Interactive comment on “Did Adria rotate relative to Africa?” by D. J. J. van Hinsbergen et al.

D. J. J. van Hinsbergen et al.
douwework@gmail.com

Received and published: 15 May 2014

We appreciated the positive review of Anonymous Referee #1. Following a short summary of the contents of our manuscript the referee raises three short questions, which we hereby answer.

The referee wonders why in the unpublished MSc thesis of Marily Mensink, the second author of the current manuscript on whose work our paper is based, twelve sample locations are mentioned, and in the current manuscript only nine. The reason is that samples from three localities were lost in the mail and never made it to the laboratory at Utrecht University. We considered this information trivial, and restricted our descriptions to the localities from which we can show actual results.

The referee mentions that the updated paleomagnetic data base (Table 1) show 15 poles and not 12 as reported in the text (p. 955, line 17). There are indeed 15 poles
in the table, three of which are discarded as discussed previously. We clarified in the text.

The referee finally wonders why the $9.5\pm8.7$ CCW should have occurred after $20\pm10$ Ma. We rephrased this. We estimate the timing from the graph of Figure 7, where deviating declinations are seen all the way into the late Cenozoic. The data density does not allow to precisely determine the timing, but we clarified our estimate in the text by saying ‘The timing of this rotation is ill constrained, but can be estimated from the average declination shown in the graph of Figure 7 to have occurred sometime in the second half of the Cenozoic, roughly $20 \pm 10$ Ma.’

Interactive comment on Solid Earth Discuss., 6, 937, 2014.