Interactive comment on “Response of soil microorganisms to radioactive oil waste: results from a leaching experiment” by P. Galitskaya et al.

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The paper describes tests where oily waste containing also radionuclides are compared with similar waste from which the oil has been removed. The idea is to compare the spread of TPH and radionuclides from the waste into soil layers beneath the waste in natural conditions. Considering the common practice of waste disposal, the study presents very current and important information from an environmental protection point of view. The work has been executed in a proper fashion and the results are present clearly. The language is readable and clear, but does contain occasional errors that a native speaker could correct. Although part of the study is somewhat descriptive and could have been condensed, the important information presented clearly merits its publication. Thus, in my opinion, too much attention is put on microbial diversity and
species identification, keeping in mind that a very small and rather random portion of this diversity is reported. As such, however, the microbial results reported are apparently correct – it is their relevance that I question. For example, if general bacterial primers are used, the number of (clear visible) bands in an SSCP or DGGE etc. is not a good indicator of diversity. In very high diversity situations the lane contains so many individual weak bands that they cannot be counted. The rest of the study is in my opinion more relevant, and this can also be deduced from the conclusions.

Details: Several instances of the type: according to (Skinner et al, 1995) → according to Skinner et al. (1995) as described by (Galitskaya et al. 1234) → as described earlier (Galitskaya et al. 1234) also correct forms of citing are found: p. 1760, l. 27 mentioning ISO number is not enough. p. 1760, l. 16: 95 N? p. 1762, l. 12-14: two independent columns, right? So the repeats within one column are pseudorepeats, which are of some value, but not the same as actual repeats.

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