

Production lists

Peer-reviewed articles

2022

125 – **Carcaillet C**, Bouley B, Carcaillet F (2022) Once upon a time biomass burning in the western Alps: Nesting effects of climate and local drivers on long-term subalpine fires. **Forest Ecosystems**, 9, 100024 <https://doi.org/10.1016/j.fecs.2022.100024>

2021

124 – Housset JM, Toth EG, Tremblay F, Motta R, Girardin MP, Bergeron Y, **Carcaillet C** (2021) Tree-rings, genetics and the environment: complex interactions at the rear edge. **Dendrochronologia**, 69, 125863, DOI: [10.1016/j.dendro.2021.125863](https://doi.org/10.1016/j.dendro.2021.125863)

2020

123 - André G., Lavergne S. **Carcaillet C** (2020) Unsuspected prevalent tree occurrences in high elevation sky-islands of the western Alps. **bioRxiv**, doi: <https://doi.org/10.1101/2020.07.08.193300>

122 – Hennebelle A, Aleman JC, Ali AA, Bergeron Y, **Carcaillet C**, Grondin P, Landry J, Blarquez O (2020) The reconstruction of burned area and fire severity using charcoal from boreal lake sediments. **The Holocene** 30(10), 1400-1409 DOI:10.1177/0959683620932979

121 - Molinari C, **Carcaillet C**, Bradshaw RHW, Hannon GE, Lehsten V (2020) Fire-vegetation interactions during the last 11,000 years in boreal and cold temperate forests of Fennoscandia. **Quaternary Science Reviews** 241, 106408, doi.org/10.1016/j.quascirev.2020.106408

120 – Fournier T, Fèvre J, Carcaillet F, **Carcaillet C** (2020) For a few years more: reductions in plant diversity 70 years after the last fire in Mediterranean forests. **Plant Ecology** 221, 559-576 [10.1007/s11258-020-01034-z](https://doi.org/10.1007/s11258-020-01034-z)

119 – Fortuny X, **Carcaillet C**, Chauchard S (2020) Selective and taxon-dependent effects of semi-feral cattle grazing on tree regeneration in an old-growth Mediterranean mountain forest. **Forest Ecosystems** 7:11 doi.org/10.1186/s40663-020-00222-7

118 – **Carcaillet C**, Despons M, Robin V, Bergeron Y (2020) Long-term steady-state dry boreal forest in the face of disturbance. **Ecosystems** 23(5), 1075-1092 doi.org/10.1007/s10021-019-00455-w

2019

117 – Toth E.G., Tremblay F., Housset J.M., Bergeron Y., **Carcaillet C** (2019) Geographic isolation and climatic variability contribute to genetic differentiation in fragmented populations of the long-lived subalpine conifer *Pinus cembra* L. in the western Alps. **BMC Evolutionary Biology** 19, 190. DOI: [10.1186/s12862-019-1510-4](https://doi.org/10.1186/s12862-019-1510-4)

116 – **Carcaillet C**, Blarquez O (2019) Glacial refugia in the south-western Alps? **New Phytologist** 222(2), 663-667 DOI:10.1111/nph.15673

115 – Visnadi I., Housset J., Leroy C., **Carcaillet C**, Asselin H., Bergeron Y. (2019) Limited recruitment of eastern white cedar (*Thuja occidentalis* L.) under black spruce canopy at its northern distribution limit. **Écoscience** 26(2), 123-132 DOI: [10.1080/11956860.2018.1529725](https://doi.org/10.1080/11956860.2018.1529725)

2018

114 – Fréjaville T, Vilà-Cabrera A, Curt T, **Carcaillet C** (2018) Aridity and competition drive fire resistance trait covariation in mountain trees. **Ecosphere**, 9(12), e02493. DOI: [10.1002/ecs2.2493](https://doi.org/10.1002/ecs2.2493)

113 – Chauchard S, **Carcaillet C**, Guibal F (2018) Fir expansion not controlled by moderate densities of large herbivores: a Mediterranean mountain grassland conservation issue. **Annals of Forest Science**, 75(4), 94. DOI: [10.1007/s13595-018-0774-y](https://doi.org/10.1007/s13595-018-0774-y)

112 - Taudière A, Bellanger J-M, **Carcaillet C**, Hugot L, Kjellberg F, Lecanda A, Lesne A, Moreau P-A, Scharmann K, Leidel S, Richard F (2018) Diversity of foliar endophytic ascomycetes in endemic Corsican pine forests. **Fungal Ecology** 36, 128-140. doi [10.1016/j.funeco.2018.07.008](https://doi.org/10.1016/j.funeco.2018.07.008)

111 - Molinari C, Lehsten V, Blarquez O, **Carcaillet C**, Davis BAS, Kaplan JO, Clear J, Bradshaw RHW (2018) The climate, the fuel and the land-use: long-term regional variability of biomass burning in boreal forests. **Global Change Biology** 24(10), 4929-4945. DOI:10.1111/gcb.14380

- 110 – Fréjaville T, Curt T, **Carcaillet C** (2018) Higher potential fire intensity at the dry margins of European mountain trees. **Journal of Biogeography** 45, 2003-2015 DOI:10.1111/jbi.13386
- 109 – Hawthorne D, Courtney Mustaphi C.J., Aleman J.C., Blarquez O., Colombaroli D., Daniau A.L., Marlon J.R., Power M., Vanni re B., Han Y., Hantson S., Kehrwald N., Magi B., Yue X., **Carcaillet C**, Marchant R., Okunkoya A., Githumbi E.N., Muriuki R.M. (2018) Global Modern Charcoal Dataset (GMCD): a tool for exploring proxy-fire linkages and spatial patterns of biomass burning. **Quaternary International** 488, 3-17 doi.org/10.1016/j.quaint.2017.03.046
- 108 – **Carcaillet C**, Latil J-L, Abou S, Ali A, Ghaleb B, Magnin F, Roiron P, Aubert S (2018) Keep your feet warm? A cryptic refugium of trees linked to a geothermal spring in an ocean of glaciers. **Global Change Biology** 24(6), 2476-2487, DO: 10.1111/gcb.14067
- 2017**
- 107 – Naydenov KD, Naydenov MK, Alexandrov A, Vasilevski K, Hinkov G, Matevski V, Nikolic B, Goudiaby V, Riegert D, Paitaridou D, Christou A, Goia I, **Carcaillet C**, Escudero Alcantara A, Ture C, Gulcu S, Gyuleva V, Bojovic S, Peruzzi L, Kamary S, Tsarev A, Bogunic F (2017) Ancient genetic bottleneck and Plio-Pleistocene climatic changes imprinted the phylogeography of European Black Pine populations. **European Journal of Forest Research** 136, 767-786 DOI 10.1007/s10342-017-1069-9
- 106 - **Carcaillet C**, Blarquez O. (2017) Fire ecology of a tree glacial refugium on a nunatak with a view on Alpine glaciers. **New Phytologist** 216, 1281-1290 DOI:10.1111/nph.14721
- 105 - Taudi re A., Bellanger J.-M., Moreau P.-A., **Carcaillet C**, Christophe A., L ess e T., Pana iotis C., Richard F. (2017) *Xylobolus subpileatus*, a hyper-specialized basidiomycete functionally linked to old canopy gaps. **Canadian Journal of Forest Research** 47, 965-973 doi.org/10.1139/cjfr-2016-0521
- 104 – Taudi re A., Richard F., **Carcaillet C** (2017) Review on fire effects on ectomycorrhizal symbiosis, an unachieved work for a scalding topic. **Forest Ecology and Management** 391, 446-457 doi.org/10.1016/j.foreco.2017.02.043
- 103 - **Carcaillet C** (2017) Unlimited fuel wood during the middle Mesolithic (9650-8300 cal. yr BP) in northern Sweden: fuel typology and pine-dominated vegetation inferred from charcoal identification and tree-ring morphology. **The Holocene** 27(9), 1370-1378 DOI: 10.1177/0959683617693894
- 102- Fortuny X, Chauchard S, **Carcaillet C** * (2017) Confounding legacies of land uses and land-form pattern on the regional vegetation structure and diversity of Mediterranean montane forests. **Forest Ecology and Management** 384, 268-278 10.1016/j.foreco.2016.11.002 (* corresponding author)
- 2016**
- 101- Housset J.*, **Carcaillet C** *, Girardin M.P., Xu H., Tremblay F., Bergeron Y. (2016) In situ comparison of tree-ring responses to climate and population genetics: the need to control for local climate and site variables. **Frontiers in Ecology and Evolution**, 4, 123, doi: 10.3389/fevo.2016.00123 (* co-first author)
- 100 - Naydenov K.D., Naydenov M.K., Alexandrov A., Vasilevski K., Gyuleva V., Matevski V., Nikolic B., Goudiaby V., Bogunic F., Paitaridou D., Christou A., Goia I., **Carcaillet C**, Escudero Alcantara A., Ture C., Gulcu S., Peruzzi L., Kamary S., Bojovic S., Hinkov G., Tsarev A. (2016) Ancient split of major genetic lineages of European black pine: evidence from chloroplast DNA. **Tree Genetics & Genomes** 12, 68 doi:10.1007/s11295-016-1022-y
- 99- Abbott B.W., Jones J.B., Schuur E.A.G., Chapin F.S. III, Bowden W.B., Bret-Harte M.S., Epstein O.E., Flannigan M.D., Harms T.K., Hollingsworth T.N., Mack M.C., McGuire A.D., Natali S.M., Rocha A.V., Tank S.E., Turetsky M.R., Vonk J.E., Wickland K.P., Aiken G.R., Alexander H.D., Amon R.M.W., Benscoter B.W., Bergeron Y., Bishop K., Blarquez O., Bond-Lamberty B., Breen A.L., Buffam I., Cai Y., **Carcaillet C**, Carey S.K., Chen J.M., Chen H.Y.H, Christensen T.R., Cooper L.W., Cornelissen J.H.C., de Groot W.J., DeLuca T.H., Dorrepaal E., Fetcher N., Finlay J.C., Forbes B.C., French N.H.F., Gauthier S., Girardin M.P., Goetz S.J., Goldammer J.G., Gough L., Grogan P., Guo L., Higuera P.E., Hinzman L., Hu F.S., Hugelius G., Jafarov E.E., Jandt R., Johnstone J.F., Karlsson J., Kasischke E.S., Kattner G., Kelly R., Keuper F., Kling G.W., Kortelainen P., Kouki J., Kuhry P., Laudon H., Laurion I., Macdonald R.W., Mann P.J., Martikainen P.J., McClelland J.W., Molau U., Oberbauer S.F., Olefeldt D., Par e D., Parisien M.A., Payette S., Peng C., Pokrovsky O.S., Rastetter E.B., Raymond P.A., Reynolds M.K., Rein G., Reynolds J.F., Robards M., Rogers B.M., Sch adel C., Schaefer K., Schmidt I.K., Shvidenko A., Sky J., Spencer R.G.M., Starr G., Striegl R.G., Teisserenc R., Tranvik L.J., Virtanen T., Welker J.M., Zimov S. (2016) Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. **Environmental Research Letters** 11, 034014 doi:10.1088/1748-9326/11/3/034014
- 98- Fr ejaville T., Curt T., **Carcaillet C** (2016) Tree cover and precipitation seasonality drive the understory flammability in mountain forests of the Alps. **Journal of Biogeography** 43, 1869-1880, doi:10.1111/jbi.12745
- 97- Leys B., **Carcaillet C** (2016) Subalpine fires: the roles of vegetation, climate and, ultimately, land uses. **Climatic**

