

Vasilis Kokkoris, Ph. D

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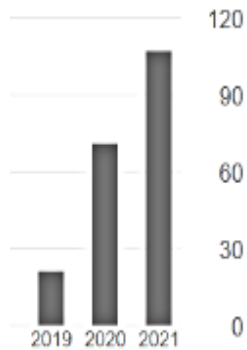
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Research impact Summary (October 2021)



- I have an *H-index* of **10**, *i10-index* of **10**
- **209** citation for **22** peer-reviewed published articles.
- I have a “*Research Interest*” higher than **99%** of researchers who first published in 2018, based on Research Gate.

Higher than 99% of researchers who first published in 2018
- **1** prestigious invited review (*Tansley reviews, New Phytologist*).
- **5 first author** articles in high visibility venues (*Trends in plant science IF: 14.4, Current Biology IF: 9.6, New Phytologist IF: 8.5, Science of the Total Environment IF: 6.55*).

Academic Related Employment History

Assistant Professor, October 2021 - Present

VU Amsterdam, Netherlands

Post doctorate researcher, May 2020 – August 2021

University of Ottawa, Canada

Research contractor, May 2020 - August 2021

AAFC Ottawa, Canada

Post doctorate researcher, 2019 - 2020

uOttawa & AAFC Ottawa, Canada

Invigilator for the Disability Resource Centre, (DRC) 2017-19

University of British Columbia, Canada

Teaching assistant, 2015 - 2019

University of British Columbia, Canada

Education

University of British Columbia – Okanagan (UBCO)

Kelowna, BC, Canada

Ph. D Biology

2019

Agricultural University of Athens (AUA)

Athens, Greece

MSc Biotechnology

2014

Agricultural University of Athens (AUA)

Athens, Greece

B.A. Honors Agriculture – Soil science

2012

Awards, Fellowships and Nominations

Awarded: MITACS accelerate postdoctoral **Fellowship** (\$250,000)

uOttawa 2020-2022

Awarded: 4th place at [Nikon Small World](#) Photomicrography competition (\$800)

2020

Awarded: [Benno Warkentin Prize](#) for best student publication (\$500)

2019

Awarded: Best poster presentation at PRSSS conference in Vancouver (\$250)

2019

<i>Awarded:</i> Provost Award for Teaching Assistants and Tutors (\$500)	UBCO 2017 / 2018
<i>Awarded:</i> University Graduate Fellowship (UGF) (\$6000)	UBCO 2018
<i>Awarded:</i> University Graduate Fellowship (UGF) (\$6000)	UBCO 2017
<i>Awarded:</i> Best poster presentation at the international conference ICOM9 (\$250)	PRAGUE 2017
<i>Awarded:</i> Graduate Student Travel Grant (\$1000)	UBCO 2017
<i>Nominated:</i> Student Researcher of the Year Award	UBCO 2019
<i>Nominated:</i> the K. Patricia Cross Future Leaders Award	AAC&U 2018
<i>Nominated:</i> Provost Award for Teaching Assistants and Tutors	UBCO 2016 & 17 & 18

Publications

Peer – reviewed published articles:

‡: Corresponding author
 ^: First co-author

2021

1. **Kokkoris** ‡, V., Chagnon, PL., Yildirim G., Clarke, K., Goh, D., MacLean, A., Dettman, J., Stefani, F., Corradi, N., *Host identity influences nuclear dynamics in arbuscular mycorrhizal fungi*. Current Biology <https://doi.org/10.1016/j.cub.2021.01.035>
2. **Kokkoris** ‡, V., Vukicevich, E., Thomsen, C., Richards, A., Hart, M. *Challenges Using Droplet Digital PCR for Environmental Samples*. Applied microbiology <https://doi.org/10.3390/applmicrobiol1010007>
3. Serghi E.U., **Kokkoris** ‡, ^, V., Cornell C., Dettman J., Stefani F., Corradi N. *Homo- and Dikaryons of the Arbuscular Mycorrhizal Fungus Rhizophagus irregularis Differ in Life History Strategy*. Frontiers in Plant Science <https://doi.org/10.3389/fpls.2021.715377>
4. Thomsen, C., Loverock, B., **Kokkoris**, V., Bowen, P., Hart, M. *Commercial arbuscular mycorrhizal fungal inoculant failed to establish in a vineyard despite priority advantage*. PeerJ [10.7717/peerj.11119](https://doi.org/10.7717/peerj.11119)
5. Martignoni M., Garnier J., Zhang X., Rosa D., **Kokkoris** V., Tyson R., Hart M. *Co-inoculation with arbuscular mycorrhizal fungi differing in carbon sink strength induces a synergistic effect in plant growth* Journal of Theoretical biology <https://doi.org/10.1016/j.jtbi.2021.110859>
6. Cornell, C., **Kokkoris**, V., Richards, A., Horst, C., Rosa, D., Bennett, J., Hart, M. *Do bioinoculants affect resident microbial communities? A meta-analysis" to be considered for publication in Frontiers in Agronomy, section Plant-Soil Interactions*. (Frontiers in Agronomy – special issue: Plant-Soil Interactions- [accepted](#))

