

Interactive comment on “Lake El’gygytgyn water and sediment balance components overview and its implications for the sedimentary record” by G. Fedorov et al.

G. Fedorov et al.

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Dear Reviewers, Thank you very much for a positive review and detailed analysis of our manuscript. All your comments help us a lot to reworked and hopefully improve the paper. The reworked version of the paper is supplemented to this response. During reworking the paper it is become clear that we are not really able to estimate the sediment balance of the Lake and only can estimate the sediment income. Title. Title is changed According to reviewers suggestion. Preliminary character of the results is mentioned in the title. Abstracts. The more number are added into the abstracts. Introduction. We have improved the introduction by adding the more information about

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local geology permafrost particularities and modern vegetation. Methods. The water balance and sediment income sections are separated as suggested by reviewers. The water balance equation are improved and following calculations as well as measuring and sampling methods explained in more details. Results and discussions. The water balance and sediment income sections are separated too. The special section is added for highlighting and discussing the main sources of uncertainties. Conclusions. Conclusion is slightly reworked and additional statement about uncertainties is added as suggested by reviewers. List of literature. The list of literature is improved by adding more sources. Tables. As suggested by reviewers an additional table summarizing the water balance is included. Figures. Figures are reworked according the reviewer comments.

Sincerely yours, Dr. Grigory Fedorov

Please also note the supplement to this comment:

<http://www.clim-past-discuss.net/8/C3599/2013/cpd-8-C3599-2013-supplement.pdf>

Interactive comment on Clim. Past Discuss., 8, 3977, 2012.

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1 **Preliminary estimation of Lake Elgygytgyn water balance and**
2 **sediment income**

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3
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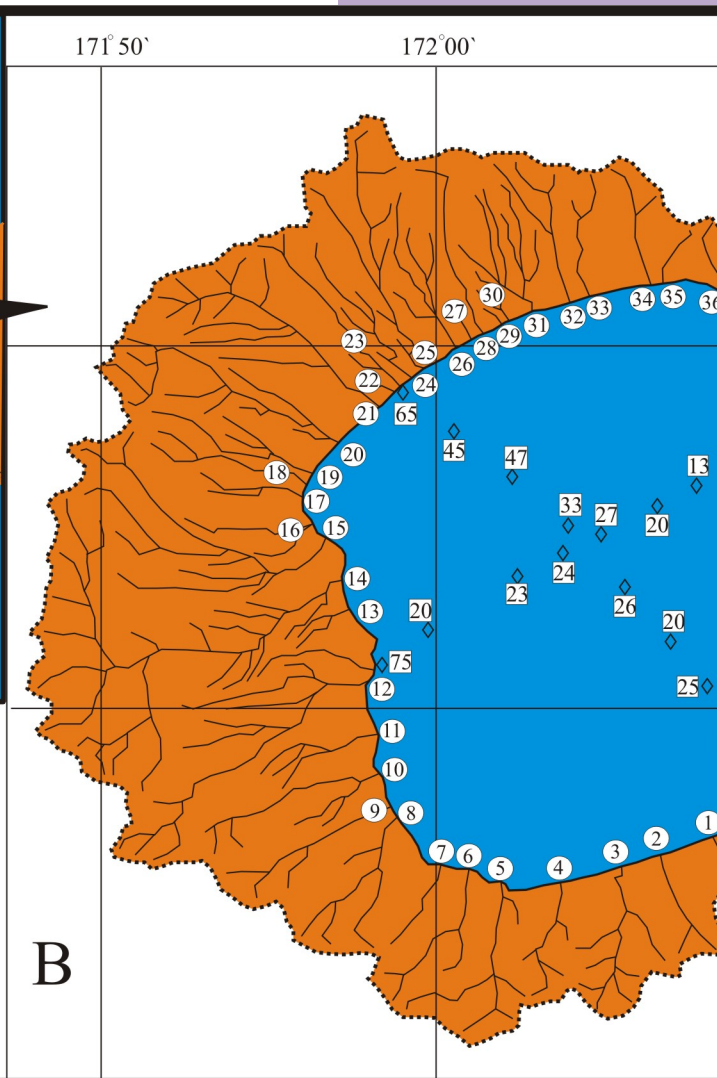
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⑤0 Inlet streams numbers (by Glushkova O. Yu.).

◇ Snow sampling points.

□ Snow thickness (16-23 May, 2003).

↔ Outlet gauge line.

┆ Temporary water level gauge station.

