

As recommended by the Office of Scholarly communication, included in this document are the licensing agreement for the two published chapters of my dissertation “Phenological sensitivity as a mediator of plant interactions”. These documents indicate that as a contributor, I have permission to use all or part of the articles without modification in personal compilations or other publications of my own work, and to achieve these works in a Scholarly Collaboration network.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel Buonaiuto". The signature is fluid and cursive, with the first name "Daniel" and last name "Buonaiuto" clearly distinguishable.

Daniel Buonaiuto

WILEY

 **New
Phytologist**

New Phytologist: Exclusive Licence Form

Author's name: DM Buonaiuto

Author's address: Weld Hill Research Building at the Arnold Arboretum of Harvard University
1300 Centre St. Boston, MA, 02131

Title of article ("Article"): Reconciling competing hypotheses regarding flower-leaf sequences
in temperate forests for fundamental and global change biology

Manuscript no. (if known):

Names of all authors in the order in which they appear in the Article: DM Buonaiuto, Ignacio Morales-Castilla,
EM Wolkovich

In order for your Article to be distributed as widely as possible in *New Phytologist* (the Journal) you grant John Wiley & Sons (Wiley) an exclusive licence to publish the above Article on behalf of the New Phytologist Trust, including the abstract in printed and electronic form, in all languages, and to administer subsidiary rights agreements with third parties for the full period of copyright and all renewals, extensions, revisions and revivals. The Article is deemed to include all material submitted for publication with the exception of correspondence, and includes the text, figures, tables, author contact details and all supplementary material accompanying the Article.

Please read this form carefully, sign at the bottom (if your employer owns copyright in your work, arrange for your employer to sign where marked), and return the ORIGINAL to the address below as quickly as possible. As author, you remain the copyright owner of the Article, unless copyright is owned by your employer. (US Federal Government authors please note: your Article is in the public domain.)

Your Article will not be published unless an Exclusive Licence Form has been signed and received by Wiley.

Please note: You retain the following rights to re-use the Article, as long as you do not sell or reproduce the Article or any part of it for commercial purposes (i.e. for monetary gain on your own account or on that of a third party, or for indirect financial gain by a commercial entity). These rights apply without needing to seek permission from Wiley.

- **Prior to acceptance:** We ask that as part of the publishing process you acknowledge that the Article has been submitted to the Journal. You will not prejudice acceptance if you use the unpublished Article, in form and content as submitted for publication in the Journal, in the following ways:
 - Sharing print or electronic copies of the Article with colleagues;
 - Posting an electronic version of the Article on your own personal website, on your employer's website/repository and on free public servers in your subject area.
- **After acceptance:** Provided that you give appropriate acknowledgement to the Journal, the New Phytologist Trust and Wiley, and full bibliographic reference for the Article when it is published, you may use the accepted version of the Article as originally submitted for publication in the Journal, and updated to include any amendments made after peer review, in the following ways:
 - You may share print or electronic copies of the Article with colleagues;
 - Contributors may use all or part of the Article and abstract, without revision or modification, in personal compilations or other publications of their own work (prior permission is not required, but the usual acknowledgements should be made);
 - You may use the Article within your employer's institution or company for educational or research purposes, including use in course packs;
 - You may post an electronic version of the Article on your own personal website or on your employer's website/repository upon publication. You may post the electronic version to free public servers in your subject area 12 months after publication in the journal. Electronic versions of the published article must include a link to Wiley Online Library together with the following text: 'The definitive version is available at www.newphytologist.com'.
 - Note to Contributors on Deposit of Accepted Version: certain funders, including the NIH, members of the Research Councils UK (RCUK) and the Wellcome Trust require the deposit of the Accepted Version in a repository after an embargo period. Details of funding arrangements are set out at the following website: <http://www.wiley.com/go/funderstatement>.

New Phytologist uses the Copyright Clearance Center's RightsLink service to offer a variety of options for reusing content. All requests by third parties to re-use the Article in whole or in part will be referred to Rightslink.