2020

7. **Kokkoris** ‡, V., Stefani, F., Dalpé, Y., Dettman, J., Corradi N. *Nuclear Dynamics in the Arbuscular Mycorrhizal Fungi*. Trends in plants science, <https://doi.org/10.1016/j.tplants.2020.05.002> ***^a Research featured on the journal cover.** ***^b Voted among the top 10 papers on mycorrhizal research from the International Mycorrhiza Society**
8. **Kokkoris**, V., Antunes, P., Fahey, C., Fordyce, J., Kivlin, S., Lekberg, Y., Hart, M. *Evidence of covariation between plant and arbuscular mycorrhizal fungal communities*. New Phytologist, <https://doi.org/10.1111/nph.16676> ***Prestigious invited review – “New Phytologist, Tansley reviews”**
9. Yildirim, G., Malar, M., **Kokkoris**, V., Corradi, N. *The parasexual potential of arbuscular mycorrhizal fungi*. Trends in Microbiology, <https://doi.org/10.1016/j.tim.2020.03.013>

10. Rosa, D., Ambrosini V., Brunetto G., **Kokkoris V.**, Hart M., Ricachenevsky F., Pescador R. *Lime protection for young vines exposed to copper toxicity*. Water, Air, & Soil Pollution, <https://doi.org/10.1007/s11270-020-04662-3>
11. Rosa, D., Pogiatzis, A., Bowen, P., **Kokkoris V.**, Richards, A., Hart, M. *Performance and establishment of a commercial mycorrhizal inoculant in viticulture*. Agriculture <https://doi.org/10.3390/agriculture10110539>

2019

12. **Kokkoris[†], V.**, Li, Y., Hamel, C., Hanson, K., Hart, M. *Site specificity in establishment of a commercial fungal inoculant*. Science of The Total Environment 660, Pages 1135-1143; <https://doi.org/10.1016/j.scitotenv.2019.01.100> * **Nominated & Awarded the Benno Warkentin Prize for best student publication 2019**
13. **Kokkoris[†], V.**, Hart, M. *The role of in vitro cultivation on symbiotic trait and function variation in a single species of arbuscular mycorrhizal fungus*. Fungal Biology 123, Issue 10, Pages 732-744; <https://doi.org/10.1016/j.funbio.2019.06.009> * **Nominated for the Weresub Award for "best student Fungal paper" 2020**
14. **Kokkoris, V.**, Massas, I., Polemis, E., Koutrotsios, G., Zervakis, G. *Accumulation of heavy metals by wild edible mushrooms collected in the Athens metropolitan area (Greece) and associations with their respective soil substrates*. Science of The Total Environment, Volume 660, 10 April 2019, Pages 1135-1143; <https://doi.org/10.1016/j.scitotenv.2019.05.447>
15. **Kokkoris[†], V.**, Miles, T., Hart, M. *The role of in vitro cultivation on asymbiotic trait variation in a single species of arbuscular mycorrhizal fungus*. Fungal Biology 123, Issue 4, Pages 307-317; <https://doi.org/10.1016/j.funbio.2019.01.005>
16. **Kokkoris[†], V.**, Hamel, C., Hart, M. *Mycorrhizal response of cultivars versus native plants*. PLOS ONE 14(8): e0221037. <https://doi.org/10.1371/journal.pone.0221037> * **Selected by the editors of the PLOS Crops, Food Security & Food Systems Channel for the "Featured Research section"**, <https://doi.org/10.1371/journal.pone.0221037>
17. **Kokkoris[†], V.**, Pogiatzis, A., Hart, M. *Contrasting common measures of AM fungal root colonization*. Journal of Microbiological Methods <https://doi.org/10.1016/j.mimet.2019.105727>
18. **Kokkoris[†], V.**, Hart, M. *In vitro culturing of arbuscular mycorrhizal fungi may drive fungal evolution*. *Frontiers in Microbiology*. Front. Microbiol. <https://doi.org/10.3389/fmicb.2019.02420>
19. Holland, T., Bowen, P., **Kokkoris, V.**, Richards, A., Rosa, D., Hart, M. *The effect of root pruning on beneficial root symbionts in grapevine rootstocks*. Chemical and Biological Technologies in Agriculture <https://doi.org/10.1186/s40538-019-0159-y>
20. Holland, T., Bowen, P., **Kokkoris, V.**, Hart, M. *Does inoculation with AM fungi reduce trunk disease in grapevine rootstocks?* Horticulturae 2019, 5(3), 61; <https://doi.org/10.3390/horticulturae5030061> * **Editor's Choice Articles promoted by Horticulturae**
21. Van der Heyde, M., L. K. Abbott, Catherine Gehring, **Kokkoris V.**, Miranda M. Hart. *Reconciling disparate responses to grazing in the arbuscular mycorrhizal symbiosis*. Rhizosphere, Volume 11, September 2019, 100167; <https://doi.org/10.1016/j.rhisph.2019.100167>

