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This is the first newsletter from the newly formed IUFRO working party 1.01.13 ‘[Ecology and Silviculture of Chestnut](#)’. With this newsletter, we aim at sharing information, exchanging research ideas, and building a network among chestnut researchers. The newsletter will be published every 3 months. If you have an item of interest to share, such as meetings, publications, research projects or job opportunities, please see the Newsletter contributions section below.

***** Let's start with the call for the Special Issue on Ecology and Management of Chestnut *****
(see section Call for papers)

<https://www.journals.elsevier.com/forest-ecology-and-management/call-for-papers/call-for-papers-on-special-issue-ecology-and-management-of-castanea>

Group members



[Stacy Clark](#), Coordinator

USDA Forest Service, Knoxville, Tennessee, USA

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- General Research Interests on *Castanea dentata*:
 - Silvicultural prescriptions for restoration of American chestnut hybrids.
 - Improvements and impacts of nursery seedling quality.
 - Field testing of hybrid seedlings bred for blight resistance.
- Specific Research Projects (Past and Present):
 - Breeding effects on field performance and blight resistance.
 - Silvicultural treatment effects on chestnut seedling performance and their primary competitors.
 - Impacts of *Phytophthora* root rot and other non-native species on field restoration.
- Affiliated and Partnership Organizations:
 - [United States Department of Agriculture, Forest Service.](#)
 - [The University of Tennessee's Tree Improvement Program.](#)
 - [The American Chestnut Foundation.](#)
 - [Connecticut Agricultural Experiment.](#)



[Maria Patricio](#)

Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança, Bragança, Portugal.

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- General Research Interests on *Castanea sativa*:
 - Silvicultural systems for forestry and agroforestry systems.
 - Sustainable forest management.
 - Modelling of forest dynamics, growth and yield, and carbon sequestration.
- Specific Research Projects (Past and Present):

Carbon and nutrient dynamics in chestnut and mixed forest stands.
Silviculture to improve forest productivity for timber and non-timber products in the context of climate change.
Afforestation using chestnut.

- Affiliated and Partnership Organizations:
Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança.



[Verónica Loewe](#)

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- General Research Interests on *Castanea sativa*:
High value timber production through silviculture and arboriculture.
Enhancement of forest sustainability.
Co-production of timber and fruit in agroforestry systems.
- Specific Research Projects (Past and Present):
Development and contributions of the chestnut tree in Chile.
Productivity and sustainability of mixed plantations including the chestnut.
Silviculture of non-traditional species.
Genetic structure for the improvement of chestnut.
Silviculture to improve diversity and productivity.
- Affiliated and Partnership Organizations:
Chilean Ministry of Agriculture.
CONICYT CNR (Italy).
FIA.
FONSIP FIA (CORFO).



[Enrico Marcolin](#)

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Padova, Italy

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- General Research Interests on *Castanea sativa*:
Common silvicultural practices (short rotation coppicing).
Development of new silvicultural practices as alternatives to the historical short rotation coppicing.
- Specific Research Projects (Past and Present):
Enhance economic values and development of local resources and economies for private landowners.
Ecological sustainability of chestnut (restoration of overaged/abandoned coppices).
Effects of management and disturbing factors (climate, asian gall wasp) on tree growth and natural regeneration.
- Affiliated and Partnership Organizations:
TESAF Department, University of Padova – Italy.
Swiss Federal Research Institute, Insubric - Ecosystems Research Group, WSL - Switzerland.
Research Centre for Forestry and Wood, CREA - Italy.

- News from the working party

Our working party was introduced at an IUFRO Division 1 meeting on February 23, 2021 and was officially formed in May 2021. We have held several virtual meetings to discuss future projects and opportunities for collaboration. In addition to this newsletter, our first project is to develop a special issue on chestnut ecology and silviculture (see below). We are also working on a synthesis paper on *Castanea sativa* and *C. dentata* for this special issue.

