Clim. Past Discuss.,
https://doi.org/10.5194/cp-2019-135-AC1, 2020
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Climate of the Past
Discussions

# *Interactive comment on* "Changes in high intensity precipitation on the Northern Apennines (Italy) as revealed by multidisciplinary data over the last 9000 years" *by* Stefano Segadelli et al.

**Stefano Segadelli et al.**

fgrazzini@arpae.it

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Dear reviewers, we are strongly indebted for your positive and constructive comments which really helped to improve our manuscript.

Please see attached the individual point-by-point responses, accompanied by the relevant new figures as requested. Full documentation with all the edits is going to be added with the revised manuscript. These will take into account, not only of referees opinions but also of other short comments received.

If some replays to reviewers' comments are unclear, please do not hesitate to contact



me.

Best regards, Federico Grazzini, on behalf of all co-authors

Please also note the supplement to this comment:
https://www.clim-past-discuss.net/cp-2019-135/cp-2019-135-AC1-supplement.pdf

Interactive comment on Clim. Past Discuss., https://doi.org/10.5194/cp-2019-135, 2019.

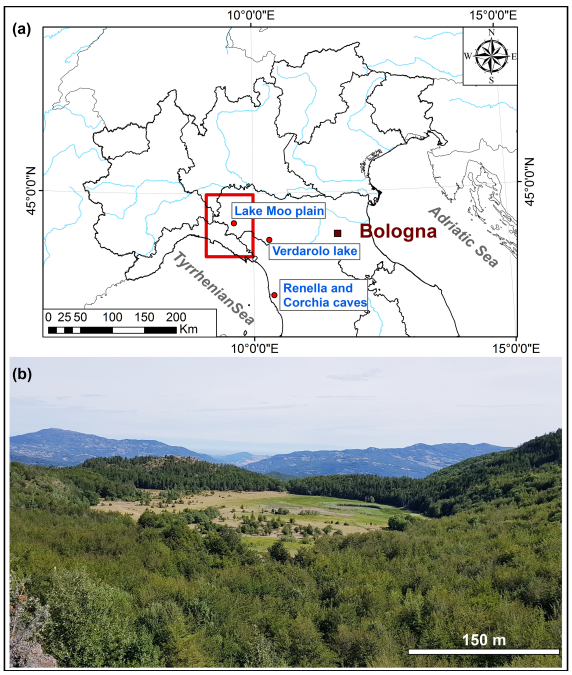


**Fig. 1.** Figure 1 New



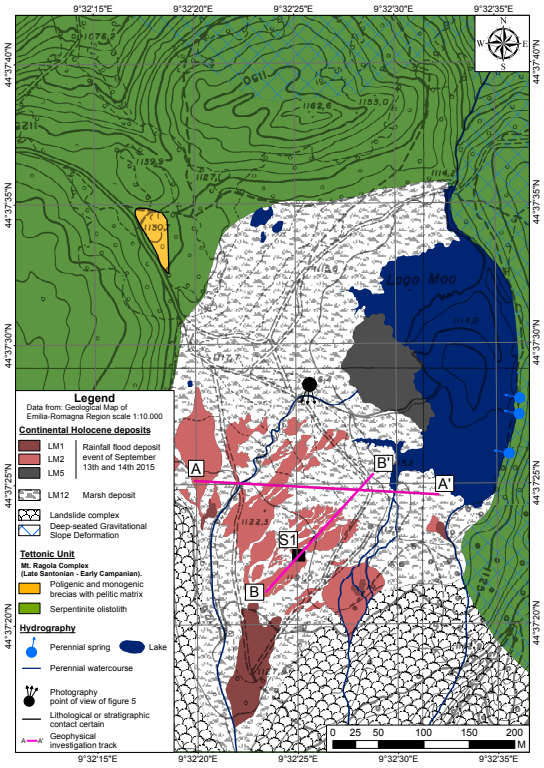


**Fig. 2.** Figure 2 New

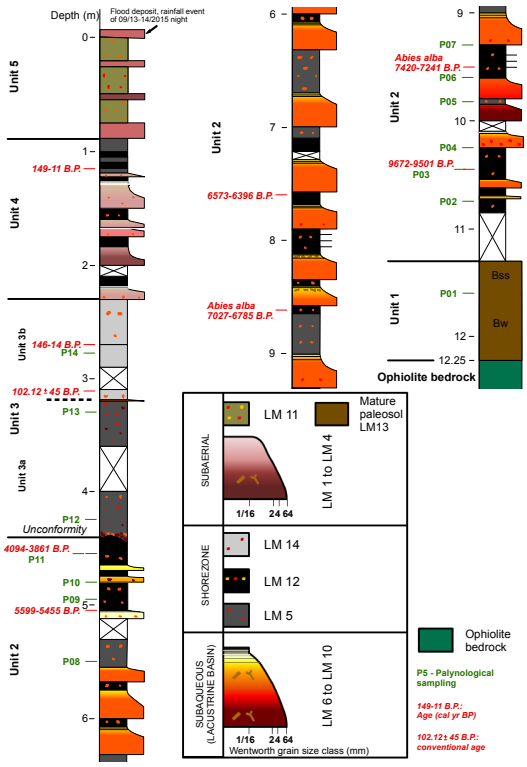


**Fig. 3.** Figure 3 New



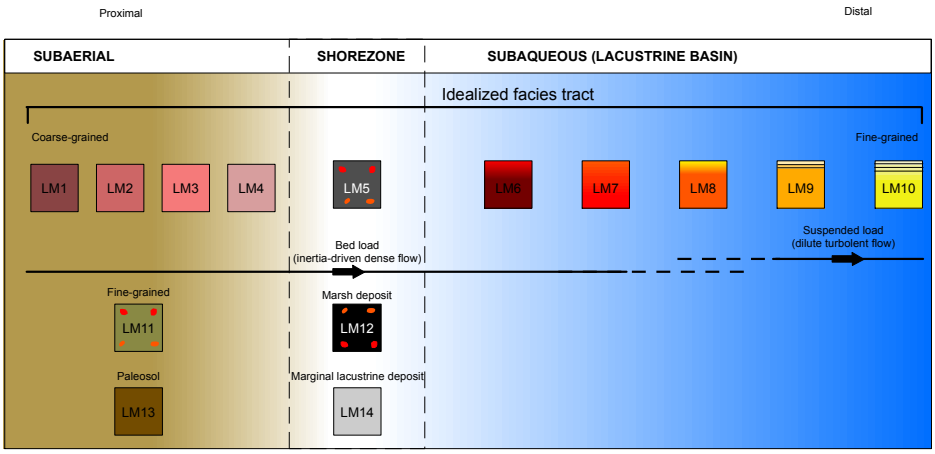


**Fig. 4.** Figure 4 New

**Fig. 5.** Figure 5 New



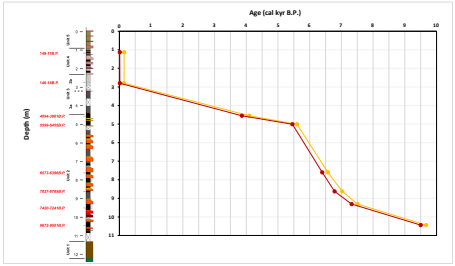


**Fig. 6.** Figure 6 New

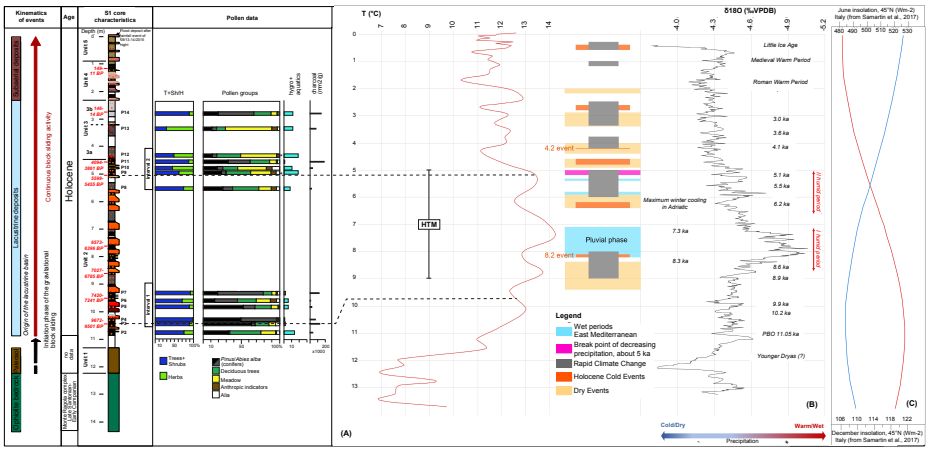


**Fig. 7.** Figure 7 New

C9

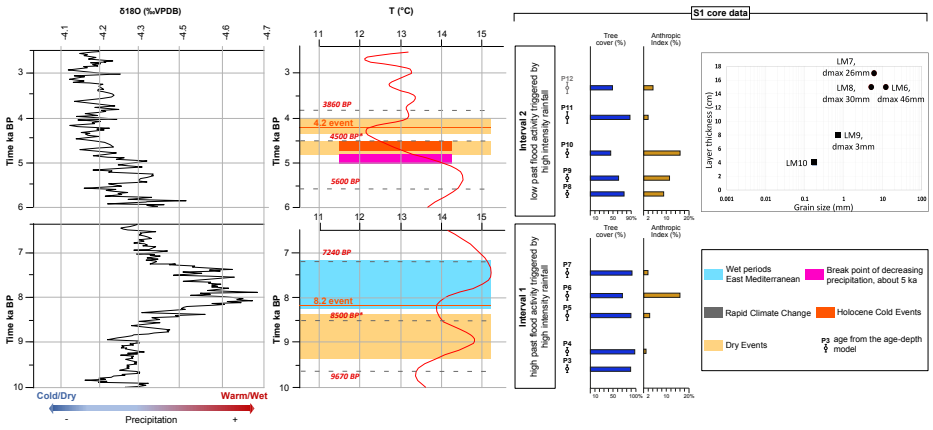


**Fig. 8.** Figure 10 New

C10

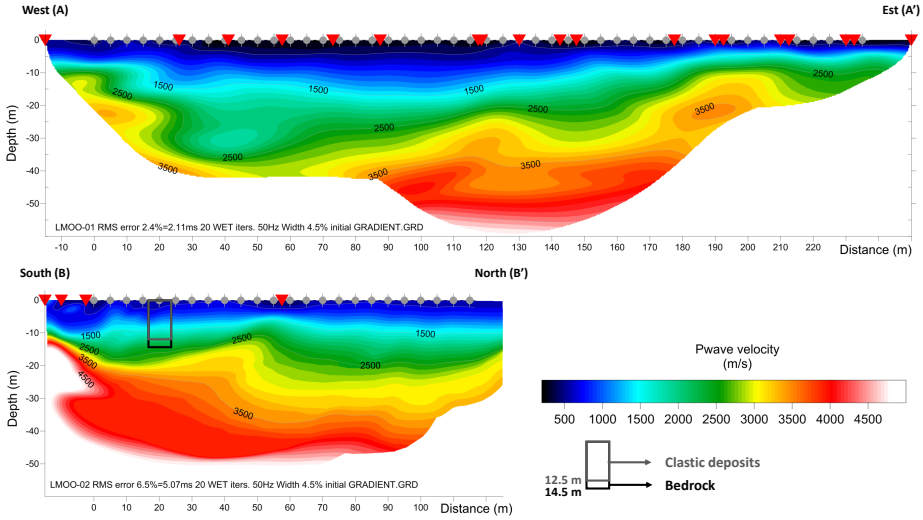


**Fig. 9.** Figure SUP1 New



| Lab. code | Core code | Core depth (cm) | Material | Conventional age (year BP) | Calibrated age BP (±2 sigma) | Calibrated range BC/AD (±2 sigma) |
|---|---|---|---|---|---|---|
| LTL17681A | S1 | 113 | Peaty deposit | 82±45 | 149-11 | 1680AD (29.4%) 1764AD<br>1801AD (66.0%) 1939AD |
| LTL18275A | S2 | 237 | Plant fragments (not determinable) | 178.69±0.55 pMC | - | after 1950AD |
| LTL18275A | S3 | 233-237 | Peaty deposit | It was not possible to date, poor presence of organic matter | - | - |
