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Interactive comment on “A new synthesis for terrestrial nitrogen inputs” by B. Z. Houlton and S. L. Morford

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With regard to the exchange of molecular and reactive nitrogen with the atmosphere, I would like to draw the authors' and readers' attention to recent studies indicating that cryptogamic covers on soil, rock and plant surfaces may account for nearly half of the biological nitrogen fixation on land (Elbert et al. 2012) and that nitrous acid (HONO) can be reversibly deposited and emitted in large amounts (Su et al. 2011; Oswald et al. 2013).

Elbert, W., Weber, B., Burrows, S., Steinkamp, J., Budel, B., Andreae, M. O., and Pöschl, U.: Contribution of cryptogamic covers to the global cycles of carbon and nitrogen, *Nature Geosci.*, 5, 459–462, 2012.

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Su, H., Cheng, Y., Oswald, R., Behrendt, T., Trebs, I., Meixner, F. X., Andreae, M. O., Cheng, P., Zhang, Y., and Pöschl, U.: Soil nitrite as a source of atmospheric HONO and OH radicals, *Science*, 333, 1616-1618, 2011.

Oswald, R., Behrendt, T., Ermel, M., Wu, D., Su, H., Cheng, Y., Breuninger, C., Moravek, A., Mougín, E., Delon, C., Loubet, B., Pommerening-Röser, A., Sörgel, M., Pöschl, U., Hoffmann, T., Andreae, M. O., Meixner, F. X., and Trebs, I.: HONO Emissions from Soil Bacteria as a Major Source of Atmospheric Reactive Nitrogen, *Science*, 341, 1233-1235, 10.1126/science.1242266, 2013.

Interactive comment on SOIL Discuss., 1, 497, 2014.

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1, C386–C387, 2014

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