## Community: Journal table of contents highlights

\*\*published between 1st and last day of \*\***APRIL**\*\* (in print \*and\* early access). \*\*Finish it by May 12th\*\*. Please add everything as nested bullet-points.

CTRL-K for links

CTRL-SHIFT-V paste w/o format

Look at the table of content duties <a href="here">here</a> (github)

### Am Nat

The Relationship between Spatial Structure and the Maintenance of Diversity in Microbial Populations

<u>Two-Year Bee</u>, or Not Two-Year Bee? How Voltinism Is Affected by Temperature and Season <u>Length in a High-Elevation Solitary Bee</u>

- Bioinformatics
- Cell
- Current Biology
  - o Joint evolution of asexuality and queen number in an ant
  - o Feeling a Touch to the Hand on the Foot
  - Nanopore Formation in the Cuticle of an Insect Olfactory Sensillum
  - o Aedes aegypti Mosquitoes Use Their Legs to Sense DEET on Contact

#### eLife

- A Mesozoic clown beetle myrmecophile (Coleoptera: Histeridae)
- Analysis of the genomic architecture of a complex trait locus in hypertensive rat models links
  Tmem63c to kidney damage
- Environmental heterogeneity can tip the population genetics of range expansions
- Evolution
- GBE
  - o Sex chromosome turnover in moths of the diverse superfamily Gelechioidea
- Genome Biol

Whole-genome sequence analysis of a Pan African set of samples reveals archaic gene flow from an extinct basal population of modern humans into sub-Saharan populations

BRB-seq: ultra-affordable high-throughput transcriptomics enabled by bulk RNA barcoding and sequencing

Machine learning and complex biological data

Molecular evolutionary trends and feeding ecology diversification in the Hemiptera, anchored by the milkweed bug genome

Measuring sequencer size bias using REcount: a novel method for highly accurate Illumina sequencing-based quantification

- Genome Res
- Insectes Sociaux
  - To leave or to stay: direct fitness through natural nest foundation in a primitively eusocial wasp Brahma et al <a href="https://doi.org/10.1007/s00040-019-00702-2">https://doi.org/10.1007/s00040-019-00702-2</a> A neat study of interactions and direct fitness in *Ropalidia marginata* with a new observational lab set-up. Dominance

before nest-foundation is associated with egg-layer role. There is room for plasticity of role and location, as seen in drifters who feed both parent and new nest.

## Journal of Evolutionary Biology

Evolutionary transition between bee- and hummingbird-pollination in Salvia: comparing means, variances and covariances of corolla traits

No mate preference associated with the supergene controlling social organization in Alpine silver ants

### MBE

## Mol Ecol

### Myrmecological News

- o A simple and efficient method for preventing ant escape (Hymenoptera: Formicidae)
- <u>Evolution of dispersal in ants (Hymenoptera: Formicidae): A review on the dispersal strategies of sessile superorganisms</u>

### • Nature

- Genetic compensation triggered by mutant mRNA degradation
- Attachment of the blastoderm to the vitelline envelope affects gastrulation of insects
- The many and diverse roles of a research scientist

#### Nature Comms

- Comparative transcriptomics of social insect queen pheromones
- Meta-analysis reveals that pollinator functional diversity and abundance enhance crop pollination and vield
- Widespread losses of pollinating insects in Britain
- Molecular evidence supports a genic capture resolution of the lek paradox
- Staged developmental mapping and X chromosome transcriptional dynamics during mouse spermatogenesis
- A Hox-TALE regulatory circuit for neural crest patterning is conserved across vertebrates
- Whole genome sequencing of canids reveals genomic regions under selection and variants influencing morphology

## Nature Genetics

Transposable elements drive widespread expression of oncogenes in human cancers

# • Nature Methods

#### Plos Biol

## • Plos Comp Biol

- o A quick guide for student-driven community genome annotation
- Ten simple rules towards healthier research labs
- o Ten quick tips for creating an effective lesson
- The intrinsic dimension of protein sequence evolution
- Stytra: An open-source, integrated system for stimulation, tracking and closed-loop behavioral experiments
- Gene set meta-analysis with Quantitative Set Analysis for Gene Expression (QuSAGE)

### Plos Genet

## PNAS

- Sexual conflict drives male manipulation of female postmating responses in *Drosophila* melanogaster
- o <u>Transposable elements drive rapid phenotypic variation in Capsella rubella</u>

#### Proc B

#### Science

- Rapid plant evolution driven by the interaction of pollination and herbivory
- The NASA Twins Study: A multidimensional analysis of a year-long human spaceflight
- o Convergent regulatory evolution and loss of flight in paleognathous birds
- Small peptide-mediated self-recognition prevents cannibalism in predatory nematodes

- TREE
- Trends in Genetics

Consequences of Genomic Diversification Induced by Segregation Errors

- o <u>Diversity and Determinants of Meiotic Recombination Landscapes</u>
- The Promise of Paleogenomics Beyond Our Own Species

## [1]. Other papers/tools that you feel someone should have seen:

- Nature Ecology and Evolution
  - <u>Dynamic evolutionary history and gene content of sex chromosomes across diverse</u> songbirds
  - Experimental evidence of frequency-dependent selection on group behaviour
- Scientific Reports
  - <u>Different bacterial and viral pathogens trigger distinct immune responses in a globally</u> invasive ant
- Genetics
  - Pervasive Linked Selection and Intermediate-Frequency Alleles Are Implicated in an Evolve-and-Resequencing Experiment of *Drosophila simulans*
- BioRxiv
  - VARUS: Sampling complementary RNA reads from the Sequence Read Archive
  - KofamKOALA: KEGG ortholog assignment based on profile HMM and adaptive score threshold
- Nucleic Acids Research
  - AnnoTree: visualization and exploration of a functionally annotated microbial tree of life
- Biological Journal
- Ecology & Evolution
- Genetics
- Heredity
- Aging
- o Mol Cell Biol
- J Gerontol
- Methods in Ecology and Evolution
- Current Opinion in Insect Science
  - Pathogens and disease defense of invasive ants
  - Conflict and major transitions Why we need true queens
  - Social-medication in bees: the line between individual and social regulation
- Zookeys