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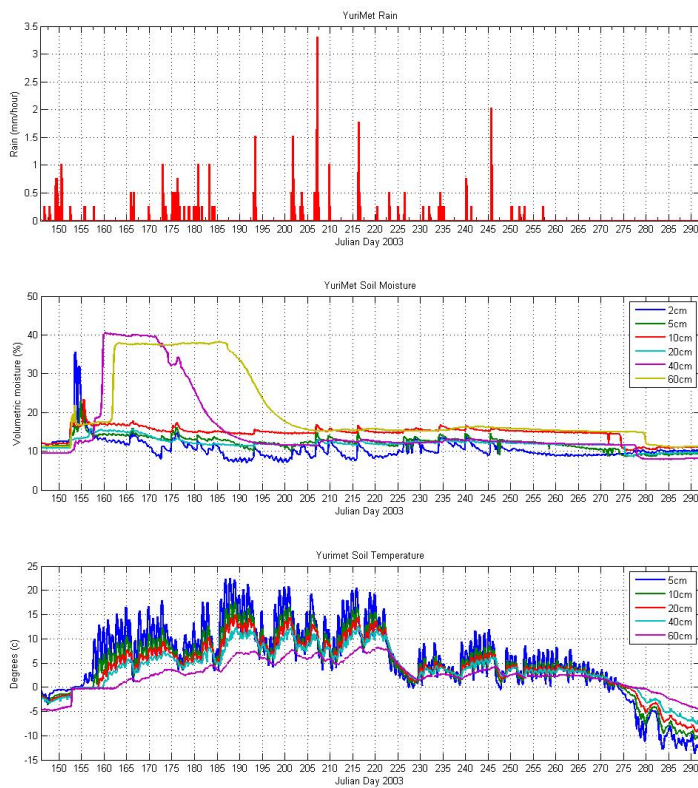
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Fig. 3.

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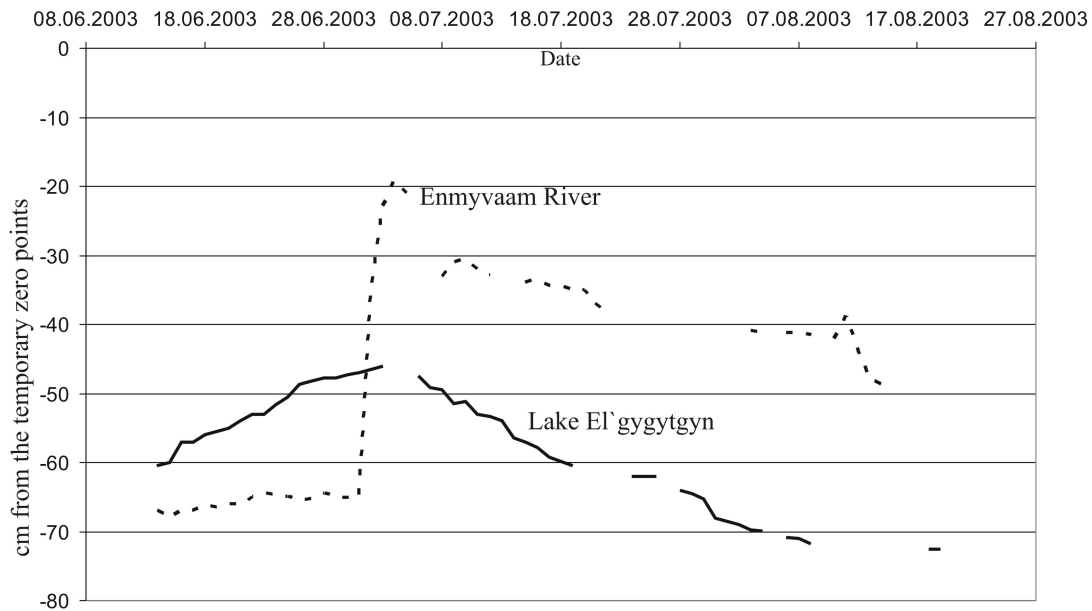
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Fig. 4.

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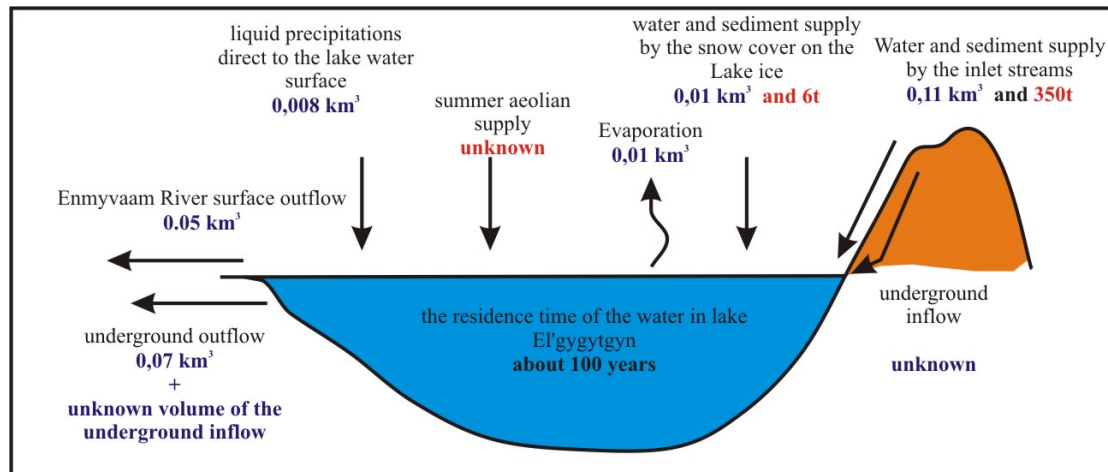
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Fig. 5.