Change 135, 683–697 10.1007/s10584-016-1594-4

2015

96- Housset J.M., Girardin M.P., Baconnet M., **Carcaillet C**, Bergeron Y. (2015) Unexpected warming-induced growth decline in *Thuja occidentalis* at its northern limits in America. **Journal of Biogeography** 42, 1233-1245 doi:10.1111/jbi.12508

2014

95 – Battipaglia G., De Micco V., Fournier T., Aronne G., **Carcaillet C** (2014) Isotopic and anatomical signals for interpreting fire-related responses in *Pinus halepensis*. **Trees - Structure and Function** 28, 1095–1104, DOI 10.1007/s00468-014-1020-3

94 – Battipaglia G., Büntgen U., McCloskey S., Blarquez O., Denis N., Paradis L., Brossier B., Fournier T., **Carcaillet C** (2014) Long-term effects of climate and land-use change on larch budmoth outbreaks in the French Alps. **Climate Research** 62, 1-14, doi: 10.3354/cr01251

93 – Fortuny X., **Carcaillet C**, Chauchard S. (2014) Land use legacies and site variables control the understorey plant communities in Mediterranean broadleaved forests. **Agriculture, Ecosystems & Environment** 189, 53-59, DOI: [dx.doi.org/10.1016/j.agee.2014.03.012](https://doi.org/10.1016/j.agee.2014.03.012)

92 - Leys B., **Carcaillet C**, Blarquez O., Lami A., Musazzi S., Trevisan R. (2014) Resistance of mixed subalpine forest to fire frequency changes: the ecological function of dwarf pine (*Pinus mugo* ssp. *mugo*). **Quaternary Science Reviews** 90, 60-68, DOI: 10.1016/j.quascirev.2014.02.023

91 – Blarquez O.*, **Carcaillet C** *, Frejaville T., Bergeron Y. (2014) Disentangling the trajectories of alpha, beta and gamma plant diversity of North American boreal ecoregions since 15,500 years. **Frontiers in Ecology and Evolution** 2,6 DOI: 10.3389/fevo.2014.00006 (* co-first author)

90 - Naydenov K.D, Alexandrov A., Matevski V., Vasilevski K., Naydenov M.K., Gyuleva V., **Carcaillet C**, Wahid N., Kamary S. (2014) Range-wide genetic structure of maritime pine predates the last glacial maximum: evidence from nuclear DNA. **Hereditas** 151, 1-13 DOI: 10.1111/j.1601-5223.2013.00027.x

89 - Leys B., Finsinger W., **Carcaillet C** (2014) Historical range of fire frequency is not the Achilles' heel of the Corsican black pine ecosystem. **Journal of Ecology** 102, 381-395, DOI: 10.1111/1365-2745.12207

88 – Bélanger N.*, **Carcaillet C** *, Padbury G.A., Harvey-Schafer A.N., Van Rees K.J.C. (2014) Periglacial fires and trees in a continental setting of central Canada, Upper Pleistocene. **Geobiology** 12, 109-118, DOI: 10.1111/gbi.12076 (* co-first author)

2013

87 – Aleman J.C., Blarquez O., Bentaleb I., Bonté P., Brossier B., **Carcaillet C.**, Gond V., Gourlet-Fleury S., Kpolita A., Lefèvre I., Oslisly R., Power M.J., Yongo O., Bremond L., Favier C. (2013) Tracking land-uses with sedimentary charcoals in tropics. **The Holocene** 23, 1853-1862, doi:10.1177/0959683613508159

86 – Fréjaville T., Curt T., **Carcaillet C.** (2013) Bark flammability as a fire-response trait for subalpine trees. **Frontiers in Plant Science** 4:466. doi: 10.3389/fpls.2013.00466

85 – Aleman J.C., Saint-Jean A., Leys B., **Carcaillet C.**, Favier C., Bremond L. (2013) Estimating phytolith influx in lake sediments. **Quaternary Research** 80, 341-347 <http://dx.doi.org/10.1016/j.yqres.2013.05.008>

84 - Fournier T., Battipaglia G., Brossier B., **Carcaillet C.** (2013) Fire-scars and polymodal age-structure provide evidence of fire-events in an Aleppo pine population in southern France. **Dendrochronologia** 31, 159-164 doi.org/10.1016/j.dendro.2013.05.001

83 – Naisse C., Alexis M., Plante A., Wiedner K., Glaser B., Pozzi A., **Carcaillet C.**, Criscuoli I., Rumpel C. (2013) Can biochar and hydrochar stability be assessed with chemical methods? **Organic Geochemistry** 60, 40-44

82 – Blarquez O., Girardin M.P., Leys B., Ali A.A., Aleman J.C., Bergeron Y., **Carcaillet C.** (2013) Paleofire reconstruction based on an ensemble-member strategy applied to sedimentary charcoal. **Geophysical Research Letters** 40, 2667-2672 doi:10.1002/grl.50504

81 – Girardin M.P., Ali A.A., **Carcaillet C.**, Blarquez O., Hély C., Terrier A., Genries A., Bergeron Y. (2013) Vegetation limits the impact of a warm climate on boreal wildfires. **New Phytologist** 199, 1001-1011 doi: 10.1111/nph.12322

80 – Blarquez O., Finsinger W., **Carcaillet C.** (2013) Assessing paleo-biodiversity using low proxy influx. **PLoS ONE** 8(6): e65852. doi:10.1371/journal.pone.0065852

