

# Laurent BREMOND

## Articles accepté ou sous presse (septembre 2021)

44. Teixeira H, Montade V, Salmona J, Metzger J, **Bremond L**, Kasper T, Daut G, Rouland S, Ranarilalatiana S, Rakotondravony R, Chikhi L, Behling H, Radespiel U (In press). Past environmental changes affected lemur population dynamics prior to human impact in Madagascar. *Communications Biology*.
43. Bodin S, Feiss T, Molino J and **Bremond L** (2021) Assessment of the efficiency of three sampling methods for the recovery of soil charcoals in tropical anthropogenic sites. *Quaternary International* 595: 145–154.
42. Gomes Barroso FR, Gomes V dos S, Carvalho CE, Ledru MP, Favier C, Araújo FS, **Bremond L**. (2021) Phytoliths from soil surfaces and water reservoirs of the Brazilian semi-arid Caatinga. *Journal of South American Earth Sciences* 108: 103180.
41. Vélez, M.I., MacKenzie, K., Boom, A., **Bremond, L.**, Gonzalez, N., Carr, A.S., & Berrio, J.C. 2020. Lacustrine responses to middle and late Holocene anthropogenic activities in the northern tropical Andes. *Journal of Paleolimnology* 65, 123-136.
40. Henga-Botsikabobe, K., Ngomanda, A., Oslisly, R., Favier, C., Muller, S.D., **Bremond, L.** (2020). Modern pollen–vegetation relationships within tropical marshes of Lopé National Park (Central Gabon). *Review of Palaeobotany and Palynology* 275: 104168.
39. Unraveling pre-Columbian occupation patterns in the tropical forests of French Guiana using an anthracological approach. (2020). Bodin S.C, Molino J.F, Odonne G., **Bremond L.** *Vegetation History and Archaeobotany* 29 (5):567-580.
38. Terrestrial plant microfossils in palaeoenvironmental studies, pollen, microcharcoal and phytolith. Towards a comprehensive understanding of vegetation, fire and climate changes over the past one million years (2019). Daniau, A.-L., Desprat, S., Aleman, J.C., **Bremond, L.**, Davis, B., Fletcher, W., Marlon, J.R., Marquer, L., Montade, V., Morales-Molino, C., Naughton, F., Rius, D., & Urrego, D.H. *Revue de Micropaléontologie* 63: 1–35
37. CharKey: An electronic identification key for wood charcoals of French Guiana. Bodin S.C., Scheel-Ybert R., Beauchêne J., Molino J-F. and **Bremond L.** (2019). IAWA journal 40(1):1-17.
36. Documenting the history of the grapevine and viticulture: A quantitative eco-anatomical perspective applied to modern and archaeological charcoal. (2018) Limier, B., Ivorra, S., Bouby, L., Figueira, I., Chabal, L., Cabanis, M., Atere, M., -Lacombe, T., Ros, J., **Bremond, L.**, Terral, J-F. *Journal of Archeological Science*. 100 45-61.
35. Montade, V., Schüler, L., Hemp, A., **Bremond, L.**, Duarte, A.M.S, Behling, H. (2018). Late Quaternary ecotone change between subalpine and montane forest zone on the dry northern slope of Mount Kilimanjaro. *Journal of Vegetation Science*. 29 459-468.
34. **Bremond, L.**, Favier, C., Ficetola, G.F., Tossou, M.G., Akouégninou, A., Gielly, L., Giguet-Covex, C., Oslisly, R., Salzmann, U., 2017. Five thousand years of tropical lake sediment DNA records from Benin. *Quat. Sci. Rev.* 170, 203–211.
33. Morin-Rivat, J., Fayolle, A., Favier, C., **Bremond, L.**, Gourlet-Fleury, S., Bayol, N., Lejeune, P., Beeckman, H., Doucet, J.-L., (2017). Present-day central African forest is a legacy of the 19th century human history. *Elife* 6, e20343.

