

GEOMORPHOLOGICAL ANALYSIS OF DRAINAGE CHANGES IN THE NE APENNINES PIEDMONT AREA: THE CASE OF THE MIDDLE TAVO RIVER BEND (ABRUZZO, CENTRAL ITALY)

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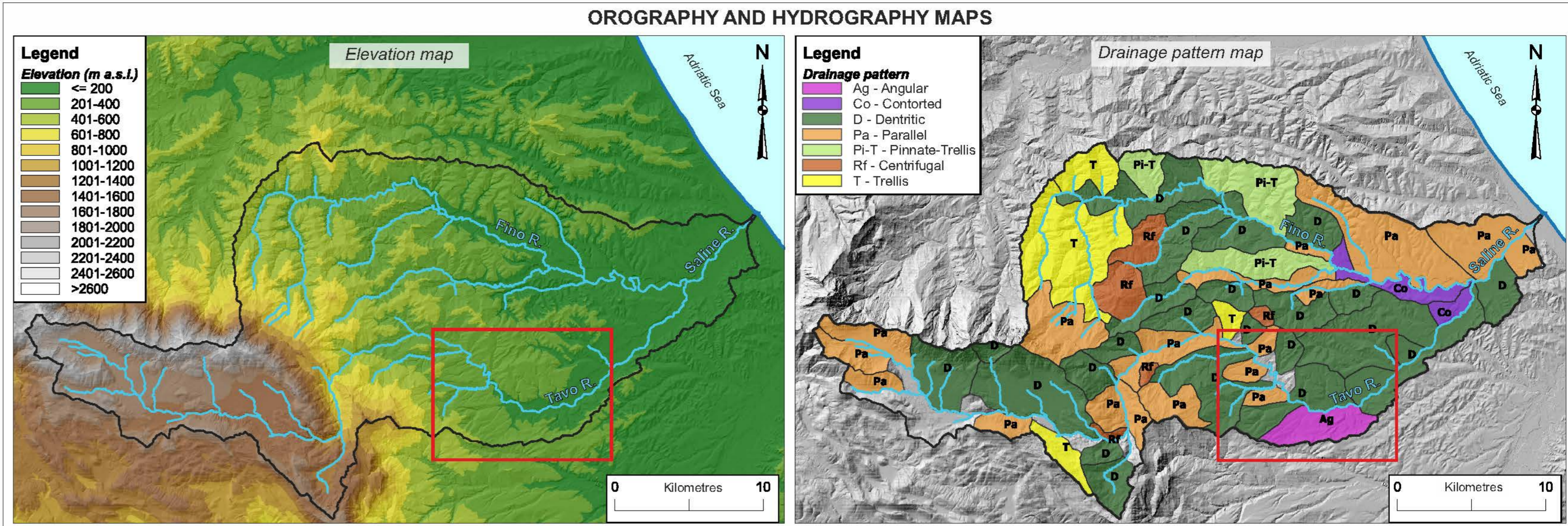