- 79 – Leys B., **Carcaillet C.**, Dezileau L., Ali A.A., Bradshaw R.H.W. (2013) A comparison of charcoal measurements for reconstruction of Mediterranean paleo-fire frequency in the mountains of Corsica. **Quaternary Research** 79, 337-349 <http://dx.doi.org/10.1016/j.yqres.2013.01.003>
- 78 – Oris F., Lamentowicz M., Genries A., Mourier B., Blarquez O., Ali A.A., Bremond L., **Carcaillet C** (2013) Holocene changes in climate and land use drove shifts in the diversity of testate amoebae in a subalpine pond. **Journal of Paleolimnology** 49, 633-646 DOI: 10.1007/s10933-013-9680-3
- 77 – Frejaville T, **Carcaillet C**, Curt T. (2013) Calibration of charcoal production from trees biomass for soil charcoal analyses in subalpine ecosystems. **Quaternary International** 289, 16-23 DOI: 10.1016/j.quaint.2012.02.043
- 76 – Girardin M.P., Ali A.A., **Carcaillet C**, Gauthier S., Hély C., Le Goff H., Terrier A., Bergeron Y., (2013) Fire in managed forests of eastern Canada: risks and options. **Forest Ecology and Management** 294, 238-249 doi.org/10.1016/j.foreco.2012.07.005
- 75 - Power M.J., Mayle F.E., Bartlein P.J., Marlon J.R., Anderson R.S., Behling H., Brown K.J., **Carcaillet C**, Colombaroli D., Gavin D.G., Hallett D.J., Horn S.P., Kennedy L.M., Lane C., Long C., Moreno P.I., Paitre C., Robinson G., Taylor Z., Walsh M. (2013) Climatic control of the biomass-burning decline in the Americas after AD 1500. **The Holocene** 23(1), 3-13 DOI: 10.1177/0959683612450196
- 74 - Chauchard S., Guibal F., **Carcaillet C** (2013) Land-use legacies: multi-centuries years-old management control between-stands variability at the landscape-scale in Mediterranean mountain forests, France. **Journal of Forest Science** 59(1), 1-7
- 2012**
- 73 – Fournier T.P., Brossier B., Gauthier O., **Carcaillet C** (2012) Post-fire dynamics and spatial heterogeneity of woody debris associated with *Pinus halepensis* in an oak-pine Mediterranean ecosystem. **Ecoscience** 19(4), 356-363 DOI : 10.2980/19-4-3502
- 72 - Daniau A.L., Bartlein P.J., Harrison S.P., Prentice I.C., Brewer S., Friedlingstein P., Harrison-Prentice T.I., Inoue J., Izumi K., Marlon J.R., Mooney S., Power M.J., Stevenson J., Tinner W., Andrič M., Atanassova J., Behling H., Black M., Blarquez O., Brown K.J., **Carcaillet C**, Colhoun E.A., Colombaroli D., Davis B.A.S., D’Costa D., Dodson J., Dupont L., Eshetu Z., Gavin D.G., Genries A., Haberle S., Hallett D.J., Horn S.P., Hope G., Kassa T.G., Katamura F., Kennedy L.M., Kershaw P., Krivonogov S., Long C., Magri D., Marinova E., McKenzie G.M., Moreno P.I., Moss P., Neumann F.H., Norström E., Paitre C., Rius D., Roberts N., Robinson G.S., Sasaki N., Scott L., Takahara H., Terwilliger V., Thevenon F., Turner R.B., Valsecchi V.G., Vannièrè B., Walsh M., Williams N., Zhang Y. (2012). Predictability of biomass burning in response to climate changes. **Global Biogeochemical Cycles** 26, GB4007, doi:10.1029/2011GB004249
- 71 – **Carcaillet C**, Hörnberg G., Zackrisson O. (2012) Woody vegetation, fuel and fire track the melting of the Scandinavian ice-sheet before 9500 cal yr BP. **Quaternary Research** 78, 540-548 <http://dx.doi.org/10.1016/j.yqres.2012.08.001>
- 70 – Genries A., Finsinger W., Asnong H., Bergeron Y., **Carcaillet C**, Garneau M., Hély C., Ali A.A. (2012) Local versus regional processes: can soil characteristics overcome climate and fire regimes by modifying vegetation trajectories? **Journal of Quaternary Science** 27(7) 745-756 <http://DOI:10.1002/jqs.2560>
- 69 – Blarquez O., **Carcaillet C**, Elzein T.M., Roiron P. (2012) Needle accumulation rate model-based reconstruction of palaeo-tree biomass in the western subalpine Alps. **The Holocene** 22(5), 579-587 DOI: 10.1177/0959683611427333
- 68 – Fauvart N., Ali A.A., Terral J.F., Roiron P. Blarquez O., **Carcaillet C** (2012) Holocene upper tree-limits of *Pinus* section *sylvestris* in the Western Alps as evidenced from travertine archives. **Review of Palynology and Paleobotany** 169, 96-102, <http://doi:10.1016/j.revpalbo.2011.10.003>
- 2011**
- 67 - Elzein T.M, Blarquez O., Gauthier O., **Carcaillet C** (2011) Allometric equations for biomass assessment of subalpine dwarf shrubs. **Alpine Botany** 121, 129-134 DOI: 10.1007/s00035-011-0095-3
- 2010**
- 66 – Mahaney W.C., Tricart P., Barendregt R.W., **Carcaillet C**, Rabufetti D., Kalm V. (2010) Debris flow burial of ancient wall system in the Upper Po River valley. **Geology Today** 26(6), 209-215. DOI: 10.1111/j.1365-2451.2010.00768.x
- 65 - Blarquez O., **Carcaillet C** (2010) Fire, fuel composition and resilience threshold in subalpine ecosystem. **PLoS ONE** 5(8), e012480 doi:10.1371/journal.pone.0012480

- 64 - Mahaney W.C., Tricart P., **Carcaillet C**, Blarquez O., Ali A.A., Kapran B., Argant J., & Barendregt R.W. (2010) Hannibal's invasion route: an age-old question revisited within a geoarchaeological and palaeobotanical context. **Archaeometry** 52(6), 1096-1109, DOI: 10.1111/j.1475-4754.2010.00526.x
- 63 - Blarquez O., Bremond L., **Carcaillet C** (2010) Holocene fires and a herb-dominated understory track wetter climates in subalpine forests. **Journal of Ecology** 98, 1358-1368, doi: 10.1111/j.1365-2745.2010.01721.x
- 62 – Bergeron Y., Cyr D., Girardin M.P., **Carcaillet C** (2010) Will climate change drive 21st century burn rates in Canadian boreal forest outside of its natural variability: collating global climate model experiments with sedimentary charcoal data. **International Journal of Wildland Fire** 19(8), 1127-1139. DOI: 10.1071/WF09092
- 61 – **Carcaillet C**, Richard P.J.H., Bergeron Y., Fréchette B., Ali A.A. (2010) Resilience of the boreal forest in response to Holocene fire-frequency changes assessed by pollen diversity and population dynamics. **International Journal of Wildland Fire** 19(8), 1026-1039. DOI: 10.1071/WF09097
- 60 – Bremond L., **Carcaillet C**, Favier C., Ali A.A., Paitre C., Bégin Y., Bergeron Y., Richard P.J.H. (2010) Effects of vegetation zones and climatic changes on fire-induced atmospheric carbon emissions: a model based on paleodata. **International Journal of Wildland Fire** 19(8), 1015-1025. DOI: 10.1071/WF09096
- 59 – Hély C., Girardin M.P., Ali A.A., **Carcaillet C**, Brewer S., Bergeron Y. (2010) Eastern boreal North American wildfire risk of the past 7000 years: a model-data comparison. **Geophysical Research Letters** 37, L14709, doi:10.1029/2010GL043706
- 58 - Mourier B., Poulenard J., **Carcaillet C** & Williamson D. (2010) Soil evolution and subalpine ecosystem changes in the French Alps inferred from geochemical analysis of lacustrine sediments. **Journal of Paleolimnology** 44, 571-587 DOI 10.1007/s10933-010-9438-0
- 57 – Chauchard S., Beihle F., Denis N. & **Carcaillet C** (2010) An increase in the upper tree-limit of silver fir (*Abies alba* Mill.) in the Alps since the mid-20th century: a land-use change phenomenon. **Forest Ecology and Management** 259, 1406-1415 | doi:10.1016/j.foreco.2010.01.009.
- 56 - Blarquez O., **Carcaillet C**, Mourier B., Bremond L., Radakovitch O. (2010) Trees in the subalpine belt since 11 700 cal. BP: origin, expansion and alteration of the modern forest. **The Holocene**, 20, 139-146 doi.10.1177/0959683610348857
- 55 - Mahaney W.C., Kapran B., Kalm V., Tricart P., **Carcaillet C**, Blarquez O., Milner M.W., Barendregt R.W., Somelar P. (2010) The traversette (Italia) rockfall: geomorphological indicator of the Hannibalic invasion route. **Archaeometry** 52(1), 156-172 | doi: 10.1111/j.1475-4754.2009.00463.x
- 2009**
- 54 - Chepstow-Lusty A.J., Frogley M.R., Bauer B.S., Leng M.J., Boessenkool K.P., **Carcaillet C**, Ali A.A. & Gioda A. (2009) Putting the rise of the Inca Empire within a climatic and land management context. **Climate of the Past**, 5, 375-388 www.clim-past.net/5/375/2009/cp-5-375-2009.html
- 53 - Ali A.A., Higuera P.E., Bergeron Y., **Carcaillet C** (2009) Comparing fire-history interpretations based on area, number and estimated volume of macroscopic charcoal in lake sediments. **Quaternary Research** 72, 462-468 10.1016/j.yqres.2009.07.002
- 52 - Genries A., Morin X., Chauchard S., **Carcaillet C** (2009) The function of surface fires in the dynamics and structure of a formerly grazed old subalpine forest. **Journal of Ecology** 97, 728-741, doi: 10.1111/j.1365-2745.2009.01518.x
- 51 - Girardin M.P., Ali A.A., **Carcaillet C**, Mudelsee M., Drobyshev I., Hély C., Bergeron Y., (2009) Heterogeneous response of circumboreal wildfire risk to climate change since the early 1900s. **Global Change Biology** 15, 2751-2769. 10.1111/j.1365-2486.2009.01869.x
- 50 - Marlon J.R., Bartlein P.J., Walsh M.K., Harrison S.P., Brown K.J., Edwards M.E., Higuera P.E., Power M.J., Anderson R.S., Briles C., Brunelle A., **Carcaillet C**, Daniels M., Hu F.S., Lavoie M., Long C., Minckley T., Richard P.J.H., Scott A.C., Shafer D.S., Tinner W., Umbanhowar C.E.Jr., Whitlock C. (2009) Wildfire responses to abrupt climate change in North America. **Proceedings of the National Academy of Sciences** 106(8), 2519-2524. doi:10.1073/pnas.0808212106.
- 49 - Ali A.A., **Carcaillet C** & Bergeron Y. (2009) Long-term fire frequency variability in the eastern Canadian boreal forest: the influences of climate vs. local factors. **Global Change Biology** 15, 1230-1241 doi.10.1111/j.1365-2486.2009.01842.x
- 48 - Cyr D., Gauthier S., Bergeron Y. & **Carcaillet C** (2009) Forest management is driving the eastern part of North American boreal forest outside its natural range of fire-interval variability. **Frontiers in Ecology and the**

