

## Literatur

**Annual Review of Ecology, Evolution, and Systematics, Vol. 50, 2019.** Eds.: Douglas J. FUTUYMA, H. Bradley SHAFER, Daniel SIMBERLOFF. Palo Alto, California, USA, Annual Reviews, 606 S., ISBN 978-0-8243-1450-7, ISSN 1543-592X.

„AREES at 50: A Semicentennial Celebration“, mit diesem Beitrag von Douglas J. FUTUYMA beginnt der Band 50 des „Annual Review of Ecology, Evolution, and Systematics“.

Weitere Übersichtsartikel schließen sich an:

Cultural Evolution in Animals (Andrew WHITEN); Somatic Mutation and Evolution in Plants (Daniel J. SCHOEN, Stewart T. SCHULTZ); Beyond Reproductive Isolation: Demographic Controls on the Speciation Process (Michael G. HARVEY, Sonal SINGHAL, Daniel L. RABOSKY); An Integrative Framework for Understanding the Mechanisms and Multigenerational Consequences of Transgenerational Plasticity (Alison M. BELL, Jennifer K. HEILMANN); Origins and Assembly of Malesian Rainforests (Robert M. KOOYMAN, Robert J. MORLEY, Darren M. CRAYN, Elizabeth M. JOYCE, Maurizio ROSSETTO, J. W. Ferry SLIK, Joeri S. STRLJK, Tao SU, Jia-Yee S. YAP, Peter WILF); More Than the Sum of Its Parts: Microbiome Biodiversity as a Driver of Plant Growth and Soil Health (Muhammad SALEEM, Jie Hu, Alexandre JOUSSET); Consequences of Multispecies Introductions on Island Ecosystems (James C. RUSSELL, Christopher N. KAISER-BUNBURY); Importance of Pollinator-Mediated Interspecific Pollen Transfer for Angiosperm Evolution (Juan Isaac MOREIRA-HERNÁNDEZ, Nathan MUCHHALA); Haploid Selection in „Diploid“ Organisms (Simone IMMLER); Mycorrhizal Fungi as Mediators of Soil Organic Matter Dynamics (Serita D. FREY); What Have Long-Term Field Studies Taught Us About Population Dynamics? (Beth A. REINKE, David A.W. MILLER, Fredric J. JANZEN); History and Geography of Neotropical Tree Diversity (Christopher W. DICK, R. Toby PENNINGTON); Climate Change in the Tropics: Ecological and Evolutionary Responses at Low Latitudes (Kimberly S. SHELDON); Experimental Studies of Evolution and Eco-Evo Dynamics in Guppies (*Poecilia reticulata*) (David N. REZNICK, Joseph TRAVIS); The Invasion Hierarchy: Ecological and Evolutionary Consequences of Invasions in the Fossil Record (Alycia L. STIGALL); Interactive Effects of Global Change on Forest Pest and Pathogen Dynamics (Allison B. SIMLER-WILLIAMSON, David M. RIZZO, Richard C. COBB); Phylogenetic Comparative Methods and the Evolution of Multivariate Phenotypes (Dean C. ADAMS, Michael L. COLLYER); Spatial Population Genetics: It's About Time (Gideon S. BRADBURY, Peter L. RALPH); Evolutionary and Ecological Consequences of Gut Microbial Communities (Nancy A. MORAN, Howard OCHMAN, Tobin J. HAMMER); A Bird's-Eye View of Pollination: Biotic Interactions as Drivers of Adaptation and Community Change (Anton PAUW); Life Ascending: Mechanism and Process in Physiological Adaptation to High-Altitude Hypoxia (Jay F. STORZ, Graham R. SCOTT); Evolution in the Anthropocene: Informing Governance and Policy (Peter SØGAARD Jørgensen, Carl FOLKE, Scott P. CARROLL); Revisiting the Fate of Dead Leaves That Fall into Streams (Jane C. MARKS); The Paradox Behind the Pattern of Rapid Adaptive Radiation: How Can the Speciation Process Sustain Itself Through an Early Burst? (Christopher H. MARTIN, Emilie J. RICHARDS).