In signing this Agreement:

1. You hereby warrant that this Article is an original work, has not been published before and is not being considered for publication elsewhere in its final form either in printed or electronic form;
2. You hereby warrant that you have obtained permission from the copyright holder to reproduce in the Article (in all media including print and electronic form) material not owned by you, and that you have acknowledged the source;
3. You hereby warrant that this Article contains no violation of any existing copyright or other third party right or any material of an obscene, indecent, libellous or otherwise unlawful nature and that to the best of your knowledge this Article does not infringe the rights of others;
4. You hereby warrant that in the case of a multi-authored Article you have obtained, in writing, authorization to enter into this Agreement on their behalf and that all co-authors have read and agreed the terms of this Agreement;
5. You warrant that any formula or dosage given is accurate and will not if properly followed injure any person;

By signing this Agreement you agree that Wiley may arrange for the Article to be:

- Published in the above Journal, and sold or distributed, on its own, or with other related material;
- Published in multi-contributor book form or other edited compilations by the New Phytologist Trust and/or Wiley;
- Reproduced and/or distributed (including the abstract) throughout the world in printed, electronic or any other medium whether now known or hereafter devised, in all languages, and to authorize third parties (including Reproduction Rights Organizations) to do the same;
- You agree to the New Phytologist Trust and/or Wiley using any images from the Article on the cover of the Journal, and in any marketing material.

You authorize Wiley to act on your behalf to defend the copyright in the Article if anyone should infringe it, although there is no obligation on Wiley to act in this way.

As the Author, copyright in the Article remains in your name (or your employer's name if your employer owns copyright in your work).

Wiley undertakes that every copy of the Article published by Wiley will include the full bibliographic reference for your Article, together with the copyright statement.

Please tick only one of the boxes below. If you are unsure which box to tick please refer to our Copyright FAQs at http://exchanges.wiley.com/authors/copyright-and-permissions_333.html

BOX A: to be completed if copyright belongs to you

BOX B: to be completed if copyright belongs to your employer (e.g. HMSO, INRA)

The copyright holder grants Wiley an exclusive licence to publish the Article including the abstract in printed and electronic form, in all languages, and to administer subsidiary rights agreements with third parties for the full period of copyright and all renewals, extensions, revisions and revivals.

Print name of copyright holder: DM Buonaiuto

This will be printed on the copyright line on each page of the Article. It is your responsibility to provide the correct information of the copyright holder.

BOX C: to be completed if the Article is in the public domain (e.g. US Federal Government employees) You certify that the Article is in the public domain. No licence to publish is therefore necessary.

Signature (on behalf of all co-authors (if any))



Print name: DM Buonaiuto

Date: August 03, 2020

If your employer claims copyright in your work, this form must also be signed below by a person authorized to sign for and on behalf of your employer, as confirmation that your employer accepts the terms of this licence.

Signature (on behalf of the employer of the author (s))

Print name:

Print name of employer:

Date:

The rights conveyed in this licence will only apply upon acceptance of your Article for publication.

Data protection: *New Phytologist* may store your name and contact details in electronic format in order to correspond with you about the publication of your Article in the Journal. We would like to contact you from time to time with information about new publications and services in your subject area. Please check the following boxes if you are happy to be contacted in this way:

(conventional mailing) (via email)

Please send a signed copy of this form to New Phytologist Central Office, preferably as a scanned copy by email (np-centraloffice@lancaster.ac.uk).

Alternatively, you can fax (+44 1524 594696) or mail the completed form to the UK or USA:

- New Phytologist Central Office, Bailrigg House, Lancaster University, Lancaster LA1 4YE, UK
- New Phytologist USA Office, Building 4500-N, MS-6301, Oak Ridge National Laboratory, PO Box 2008, Oak Ridge, TN 37831-6301, USA

Journal of Ecology

Published by Wiley on behalf of British Ecological Society (the "Owner")

COPYRIGHT TRANSFER AGREEMENT

Date: May 21, 2021

Contributor name: D M Buonaiuto

Contributor address:

Manuscript number: JEcol-2020-1268.R1

Re: Manuscript entitled Differences between flower and leaf phenological responses to environmental variation drive shifts in spring phenological sequences of temperate woody plants (the "Contribution")

for publication in Journal of Ecology (the "Journal")

published by John Wiley & Sons Ltd ("Wiley")

Dear Contributor(s):

Thank you for submitting your Contribution for publication. In order to expedite the editing and publishing process and enable the Owner to disseminate your Contribution to the fullest extent, we need to have this Copyright Transfer Agreement executed. If the Contribution is not accepted for publication, or if the Contribution is subsequently rejected, this Agreement shall be null and void.

Publication cannot proceed without a signed copy of this Agreement.