Environment 7(10), 519-524. doi:10.1890/080088

- 47 - Genries A., Muller S.D., Mercier L., Bircker L., **Carcaillet C** (2009) Fires control spatial variability of subalpine vegetation dynamics during the Holocene in the Maurienne valley (French Alps). **Ecoscience** 16(1), 13-22.
- 46 - **Carcaillet C**, Ali A.A., Blarquez O., Genries A., Mourier B., Bremond L. (2009) Spatial variability of fire history in subalpine forests: from natural to cultural regimes. **Ecoscience** 16(1): 1-12. DOI 10.2980/16-1-3189
- 45 - Motta R., Brang P., **Carcaillet C** (2009) Remarques liminaires : aléas et perturbations naturelles dans les forêts de montagne – Introductory remarks: Natural hazards and disturbances in mountain forests. **Ecoscience** 16(1), iii-v.
- 44 - Genries A., Mercier L., Lavoie M., Muller S.D., Radakovitch O. & **Carcaillet C** (2009) The effect of fire frequency on local cembra pine populations. **Ecology** 90(2), 476-486. DOI: 10.1890/07-1740.1
- 43 - **Carcaillet C**, Fauvart N., Roiron P., Terral J.-F., Ali A.A. (2009) A new, isolated and endangered relict population of dwarf pine (*Pinus mugo* Turra) in the northwestern Alps. **Comptes Rendus Biologies** 332, 456-463.

2008

- 42 - Marlon J.R., Bartlein P.J., **Carcaillet C**, Gavin D.G., Harrison S.P., Higuera P.E., Joos F., Power M.J. & Prentice I.C. (2008) Climate and human influences on global biomass burning over the past two millennia. **Nature Geoscience** 1, 697-702. **Article cité par IPBES 2019 report (chapter 2.2. 'Satus and trends')**
- 41 - Mourier B., Poulénard J., Chauvel C., Faivre P., **Carcaillet C** (2008) Distinguishing subalpine soil types using extractible Al and Fe fractions and REE geochemistry. **Geoderma** 145, 107-120. doi:10.1016/j.geoderma.2008.03.001
- 40 - Power M.J., Marlon J., Ortiz N., Bartlein P.J., Harrison S.P., Mayle F.E., Ballouche A., Bradshaw R.H.W., **Carcaillet C**, Cordova C., Mooney S., Moreno P.I., Prentice I.C., Thonicke K., Tinner W., Whitlock C., Zhang Y., Zhao Y., Ali A.A., Anderson R.S., Beer R., Behling H., Briles C., Brown K.J., Brunelle A., Bush M., Camill P., Chu G.Q., Clark J., Colombaroli D., Connor S., Daniiau A.-L., Daniels M., Dodson J., Doughty E., Edwards M.E., Finsinger W., Foster D., Frechette J., Gaillard M.-J., Gavin D.G., Gobet E., Haberle S., Hallett D.J., Higuera P., Hope G., Horn S., Inoue J., Kaltenreider P., Kennedy L., Kong Z.C., Larsen C., Long C.J., Lynch J., Lynch E.A., McGlone M., Meeks S., Mensing S., Meyer G., Minckley T., Mohr J., Nelson D.M., New J., Newnham R., Noti R., Oswald W., Pierce J., Richard P.J.H., Rowe C., Sanchez Goñi M.F., Shuman B.J., Takahara H., Toney J., Turney C., Urrego-Sanchez D.H., Umbanhowar C., Vandergoes M., Vanniere B., Vescovi E., Walsh M., Wang X., Williams N., Wilmshurst J. & Zhang J.H. (2008) Changes in fire regimes since the Last Glacial Maximum: an assessment based on a global synthesis and analysis of charcoal data. **Climate Dynamics**, 30, 887-907. DOI 10.1007/s00382-007-0334-x
- 39 - Ali A.A., Asselin H., Larouche A.C., Bergeron Y., **Carcaillet C**, Richard P.J.H. (2008) Changes in fire regime explain the Holocene rise and fall of *Abies balsamea* in the coniferous forests of western Québec, Canada. **The Holocene** 18(5), 693-703.
- 38 - Capitanio R. & **Carcaillet C** (2008) Post-fire Mediterranean vegetation dynamics and diversity: a discussion of succession models. **Forest Ecology and Management**, 255, 431-439. doi:10.1016/j.foreco.2007.09.010

2007

- 37 - Chauchard S., **Carcaillet C** & Guibal F. (2007) Patterns of land-use abandonment control tree-recruitment and forest dynamics in Mediterranean mountains. **Ecosystems**, 10, 936-948, DOI: 10.1007/s10021-007-9065-4
- 36 - **Carcaillet C**, Perroux A.-S., Genries A. & Perrette Y. (2007) Sedimentary charcoal pattern in a karstic underground lake, Vercors massif, French Alps: implications for palaeo-fire history. **The Holocene**, 17(6), 845-850. 10.1177/0959683607080526
- 35 - Muller S.D., Nakagawa T., de Beaulieu J.-L., Court-Picon M., **Carcaillet C**, Miramont C., Roiron P., Bouterin C., Ali A.A. & Bruneton H. (2007) Postglacial migration of silver fir (*Abies alba* Mill.) in the south-western Alps. **Journal of Biogeography**, 34, 876-899.
- 34 - **Carcaillet C.**, Bergman I., Delorme S., Hörnberg G. & Zackrisson O. (2007) Long-term fire frequency not linked to prehistoric occupations in northern Swedish boreal forest. **Ecology** 88(2), 465-477. DOI: 10.1890/0012-9658(2007)88[465:LFFNLT]2.0.CO;2

2006

- 33 - Quéneá K., Derenne S., Rumpel C., Rouzaud J.-N., Gustafsson O., **Carcaillet C**, Mariotti A. & Largeau C. (2006) Black carbon yields and type in forest and cultivated sandy soils (Landes de Gascogne, France) as determined with different methods: influence of change in land use. **Organic Geochemistry**, 37, 1185-1189.