2018

22. Egan, CP., Rummel, A., **Kokkoris, V.**, Klironomos, J., Lekberg, Y., Hart, M. *Using mock communities of arbuscular mycorrhizal fungi to evaluate fidelity associated with Illumina sequencing*. Fungal Ecology 33, Pages 52- 64; <https://doi.org/10.1016/j.funeco.2018.01.004>

Articles under review

23. Zhang, X., Tanga, M., Chena, X., **Kokkoris, V.**, Sheng, M. *How does plant neighborhood affect arbuscular mycorrhizal fungal attributes in saline soils?* Forest Ecology and Management (FORECO-S-20-00970)
24. Malar, M., Stajich J., Wang, Y., **Kokkoris, V.**, Laroche, M., Yildirim, G., Corradi, N. *The early branching arbuscular mycorrhizal fungus *Paraglomus occultum* carries a small and repeat poor genome compared to relatives in the *Glomeromycotina*.* DNA research, DNAR-2021-095.
25. Cornell, C., **Kokkoris, V^A.**, Turcu, B., Dettman, J., Stefani, F., Corradi, N. *The arbuscular mycorrhizal fungus *Rhizophagus irregularis* harmonizes nuclear dynamics in the presence of distinct abiotic factors.* Fungal Genetics and Biology

Most Significant Research Contributions

1. **Kokkoris et al., 2020. Host identity influences nuclear dynamics in arbuscular mycorrhizal fungi.**
Current Biology: I was able to identify the existence of complex nuclear dynamics in the recently described AMF dikaryotic strains. I found that AMF dikaryotic strains are rare *in-vitro* (only four out of 114 lab grown strains) and they carry a significantly higher number of nuclei in their multinucleate spores compared to homokaryotic strains. Furthermore, I found that the relative proportions of the two nucleotypes within a given AMF dikaryotic strain respond to host alterations by adjusting the relative abundance of each nucleotype. One of the confocal microscopy images associated with this study has been selected as one of the top winners in the Small World Photomicrography Competition (by Nikon) further promoting my research and the significance of Arbuscular Mycorrhizal fungi. Ranked in the top 5% of all research outputs scored by Altmetric. This study led to text interviews featured in multiple news outlets (e.g., Technology networks, Science daily etc.).
2. **Kokkoris et al., 2020. Nuclear Dynamics in the Arbuscular Mycorrhizal Fungi. Trends in plants science:** The above-mentioned publication is the only available source of information on the arbuscular mycorrhizal fungal nuclear state, and as such has ranked in the top 5% of all research outputs scored by Altmetric. It triggered wide interest from the scientific community and so far, has led to a Keynote presentation (in the first Canadian Fungal Network meeting) and an interview from the South American Mycorrhizal Research Network that is available on YouTube. It has also been selected as one of the top 10 mycorrhizal research papers from 178 Web of Science articles published between January – April 2020, from the International Mycorrhiza Society. The sophisticated microscopy images that accompany this study, have caused excitement broadly across social media (Twitter and Facebook) involving scientist and the general public. One of the images is featured on the cover of the August issue of Trends in Plant Science
3. **Kokkoris et al., 2020. Codependency between plant and arbuscular mycorrhizal fungal communities: what is the evidence? New Phytologist:** This is a prestigious invited Tansley review that offers a fresh view on a long-lasting unsolved ecological problem (i.e., whether plants and arbuscular mycorrhizal fungi affect the community composition of each other). This recently published study discusses why years of research in this field has not provided an answer yet and provides specific guidelines that will shape future research in order to tackle this important ecological problem.
4. **Kokkoris et al., 2019. Site specificity in establishment of a commercial arbuscular mycorrhizal fungal inoculant. Science of The Total Environment:** This study has significantly advanced our knowledge on fungal inoculants and the farming practices we need to manipulate in order to make their application effective. Also revealed the necessity for regulations regarding inoculation with fungal biofertilizers since they have the potential to negatively affect wild plant communities. It is also ranked in the top 5% of all research outputs scored by Altmetric and attracted interest from the scientific community and the public. This study led to text