Weiterhin wird auf fachlich verwandte Beiträge in anderen „Annual Reviews“ verwiesen: z.B. im **Annual Review of Animal Biosciences**, Volume 7, (2019):

Functional Annotation of Animal Genomes (FAANG): Current Achievements and Roadmap (Elisabetta GIUFFRÀ, Christopher K. TUGGLE, The FAANG Consortium); Mammalian Sex Chromosome Structure, Gene Content, and Function in Male Fertility (Wan-Sheng LIU); Multiple Facets of Marine Invertebrate Conservation Genomics (Jose V. LOPEZ, Bishoy KAMEL, Mónica MEDINA, Timothy COLLINS, Iliana B. BAUMS); The Role of Reproductive Technologies in Amphibian Conservation Breeding Programs (Aimee J. SILLA, Phillip G. BYRNE); Tigers of the World: Genomics and Conservation (Shu-Jin LUO, Yue-Chen LIU, Xiao XU).

Im **Annual Review of Earth and Planetary Sciences**, Volume 47 (2019):

Seawater Chemistry Through Phanerozoic Time (Alexandra V. TURCHYN, Donald J. DEPAOLO); Flood Basalts and Mass Extinctions (Matthew E. CLAPHAM, Paul R. RENNE); Soil Functions: Connecting Earth's Critical Zone (Steven A. BANWART, Nikolaos P. NIKOLAIDIS, Yong-Guan ZHU, Caroline L. PEACOCK, Donald L. SPARKS); Marsh Processes and Their Response to Climate Change and Sea-Level Rise (Duncan M. FITZGERALD, Zoe HUGHES); The Mesozoic Biogeographic History of Gondwanan Terrestrial Vertebrates: Insights from Madagascar's Fossil Record (David W. KRAUSE, Joseph J. W. SERTICH, Patrick M. O'CONNOR, Kristina Curry ROGERS, Raymond R. ROGERS); Droughts, Wildfires, and Forest Carbon Cycling: A Pantropical Synthesis (Paulo M. BRANDO, Lucas PAOLUCCI, Caroline C. UMMENHOFER, Elsa M. ORDWAY, Henrik HARTMANN, Megan E. CATTAU, Ludmila RATTIS, Vincent MEDJIBE, Michael T. COE, Jennifer BALCH);

Im **Annual Review of Environment and Resources**, Volume 44 (2019):

The State and Future of Antarctic Environments in a Global Context (Steven L. CHOWN, Cassandra M. BROOKS); Island Biodiversity in the Anthropocene (James C. RUSSELL, Christoph KUEFFER); Mammal Conservation: Old Problems, New Perspectives, Transdisciplinarity, and the Coming of Age of Conservation Geopolitics (David W. MACDONALD); The State of the World's Mangrove Forests: Past, Present, and Future (Daniel A. FRIESS, Kerry Lee ROGERS, Catherine E. LOVELOCK, Ken W. KRAUSS, Stuart E. HAMILTON, Shing Yip LEE, Richard LUCAS, Jurgenne PRIMAVERA, Anusha RAJKARAN, Suhua SHI); Status, Institutions, and Prospects for Global Capture Fisheries (Christopher COSTELLO, Daniel OVANDO); Illegal Wildlife Trade: Scale, Processes, and Governance (Michael 'T SAS-ROLFES, Daniel W.S. CHALLENGER, Amy HINSLEY, Diogo VERÍSSIMO, E.J. MILNER-GULLAND Ecotourism for Conservation? (Amanda L. STRONZA, Carter A. HUNT, Lee A. FITZGERALD); Co-Producing Sustainability: Reordering the Governance of Science, Policy, and Practice (Carina WYBORN, Amber DATTA, Jasper MONTANA, Melanie RYAN, Peat LEITH, Brian CHAFFIN, Clark MILLER, Lorrae VAN KERKHOFF); Social Synergies, Tradeoffs, and Equity in Marine Conservation Impacts (David A. GILL, Samantha H. CHENG, Louise GLEW, Ernest AIGNER, Nathan J. BENNETT, Michael B. MASCIA).

Im **Annual Review of Entomology**, Volume 64 (2019):

The Ecology of Collective Behavior in Ants (Deborah M. GORDON); Invasion Success and Management Strategies for Social *Vespula* Wasps (Philip J. LESTER, Jacqueline R. BEGGS) Invasive Cereal Aphids of North America: Ecology and Pest Management (Michael J. BREWER, Frank B. PEAIRS, Norman C. ELLIOTT); Movement and Demography of At-Risk Butterflies: Building Blocks for Conservation (Cheryl B. SCHULTZ, Nick M. HADDAD, Erica H. HENRY, Elizabeth E. CRONE); Epigenetics in Insects: Genome Regulation and the Generation of Phenotypic Diversity (Karl M. GLASTAD, Brendan G. HUNT, Michael A.D. GOODISMAN); Molecular Evolution of the Major Arthropod Chemoreceptor Gene Families (Hugh M. ROBERTSON); Systematics,