- News from the chestnut world

- **VII International Chestnut Symposium Lugo**, Spain: June 26-29, 2023

<https://www.chestnutsymposium.com/>

Abstract submission

Manuscript submission: May 15th, 2023

Start Abstract submission: September 15th, 2022

Deadline abstract submission: December 1st, 2022

- **An online course on the American chestnut** is available that provides information on the history of its demise, silvics, and ecological and cultural significance. It is free and available to anyone.
 - These two videos complement the course:
[Introduction](https://srs.fs.usda.gov/video/restoration-research-chestnut-1/) (<https://srs.fs.usda.gov/video/restoration-research-chestnut-1/>)
[Science in Action](https://srs.fs.usda.gov/video/restoration-research-chestnut-2/) (<https://srs.fs.usda.gov/video/restoration-research-chestnut-2/>)

- Call for Papers

- **Call for Papers on Forest Ecology and Management - Special Issue: Ecology and Management of Castanea.**

<https://www.journals.elsevier.com/forest-ecology-and-management/call-for-papers/call-for-papers-on-special-issue-ecology-and-management-of-castanea>

Submission deadline: 30 June, 2022

Planned publication date: immediately after the acceptance of the manuscript.

Submit your manuscript to: <https://www.editorialmanager.com/foreco/default.aspx>

- -Featured Papers and Books

For this first issue, significant publications from the last year are included; from the next newsletter there will be a selection of the new releases of the last months. We ask for your cooperation in case you want to report news (see the section Newsletter contributions).

Chestnut tree damage evolution due to Dryocosmus kuriphilus attacks. 2020. J. Pest Sci. 93, 103–115.

Gehring, E., Bellosi, B., Reynaud, N., Conedera, M.

<https://doi.org/10.1007/s10340-019-01146-0>

Climate as a possible driver of gall morphology in the chestnut pest Dryocosmus kuriphilus across Spanish invaded areas. 2020. Bull. Entomol. Res.

Gil-Tapetado, D., Cabrero-Sañudo, F.J., Polidori, C., Gómez, J.F., Nieves-Aldrey, J.L.

<https://doi.org/10.1017/S0007485320000450>

Investigations on yellowing of chestnut crowns in trentino (Alps, Northern Italy). 2020. IForest 13, 466–472.

Bertoldi, D., Miorelli, P., Pedrazzoli, F., Delugan, S., Deromedi, M., Maresi, G.

<https://doi.org/10.3832/ifor3488-013>

Seed regeneration of sweet chestnut (Castanea sativa Miller) under different coppicing approaches. 2020. For. Ecol. Manage. 472, 118273.

Marcolin, E., Manetti, M.C., Pelleri, F., Conedera, M., Pezzatti, G.B., Lingua, E., Pividori, M.,

<https://doi.org/10.1016/j.foreco.2020.118273>

Assessing the potential replacement of laurel forest by a novel ecosystem in the steep terrain of an Oceanic Island. 2020. Remote Sensing, 12(24), p.4013.

Devkota, R.S., Field, R., Hoffmann, S., Walentowitz, A., Medina, F.M., Vetaas, O.R., Chiarucci, A., Weiser, F., Jentsch, A. and Beierkuhnlein, C.

<https://doi.org/10.3390/rs12244013>

Recent advances in adventitious root formation in Chestnut. 2020. Plants, 9(11), p.1543.

Vielba, J.M., Vidal, N., José, M., Rico, S. and Sánchez, C.

<https://doi.org/10.3390/plants9111543>

Soil Disturbance Induced by Silvicultural Treatment in Chestnut (Castanea sativa Mill.) Coppice and Post-Disturbance Recovery. 2020. Forests, 11(10), p.1053.

Venanzi, R., Picchio, R., Grigolato, S. and Spinelli, R.

<https://doi.org/10.3390/f11101053>

Assessing canopy responses to thinnings for sweet chestnut coppice with time-series vegetation indices derived from landsat-8 and sentinel-2 imagery. 2020. Remote Sensing, 12(18), p.3068.

Prada, M., Cabo, C., Hernández-Clemente, R., Hornero, A., Majada, J. and Martínez-Alonso, C.,

<https://doi.org/10.3390/rs12183068>

Does the application of silvicultural management models drive the growth and stem quality of sweet chestnut coppices towards sustainability? 2020. New Forests, 51, 615-630.

Patrício M.S., Nunes L., Monteiro M.L.

<https://doi.org/10.1007/s11056-019-09748-3>

Influence of climate variations on primary production indicators and on the resilience of forest ecosystems in a future scenario of climate change: Application to sweet chestnut agroforestry systems in the Iberian Peninsula. 2020. *Ecological Indicators*, 113, p. 106199

Pérez-Girón, J.C., Álvarez-Álvarez, P., Díaz-Varela, E. R., Lopes, D.M.

<https://doi.org/10.1016/j.ecolind.2020.106199>

Impact of Bio-Based (Tannins) and Nano-Scale (CNC) Additives on Bonding Properties of Synthetic Adhesives (PVAc and MUF) Using Chestnut Wood from Young Coppice Stands. 2020. *Nanomaterials*, 10, 956.