interviews featured in multiple news outlets (e.g., “What Is Science Telling Us About Soil Testing and Treatment?” & “Do additives help the soil?” in Technology Networks, Science Daily, Environmental News etc.). This publication was awarded the Benno Warkentin Prize for best student publication.

Teaching Experience

BOT 306 Biology of the Fungi	UofA, Canada
Guest lecture titled “Arbuscular mycorrhizal fungi” (Students 20+)	2020
Soil Ecology	Connecticut College
Guest lecture titled “Arbuscular mycorrhizal fungi”	USA, 2020
BOT 306 Biology of the Fungi	UofA, Canada
Guest lecture titled “Mycorrhizal fungi” (Students 20+)	2019
Teaching assistant (TA) BIOL 363, Developmental Biology.	UBCO, Canada
Prepare lab lectures, teach lab & mark assignments, reports & exams (Students 30)	2019
Teaching assistant (TA) BIOL 205, Comparative Invertebrate Zoology.	UBCO, Canada
Prepare lab lectures, teach lab & mark assignments, reports & exams (Students 40 per year)	2016, 2017 & 2018
Teaching assistant (TA) BIOL 201, Introduction to Ecology and Evolution.	UBCO, Canada
Teach tutorials & mark assignments, reports & exams (Students 60+)	2018
BIOL 209, Non-vascular plants,	UBCO, Canada
Guest lecture titled “Mycorrhizal fungi” (Students 20+)	2018
BIOL 209, Non-vascular plants,	UBCO, Canada
Guest lecture titled “Mosses” (Students 20+)	2018
BIOL 210, Vascular plants,	UBCO, Canada
Guest lecture titled “Mycorrhizal fungi” (Students 20+)	2017
Teaching assistant (TA) BIOL 125, Biology for science majors II	UBCO, Canada
Prepare lab lectures, teach lab and grading (Students 40 per year)	2015 & 2016
Teaching assistant (TA) BIOL 116, Biology for science majors I	UBCO, Canada
Prepare lab lectures, teach lab and grading (Students 40)	2015

Selected Oral and Poster Presentations

Invited talks

1. “Nuclear dynamics in the Arbuscular Mycorrhizal fungi” (**Oral presentation**) **IES, Amsterdam** 2020
2. “Dikaryosis in Arbuscular Mycorrhizal fungi” (**Oral presentation**) **AAFC- Ottawa,** 2020
3. “Factors affecting establishment and persistence of commercial arbuscular mycorrhizal fungi”, (**Oral presentation**) **AAFC- Ottawa** 2019
4. “Should fungi be targeted for preservation?” at 30th Fungal Genetics International Conference. ***Plenary talk** **Asilomar, California** 2019
5. “Factors affecting establishment and persistence of commercial arbuscular mycorrhizal fungi in the field” Brown Bag Seminar, (**Oral presentation**) **UBCO, Kelowna** 2018
6. “Arbuscular mycorrhizal fungi, Science – Society – Environment” Central Okanagan Agro-ecological Knowledge Exchange (COAKE). ***Key-note speaker & interactive educational station** **UBCO, Kelowna** 2018