Phylogeny, and Evolution of Braconid Wasps: 30 Years of Progress (Xue-xin CHEN, Cornelis VAN ACHTERBERG); Water Beetles as Models in Ecology and Evolution (David T. BILTON, Ignacio RIBERA, Andrew Edward Z. SHORT); Phylogeography of Ticks (Acari: Ixodida) (Lorenza BEATI, Hans KLOMPEN);

Im **Annual Review of Genetics**, Volume 53 (2019):

Crossover Interference: Shedding Light on the Evolution of Recombination (Sarah P. OTTO, Bret A. PAYSEUR); Evolutionary Ecology of *Wolbachia* Releases for Disease Control (Perran A. ROSS, Michael TURELLI, Ary A. HOFFMANN); Living with Two Genomes: Grafting and Its Implications for Plant Genome-to-Genome Interactions, Phenotypic Variation, and Evolution (Brandon S. GAUT, Allison J. MILLER, Danelle K. SEYMOUR); Standard Deviations: The Biological Bases of Transmission Ratio Distortion (Lila FISHMAN, Mariah MCINTOSH); The Microbiome and Aging (Bianca BANA, Filipe CABREIRO); Zebrafish Pigment Pattern Formation: Insights into the Development and Evolution of Adult Form (Larissa B. PATTERSON, David M. PARICHY).

Im **Annual Review of Genomics and Human Genetics**, Volume 20 (2019):

The Genetics of Human Skin and Hair Pigmentation (William J. PAVAN, Richard A. STURM); Measuring Clonal Evolution in Cancer with Genomics (Marc J. WILLIAMS, Andrea SOTTORIVA, Trevor A. GRAHAM); The Causes and Consequences of Genetic Interactions (Epistasis) (Julia DOMINGO, Pablo BAEZA-CENTURION, Ben LEHNER); Thinking About the Evolution of Complex Traits in the Era of Genome-Wide Association Studies (Guy SELLA, Nicholas H. BARTON).

Im **Annual Review of Marine Science**, Volume 11 (2019):

Planktonic Marine Archaea (Alyson E. SANTORO, R. Alexander RICHTER, Christopher L. DUPONT); Arctic and Antarctic Sea Ice Change: Contrasts, Commonalities, and Causes (Ted MAKSYM); Biologically Generated Mixing in the Ocean (Eric KUNZE); Climate Change, Coral Loss, and the Curious Case of the Parrotfish Paradigm: Why Don't Marine Protected Areas Improve Reef Resilience? (John F. BRUNO, Isabelle M. CÔTÉ, Lauren T. TOTH); Marine Metazoan Modern Mass Extinction: Improving Predictions by Integrating Fossil, Modern, and Physiological Data (Piero CALOSI, Hollie M. PUTNAM, Richard J. TWITCHETT, Fanny VERMANDELE).

Im **Annual Review of Microbiology**, Volume 73 (2019):

Ecology and Evolution of Plant Microbiomes (Viviane CORDOVEZ, Francisco DINI-ANDREOTE, Víctor J. CARRIÓN, Jos M. RAALMAKERS); Algal Sex Determination and the Evolution of Anisogamy (James UMEN, Susana COELHO); The Ultimate Guide to Bacterial Swarming: An Experimental Model to Study the Evolution of Cooperative Behavior (Jinyuan YAN, Hilary MONACO, Joao B. XAVIER); Biogeography of the Oral Microbiome: The Site-Specialist Hypothesis (Jessica L. Mark WELCH, Floyd E. DEWHIRST, Gary G. BORISY); Diversity, Genomics, and Distribution of Phytoplankton-Cyanobacterium Single-Cell Symbiotic Associations (Rachel A. FOSTER, Jonathan P. ZEHR); Paleomicrobiology: Diagnosis and Evolution of Ancient Pathogens (Kirsten I. BOS, Denise KÜHNERT, Alexander HERBIG, Luis Roger ESQUIVEL-GOMEZ, Aida Andrades VALTUEÑA, Rodrigo BARQUERA, Karen GIFFIN, Aditya Kumar LANKAPALLI, Elizabeth A. NELSON, Susanna SABIN, Maria A. SPYROU, Johannes KRAUSE).