- 32.** Aleman, J. C., Blarquez, O., Gourlet-Fleury, S., **Bremond, L., &** Favier, C. (2017). Tree cover in Central Africa: determinants and sensitivity under contrasted scenarios of global change. *Scientific Reports*, 7, 41393.
- 31.** **Bremond, L.**, Bodin, S. C., Bentaleb, I., Favier, C., & Canal, S. (2017). Past tree cover of the Congo Basin recovered by phytoliths and  $\delta$  13 C along soil profiles. *Quaternary International*, 434, 91-101.
- 30.** Obame, V.N., M'Voubou, M.M., Sebag, D., Oslisly, R., **Bremond, L.**, Mounguengui, M.M., Giresse, P. (2017). Le rôle de l'évolution des paysages holocènes dans le comblement des bas-fonds du Parc national de la Lopé, moyenne vallée de l'Ogooué au Gabon. Bois et Forêts des Tropiques. 333, 67–77.
- 29.** Montade V., Jeferson Sampaio Diogo I., **Bremond L.**, Favier C., Ribeiro da Costa, I., Ledru MP., Paradis L., Sávio Passos Rodrigues Martins E., Burte J., Hilder Magalhães e Silva F., Franco Verola C. (2016). Pollen-based characterization of montane forest types in north-eastern Brazil. Pollen-based characterization of montane forest types in north-eastern Brazil. *Review of Palaeobotany and Palynology*, 234, 147-158.
- 28.** Aleman J. C., Subitani S., Favier C., **Bremond L.** Influence of the local environment on lake sedimentary phytolith records (2014). *Palaeogeography, Palaeoclimatology, Palaeoecology* 414, 273-283.
- 27.** Dezileau L., Terrier B., Berger J. F., Blanchemanche P., Latapie, A., Freydier R., **Bremond L.**, Paquier A., Lang M., Delgado J.L. (2014) A multidating approach applied to historical slackwater flood deposits of the Gardon River, SE France. *Geomorphology*. 214, 56-68.
- 26.** Morin-Rivat J., Fayolle A., Gillet J-F., Bourland N., Gourlet-Fleury S., Oslisly R., **Bremond L.**, Bentaleb I., Beeckman H., Doucet J-L. (2014) New evidence of human activities during the Holocene in the lowland forests of the northern Congo Basin. *Radiocarbon*, 56, vol. 1, 209-220.
- 25.** Lim S., Ledru, M-P. Valdez F., Devillers B., Hougnon A., Favier C. **Bremond L.** Ecological effects of natural hazards and human activities on the Ecuadorian Pacific coast during the late Holocene. (2014) *Palaeogeography, Palaeoclimatology, Palaeoecology*, 415, 197-209.
- 24.** 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., Yongo O., **Bremond L.**, & Favier C. (2013) Tracking land-cover changes with sedimentary charcoal in the Afrotropics. *The Holocene*, 23, 1853-1862.
- 23.** Aleman J., Saint-Jean A., Leys B., Carcaillet C., Favier C. & **Bremond L.** (2013). Estimating phytolith influx in lake sediments. *Quaternary Research*, 80, 341-347.
- 22.** Ledru M-P., Jomelli V., **Bremond L.**, Ortúñoz T., Cruz P., Bentaleb I., Sylvestre F., Kuentz A., Beck S., Martin C., Paillès C., Subitani S. Evidence of moist niches in the Bolivian Andes during the mid-Holocene arid period. *The Holocene*, 23, 11, 1547-1559.
- 21.** Oris F., Lamentowicz M., Genries A. L., Mourier B., Blarquez O., Ali 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*, 1-14.
- 20.** Ali A. A., Blarquez O., Girardin M. P., Hély C., Tinquaut F., El Guellab A., Valsecchi V., Terrier A., **Bremond L.**, Genries A. (2012) Control of the multimillennial wildfire size in boreal North America by spring climatic conditions. *Proceedings of the National Academy of Sciences*, 109, 20966-20970.
- 19.** **Bremond, L.**, Boom, A. and Favier, C. (2012), Neotropical C<sub>3</sub>/C<sub>4</sub> grass distributions – present, past and future. *Global Change Biology*. 18, 2324-2334.

