mating Competitiveness, Developmental Rate, and Viability of Larvae and Pupae in <i>Drosophila melanogaster</i> Heterozygous for the Temperature-Sensitive Lethal Mutation I(2)M167 DTS on the Dynamics of the Mutation Elimination from the Population. <i>Russian Journal of Genetics</i> , 2005, 41, 495-500.	0.6	1
107	Determination of Fitness Components of Flies Bearing the Recessive Lethal I(2)M167 DTS Mutation with Dominant Heat Sensitivity in Artificial <i>Drosophila melanogaster</i> Populations. <i>Russian Journal of Genetics</i> , 2005, 41, 620-629.	0.6	1
108	Selection on Viability of Individuals Heterozygous for the Temperature-Sensitive Lethal Mutation I(2)M167 DTS in Experimental Populations of <i>Drosophila melanogaster</i> . <i>Russian Journal of Genetics</i> , 2005, 41, 613-619.	0.6	0