Well known (and still unknown) Crimea highlands

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Crimea Highlands should be considered as a natural lab extremely important for understanding of the Ukrainian Black Sea and its petroleum potential. Geological mapping and research activities during Soviet times resulted in the classical “geosynclinal model” of Crimea by M.Muratov and followers. Based on the extensive biostratigraphic studies the classical model stratigraphy survived “structural revolutions” and still dominates over research and mapping in Crimea.
Recent field study of numerous locations in Crimea Highlands reveals significant controversies in the stratigraphic interpretation of several sedimentary successions and their structural relationships. The list of stratigraphic controversies looks as follows: 1) Tauric group: Aptian-Albian vs. Triassic-Liassic age; 2) “Flysch and conglomerates succession” (FCS): Pliocene vs. Late Jurassic age; 3) Bitak conglomerates: Pliocene vs. Middle Jurassic age; 4) Krymskaya Rosa succession: Pliocene vs. Hauterivian ; 5) Prokhladnoye succession: Cenomanian vs. Berriassian- Hauterivian age. The list of controversial structural relationships shows as follows: 1) Salgir valley: tectonic semi-window vs. erosional depression; 2) Kara Su valley: tectonic klippen vs. erosional remnant; 3) Echki-Dag area: disconformity vs. thrust. Both of lists could be extended demonstrating uncertainties surrounding well-studied areas of key importance for successful exploration in the Black Sea.