Marini, F., Zikeli, F., Corona, P., Vinciguerra, V., Manetti, M.C., Portoghesi, L., Scarascia Mugnozza, G., Romagnoli, M.

<https://doi.org/10.3390/nano10050956>

Metalaxyl-M, phosphorous acid and potassium silicate applied as soil drenches show different chestnut seedling performance and protection against Phytophthora root rot. 2021. *European Journal of Plant Pathology*, 161, 147-159

Rosário J.N., Coelho V., Rodrigues M.Â., Raimundo S., Afonso S., Arrobas M., Gouveia M.E.

<https://doi.org/10.1007/s10658-021-02309-5>

Short and long term efficacy and prevalence of Cryphonectria parasitica hypovirulent strains released as biocontrol agents of chestnut blight. 2021. *European Journal of Plant Pathology*, 159, 769-781.

Coelho V., Nunes L., Gouveia E.

<https://doi.org/10.1007/s10658-021-02200-3>

Impact of the Asian gall wasp Dryocosmus kuriphilus on the radial growth of the European chestnut Castanea sativa. 2021. *J. Appl. Ecol.* 58, 1212–1224.

Marcolin, E., Pividori, M., Colombari, F., Manetti, M.C., Pelleri, F., Conedera, M., Gehring, E.

<https://doi.org/10.1111/1365-2664.13861>

Signatures of local adaptation to climate in natural populations of sweet chestnut (Castanea sativa Mill.) from southern Europe. 2021. *Ann. For. Sci.* 78, 27.

Castellana, S., Martin, M.Á., Solla, A., Alcaide, F., Villani, F., Cherubini, M., Neale, D., Mattioni, C.

<https://doi.org/10.1007/s13595-021-01027-6>

Evolution of Castanea in North America: restriction-site-associated DNA sequencing and ecological modeling reveal a history of radiation, range shifts, and disease. 2021. *Am. J. Bot.*

Spriggs, E.L., Fertakos, M.E.

<https://doi.org/10.1002/ajb2.1726>

Environmental niche and demographic modeling of American chestnut near its southwestern range limit. 2021. *bioRxiv*. PRE-PRINT (not been certified by peer review)

Laport, R.G., Brookover, Z.S., Christman, B.D., Ng, J., Philley, K. and Craddock, J.H.

<https://doi.org/10.1101/2021.09.10.459451>

Leaf litter dynamics in Western Black Sea mountainous forest ecosystems. 2021. *Canadian Journal of Forest Research* 51: 1–12.

Sarginci, M., Yildiz, O., Tolunay, D., Toprak, B. and Temür, Ş.

<https://dx.doi.org/10.1139/cjfr-2020-0489>

Effects of mast seeding and insect infestation on predation and dispersal of Castanea mollissima nuts by rodents in the Qinling Mountains of China. 2021. *Forest Ecology and Management*, 499, p.119630.

Wang, J., Zhang, B., Han, N., Feng, T., Hou, X., An, X., Chen, X. and Chang, G.

<https://doi.org/10.1016/j.foreco.2021.119630>

The effect of seed size on germination and seedling growth in sweet chestnut (Castanea sativa Mill.). 2021. Forests, 12, 858.

Tumpa, K.; Vidaković, A.; Drvodelić, D.; Šango, M.; Idžojić, M.; Perković, I.; Poljak, I.

<https://doi.org/10.3390/f12070858>

Plant–soil feedbacks and the introduction of Castanea (chestnut) hybrids to eastern North American forests. 2021. Restoration Ecology, 29(3), p.e13326.

Coughlin, E.M., Shefferson, R.P., Clark, S.L. and Wurzbarger, N.

<https://doi.org/10.1111/rec.13326>

How future-proof is Sweet chestnut (Castanea sativa) in a global change context? 2021. Forest Ecology and Management, 494, p.119320.

Conedera, M., Krebs, P., Gehring, E., Wunder, J., Hülsmann, L., Abegg, M. and Maringer, J.

<https://doi.org/10.1016/j.foreco.2021.119320>

Effects of tree spacing and thinning on root reinforcement in mountain forests of the European Southern Alps. 2021. Forest Ecology and Management, 482, p.118873.