A. COPYRIGHT

1. The Contributor assigns to the Owner, during the full term of copyright and any extensions or renewals, all copyright in and to the Contribution, and all rights therein, including but not limited to the right to publish, republish, transmit, sell, distribute and otherwise use the Contribution in whole or in part in electronic and print editions of the Journal and in derivative works throughout the world, in all languages and in all media of expression now known or later developed, and to license or permit others to do so. For the avoidance of doubt, "Contribution" is defined to only include the article submitted by the Contributor for publication in the Journal (including any embedded rich media) and does not extend to any supporting information submitted with or referred to in the Contribution ("Supporting Information"). To the extent that any Supporting Information is submitted to the Journal, the Owner is granted a perpetual, non-exclusive license to publish, republish, transmit, sell, distribute and otherwise use this Supporting Information in whole or in part in electronic and print editions of the Journal and in derivative works throughout the world, in all languages and in all media of expression now known or later developed, and to license or permit others to do so. If the Contribution was shared as a preprint, the Contributor grants to the Owner exclusivity as to any rights retained by the Contributor in the preprint.

2. Reproduction, posting, transmission or other distribution or use of the final Contribution in whole or in part in any medium by the Contributor as permitted by this Agreement requires a citation to the Journal suitable in form and content as follows: (Title of Article, Contributor, Journal Title and Volume/Issue, Copyright © [year], copyright owner as specified in the Journal, Publisher). Links to the final article on the publisher website are encouraged where appropriate.

B. RETAINED RIGHTS

Notwithstanding the above, the Contributor or, if applicable, the Contributor's employer, retains all proprietary rights other than copyright, such as patent rights, in any process, procedure or article of manufacture described in the Contribution.

C. PERMITTED USES BY CONTRIBUTOR

1. Submitted Version. The Owner licenses back the following rights to the Contributor in the version of the Contribution as originally submitted for publication (the "Submitted Version"):

a. The right to self-archive the Submitted Version on: the Contributor's personal website; a not for profit subject-based preprint server or repository; a Scholarly Collaboration Network (SCN) which has signed up to the STM article sharing principles [<http://www.stm-assoc.org/stm-consultations/scn-consultation-2015/>] ("Compliant SCNs"); or the Contributor's company/ institutional repository or archive. This right extends to both intranets and the Internet. The Contributor may replace the Submitted Version with the Accepted Version, after any relevant embargo period as set out in paragraph C.2(a) below has elapsed. The Contributor may wish to add a note about acceptance by the Journal and upon publication it is recommended that Contributors add a Digital Object Identifier (DOI) link back to the Final Published Version.

b. The right to transmit, print and share copies of the Submitted Version with colleagues, including via Compliant SCNs, provided that there is no systematic distribution of the Submitted Version, e.g. posting on a listserv, network (including SCNs which have not signed up to the STM sharing principles) or automated delivery.

2. Accepted Version. The Owner licenses back the following rights to the Contributor in the version of the Contribution that has been peer-reviewed and accepted for publication, but not final (the "Accepted Version"):

a. The right to self-archive the Accepted Version on: the Contributor's personal website; the Contributor's company/institutional repository or archive; Compliant SCNs; and not for profit subject-based repositories such as PubMed Central, all subject to an embargo period of 12 months for scientific, technical and medical (STM) journals and 24 months for social science and humanities (SSH) journals following publication of the Final Published Version. There are separate arrangements with certain funding agencies governing reuse of the Accepted Version as set forth at the following website: <http://www.wileyauthors.com/funderagreements>. The Contributor may not update the Accepted Version or replace it with the Final Published Version. The Accepted Version posted must contain a legend as follows: This is the accepted version of the following article: FULL CITE, which has been published in final form at [Link to final article]. This article may be used for non-commercial purposes in accordance with the Wiley Self-Archiving Policy [<http://www.wileyauthors.com/self-archiving>].

b. The right to transmit, print and share copies of the Accepted Version with colleagues, including via Compliant SCNs (in private research groups only before the embargo and publicly after), provided that there is no systematic distribution of the Accepted Version, e.g. posting on a listserv, network (including SCNs which have not signed up to the STM sharing principles) or automated delivery.

3. Final Published Version. The Owner hereby licenses back to the Contributor the following rights with respect to the final published version of the Contribution (the "Final Published Version"):

a. Copies for colleagues. The personal right of the Contributor only to send or transmit individual copies of the Final Published Version in any format to colleagues upon their specific request, and to share copies in private

sharing groups in Compliant SCNs, provided no fee is charged, and further provided that there is no systematic external or public distribution of the Final Published Version, e.g. posting on a listserve, network or automated delivery.

b. Re-use in other publications. The right to re-use the Final Published Version or parts thereof for any publication authored or edited by the Contributor (excluding journal articles) where such re-used material constitutes less than half of the total material in such publication. In such case, any modifications must be accurately noted.

c. Teaching duties. The right to include the Final Published Version in teaching or training duties at the Contributor's institution/place of employment including in course packs, e-reserves, presentation at professional conferences, in-house training, or distance learning. The Final Published Version may not be used in seminars outside of normal teaching obligations (e.g. commercial seminars). Electronic posting of the Final Published Version in connection with teaching/training at the Contributor's company/institution is permitted subject to the implementation of reasonable access control mechanisms, such as user name and password. Posting the Final Published Version on the open Internet is not permitted.

d. Oral presentations. The right to make oral presentations based on the Final Published Version.