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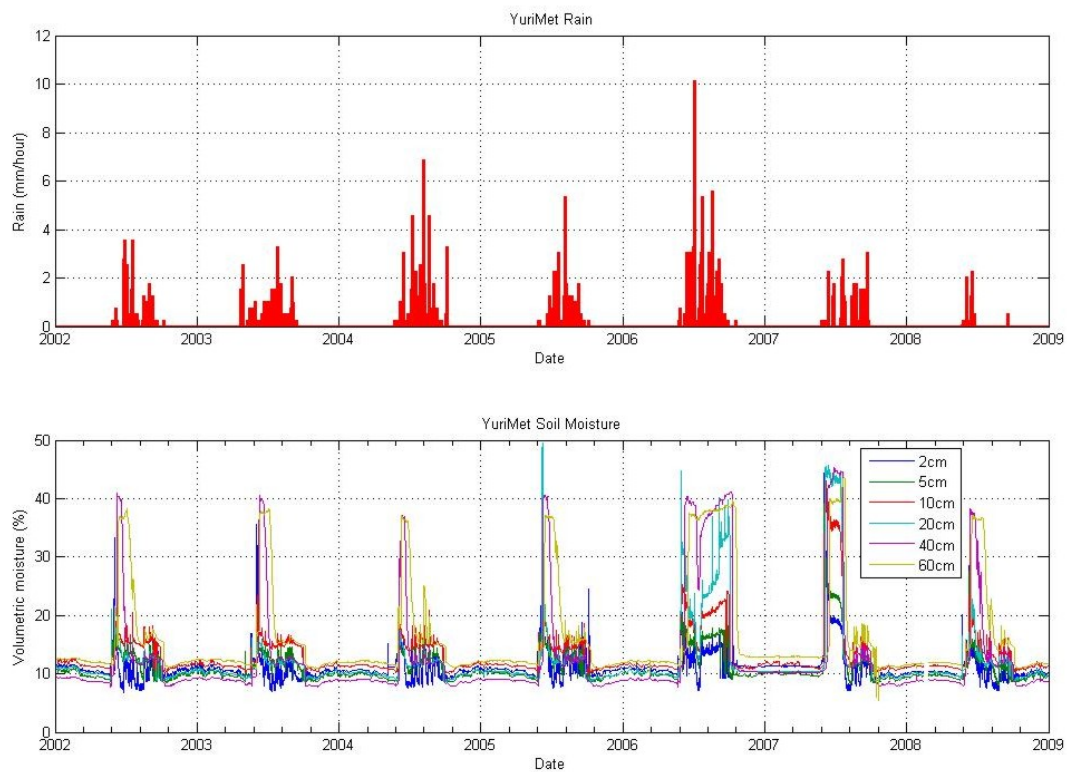
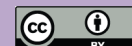
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Fig. 6.

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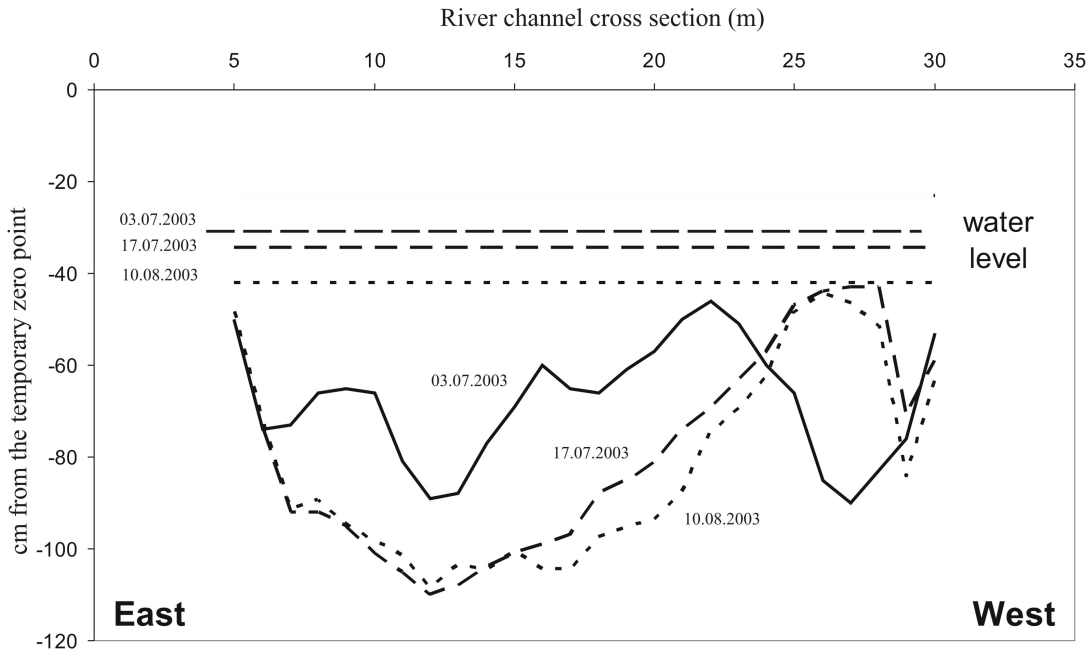


Fig. 7.

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