Im **Annual Review of Plant Biology**, Volume 70 (2019):

Molecular Interactions Between Plants and Insect Herbivores (Matthias Erb, Philippe REYMOND); A Molecular View of Plant Local Adaptation: Incorporating Stress-Response Networks (Acer VANWALLENDIAEL, Ali SOLTANI, Nathan C. EMERY, Murilo M. PEIXOTO, Jason OLSEN, David B. LOWRY); Comparative and Functional Algal Genomics (Crysten E. BLABY-HAAS, Sabeeha S. MERCHANT); CRISPR/Cas Genome Editing and Precision Plant

Breeding in Agriculture (Kunling CHEN, Yanpeng WANG, Rui ZHANG, Huawei ZHANG, Caixia GAO); Risk Assessment and Regulation of Plants Modified by Modern Biotechniques: Current Status and Future Challenges (Joachim SCHIEMANN, Antje DIETZ-PFEILSTETTER, Frank HARTUNG, Christian KOHL, Jörg ROMEIS, Thorben SPRINK).

Im **Annual Review of Phytopathology**, Volume 57 (2019):

Revisiting the Concept of Host Range of Plant Pathogens (Cindy E. MORRIS, Benoît MOURY); Durability of Quantitative Resistance in Crops: Greater Than We Know? (Christina COWGER, James K.M. BROWN); Molecular Dialog Between Parasitic Plants and Their Hosts (Christopher R. CLARKE, Michael P. TIMKO, John I. YODER, Michael J. AXTELL, James H. WESTWOOD); Ecology and Evolution of the Sudden Oak Death Pathogen *Phytophthora ramorum* (Niklaus J. GRÜNWARD, Jared M. LEBOLDUS, Richard C. HAMELIN); Understanding Adaptation, Coevolution, Host Specialization, and Mating System in Castrating Anther-Smut Fungi by Combining Population and Comparative Genomics (Fanny E. HARTMANN, Ricardo C. RODRÍGUEZ DE LA VEGA, Fantin CARPENTIER, Pierre GLADIEUX, Amandine CORNILLE, Michael E. HOOD, Tatiana GRAUD); Surviving in a Hostile World: Plant Strategies to Resist Pests and Diseases (Samuel W. WILKINSON, Melissa H. MAGERØY, Ana LÓPEZ SÁNCHEZ, Lisa M. SMITH, Leonardo FURCI, T.E. Anne COTTON, Paal KROKENE, Jurriaan TON).

Ebenso wie die vorher erschienenen Bände des Annual Review of Ecology, Evolution, and Systematics wird Band 50 durch ein kumulatives Register der beteiligten Autoren und ein kumulierendes Titelverzeichnis für die Bände 46 bis 50 ergänzt. Außerdem sind die Abstracts der Artikel des Bandes 50 online unter <http://www.annualreviews.org/errata/ecolsys> verfügbar.

Die Redaktion

**Annual Review of Genetics**, Vol. 53, 2019. Eds.: Nancy M. BONINI, Andrew G. CLARK, Michael LICHTEN. Palo Alto, California, USA, Annual Reviews, 530 S., ISBN 978-0-8243-1253-4, ISSN 0066-4197.

Band 53 des Annual Review of Genetics beginnt mit einem Artikel von Trudi SCHÜPBACH mit dem Titel: Genetic Screens to Analyze Pattern Formation of Egg and Embryo in *Drosophila*: A Personal History.

Folgende Übersichtsartikel aus dem Gesamtgebiet der Genetik schließen sich an:

Crossover Interference: Shedding Light on the Evolution of Recombination (Sarah P. OTTO, Bret A. PAYSEUR); Cell Size Control in Plants (Marco D'ARIO, Robert SABLÓWSKI); *Drosophila* Myoblast Fusion: Invasion and Resistance for the Ultimate Union (Donghoon M. LEE, Elizabeth H. CHEN); Evolutionary Ecology of *Wolbachia* Releases for Disease Control (Perran A. ROSS, Michael TURELLI, Ary A. HOFFMANN) Genetic Factors in Mammalian Prion Diseases (Simon MEAD, Sarah LLOYD, John COLLINGE); Light in the Fungal World: From Photoreception to Gene Transcription and Beyond (Luis M. CORROCHANO); Liquid-Liquid Phase Separation in Disease (Simon ALBERTI, Dorothee DORMANN); Living with Two Genomes: Grafting and Its Implications for Plant Genome-to-Genome Interactions, Phenotypic Variation, and Evolution (Brandon S. GAUT, Allison J. MILLER, Danelle K. SEYMOUR); Mechanisms of DNA Uptake by Naturally Competent Bacteria (David DUBNAU, Melanie BLOKESCH); The Microbiome and Aging (Bianca BANA, Filipe CABREIRO); Microglia in Brain Development, Homeostasis, and Neurodegeneration (Christopher J. BOHLEN, Brad A. FRIEDMAN, Borislav DEJANOVIC, Morgan