- 32 - Ali A.A., Martinez M., Fauvart N., Roiron P., Fioraso G., Guendon J.-L., Terral J.-F. & **Carcaillet C** (2006) Incendies et peuplements à *Pinus mugo* Turra dans les Alpes occidentales (Val de Suse, Italie) durant la transition Tardiglaciaire – Holocène : une zone refuge évidente. **Comptes Rendus Biologies**, 329, 494-501
- 31 - **Carcaillet C.**, Richard P.J.H., Asnong H., Capece L. & Bergeron Y. (2006) Fire and soil erosion history in east Canadian boreal and temperate forests. **Quaternary Science Reviews**, 25, 1489-1500. 10.1016/j.quascirev.2006.01.004
- 30 - Chauchard S., Pille G. & **Carcaillet C** (2006) Large herbivores control the invasive potential of nonnative Austrian black pine in a mixed deciduous Mediterranean forest. **Canadian Journal of Forest Research**, 36, 1047-1053
- 2005**
- 29 - Ali A.A., **Carcaillet C**, Talon B., Roiron P. & Terral J.-F. (2005) *Pinus cembra* L. (arolla pine), a common tree in the inner French Alps since the early Holocene and above the present tree line: a synthesis based on charcoal data from soils and travertines. **Journal of Biogeography**, 32, 1659-1669.
- 28 – Carcaillet C. & Muller S.D. (2005) Holocene tree-limit and distribution of *Abies alba* in the inner French Alps: anthropological or climatic changes? **Boreas**, 34(4), 468-476.
- 27 – Figueiral I. & **Carcaillet C** (2005) A review of Late Pleistocene and Holocene biogeography of highland Mediterranean pines (*Pinus* type *sylvestris*) in Portugal, based on charcoal. **Quaternary Science Reviews**, 24, 2466-2476. <http://dx.doi.org/10.1016/j.quascirev.2005.02.004>
- 26 – Keech O., **Carcaillet C** & Nilsson M.-C. (2005) Adsorption of allelopathic compounds by wood-derived charcoal: the role of wood porosity. **Plant and Soil** 272, 291-300. DOI 10.1007/s11104-004-5485-5
- 2004
- 25 – Roiron P., Ali A.A., Guendon J.-L., **Carcaillet C** & Terral J.-F. (2004) Preuve de l'indigénat de *Populus alba* L. dans le bassin méditerranéen occidental. **Comptes Rendus Biologies** 327, 125-132.
- 2003**
- 24 - Ali A.A., **Carcaillet C**, Guendon J.-L., Quinif Y., Roiron P. & Terral J.-F. (2003) The early Holocene treeline in the southern French Alps: new evidence from travertine formation. **Global Ecology and Biogeography** 12, 411-419 DOI: 10.1046/j.1466-822X.2003.00055.x
- 23 - Hellberg E. & **Carcaillet C** (2003) Wood anatomy of West-European *Betula*: quantitative descriptions and applications for routine identification in paleoecological studies. **Ecoscience** 10, 370-379.
- 22 - Philibert A., Prairie Y.T. & **Carcaillet C** (2003) 1200 year of fire impact on biogeochemistry as inferred from high resolution diatom analysis in a kettle lake from the *Picea mariana*-moss domain (Quebec, Canada). **Journal of Paleolimnology** 30, 167-181, 10.1023/A:1025526200880
- 2002**
- 21 - **Carcaillet C**, Almquist H., Asnong H., Bradshaw R.H.W., Carrión J.S., Gaillard M.-J., Gajewski K., Haas J.N., Haberle S.G., Hadorn P., Müller S.D., Richard P.J.H., Richoz I., Rösch M., Sánchez Goñi M.F., von Stedingk H., Stevenson A.C., Talon B., Tardy C., Tinner W., Tryterud E., Wick L. & Willis K.J. (2002) Holocene biomass burning and global dynamics of the carbon cycle. **Chemosphere** 49, 845-863.
- 2001**
- 20 - **Carcaillet C** (2001) Soil particles reworking evidences by AMS ¹⁴C dating of charcoal. **Comptes Rendus de l'Académie des Sciences Paris, Série Sciences de la Terre et des Planètes** 332, 21-28. DOI: [10.1016/S1251-8050\(00\)01485-3](https://doi.org/10.1016/S1251-8050(00)01485-3)
- 19 - **Carcaillet C**, Bergeron Y, Richard PJH, Fréchette B, Gauthier S, Prairie YT (2001) Change of fire frequency in the eastern Canadian boreal forests during the Holocene: does vegetation composition or climate trigger the fire regime? **Journal of Ecology** 89, 930-946. DOI: 10.1111/j.1365-2745.2001.00614.x
- 18 - **Carcaillet C**, Bouvier M, Fréchette B, Larouche AC, Richard PJH (2001) Comparison of pollen-slide and sieving methods in lacustrine charcoal analyses for local and regional fire history. **The Holocene** 11, 467-476.
- 17 - **Carcaillet C**, Talon B (2001) Soil carbon sequestration by Holocene fires inferred from soil charcoal in the dry French Alps. **Arctic, Antarctic, and Alpine Research** 33, 282-288, doi: [10.2307/1552235](https://doi.org/10.2307/1552235)
- 16 - **Carcaillet C**, Vernet JL (2001) Comments on "The full-glacial forests of central and southeastern Europe" (Willis *et al.*, 2000). **Quaternary Research** 55, 385-387.

- 15 - Flannigan M, Campbell I, Wotton M, **Carcaillet C**, Richard P, Bergeron Y (2001) Future fire in Canada's boreal forest: palaeoecology results and general circulation model - regional climate model simulations. **Canadian Journal of Forest Research** 31, 854-864.
- 14 - **Carcaillet C** (2001) Are Holocene wood-charcoal fragments stratified in alpine and subalpine soils? Evidence from the European Alps based on AMS ¹⁴C dates. *The Holocene* 11, 231-242.

2000

- 13 - **Carcaillet C**, Brun JJ (2000) Changes in landscape structure in the north-western Alps over the last 7000 years: lessons from soil charcoal. *Journal of Vegetation Science* 11, 705-714. DOI: 10.2307/3236577
- 12 - **Carcaillet C**, Richard PJH (2000) Holocene changes in seasonal precipitation highlighted by fire incidence in eastern Canada. *Climate Dynamics* 16, 549-559.

≤ 1999

- 11 - Bergeron Y, Richard PJH, **Carcaillet C**, Flannigan M, Gauthier S, Prairies YT (1998) Variability in fire frequency and forest composition in Canada's southeastern boreal forest: a challenge for sustainable forest management. *Ecology and Society* 2(2), art.6 10.5751/ES-00049-020206 <http://www.ecologyandsociety.org/issues/ref.php/49/rm>
- 10 - **Carcaillet C** (1998) A spatially precise study of fires, climate and human impact within the Maurienne valley, North French Alps. *Journal of Ecology* 86, 384-396. DOI:10.1046/j.1365-2745.1998.00267.x
- 9 - **Carcaillet C**, Talon B, Barbero M (1998) *Pinus cembra* et incendies au cours de l'Holocène, 300 m au-dessus de la limite actuelle des arbres dans les Alpes du nord-ouest. *Écologie* 29, 277-282.
- 8 - Talon B, **Carcaillet C**, Thion M (1998) Apport de la pédoanthracologie à l'étude des variations de la limite supérieure des arbres dans les Alpes françaises. *Géographie physique et Quaternaire* 52, 195-208.
- 7 - **Carcaillet C** (1997) Évolution de la structure du paysage pendant l'Holocène dans la haute vallée de la Maurienne (Alpes du nord-ouest): présentation d'un programme de paléoécologie du paysage. *Ecologia Mediterranea* 23(1), 131-143.
- 6 - **Carcaillet C**, Barakat HN, Panaïotis C, Loisel R (1997) Fire and late Holocene expansion of *Quercus ilex* and *Pinus pinaster* in Corsica. *Journal of Vegetation Science* 8, 85-94. DOI: 10.2307/3237246
- 5 - Panaïotis C, **Carcaillet C**, M'Hamed M (1997) Determination of the natural mortality age of an old holm oak (*Quercus ilex* L.) stand in Corsica (Mediterranean island). *Acta Oecologica* 18, 519-530.
- 4 - **Carcaillet C**, Thion M (1996) Pedoanthracological contribution to the evolution of the upper treeline in the Maurienne Valley (North French Alps): Methodology and preliminary data. *Review of Palaeobotany and Palynology* 91, 399-416.
- 3 - **Carcaillet C**, Talon B (1996) Stratigraphie et datations de charbons de bois dans les Alpes: quelques aspects taphonomiques. *Géographie physique et Quaternaire* 50, 233-244, doi 10.7202/033091ar
- 2 - **Carcaillet C** (1995) Effects of gales and salt sprays on the composition and structure of vegetation on well-drained slopes of Possession-island (Crozet-archipelago, sub-Antarctic). *Canadian Journal of Botany* 73, 1739-1749.
- 1 - **Carcaillet C** (1993) Invasive vascular plants in the Crozet archipelago southern-ocean. *Revue d'Écologie (Terre et Vie)*, 48, 3-20.