4. Article Abstracts, Figures, Tables, Artwork and Selected Text (up to 250 words).

a. Contributors may re-use unmodified abstracts for any non-commercial purpose. For online uses of the abstracts, the Owner encourages but does not require linking back to the Final Published Version.

b. Contributors may re-use figures, tables, artwork, and selected text up to 250 words from their Contributions, provided the following conditions are met:

(i) Full and accurate credit must be given to the Final Published Version.

(ii) Modifications to the figures and tables must be noted. Otherwise, no changes may be made.

(iii) The re-use may not be made for direct commercial purposes, or for financial consideration to the Contributor.

(iv) Nothing herein will permit dual publication in violation of journal ethical practices.

D. CONTRIBUTIONS OWNED BY EMPLOYER

1. If the Contribution was written by the Contributor in the course of the Contributor's employment as a "work-made-for-hire" in the course of employment, the Contribution is owned by the company/institution which must execute this Agreement (in addition to the Contributor's signature). In such case, the company/institution hereby agrees to the terms of use set forth in paragraph A above and assigns to the Owner, during the full term of copyright, all copyright in and to the Contribution for the full term of copyright throughout the world as specified in paragraph A above.

2. In addition to the rights specified as retained in paragraph B above and the rights granted back to the Contributor pursuant to paragraph C above, the Owner hereby grants back, without charge, to such company/institution, its subsidiaries and divisions, the right to make copies of and distribute the Final Published Version internally in print format or electronically on the Company's internal network. Copies so used may not be resold or distributed externally. However, the company/institution may include information and text from the Final Published Version as part of an information package included with software or other products offered for sale or license or included in patent applications. Posting of the Final Published Version by the company/institution on a public access website may only be done with written permission, and payment of any applicable fee(s). Also, upon payment of the applicable reprint fee, the company/institution may distribute print copies of the Final Published Version externally.

E. GOVERNMENT CONTRACTS

In the case of a Contribution prepared under U.S. Government contract or grant, the U.S. Government may reproduce, without charge, all or portions of the Contribution and may authorize others to do so, for official U.S. Government purposes only, if the U.S. Government contract or grant so requires. (U.S. Government, U.K. Government, and other government employees: see notes at end.)

F. COPYRIGHT NOTICE

The Contributor and the company/institution agree that any and all copies of the Final Published Version or any part thereof distributed or posted by them in print or electronic format as permitted herein will include the notice of copyright as stipulated in the Journal and a full citation to the Journal.

G. CONTRIBUTOR'S REPRESENTATIONS

The Contributor represents that: (i) the Contributor and all co-Contributors have the full power, authority and capability to enter into this Agreement, to grant the rights and license granted herein and to perform all obligations hereunder; (ii) neither the Contributor nor any co-Contributor has granted exclusive rights to, or transferred their copyright in, any version of the Contribution to any third party; (iii) the Contribution is the Contributor's original work, all individuals identified as Contributors actually contributed to the Contribution, and all individuals who contributed are included; (iv) if the Contribution was prepared jointly, the Contributor has informed the co-Contributors of the terms of this Agreement and has obtained their signed written permission to execute this Agreement on their behalf; (v) the Contribution is submitted only to this Journal and has not been published before, has not been included in another manuscript, and is not currently under consideration or accepted for publication elsewhere; (vi) if excerpts from copyrighted works owned by third parties are included, the Contributor shall obtain written permission from the copyright owners for all uses as set forth in the standard permissions form and the Journal's Author Guidelines, and show credit to the sources in the Contribution; (vii) the Contribution and any submitted Supporting Information contain no libelous or unlawful statements, do not infringe upon the rights (including without limitation the copyright, patent or trademark rights) or the privacy of others, do not breach any confidentiality obligation, do not violate a contract or any law, do not contain material or instructions that might cause harm or injury, and only utilize data that has been obtained in accordance with applicable legal requirements and Journal policies; and (viii) there are no conflicts of interest relating to the Contribution, except as disclosed. Accordingly, the Contributor represents that the following information shall be clearly identified on the title page of the Contribution: (1) all financial and material support for the research and work; (2) any financial interests the Contributor or any co-Contributors may have in companies or other entities that have an interest in the information in the Contribution or any submitted Supporting Information (e.g., grants, advisory boards, employment, consultancies, contracts, honoraria, royalties, expert testimony, partnerships, or stock ownership); and (3) indication of no such financial interests if appropriate.