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- 17.** Favier C., Aleman J., **Bremond L.**, Dubois M. A., Freycon V., Yangakola J.-M. (2012) Abrupt shifts in African savanna tree cover along a climatic gradient. *Global Ecology and Biogeography* **21**(8): 787-797.
- 16.** **Bremond L.**, Carcaillet C., Favier C., Ali A.A., Paitre C., Bégin Y., Bergeron Y., Richard P.J.H. (2010) Effects of vegetation type and climatic changes on fire-induced atmospheric carbon emissions: a model based on paleodata. *International Journal of Wildland Fire* **19**(8), 1015-1025.
- 15.** Blarquez, O., **Bremond, L.**, Carcaillet, C. (2010) Holocene fires and a herb-dominated understorey track wetter climates in subalpine forests. *Journal of Ecology* **98**(6): 1358-1368.
- 14.** Opfergelt S., Cardinal D., André L., Delvigne C., **Bremond L.**, Delvaux B. (2010) Variations of  $\delta^{30}\text{Si}$  and Ge/Si with weathering and biogenic input in tropical basaltic ash soils under monoculture. *Geochimica Et Cosmochimica Acta*, **74**, 225-240.
- 13.** Blarquez O, Carcaillet C, **Bremond L**, Mourier B, Radakovitch O (2009) Trees in the subalpine belt since 11 700 cal. BP: origin, expansion and alteration of the modern forest. *The Holocene*, **20** (1), 139-146.
- 12.** WoldeGabriel G, Ambrose SH, Barboni D, Bonnefille R, **Bremond L**, Currie B, DeGusta D, Hart WK, Murray AM, Renne PR, Jolly-Saad MC, Stewart KM, White TD (2009) The Geological, Isotopic, Botanical, Invertebrate, and Lower Vertebrate Surroundings of *Ardipithecus ramidus*. *Science* **326**, 65-655.
- 11.** Barboni D, **Bremond L** (2009) Phytoliths of East African grasses: An assessment of their environmental and taxonomic significance based on floristic data. *Review of palaeobotany and palynology* **158**, 29-41.
- 10.** Alexandre A. and **Bremond L.** 2009. Comment to the paper: "Methodological concerns for analysis of phytolith assemblages: Does count size matter?" from C. A.E. Stromberg, *Quaternary International*, **193**, 141-142.
- 9.** Carcaillet C., Ali A.A., Blarquez O., Genries A., Mourier B., and **Bremond L.** (2009) Spatial variability of fire history in subalpine forests: from natural to cultural regimes. *Ecoscience* **16**(1).
- 8.** **Bremond, L.**, Alexandre, A., Peyron, O. & Guiot, J. (2008) Definition of grassland biomes from phytoliths in West Africa. *Journal of Biogeography*, **35**, 2039-2048.
- 7.** **Bremond, L.**, Alexandre, A., Wooller, M. J., Hély, C., Schäfer, P. A., Majule, A. & Guiot, J. (2008) Phytolith indices as proxies of grass subfamilies on East African tropical mountains. *Global and Planetary Change*, **61**, 209-224.
- 6.** Barboni, D., **Bremond, L.** and Bonnefille, R., 2007. Comparative study of modern phytolith assemblages from inter-tropical Africa. *Palaeogeography Palaeoclimatology Palaeoecology*, **246**: 454-470.
- 5.** Vincens A., **Bremond L.**, Buchet, G., Guiot, J. 2006. Modern pollen-based biome reconstructions in East Africa including new data from southern Tanzania. *Review of Palaeobotany and Palynology* (140) 187–212.
- 4.** Hély, C., **Bremond, L.**, Alleaume, S., Smith, B., Sykes, M.T. & Guiot, J. 2006. Sensitivity of African biomes to changes in the precipitation regime. *Global Ecology and Biogeography*. (15), 258–270.

3. **Bremond, L.**, Alexandre, A., Hély, C. Guiot, J., 2005. A phytolith index as a proxy of tree cover density in tropical areas: calibration with Leaf Area Index along a forest-savanna transect in southeastern Cameroon. *Global and Planetary Change*, 45(4): 277-293.
2. **Bremond, L.**, Alexandre, A., Peyron, O. Guiot, J., 2005. Grass water stress estimated from phytoliths in West Africa. *Journal of Biogeography*, 32(2): 311-327.
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#### **Valorisation Grand public**

- Bremond L.** & Favier C. (2020). Phytoliths: a tool for neotropical historical ecology, with focus on bamboo-dominated forests *in* "Methods in Historical Ecology, insights from Amazonia" Ed. G. Odonne & JF Molino – Routledge&CRC Press, 210p.
- Bodin S., Morin-Rivat J., **Bremond L.**, Scheel-Ybert R., Tardy C., Vaschalde C. (2020) Anthracology in the tropics: how wood charcoal help us to better understand today ecosystems. *in* "Methods in Historical Ecology, insights from Amazonia" Ed. G. Odonne & JF Molino - Routledge&CRC Press, 210p.
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- Bremond L.** & Favier C. Histoire des écosystèmes tropicaux *in* Écologie tropicale : de l'ombre à la lumière – Cherche Midi Ed. 2015.

#### **Congrès Internationaux et Nationaux**

##### **Communications orales (1<sup>er</sup> auteur)**

- Bremond L.**, Favier C., Bodin S., Oslisly R. Charcoal shapes as proxy of savanna burned biomass quality. INQUA 2018, Nairobi, Kenya.
- Bremond L.**, Bodin S., Bentaleb I., Favier C., Henga, K., Makaya M., Navarro L., Oslisly R., Sebag D. Long-term savanna functioning revealed, a multi-proxy approach. International Meeting on Phytolith Research 2016, Aix en Provence, France.
- Bremond L.**, Favier C., Ledru MP Aleman J., Brossier B., Oslisly, R., Canal, S., Yong O., Bentaleb I., Sonké B., Wonkam C. Evidences of drought phases in the Guinean periforest savanna since the African Humid Period – Association of Tropical Biology and Conservation - ATBC 2016 – Montpellier, France.

**Bremond, L.** D. A. Boom, Favier, C. Neotropical C<sub>3</sub>/C<sub>4</sub> grass distribution - present past and future. Annual Conference of the Society for Tropical Ecology, 20-24 February 2012, Frankfurt, Germany.

**Bremond L., Carcaillet C., Favier C., Ali A.A., Paitre C., Bégin Y., Bergeron Y., Richard P.J.H.** 2010 *Effects of vegetation type and climatic changes on fire-induced atmospheric carbon emissions: a model based on paleodata.*

**Bremond, L.** D. Giraldo-Cañas, J-C. Berrio and A. Boom. Signal C<sub>3</sub>/C<sub>4</sub> enregistré par les phytolithes et le δ<sup>13</sup>C dans des sols andins. 10<sup>e</sup> Journées d'Etude des Sols, 11 - 15 mai 2009, Strasbourg, France.

**Bremond L.** (Conférence invitée) Forest and ecosystems proxy records from the Rungwe area. **RESON** Scientific meeting in Rungwe, 4<sup>TH</sup> -30<sup>TH</sup> October, 2008, Masoko, Tanzania.

**Bremond, L.** D. Giraldo-Cañas, J-C. Berrio and A. Boom. Graminées C<sub>3</sub> et C<sub>4</sub> intertropicales: distribution altitudinale actuelle et traceurs paléoenvironnementaux. ECOVEG 3, 31 Mars – 2 Avril 2007, Bordeaux, France.

**Bremond, L.** Giraldo-Cañas D., Berrio J-C., Boom A. Modern and past grass-dominated biomes distribution recorded by phytoliths and stable carbon isotopes; Preliminary results. 6th International Meeting on Phytoliths Research, Barcelona, Spain; 12-15 September 2006. Volume of Abstracts, p. 22.

**Bremond L.,** Alexandre A., Guiot J., Biome reconstruction from phytolith data for West Africa: EGS-AGU-EUG Joint Assembly, Nice, France, 06 - 11 April 2003. Volume of Abstracts, p. 134.

**Bremond L.,** Alexandre A., Guiot J., Improving vegetation models: the phytolith input. 4th International Meeting on Phytoliths Research, Cambridge, UK; 28 - 31 August 2002. Volume of Abstracts, p. 6.

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### **Posters (1<sup>er</sup> auteur)**

**Bremond L.,** Alexandre A., Hely C., Vincens A., Williamson D., Guiot J. Phytolith, pollen data and Global Vegetation Model calibration. Application and comparison to a 50,000 yr crater lake core in Tanzania. AGU, San Francisco, U.S.A., 12-17 December 2004. Volume of Abstracts, p. 335.

**Bremond L.,** Alexandre A., Guiot J. (2001). Phytolith indexes: Proxy of grass-dominated biomes and related climatic parameters in tropical Africa. International Congres PEPIII, Aix-en-Provence.