Other presentations

- | | |
|---|--------------------------------|
| 7. “Biological implications of the AMF genetic organization” CanFunNet2021, (Oral presentation). | Virtual Meeting
2021 |
| 8. “Nuclear dynamics in the arbuscular mycorrhizal fungus <i>Rhizophagus irregularis</i> .” CanFunNet2020 * Key-note speaker | Virtual Meeting
2020 |
| 9. “Wide heterogeneity in the nuclear frequency and composition of Arbuscular Mycorrhizal fungal pseudo-dikaryons” Canadian Botanical Association, (Oral presentation). | Virtual Meeting
2020 |
| 10. “Are fungal inoculants effective in the field?” PRSSS conference in Vancouver * Best poster presentation award | Vancouver
2019 |
| 11. “Domestication impact on Arbuscular Mycorrhizal Fungi” Biology Graduate Students Symposium 2018, (Poster presentation). | UBCO, Canada
2018 |
| 12. “Asymbiotic and symbiotic trait variance in <i>Rhizoglyphus irregularis</i> : Is <i>in vitro</i> propagation decreasing intra-isolate variation and producing more ruderal isolates?” International Symbiosis Society Congress, (Oral presentation). | Oregon, USA
2018 |
| 13. “Differences in function and structure between commercial and wild isolates of AM fungi” Biology Graduate Students Symposium, (Poster presentation). | UBCO, Canada
2017 |
| 14. “Fungal bio-fertilizers may suppress local plant communities” ICOM International Mycorrhiza Society, (Oral & poster presentation). * Best poster presentation award | Prague
2017 |
| 15. “Fungal bio-fertilizers can affect local plant communities” Canadian Society for Ecology and Evolution (CSEE) conference, (Oral presentation). | Victoria BC
2017 |
| 16. “Differences in function and structure between commercial and wild isolates of AM fungi” Biology Graduate Students Symposium, (Poster presentation). | UBCO, Canada
2016 |
| 17. “Accumulation of heavy metals by wild edible mushrooms collected in the Athens greater area “6th conference of the Hellenic scientific society Microbiokosmos, (Poster presentation). | Athens, Greece
2014 |

Student Mentoring and Supervision Experience**Total number of mentees: 9****PhD Student Mentor & Co-Supervisor**Number of Mentees: **1**

Xinlu Zhang visiting PhD research student from University of Northwest A&F University, at the University of British Columbia

2017 - 2018**MSc Student Mentor & Co-Supervisor**Number of Mentees: **3****Name:** Bianca Turku - Master's student at the university of Ottawa (**Thesis:** Buller phenomenon and DI-DI interactions in the Arbuscular Mycorrhizal fungi)**2020/9 –present****Name:** Victoria Terry - Master's student at the university of Ottawa (**Thesis:** Mycorrhizal response of homokaryotic versus dikaryotic arbuscular mycorrhizal fungi)**2020/9 –present**

Name: Andrew Richards - Master's student at the university of British Columbia (**Thesis:** Using cover crops to mitigate vine decline and reduce pathogens in vineyard soils) **2018 - 2020**

Undergraduate Student Mentor & Co-Supervisor

Number of Mentees: **5**

Name: Calvin Cornel - University of Ottawa **2020/5 - 2021/08**

Name: Umberto Serghi - University of Ottawa **2020/5 – 2021/08**

Name: Nicole Nagy - University of Ottawa **2019 - 2020**

Name: Thea Miles - University of British Columbia **2017 - 2018**

Name: Becky Loverock - University of British Columbia **2017 - 2018**

Selected Volunteer / Community service (outreach)