| LTL18274A | S4 | 279-281 | Plant fragments (not determinable) | 80±40 | 146-14 | 1681AD (26.5%) 1737AD<br>1804AD (68.9%) 1936AD |
| LTL18575A | S5 | 310-314 | Plant fragments (not determinable) | 102.12±0.50 | - | - |
| LTL17682A | S6 | 455 | *Pinus* wood fragments (small twigs) | 3659±45 | 4094-3861 | 2194BC (2.2%) 2175BC<br>2144BC (93.2%) 1911BC |
| LTL18273A | S7 | 500-502 | Peaty deposit | 4779±45 | 5599-5455 | 3649BC (85.7%) 3505BC<br>3427BC (9.7%) 3380BC |
| LTL18277A | S8 | 760 | Peaty deposit including small wood fragments (not determinable) | 5686±45 | 6573-6396 | 4683BC (6.0%) 4631BC<br>4623BC (87.6%) 4446BC<br>4418BC (1.8%) 4400BC |
| LTL18278A | S9 | 860-865 | *Abies alba* wood fragments (small twigs) | 6065±45 | 7027-6785 | 5203BC (4.1%) 5165BC<br>5077BC (91.3%) 4835BC |
| LTL18276A | S10 | 930-933 | *Abies alba* wood fragments (small twigs) | 6518±45 | 7420-7241 | 5559BC (95.4%) 5373BC<br>5266BC (6.6%) 5228BC |
| LTL18272A | S12 | 959 | Peaty deposit | 159.33±0.48 pMC | - | after 1950AD |
| LTL17683A | S13 | 1044 | Plant fragments (not determinable) | 8600±45 | 9672-9501 | 7722BC (95.4%) 7551BC |

**Fig. 10.** Table TS2 New