Scientific articles in national journals

- 7 – Fortuny X., Garrigue J., Magdalou J.-A., Chauchard S., **Carcaillet C**. (2012) Usages et biodiversité dans les forêts méditerranéennes – L'exemple du massif des Albères (Pyrénées-Orientales). **Forêt Méditerranéenne** 33(2), 165-172.
- 6 – **Carcaillet C.**, Bergeron Y., Ali A.A., Gauthier S., Girardin M.P., Hély C. (2010) Holocene fires in eastern Canada: towards a forest management perspective in light of future global changes. **PAGES News** 18(2), 68-70.
- 5 - **Carcaillet C.**, Ali A.A., Fauvart N., Roiron P., Terral J.-F. (2009) Présence de pins prostrés dans le massif du mont Cenis (*Pinus mugo* Turra) : discussion sur la pérennité de la population. **Travaux scientifiques du Parc national de la Vanoise** 24, 57-67.
- 4 - Beihle F., **Carcaillet C.**, Chauchard S. (2009) Élévation de la limite supérieure du sapin pectiné (*Abies alba*) depuis 1950 en Maurienne, Savoie. **Travaux scientifiques du Parc national de la Vanoise** 24, 44-56.

- 3 - Blarquez O., **Carcaillet C.**, Mourier B. (2009) Une forêt subalpine à mélèze dominant dans un vallon avalancheux : 9000 ans d'histoire révélés par l'analyse des macrorestes végétaux d'un lac de Maurienne. **Travaux scientifiques du Parc national de la Vanoise** 24, 33-44.
- 2 – Genries A., **Carcaillet C.** (2009) Impact des feux sur la richesse et la dynamique des communautés forestières subalpines en Vanoise. **Travaux scientifiques du Parc national de la Vanoise** 24, 19-31.
- 1 - Mercier L., Genries A., Lavoie M., Ali A.A., Bircker L., **Carcaillet C.** (2009) Histoire des feux et de la dynamique végétale : reconstruction paléobotanique d'un écosystème subalpin de Vanoise méridionale. **Travaux scientifiques du Parc national de la Vanoise** 24, 7-18.

Academic book chapters

- 2 - Chauchard S., Guibal F. & **Carcaillet C.** (2010) L'hétérogénéité du paysage forestier post-déprise agricole s'oppose à une apparente banalisation des paysages. In Galochet M. & Glon E. (eds) **Des milieux aux territoires forestiers**, Artois Presses Université, pp. 169-181.
- 1 - **Carcaillet C.**, (2007) Charred particles analyses. in Elias S.A., **Encyclopedia of Quaternary Science**, Elsevier, Amsterdam, pp. 1582-1593. [10.1016/B0-44-452747-8/00187-3](https://doi.org/10.1016/B0-44-452747-8/00187-3)

Proceedings (peer-reviewed)

- 20 – Molinari C., Bradshaw R.H.W., **Carcaillet C.**, Hannon G., Lehsten V. (2020) Role of vegetation on fire behaviour in Fennoscandia forests during the Holocene. **European Geophysical Union General Assembly**, EGU2020-2914, doi.org/10.5194/egusphere-egu2020-2914
- 19 – Molinari C., Leshten V., Blarquez O., Clear J., **Carcaillet C.**, Bradshaw R.H.W. (2015) Main dynamics and drivers of boreal forests fire regimes during the Holocene. **Geophysical Research Abstracts**, 16, EGU2015-428, DOI: 10.13140/RG.2.1.4411.2889
- 19- Housset J., Girardin M., Baconnet M., **Carcaillet C.**, Bergeron Y. (2015) Effect of climate on the radial growth of *Thuja occidentalis* northern marginal populations in Québec. **Tree Rings in Archeology, Climatology and Ecology (TRACE)**, 13, 82-85, DOI: 10.2312/GFZ.b103-15069 DOI: 10.13140/RG.2.1.3887.0001
- 18 – Naisse C., Alexis M., Wiedner K., Glaser B., Pozzi A., **Carcaillet C.**, Criscuoli I., Miglietta F., Rumpel C. (2014) Biochar and hydrochar reactivity assessed by chemical, physical and biological methods. **Geophysical Research Abstracts**, 16, EGU2014-14001 SRef-ID: 1607-7962/gra/EGU2008-A-11945, DOI: 10.13140/RG.2.1.2314.1367
- 17 - Battipaglia G., De Micco V., Saurer M., Aronne G., **Carcaillet C.**, Cherubini P. (2013) 7 Effects of wildfires on *Pinus halepensis* Mill inferred from tree ring isotopic and anatomical analysis. In: Arena C., Battipaglia G., Cherubini P., De Micco V., Sass-Klaassen U. (Eds.) Proceedings of the International Symposium on Wood Structure in Plant Biology and Ecology, Naples, Italy, 17-20 April., p-69
- 16 - Battipaglia G., De Micco V., Fournier T., Aronne G., **Carcaillet C.** (2012) Effects of wildfires on *Pinus halepensis* Mill physiological processes inferred from tree-rings isotopic and anatomical analysis. Joint European Stable Isotope Users Group Meeting JESIUM 2–7 September 2012, Leipzig • Germany
- 15 - Battipaglia G., De Micco V., Fournier T., Aronne G., **Carcaillet C.** (2011) Post-fire ecophysiological and anatomical processes: *P. halepensis* strategies inferred from $\delta^{13}C$, $\delta^{18}O$ and QWA. 12th EEF Congress. Avila, Spagna, 25-29 Septembre 2011. S.08-02-O, p. 55.
- 14 – Battipaglia G., De Micco V., Fournier T., Aronne G., **Carcaillet C.** (2011) Effects of wildfires on *Pinus halepensis* Mill ecophysiology inferred from tree-rings isotopic and anatomical analysis. In: Giancuzza P. & Chemello R. (Eds.) **Riassunti XXI Congresso della Società Italiana di Ecologia**, Società Italiana di Ecologia p. 19. ISSN 1127-5006.
- 13 – Mourier B., Poulénard J., Blarquez O., Williamson D., Arnaud F., **Carcaillet C.** (2009) Does sediment geochemistry (based on selective extractions of Al and Fe and REE) provide a record of soil evolution? **Geophysical Research Abstracts**, 11, EGU2009-10851 , DOI: 10.13140/RG.2.1.2314.1367
- 12 - Williamson D., Majule A., Delvaux D., Mbede E., Barker P., Bergonzini L., Bremond L., Limyu J., Magongo F., Mathé P.-E., Yanda P.Z., Chalié F., Guiot J., Ortlieb L., Valimba P., Vincens A. and the RESON team members (*Rungwe Environmental Science Observatory Network: Abdalla E., Alexandre A., Bonnefille R., Buchet G., **Carcaillet C.**, Decobert M., Delalande M., Descolas C., Farjon P., Fontijn K., Gasse F., Ernst G., Hely-Alleaume C.,

