



# Erratum to: Soil evolution along an alluvial-loess transect in the Herat Plain, western Afghanistan

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In this Erratum, we corrected the following mistakes:

The first author has both affiliations 1 and 2. Please see the correct ones.

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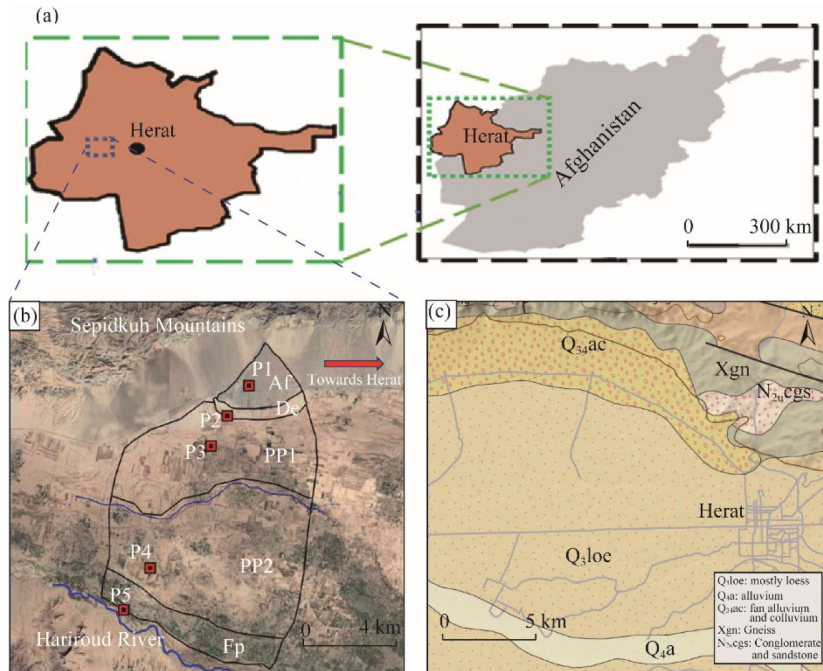
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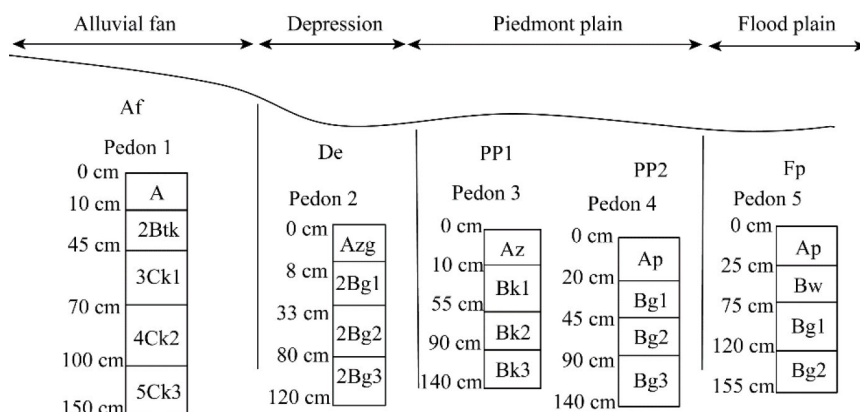
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Afghanistan and Herat Plain were added in Figure 1. Please see the correct Figure 1 here. With this correction, the "Fig. 1a" and "Fig. 1b" should be changed to "Fig. 1b" and "Fig. 1c" in the text.



**Fig. 1** (a and b), location of the study area and the studied soil pedons in the geomorphic surfaces in southern Herat Plain, western Afghanistan; (c), the geology of the study area form Bohannon and Lindsay (2007). P1–P5, soil pedons; Af, alluvial fan; De, depression; PP1, saline piedmont plain; PP2, non-saline piedmont plain; Fp, flood plain.

Figure 2 is incorrect. There are mistakes about pedons 2 and 3. Please see the correct Figure 2 here. Similar mistake is also pointed out in Table 1.



**Fig. 2** Schematic representation of soil pedons locations and their horizons in geomorphic surfaces

Titles of Figures 5 and 6, and number of figures in the text are incorrect. The revisions are marked in red.

**Fig. 5** (a), clay coating on carbonate nodule (XPL); (b), sequence of clay and carbonate coating on coarse fragment (PPL); (c), iron oxides nodule in the **2Btk** horizon of pedon 1 (XPL); (d), incomplete infilling of lenticular gypsum in the Bk1 horizon of pedon 3 (XPL); (e) and (f), hypocoating and coating of iron oxides (XPL); (g), weathered biotite in the Bg1 horizon of pedon 5 (XPL); (h), subangular blocky microstructure in the Bg1 horizon of pedon 4 (XPL); XPL, crossed-polarized light; PPL, plain-polarized light.

**Fig. 6** (a), X-ray diffraction diffractograms of clay fraction of the **2Btk** horizon of pedon 1; (b), the **2Bg2** horizon of pedon 2; (c), the **Bk1** horizon of pedon 3; (d), the Bg1 horizon of pedon 4; (e), the Bg1 horizon of pedon 5; Mg-Sat, Mg saturated; Mg-Eg, Mg and ethylene glycol saturated; K-Sat, K saturated; K550, K saturated and heated at 550°C; cps, counts per second.

In pedon 1, we recognized sequences of lithology discontinuities according to the depth variations in the amount and size of coarse fragments (Table 1 and Fig. 2).

The Btk horizon in the soils of the Herat Plain formed without recarbonation, and clay coatings formed on carbonate nodules as illustrated by micromorphology analysis (Fig. 5a and b).

Because palygorskite occurs in both alluvial and loessic soils of the Herat Plain (Fig. 6), we imply that the mineral crystallization in the region is independent from the type of parent material and formed by authigenic process.

All the description about Btk horizon in the text is incorrect, and the correct one is **2Btk** horizon.