SHENG); Multigenerational Regulation of the *Caenorhabditis elegans* Chromatin Landscape by Germline Small RNAs (Natasha E. WEISER, John K. KIM); Natural Viruses of *Caenorhabditis* Nematodes (Marie-Anne FÉLIX, David WANG); Regulation of Genomic Output and (Pluri)potency in Regeneration (Elizabeth M. DUNCAN, Alejandro Sánchez ALVARADO); Standard Deviations: The Biological Bases of Transmission Ratio Distortion (Lila FISHMAN, Mariah MCINTOSH); The *foraging* Gene and Its Behavioral Effects: Pleiotropy and Plasticity (Ina ANREITER, Maria B. SOKOLOWSKI); The Arms Race Between KRAB-Zinc Finger Proteins and Endogenous Retroelements and Its Impact on Mammals (Melania BRUNO, Mohamed MAHGOUB, Todd S. MACFARLAN); The Evolution of Sexual Reproduction and the Mating-Type Locus: Links to Pathogenesis of *Cryptococcus* Human Pathogenic Fungi (Sheng SUN, Marco A. COELHO, Márcia DAVID-PALMA, Shelby J. PRIEST, Joseph HEITMAN); Organization of Chromosomal DNA by SMC Complexes (Stanislau YATSKEVICH, James RHODES, Kim NASMYTH); The Power of Human Cancer Genetics as Revealed by Low-Grade Gliomas (David T.W. JONES, Pratiti BANDOPADHAYAY, Nada Jabado); Zebrafish Pigment Pattern Formation: Insights into the Development and Evolution of Adult Form (Larissa B. PATTERSON, David M. PARICHY).

Im Anschluss an das Inhaltsverzeichnis wird auf fachlich verwandte Beiträge in anderen „Annual Reviews“ verwiesen: z.B.

Im **Annual Review of Animal Biosciences**, Volume 7 (2019):

New Approaches for Genome Assembly and Scaffolding (Edward S. RICE, Richard E. GREEN); 1000 Bull Genomes Project to Map Simple and Complex Genetic Traits in Cattle: Applications and Outcomes (Ben J. HAYES, Hans D. DAETWYLER);

Im **Annual Review of Biochemistry**, Volume 88 (2019):

Eukaryotic Base Excision Repair: New Approaches Shine Light on Mechanism (William A. BEARD, Julie K. HORTON, Rajendra PRASAD, Samuel H. WILSON); The BRCA Tumor Suppressor Network in Chromosome Damage Repair by Homologous Recombination (Weixing ZHAO, Claudia WIESE, Youngho KWON, Robert HROMAS, Patrick SUNG).

Im **Annual Review of Cancer Biology**, Volume 3 (2019):

Targeting Cancer at the Intersection of Signaling and Epigenetics (Stephanie GUERRA, Karen CICHOWSKI).

Im **Annual Review of Genomics and Human Genetics**, Volume 20 (2019):

Genetic Predisposition to Childhood Cancer in the Genomic Era (Sharon E. PLON, Philip J. LUPO); The Causes and Consequences of Genetic Interactions (Epistasis) (Júlia DOMINGO, Pablo BAEZA-CENTURION, Ben LEHNER); Thinking About the Evolution of Complex Traits in the Era of Genome-Wide Association Studies (Guy SELLA, Nicholas H. BARTON).

Im **Annual Review of Immunology**, Volume 37 (2019):

Emerging Cellular Therapies for Cancer (Sonia GUEDAN, Marco RUELLA, Carl H. JUNE).

Im **Annual Review of Statistics and Its Application**, Volume 6 (2019):

Precision Medicine (Michael R. KOSOROK, Eric B. LABER).

Der vorliegende Band ist unter <http://genet.annualreviews.org> auch online recherchierbar. Ebenso wie vorher erschienene Bände dieser Buchreihe bietet Band 53 des Annual Review of Genetics wertvolle Informationen aus dem gesamten Forschungsgebiet der Genetik.

Die Redaktion