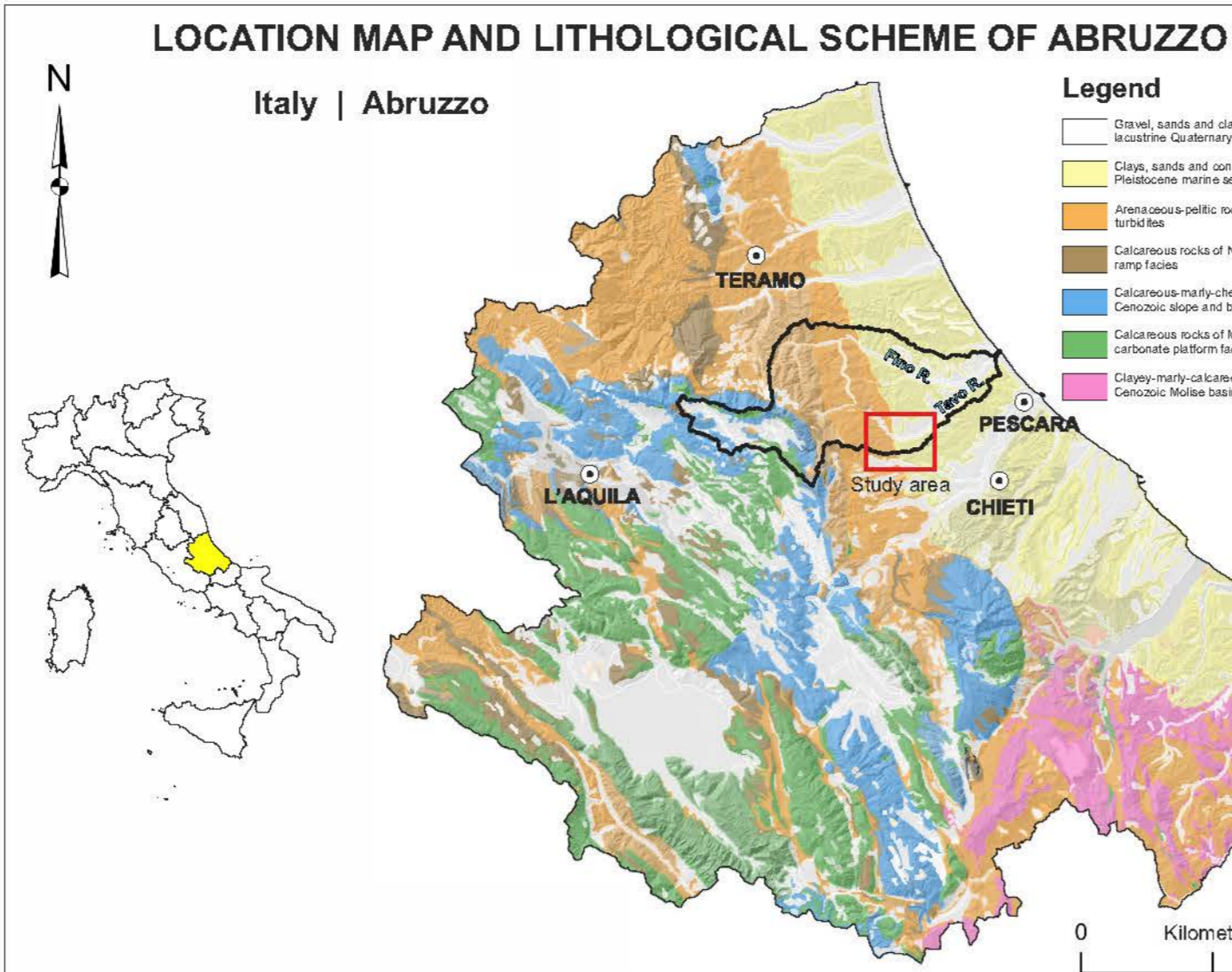
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