1. Research related microphotography placed among the top 20 for 2021 in the [Science exposed Photomicrography Competition](#) 2021
2. **Article** “*Transition from PhD to Postdoc position*” on the magazine [BioMatters winter issue 2021](#) (uOttawa) 2021
3. Presentation competition judge at the CanFunNET21 meeting 2021
4. **Press release – interview** related to the publication “Host identity influences nuclear dynamics in arbuscular mycorrhizal fungi”: [In Symbiosis: Plants Control the Genetics of Microbes](#) 2021
5. **Let's Talk Science video interview** – meet a scientist initiative (Hart – Kokkoris) <https://youtu.be/cD9YQD5AwAs> 2021
6. Article for the Greek agricultural journal “Agriculture” titled “*Μυκορριζικοί εμβολιασμοί, ένα σύγχρονο εργαλείο για τον παραγωγό – Mycorrhizal inoculation, a modern tool for agriculturalists*”). 2021
7. **Interview** on the online blog “our narratives” titled “*Unlocking the Secrets of AM Fungi*” www.ournarratives.net 2021
8. **Article** “*A fungal world beneath our feet*” on the magazine [BioMatters winter issue 2021](#) (uOttawa) 2021
9. **Interview** “*nuclear dynamics in Arbuscular mycorrhizal fungi*” from the South American Mycorrhizal Research Network, featured in YouTube and various social networks. <https://youtu.be/h46mHoJz9a0> 2020
10. Research related microphotography placed among the top winners in the [Nikon Small World Photomicrography Competition](#) (4th place). 2020
11. **Selection committee member** for the Canada Graduate Scholarships-Master’s (CGS M, evaluating NSECR, CIHR and SSHRC applications) 2020
12. **Network member**, i-COMET program 2020
13. **Organization member**, CAPB’s International Mentorship Program Center 2020
14. **Founding member**, Establishing the Graduate Student Association at UBCO 2018/2019
15. **Member – Volunteer**, let’s talk science, UBCO – Kelowna 2018/2019
16. **Invited committee member**. Create guidelines for transformative teaching at UBCO 2018-19

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|---|---------------------|
| 17. Organization Volunteer , Center of teaching and learning UBCO 13th &14th Annual Learning Conference | 2017 & 2018
2018 |
| 18. Organization member , 1st Agroecological exchange conference at UBCO | |
| 19. Multiple outreach activities for grades K - 12, involving teaching, creating class plans and classroom management, on and off campus, UBCO – Kelowna, BC | 2015 – 2018 |
| 20. Co-organizer . Biology Graduate Symposium. Website developer, advertisement (50+ attendants), UBCO – Kelowna | 2016 |
| 21. Event coordinator and Faculty Liaison , Biology Graduate Students’ Society (BGSS), UBCO – Kelowna | 2016 |
| 22. Organization Volunteer , 6th conference of the Hellenic scientific society Microbiokosmos, AUA-Athens Greece | 2015 |

Journal Review Activities

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|---|----------------|
| 1. ISME, 49 pages | October 2021 |
| 2. Mycorrhiza, 27 pages | October 2021 |
| 3. American journal of Botany, 32 pages | July 2021 |
| 4. Journal of Plant Interactions, 27 pages | June 2021 |
| 5. New Phytologist, 51 pages | May 2021 |
| 6. Botany, 31 pages | April 2021 |
| 7. New Phytologists, 55 pages | March 2021 |
| 8. Symbiosis, 31 pages | September 2020 |
| 9. New Phytologist, 35 pages | September 2020 |
| 10. Nature Ecology and Evolution, 67 pages | Aug 2020 |
| 11. Journal of Forestry Research, 32 pages | Aug 2020 |
| 12. Agronomy, 15 pages | July 2020 |
| 13. Environmental microbiology, 38 pages | July 2020 |
| 14. New Phytologist, 47 pages | June 2020 |
| 15. Crop breeding and applied biotechnology, 11 pages | May 2020 |
| 16. Heliyon, 44 pages | May 2020 |
| 17. Fungal ecology, 36 pages | May 2020 |
| 18. Environmental microbiology, 50 pages | February 2020 |
| 19. Pedobiologia, 49 pages | February 2020 |
| 20. Agronomy for Sustainable Development, 51 pages | February 2020 |
| 21. Agronomy for sustainable development, 52 pages | January 2020 |
| 22. Fungal ecology, 41 pages | January 2020 |
| 23. Scientific reports, 18 pages | January 2020 |
| 24. Planta, 20 pages | November 2019 |
| 25. ISME, 45 pages | September 2019 |
| 26. Botany, 27 pages | August 2019 |
| 27. Mycorrhiza, 8 pages | June 2019 |
| 28. Functional Ecology, 40 pages | May 2019 |
| 29. Communications Biology – Nature, 46 pages | April 2019 |
| 30. Plant and Soil, 26 pages | October 2018 |
| 31. ISME, 51 pages | September 2018 |