- Jolly D., Garcin Y., Gwambene B., Grossi V., Issah A., Jenk M., Kajula S., Kinabo C., Kangalawe R., Liwenga E., Maboko M.A.H., Mambo D., Marohbe I., Merdaci O., de Mesmay R., Mwandapile E., Parisot J.C., Quantin C., Radakovitch O., Schäffer P., Sokoni R., Sheshambo F., Sylvestre F., Taieb M., Thevenon F., Thouveny N., Turcq B., Vadeboin F., Vendé J. and the Masoko village community) (2008) A 4D approach to unravel the impacts of geodynamics, climate and human activities on biogeochemical cycles, hydrological thresholds, and ecosystems: the Rungwe Environmental Science Observatory Network (Tanzania). **Geophysical Research Abstracts**, 10, EGU2008-A-11945, 2008 SRef-ID: 1607-7962/gra/EGU2008-A-11945, DOI: 10.13140/RG.2.1.3362.7123
- 11 – Chauchard S., **Carcaillet C.**, Guibal F. (2006) Threshold of land-use abandonment controls the rate of tree regeneration and forest dynamics in a Mediterranean mountain (Provence, France). **Tree Rings in Archeology, Climatology and Ecology (TRACE)** vol. 5, 172-178, DOI: 10.13140/RG.2.1.1265.5602
- 10 - **Carcaillet C.**, Ali A.A., Faivre P., Genries A., Lavoie M., Mercier L., Mourier B., Muller S.D., Poulenard J., Radakovitch O., Roiron P., Talon B., Terral J.-F., Williamson D. (2005) Conséquences écologiques à long terme des feux sur le fonctionnement et la diversité d'un écosystème de montagne. **Programme National, ECCO : Premier colloque de restitution scientifique**, 177-182
- 9 – Quénéa K., Derenne S., Largeau C., Rumpel C., Rouzaud J.-N., Gustafsson O., **Carcaillet C.** (2005) Characterisation and quantification of black carbon (BC) in forest and cultivated sandy soils. Parallel study on reference chars of the BC ring trial. **Geophysical Research Abstracts**, 7, 03471, DOI: 10.13140/RG.2.1.2576.2807
- 8 - Bergeron Y., Gauthier S., **Carcaillet C.**, Flannigan M., Prairie Y., Richard P. (1999) Variability in fire frequency and forest composition in Canada's southeastern boreal forest: a challenge for sustainable forest management. In: Veeman T.S., Smith D.W., Purdy B.G., Salskie F.J., Larkin G.A. (Eds.), **Science and Practice: Sustaining the Boreal Forest**, Edmonton (AB), Canada, pp. 74-80.
- 7 - **Carcaillet C.**, Fréchette B., Richard P.J.H., Bergeron Y., Gauthier S., Prairie Y.T. (1999) Fire frequency, vegetation and climate changes since 6800 yrs in the Eastern Boreal Forest, Abitibi, Québec. In: : Veeman T.S., Smith D.W., Purdy B.G., Salskie F.J., Larkin G.A. (Eds.), **Science and Practice: Sustaining the Boreal Forest**, Edmonton (AB), Canada, pp. 87-91.
- 6 - **Carcaillet C.**, Richard P.J.H. (1998) Fire incidence and palaeohydrology: evidence from postglacial charcoal stratigraphy of lacustrine deposits in Eastern Canada. **Geological Society of America Abstracts with Programs**, 30(1), p. 10.
- 5 - Flannigan M., Wotton M., **Carcaillet C.**, Richard P.J.H., Campbell I., Bergeron Y. (1998) Fire weather : past, present and future. In: Viegas D.X. (Ed.), **Forest Fire Research**, Luzo, Portugal, pp. 113-128.
- 4 - Flannigan M., Wotton M., Richard P.J.H., **Carcaillet C.**, Bergeron Y. (1998) Fire weather : past, present and future. In: American Meteorological Society (Ed.), **9th Global Change Studies**, Boston, (Massachusetts, USA), pp. 305-309.
- 3 - Ridoux V., Guinet C., **Carcaillet C.**, Creton P. (1996) Les mammifères marins et la réserve de biosphère de l'Iroise. **XVIIIème Colloque francophone de mammalogie**, SFPEM Société Française d'Étude et de Protection des Mammifères (Ed.), 1994, , Bourges, France pp. 46-58
- 2 - **Carcaillet C.**, Creton P., Guinet C., Ridoux V. (1993) Seasonal variations in haul-out pattern of grey seals, *Halychaerus grypus*, in Brittany. Proceedings of the **Seventh Annual Conference of the European Cetacean Society**, Inverness, Scotland, 18-21 February 1993 European Research on Cetaceans 7, 295-298.
- 1 - Guinet C., Allali P., **Carcaillet C.**, Creton P., Liret C., Ridoux V. (1993) Bottlenosed dolphin (*Tursiops truncatus*) in western Brittany. In Proceedings of the **Seventh Annual Conference of the European Cetacean Society**, Inverness, Scotland, 18-21 February 1993 European Research on Cetaceans 7, 72-73.

Other production (International)

- 2 – Colombaroli D, Mistry J, Milner A, Vanniere B, Adolf C, Bilbao BA, **Carcaillet C**, Connor S, Daniau AL, Hawthorne D, Jeffers E, Larson E, Petrokofsky G, Power MJ, Sinnadurai P, Berrio JC, Cassino R, Gildeeva O, Grosvenor M, Hardiman M, Hennebelle A, Kuosmanen N, Lestienne M, Portes MC, Rockell G, Tsakiridou M, Walsh A (2019) **Diverse knowledge informing fire policy and biodiversity conservation**. DiverseK Policy Brief, a PAGES commissioned report. Published by, the Royal Holloway University of London, UK. [10.13140/RG.2.2.22601.29284](https://doi.org/10.13140/RG.2.2.22601.29284)
- 1 – Drexler C, Braun V, Christie D, Claramunt B, Dax T, Jelen I, Kanka R, Katsoulakos N, Le Roux G, Price M, Scheurer T, Weingartner R (and Acma B, Abbott C, Björnsen-Gurung A, Borsdorf A, Bourdeau P, **Carcaillet C**, Giorgi A, MacRury S, Marchant R, Muhar A, Popartan AC, Ricketts E, Zilio E (2016) **Mountains for Europe's future, a strategic research**

agenda. CH-AT Alliance, 41 pages.

Popularizing science

Conferences

- **Carcaillet C.** 01 Octobre 2019, « Refuges du pin cembro dans le Mercantour et les Alpes-Occidentales ». National Park of Mercantour, 40 years of the National Park colloquia, Barcelonnette, France | <https://www.youtube.com/watch?v=BaiqFwefej4>
- **Carcaillet C.** 11 Octobre 2018, Le nunatak du Lac Miroir. Regional Natural Park of Queyras, Ceillac, France
- Bergeron Y et **Carcaillet C.**, 7 Decembre 2011. L'épreuve boréale. Centre culturel scientifique Cœur des Sciences, salle Agora Hydro-Québec, 175, avenue du Président-Kennedy, Montréal (QC), Canada <http://www.coeurdessciences.uqam.ca/>



Popularizing articles

- 5 – Fauché A., Fleuriot C., Le Fur S., Ton L., Carcaillet F., **Carcaillet C.** (2022) When Mediterranean plant diversity profits from wildfires. *Frontiers for Young Minds* doi: 10.3389/frym.2022.810556
- 4 - **Carcaillet C.**, Frejaville T. 2019. Les forêts neigeuses, une longue histoire d'adaptation aux feux. *TheConversation* 26 aout 2019. <https://theconversation.com/les-forets-neigeuses-une-longue-histoire-dadaptation-au-feu-122154>
- 3 - **Carcaillet C.**, 2018. Des oasis dans les Alpes pendant la période glaciaire. *TheConversation* 23 avril 2018. <https://theconversation.com/des-oasis-dans-les-alpes-pendant-la-periode-glaciaire-95111>
- 2 – **Carcaillet C.**, Leys B., 2012. Feux de forêts – 11000 ans d'histoire commune. *Stantari* 30 (août-octobre), 11-17.
- 1 - Ridoux V., Guinet C., **Carcaillet C.**, Creton P., Lafond J.-P., 1995. Utilisation de l'espace par les mammifères marins dans l'archipel de Molène. *Penn ar Bed*, 157/158, 50-59.

Books and book chapters

- 6 – Latil J.L., Cortot H., **Carcaillet C.**, Aubert S. (2012) Les tufs du Col du Lautaret ; patrimoine, botanique et géologie : 14000 ans d'histoire. *Les Cahiers illustrés du Lautaret*, no 3, Jardin botanique Alpin du Lautaret.
- 5 - **Carcaillet C.** (2009) Changements des environnements anciens et pratiques humaines. *In* Jaillard B., Poss R. (eds) *Le sol, épiderme vivant de la Terre*, dossier thématique sols, *Les dossiers d'Agropolis International*, 8, p. 40.
- 4 - **Carcaillet C.** (2009) Augmentation de la fréquence des feux et pédogénèse. *In* Jaillard B., Poss R. (eds) *Le sol, épiderme vivant de la Terre*, dossier thématique sols, *Les dossiers d'Agropolis International*, 8, p. 41.
- 3 - **Carcaillet C.** et Blanchemanche P. (2009) Les sols enregistrent l'histoire des hommes et des écosystèmes. *In* Jaillard B., Poss R. (eds) *Le sol, épiderme vivant de la Terre*, dossier thématique sols, *Les dossiers d'Agropolis International*, 8, 38-39.
- 2 - **Carcaillet C.**, Vannière B. (2004) Les incendies de végétation : une très vieille histoire naturelle et humaine. *In* Garrone B. (ed), *Le feu dans la nature : mythes et réalité*. Édition Les Ecologistes de l'Euzière, Montpellier, p. 40-49.
- 1- **Carcaillet C.**, Talon B. (2003) La forêt en France depuis la dernière glaciation. *In* Vallaurie D. (ed.), *Livre blanc sur la protection des forêts naturelles en France, forêts métropolitaines*, Édition TEC & DOC, Paris, p.19-33.