Notwithstanding acceptance, the Owner or Wiley may (but is not obliged to) require changes to the Contribution, including changes to the length of the Contribution, and/or elect not to publish the Contribution if for any reason, in the Owner's or Wiley's reasonable judgment, such publication would be inconsistent with the Core Practices and associated guidelines set forth by the Committee on Publication Ethics (a not-for-profit organization based in the UK: <https://publicationethics.org/core-practices>) or would result in legal liability, violation of Wiley's ethical guidelines, or violation of journal ethical practices.

H. USE OF INFORMATION

The Contributor acknowledges that, during the term of this Agreement and thereafter, the Owner (and Wiley where Wiley is not the Owner) may process the Contributor's personal data, including storing or transferring data outside of the country of the Contributor's residence, in order to process transactions related to this Agreement and to communicate with the Contributor, and that the Publisher has a legitimate interest in processing the Contributor's personal data. By

entering into this Agreement, the Contributor agrees to the processing of the Contributor's personal data (and, where applicable, confirms that the Contributor has obtained the permission from all other contributors to process their personal data). Wiley shall comply with all applicable laws, statutes and regulations relating to data protection and privacy and shall process such personal data in accordance with Wiley's Privacy Policy located at: <https://www.wiley.com/en-us/privacy>.

I agree to the COPYRIGHT TRANSFER AGREEMENT as shown above, consent to execution and delivery of the Copyright Transfer Agreement electronically and agree that an electronic signature shall be given the same legal force as a handwritten signature, and have obtained written permission from all other contributors to execute this Agreement on their behalf.

Contributor's signature (type name here): Daniel Buonaiuto

Date: May 21, 2021

SELECT FROM OPTIONS BELOW:

Contributor-owned work

U.S. Government work

Note to U.S. Government Employees

*A contribution prepared by a U.S. federal government employee as part of the employee's official duties, or which is an official U.S. government publication, is called a "U.S. government work", and is in the public domain in the United States. If the Contribution was not prepared as part of the employee's duties, is not an official U.S. government publication, or if at least one author is **not** a U.S. government employee, it is not a U.S. government work. If at least one author is **not** a U.S. government employee, then the non-government author should also sign the form, selecting the appropriate ownership option. If more than one author is not a U.S. government employee, one may sign on behalf of the others.*

U.K. Government work (Crown Copyright)

Note to U.K. Government Employees

The rights in a contribution prepared by an employee of a UK government department, agency or other Crown body as part of his/her official duties, or which is an official government publication, belong to the Crown and must be made available under the terms of the Open Government Licence. Contributors must ensure they comply with departmental regulations and submit the appropriate authorisation to publish. If your status as a government employee legally prevents you from signing this Agreement, please contact the Journal production editor. If this selection does not apply to at least one author in the group, this author should also sign the form, indicating transfer of those rights which that author has and selecting the appropriate additional ownership selection option. If this applies to more than one author, one may sign on behalf of the others.

Other

Including Other Government work or Non-Governmental Organisation work

Note to Non-U.S., Non-U.K. Government Employees or Non-Governmental Organisation Employees

If you are employed by the Australian Government, the World Bank, the World Health Organization, the International Monetary Fund, the European Atomic Energy Community, the Jet Propulsion Laboratory at California Institute of Technology, the Asian Development Bank, the Bank of International Settlements, USDA Agricultural Research Services, or are a Canadian Government civil servant, please download a copy of the license agreement from <http://www.wileyauthors.com/licensingFAQ> and upload the form to the Wiley Author Services Dashboard. If

your status as a government or non-governmental organisation employee legally prevents you from signing this Agreement, please contact the Journal production editor.

Name of Government/Non-Governmental Organisation:

[] Company/institution owned work (made for hire in the course of employment)

If you are an employee of Amgen, please download a copy of the company addendum from <http://www.wileyauthors.com/licensingFAQ> and return your signed license agreement along with the addendum. If this selection does not apply to at least one author in the group, this author should also sign the form, indicating transfer of those rights which that author has and selecting the appropriate additional ownership selection option. If this applies to more than one author, one may sign on behalf of the others.

Name of Company/Institution:

Authorized Signature of Employer:

Date:

Signature of Employee:

Date:
