Quaternary Entomology Dispatch



Editorial

Dear colleagues,

I am pleased to present the latest edition of our newsletter!

You can read news about some of your colleagues (Phil Buckland, Nick Schafstall & I) on how their activities has progressed or otherwise been affected by the current pandemic situation in the few next pages. As usual, you will also find a list of recent publications of interest to our community. Please pay special attention to Nick's call on page 3, where he is asking about ecological databases for Central Europe. Thanks also to Jean-Bernard Huchet for sharing about the project he is currently involved in.

This edition is a little thin, but I am glad to have been able to distribute it, if only to try to keep isolation at bay. I am looking forward to the day when we can again meet in person to discuss about fossil insect research. The last time (and I think first, actually) that I had the chance to join a gathering of Quaternary entomologists – other than peers from the lab of my mentor Allison Bain at Université Laval – was eight years ago, at the Russell Coope Memorial Lectures in London on 19 June 2012. I remember how exciting yet scary it was (I used to be terrified of public speaking) to be able to present one of my PhD case studies to so many experts whose names I already knew from readings I had made. I sincerely hope that the new generation will have this chance too, and that we won't have to wait eight years before it happens. In the meantime, if any of our members are up for an online workshop, I would certainly be glad to be part of it. Do reach out!

I hope you are all well and safe, everyone! May the rest of 2020 'behave', and bring you restful and merry holidays. Take care, everyone, and I will 'bug' you again in the Spring of 2021! ☺

Véro Forbes (veroforbes@gmail.com)

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How are we coping? News from the community

News from Philip Buckland, Umeå universitet, Sweden

Email: philip.buckland@umu.se

Physical insect work is on hold in the lab in Umeå, and other than a trainee who looked for insects from sediments around the roots and stems of Early Holocene trees from Northern Sweden, we've produced no new data. The tree samples only produced a few mites and bits of things yet to be identified, but this will have to wait, as will other samples from the UK and Germany. All of our teaching has now gone online, so unfortunately the prospects for getting new students engaged in insect work is limited for this year.

Most of my time is occupied with non-ento things, but work continues on mapping the fossil insect data from Bugs, via SEAD and into the Swedish Biodiversity Data Infrastructure. From there, the data will end up in GBIF, but there are some technical and data quality issues to sort out along the way. We are improving the quality of the dating evidence in BugsCEP to allow for easier long-term trend analysis, and to improve the usefulness of the insect data when pulled into other systems.

Paul Buckland continues to add new data to BugsCEP, and I will post updates of the database shortly. These will be mirrored in https://browser.sead.se/palaeo with a slight delay.



News from Véro Forbes & the PEAT Lab, Memorial University, Canada

Email: <u>veroforbes@gmail.com</u>

I have not been able to get back to the PEAT lab since the pandemic started, having had to put research largely on pause due to the challenges of teaching remotely here at MUN. However, one of my MA students, Jeff Speller – whose project changed methodological focus from micromorphology to plant macrofossil analyses due to travel restrictions preventing him to travel to Durham & get co-supervised by geoarchaeologists Karen Milek – has now begun to work on the two peat monoliths we collected at L'Anse aux Meadows in 2019. By helping to establish the chronology and formation processes of the peat bog, his work will underpin all future work on those peat monoliths, including the analysis of pollen and insects.

I welcomed three new graduate students this Fall, two of whom I will be training in insect subfossil analysis. Carlos E. Salazar Guerra started his MA remotely from Peru, as did Pier-Ann Milliard, except that she was able to relocate from Quebec to St. John's here in Newfoundland last summer. As the first two semesters of our MA program consists in coursework and project design, it seems like there will be no problem or delay with their training in the analysis and identification of insect fossils, which will start this spring. Carlos learned just a few days ago that he finally got his student VISA, and therefore should be able to fly here in a few weeks (and quarantine upon arrival, of course), which is very exciting!

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News from Nick Schafstall, Czech University of Life Sciences, Czech Republic

Email: nick.schafstall@gmail.com

My doctoral thesis is taking longer than expected so at the moment I'm in between publications and exciting things to report on. At least I can say that I started my postdoc at the Czech University of Life Sciences in September. The project I'll be working on from September 2020 - 2022 is called **BESTFORCE: Temperate mountain forest dynamics: their long-term drivers and diversity at the continentality gradient**. Records of pollen, charcoal, geochemistry, testate amoebe, chironomids and beetles will be combined in this effort, depending on the locality. My job is to identify bark beetle remains from sediment cores, which relevance I could smartly advertise through the results of my PhD thesis (which will be defended early next year). Localities in the research proposal were Eastern Slovakia and Western Ukraine, in the Carpathian Mountain Range. However, due to travel restrictions during most of 2020 it has not been possible to travel to Ukraine, which is a pity because I wished to expand my so-far tiny list of records of conifer bark beetles eastwards. Still, the eastern Slovakian site appears to have been occupied by Norway spruce before it transitioned into a beech forest and we are also planning to expand our work in Sumava National Park, on the border between Czech Republic and Germany. So I expect to have more news in the next edition(s) of QED.

A call to our members:

Since I've started working in Prague I became aware of the (apparent) gap in faunistical data from central Europe in global databases such as BugsCEP and GBIF. Currently I'm exploring with a friend how much national databases overlap with GBIF and how much data is missing, to see if it's worth it to make calls to local entomologists to (help) share their data on GBIF. So far, I found a website about faunistical data from Czech Republic (biolib.cz) and Poland (baza.biomap.pl). I was wondering if anyone knows about other databases from other countries in central Europe, eastern Europe and the Balkan, or contact details of local researchers or entomologists would also be welcome. Please send any recommendations to nick.schafstall@gmail.com

Ongoing Research Projects

- Philip Buckland (philip.buckland@umu.se): Nothing beetly to report, but we have started up a new project to get dendrochronology data into the SEAD database. With time, there will be prospects for more easily connecting the dendro and insect data.
- Jean-Bernard Huchet (<u>jean-bernard.huchet@mnhn.fr</u>)
 - Archaeoentomological study of the sarcophagus of the famous French philosopher, Michel Eyquem de Montaigne (1533-1592).
 https://www.youtube.com/watch?v=4iTzQPbTqqc&feature=emb_logo
 - Human settlement and landscape dynamics on the coastline south of the Gironde estuary (SW France): a multi-proxy approach including archaeoentomology

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Recent publications

The following is a combination of references sent by subscribers and extracts from the latest version of **QBIB – A Bibliography for Quaternary Entomology** – compiled by Paul Buckland, Phil Buckland, Russell

Coope and Jon Sadler. You can find here: https://www.bugscep.com/qbib.html

Backwell, L., Huchet, J.-B., Dirks, P., Jashashvili, T., Berger, L. (2020). <u>Termites and necrophagous insects associated with early Pleistocene (Gelasian)</u> <u>Australopithecus sediba at Malapa, South Africa. Palaeogeography, Palaeoclimatology, Palaeoecology 560: 109989.</u>

Declòs, X., Peñalver, E., Ranaivosoa, V. & Solórzano-Kraemer, M. M. (2020) <u>Unravelling the mystery of "Madagascar Copal"</u>. Age, origin and preservation of a Recent resin. *PLoS ONE* 15 (5): e0232623.

Forbes, V., Huchet, J.-B., McManus-Fry, E., Gómez Coutouly, Y.A., Masson-MacLean, J., Masson-MacLean, É. Ledger, P.M., Britton, K., Hillerdal, C. & Knecht, R. (2019) <u>Activity areas or conflict episode? Interpreting the spatial patterning of lice and fleas at the precontact Yup'ik site of Nunalleq (16-17th centuries AD, Alaska)</u>. Études Inuit Studies 43 (1-2): 197-221.

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Henríquez-Valido, P., Morales, J., Vidal Matutano, P., Moreno Benítez, M., Marchante Ortega, Á., Rodríguez-Rodríguez A., Huchet J.-B. (2020). <u>Archaeoentomological indicators of long-term food plant storage at the Prehispanic granary of La Fortaleza (Gran Canaria, Spain)</u>. *Journal of Archaeological Science* 120: 105179.

Huchet, J.-B. (2020) <u>Sur quelques insectes coléoptères subfossiles du site minier ptolémaïque de Samut, désert Oriental égyptien</u>. In, B. Redon & T. Faucher (eds.) *Samut nord. L'exploitation de l'or du désert Oriental à l'époque ptolémaïque*. French Oriental Institute, Cairo.

Kolnegari, M., Naserifard, M. & Hazrati, M. (2020) <u>Discovery of Buprestidae rock art in central Iran suggests historical relationship between jewel beetles and mankind</u>. *Entomological Science* 23: 193-195.

Llorente-Rodríguez, L., González-Ibáñez, A. & Morales-Muñiz, A. (2020) <u>Phoretic oribatids (Acari, Oribatida) as bird bioindicators? Insights from the site of Tabacalera (Gijón, N. Spain, 6th-7th centuries AD)</u>. *Quaternary International* 543: 93-98.

Milbury, K.J., Cwynar, L.C. & Edwards, S. (2019) <u>Distinguishing eastern North American forest moth pests by wingscale ultrastructure: potential applications in paleoecology</u>. *FACETS* 4: 493-506.

Montoro Girona, M. Navarro, L., Morin, H. (2018) <u>A secret hidden in the sediments: Lepidoptera scales</u>. *Frontiers in Ecology and Evolution* 6 (2): 1-5.

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Polet, C., Carlier, A., Lebecque, F., Tilleux, C., Bertrand, B., Huchet, J.-B., Brecko, J., Boudin, M., Van, Strydonck, M. (2020). Étude multidisciplinaire du contenu de reliquaires attribués au Cardinal Jacques de Vitry (XII-XIIIème siècle ap. J.-C.). In: P. Charlier, P. Roy-Lysencourt et D. Gourevitch (eds): Le Corps Saint, 7e Colloque International de Pathographie (Martigues, septembre 2017): 201-220. ISBN 978-2-7018-0575-7.

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Tello, F. & Torres, F. (2020) <u>Fossil Coleoptera from the Pilauco site: an approach to Late Pleistocene microenvironments</u>. In, M. Pino & G. A. Astorga (eds.) *Pilauco: a Late Pleistocene Archaeo-paleontological site*, 195-212. Springer, Berlin.

Tranberg, A., Alenius, T.H., Kallio-Seppä, T., Buckland, P.I., Mullins, P.R., & Ylimaunu, T. (2020). <u>The Late Medieval Church and Graveyard at Ii Hamina, Northern Ostrobothnia, Finland: Pollen and macro remains from graves</u>. *Journal of Nordic Archaeological Science*, 19.

Van Geel, B., Brinkkemper, O., Van Reenen, G.B.A., Van Der Putten, N.N.L., Sybenga, J.A., Soonius, C., Kooijman, A.M., Hakbijl, T. & Gosling, W.D. (2020) <u>Multicore Study of Upper Holocene mire</u> <u>development in West-Frisia, northern Netherlands: ecological and archaeological aspects</u>. *Quaternary* 3 (2): 12.

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Back in 2011, Scott Elias and I (Véro Forbes) set up a mailing list to facilitate communication amongst researchers in Quaternary Entomology. The list allows subscribers, including experienced workers in the field but also students, to exchange news and ideas and to query their colleagues about any questions, problems or requests they may have. Our mailing list is hosted by Jiscmail, a national academic service based in the UK.

The mailing list is used to distribute editions of the Quaternary Entomology Dispatch. The next edition of QED is scheduled for May 2021.

To subscribe to the mailing list, please visit: https://www.jiscmail.ac.uk/cgi-bin/webadmin?A0=QUATERNARYENTOMOLOGY

This year (2020), Nick Schafstall also created a **Facebook group for Quaternary entomologists** to complement the mailing list. You are therefore also cordially invite to join us there too! You can find us here: https://www.facebook.com/groups/201377827914952