Cislaghi, A., Alterio, E., Fogliata, P., Rizzi, A., Lingua, E., Vacchiano, G., Bischetti, G.B. and Sitzia, T.,

<https://doi.org/10.1016/j.foreco.2020.118873>

Is an invasive alien tree able to sustain a similar lichen diversity as the native forest? The case of the sweet chestnut (Castanea sativa Mill.) and the laurel forest in Macaronesia. 2021. Forest Ecology and Management, 488, p.119009.

González-Montelongo, C. and Pérez-Vargas, I.

<https://doi.org/10.1016/j.foreco.2021.119009>

Do Castanea sativa wild provenances influence Dryocosmus kuriphilus Yasumatsu (Hymenoptera: Cynipidae) infestations? 2021. Turkish Journal of Zoology, 45(3), pp.206-215

Contarini, M., Rossini, L., Caccia, R., Morelli, S., Beritognolo, I., Gaudet, M., Villani, F., Paparatti, B. and Speranza, S.

<https://doi.org/10.3906/zoo-2101-16>

Problems and threats to the Caucasus forest ecosystems on the example of Castanea sativa. 2021. Kosmos, 70(1), pp.19-26.

Beridze, B. and Dering, M.

https://doi.org/10.36921/kos.2021_2662

Estimation of total phenolic compounds and non-targeted volatile metabolomics in leaf tissues of American chestnut (Castanea dentata), Chinese chestnut (Castanea mollissima) and the backcross breeding generations. 2021. Journal of Agricultural Chemistry and Environment 10(2).

She, J., Mohottige, C.U.G., King, M., Jiang, Y., Mlsna, M., Clark, S.L., Baird, R. and Mlsna, T.

<https://doi.org/10.4236/jacen.2021.102015>

Evolution of Castanea in North America: restriction-site-associated DNA sequencing and ecological modeling reveal a history of radiation, range shifts, and disease. 2021. American Journal of Botany, pp.1-13.

Spriggs, E.L., Fertakos, M.E.

<https://doi.org/10.1002/ajb2.1726>

Influence of Climate Change on Chestnut Trees: A Review. 2021. Plants, 10(7), p.1463.

Freitas, T.R., Santos, J.A., Silva, A.P. and Fraga, H.

<https://doi.org/10.3390/plants10071463>

Influence of forest stand characteristics on physical, mechanical properties and chemistry of chestnut wood. 2021. Scientific Reports, 11: 1549.

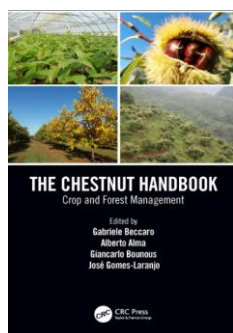
Marini, F., Manetti, M.C., Corona, P., Portoghesi, L., Vinciguerra, V., Tamantini, S., Kuzminsky, E., Zikeli F., Romagnoli, M.

<https://doi.org/10.1038/s41598-020-80558-w>

Gaps and perspectives for the improvement of the sweet chestnut forest-wood chain in Italy. 2021. Annals of Silvicultural Research, vol 46, No2 39 pp.

Marini, F., Portoghesi, L., Manetti, M.C., Salvati, L., Romagnoli M.

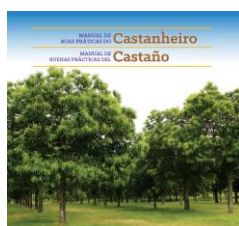
<http://dx.doi.org/10.12899/asr-2203>



The Chestnut Handbook. 2020, CRC Press.

Beccaro, G., Alma, A., Bounous, G., Gomes-Laranjo, J. (Eds.).

<https://doi.org/10.1201/9780429445606>



Manual de Boas Práticas do Castanheiro.

Manual de Buenas Prácticas del Castaño.

Bento, A. and Ribeiro, A. C. (Eds.).

<http://esa.ipb.pt/pdf/ManualBoasPraticasCastanheiro.pdf>



Le selve castanili della Svizzera italiana. Aspetti storici, paesaggistici, ecologici e gestionali. Memorie della Società ticinese di scienze naturali, 13, 249 p.

Moretti M., Moretti G. & Conedera M. (eds.).

Newsletter contributions

Do you have news for us? Newsletter contributions are welcome (i.e. upcoming Seminars, Scholarships, Workshops, Conferences, Blogs, Websites...).

If you would like to contribute to the newsletter, please contact Stacy Clark (stacy.l.clark@usda.gov), Veronica Loewe (vloewe@infor.cl), Maria Patricio (sampat@ipb.pt) or Enrico Marcolin (enrico.marcolin@unipd.it).