Animation moovies

- 3 - Film d'animation : Fauché A., Fleuriot C., Le Fur S., Ton L., Carcaillet F., **Carcaillet C.** (2021) « Au feu la forêt, la diversité revient ». <https://youtu.be/U9t0S8JkOkg>
- 2 - Film d'animation : Caruana-Solum C., Cochard A., Brégon P., encadrement **Carcaillet C.** (2019) « Les forêts sous le feu des projecteurs ». <https://youtu.be/jnxc-Beycnc>
- 1 - Film d'animation : Bousquet C., Corroleur E., Giguët E., Pappalardo C., **Carcaillet C.** (2018) « Des arbres à l'âge de glace ». <https://youtu.be/yemEbyEd5MI>

Academic invitation: colloquia and seminars

Colloquia

2018

- ◆ 5 septembre 2018 - (Carcaillet C.) How paleostudies can inform the present ecological debates on biodiversity management. Key-note speaker, PAGES- Global Paleofire meeting 'Diverse Knowledge systems for fire policy and biodiversity conservation', Royal Holloway University of London, Egham, UK.

2016

- ◆ 29 juin 2016 - (Carcaillet C.) *Il y a 11 000 ans au Lautaret, des arbres avec vue sur glacier*. Séminaire 'Hommage scientifique à Serge Aubert', Station Alpine Joseph Fourier, Lautaret, 29-30 juin 2016.
- ◆ 6 juin 2016 – (Carcaillet C.) *Post-fire biodiversity dynamics of plant communities in Mediterranean forests. Organization for the phyto-taxonomic investigation of the Mediterranean area* (15th OPTIMA Meeting) Montpellier, France. 6-11 Juin 2016. [invited by Prof. Benito Valdes, U. of Seville, Spain]

2012

- ◆ 21-23 juin 2012 – (Carcaillet C.) Discussion leader - Paleofire reconstruction during the Holocene and the last interglacial – proxies, data and models (a PAGES IGBP workshop). Venise, Italie. 21-23 Juin 2012.

2011

- ◆ 29 juin 2011 – (Blarquez O. et Carcaillet C.) *Working with archives: Holocene history of Alpine vegetations*. 54th International Symposium of the International Association for Vegetation Science. Post-symposium excursion. Termignon, France. 29 June 2011.

2008

- ◆ 28 octobre 2008 – *L'empreinte humaine sur les forêts d'Europe: du paléolithique à l'Anthropocène*. Biodiversité, Naturalité, Humanité, Chambéry, France (Invité par le Dr. D. Valauri, WWF, France).

2007

- ◆ 20 septembre 2007 - *Spatially explicit fire history in the Alps: natural and human processes act on fire frequency and distribution during the Holocene*. IUFRO conférences intitulé "Natural Hazards and Natural Disturbances in Mountain Forests", Trente, Italie (Invité par le Prof. R. Motta, Université de Turin, Italie).
- ◆ 25 avril 2007 – *Fire, vegetation and forest dynamics in subalpine forests* – PRIFOR (primeval forests) meeting, Ekenäs Herrgård, Suède (Invité par le Prof. B.G. Jonnson, Mid Sweden University, Sundsvald).

2000

- ◆ 24-25 octobre 2000 – *Role of fire on the carbon cycle* - International workshop from INQUA-Carbon group : *New horizons in the study of the carbon cycle*, Rome, Italie (Invité par le Dr. J. Adams, Adélaïde, Australie).

Academic seminars

2019

- ◆ 9 avril 2019 – Long-term fire and biodiversity dynamics in subalpine forests of the Alps – *Forest Science Center, the Unviversity of British Columbia, Vancouver, Canada* (Invité par Prof. Sally Aitken, Dept of Forest and Conservation Sciences), Peter Wall Institute for Advance Studies).
- ◆ 1 avril 2019 – Long-term fire and biodiversity dynamics in subalpine forests of the Alps – *the Unviversity of British Columbia, Kelowna, Canada* (Invité par Prof. Ian Wlaker, Dept of Biology), Peter Wall Institute for Advance Studies.

2018

- ◆ 11 décembre 2018 – L'archipel des refuges glaciaires cryptiques d'arbres boréo-montagnard – *OSU Pytheas, Aix-en-Provence, France* (Invité par Dr. Emmanuel Gandouin).
- ◆ 26 septembre 2018 – Origins and dynamics of subalpine plant diversity in the Alps – au *Dept of Arctic and Marine Ecology, The Arctic University of Norway, Tromsø, Norvège*, (Invité par Prof. Nigel G. Yoccoz).

2017

- ◆ 21 novembre 2016 - (Carcaillet C.) Résistance, résilience et vulnérabilité des écosystèmes. Séminaire key-note speaker 'prospectives Département INRA EFPA', Pont-à-Mousson.

2016

- ◆ 5 mai 2016 – Paleobiodiversity facing climatic changes and fire regimes in boreo-mountain ecosystems – au *Bjerknes Centre for Climate Research, University of Bergen, Norvège*, (Invité par Prof. John Birks).

2015

- ◆ 13 oct. 2015, Lyon - Climat, feu et biodiversité : passé, présent et futur - Invitation par Rectorat|ENS-Lyon|CNRS-Rhône dans le cadre d'un cycle de conférences sur le climat pour enseignants du secondaire

<http://grainesexplorateurs.ens-lyon.fr/projets-en-cours/biodiversite-et-climat/les-changements-climatiques-enjeux-et-debats>)

- ◆ 12 mai 2015 – Feux en montagne, biodiversité et climat - Cycle conférences EPH'Club, EPHE, Paris.
- 2014
- ◆ 14 janvier 2014 – Paléo-feux et dynamique de la biodiversité dans l'étage sublapin - Cycle conférences, Laboratoire d'Ecologie des Hydrosystème Naturels et Anthropisés (UMR CNRS), Université Lyon 1, Lyon, (Invité par Prof. Pierre Joly).
- 2013
- ◆ 21 mars 2013 – Paléo-feux et dynamique de la biodiversité dans l'étage sublapin - Cycle annuel de conférences, Laboratoire d'Ecologie Alpine (UMR CNRS), Université Joseph Fourier, Grenoble, (Invité par Prof. Serge Aubert).
- 2012
- ◆ 13 avril 2012 – Incendies, biodiversité et dynamique holocène de l'écosystème subalpin dans les Alpes - Cycle annuel de conférences, Centre de la Biodiversité, Institut de Recherche en Biologie Végétale, Montréal, Canada (Invité par Prof. Stéphanie Péllerin).
- 2011
- ◆ 20 novembre 2011 – La Terre brûle : paléofeux, végétation et cycle du carbone. - Cycle annuel de conférences, Chaire Aménagement Forestier Durable, Université du Québec en Abitibi-Témiscamingue, Rouyn-Noranda, Canada (Invité par Prof. Annie Desrochers).
 - ◆ 12 novembre 2011 – Les charbons de bois en écologie historique : feu, végétation, cycle du carbone - Cycle annuel de conférences, Département de Biologie, Université du Québec à Montréal, Montréal, Canada (Invité par Prof. Tim Work).
- 2007
- ◆ 17 mars 2007 – *Paleo-Fires, from causes to consequences* - Cycle annuel de conférences, Botanische Institut, Innsbruck Universität, Innsbruck, Autriche (Invité par le Prof. J.N. Haas).
- 2004
- ◆ 13-14 mai 2004 – *Écologie des forêts méditerranéenne* – séminaire suivi d'une journée d'excursion dans les Cévennes – Université de Bâle, Suisse
- 2003
- ◆ 16 octobre 2003 - *Changements de régime de feu, changements globaux et cycle du carbone* – cycle de conférences Laboratoire Matière Organique du Sol, IFR ECOSYSTEM (IRD), Montpellier, France (Invité par le Dr. M. Pansu).
- 2002
- ◆ 13 novembre 2002 – *Fire, vegetation and diversity dynamics in Quebec boreal forests* - Cycle annuel de conférences en écologie végétale, Institut für Pflanzenwissenschaften, Bern Universität, Berne, Suisse (Invité par le Dr. W. Tinner).
- 2001
- ◆ 08 janvier 2001 - *Changements de régime de feu depuis 10 000 ans au Québec :conséquences biotiques en forêt boréale* – cycle de conférences Laboratoire d'écologie Terrestre, Université Paul Sabatier, Toulouse, France (Invité par le Prof. G. Jalut).
- 1999
- ◆ 06 janvier 1999 - *Feu, végétation et climat au Québec : 9000 ans d'histoire et de géographie* - cycle de conférences Centre d'Écologie Fonctionnelle et Évolutive, CNRS, Montpellier, France (Invité par le Prof. J.-L. Vernet).
- 1998
- ◆ 14 décembre 1998 - *9000 years of fire, vegetation and climate in Québec* - Swedish University of Agricultural Sciences, Umeå, Suède (Invité par le Prof. O. Zackrisson).
 - ◆ 16 octobre 1998 - *Feu, végétation et climat au Québec : 9000 ans d'histoire et de géographie* - cycle de conférences Centre d'études nordiques, Université Laval, St Foy (Québec), Canada (Invité par le Prof. N. Bhiry).