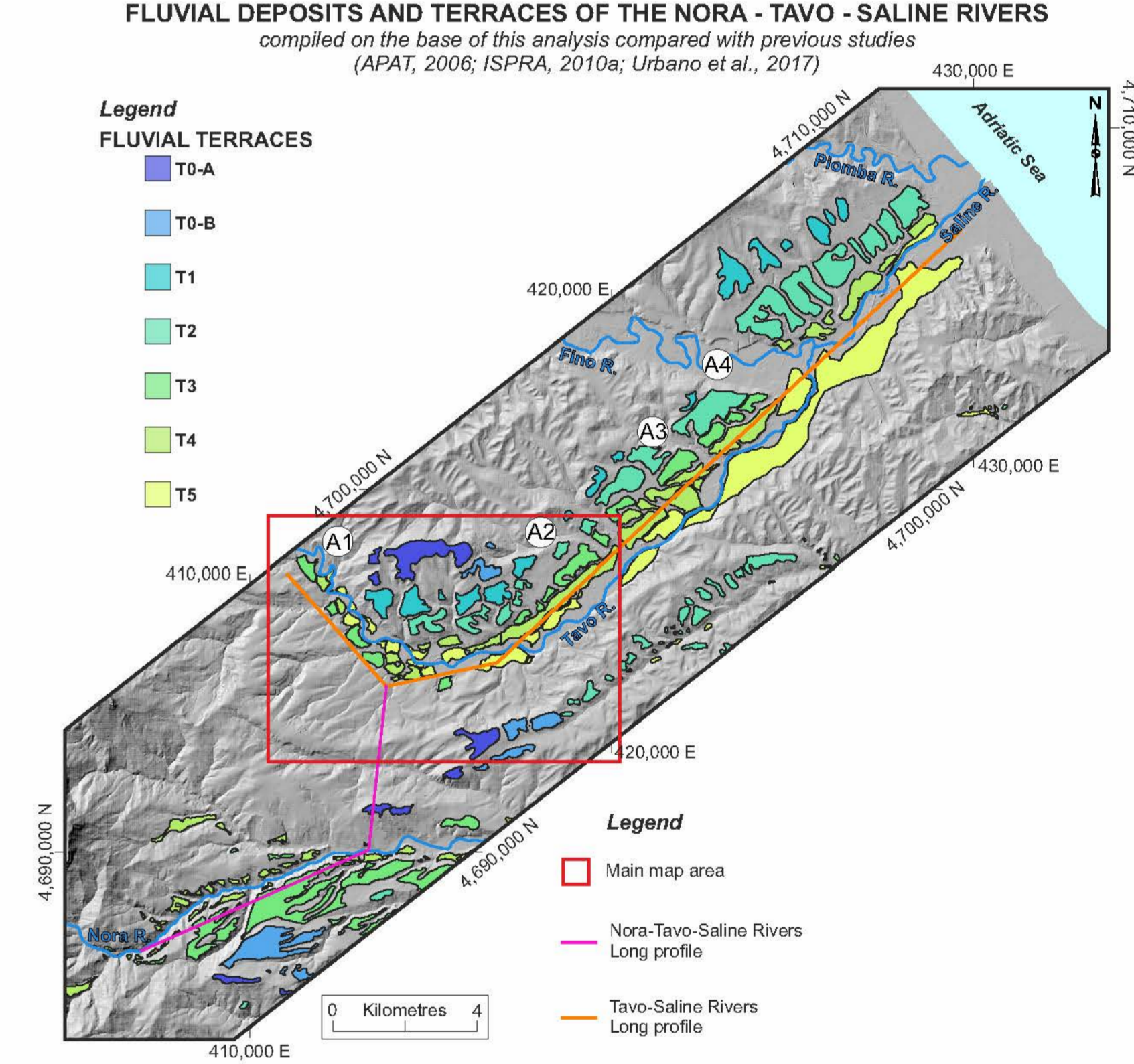
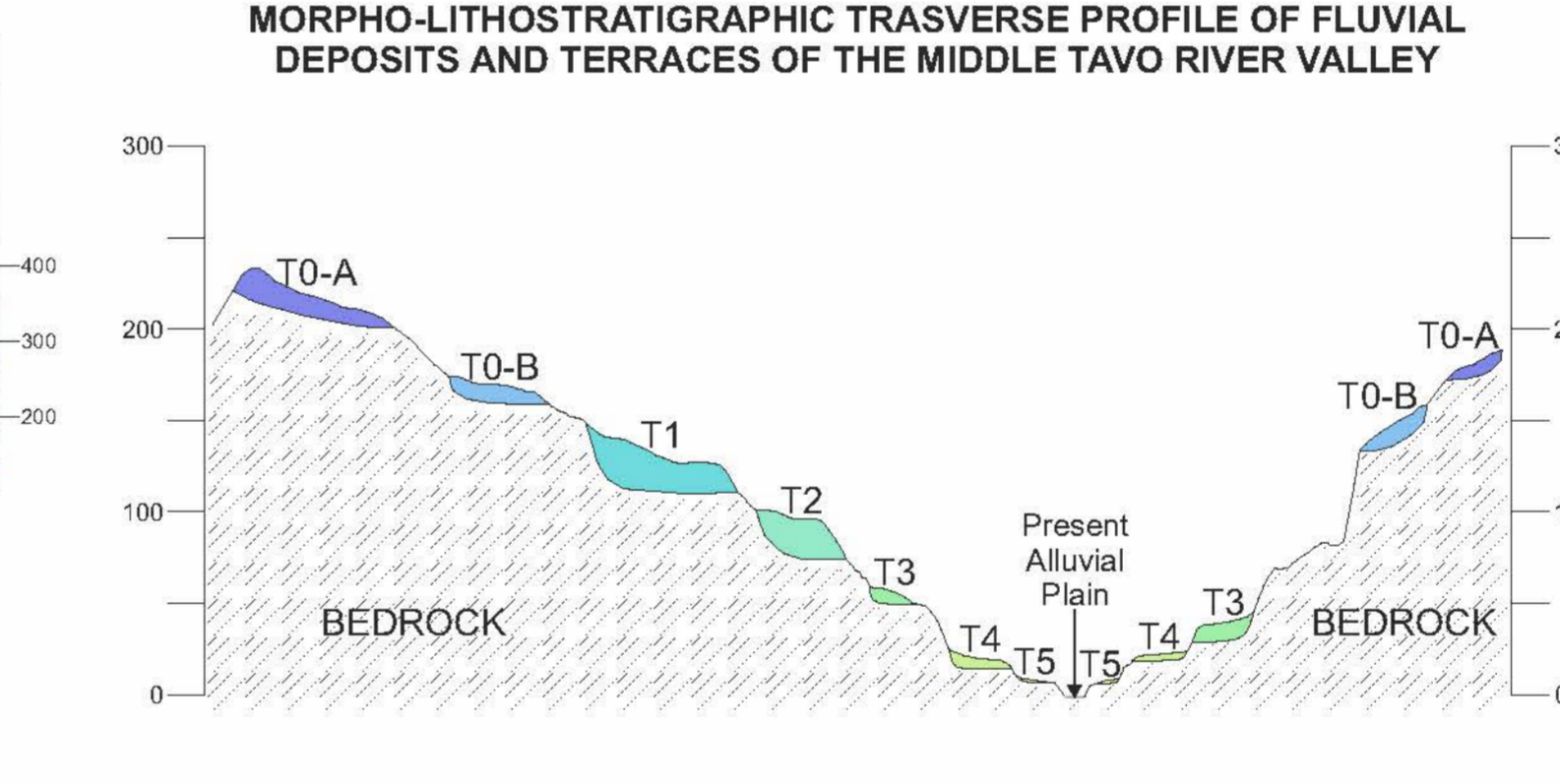
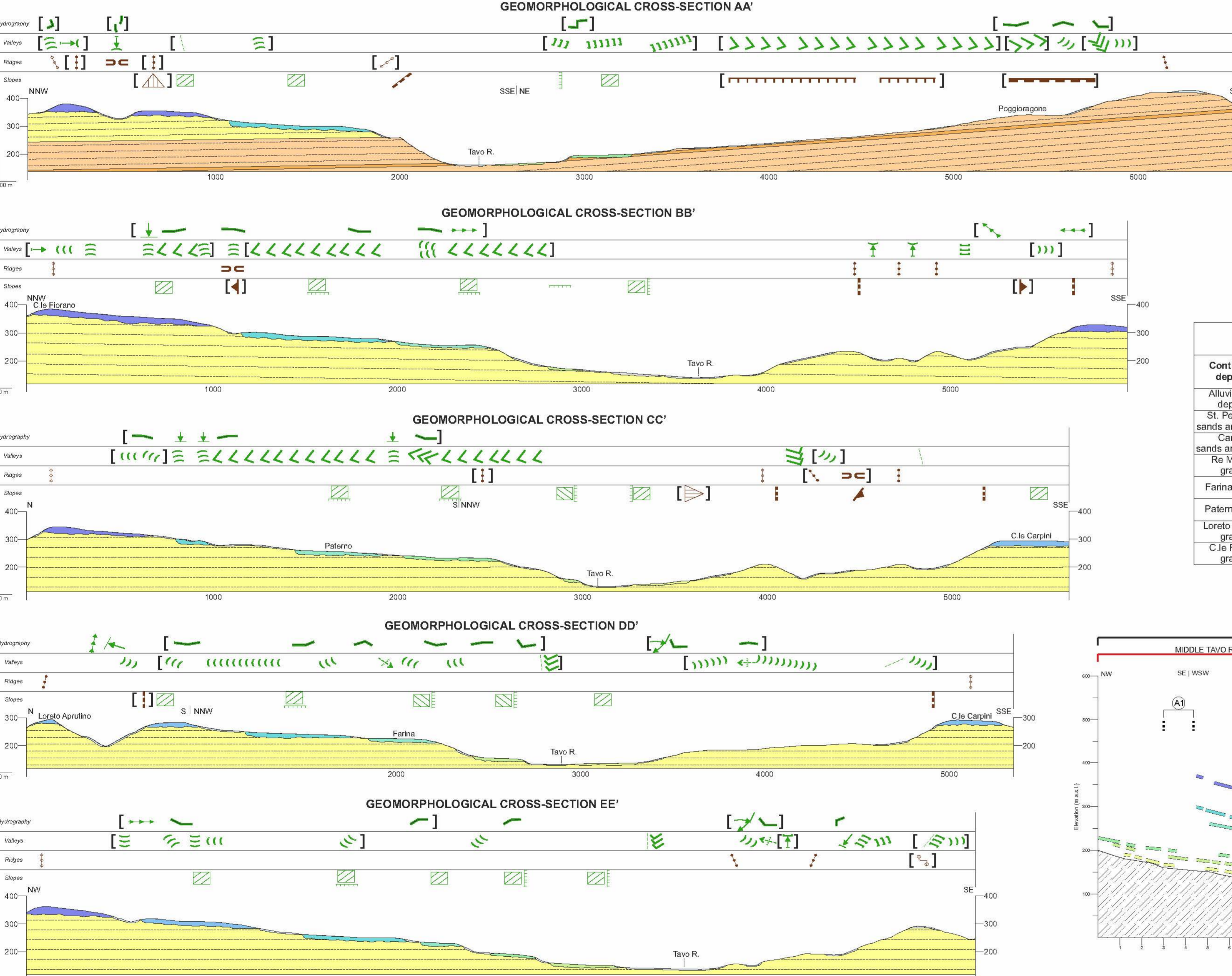
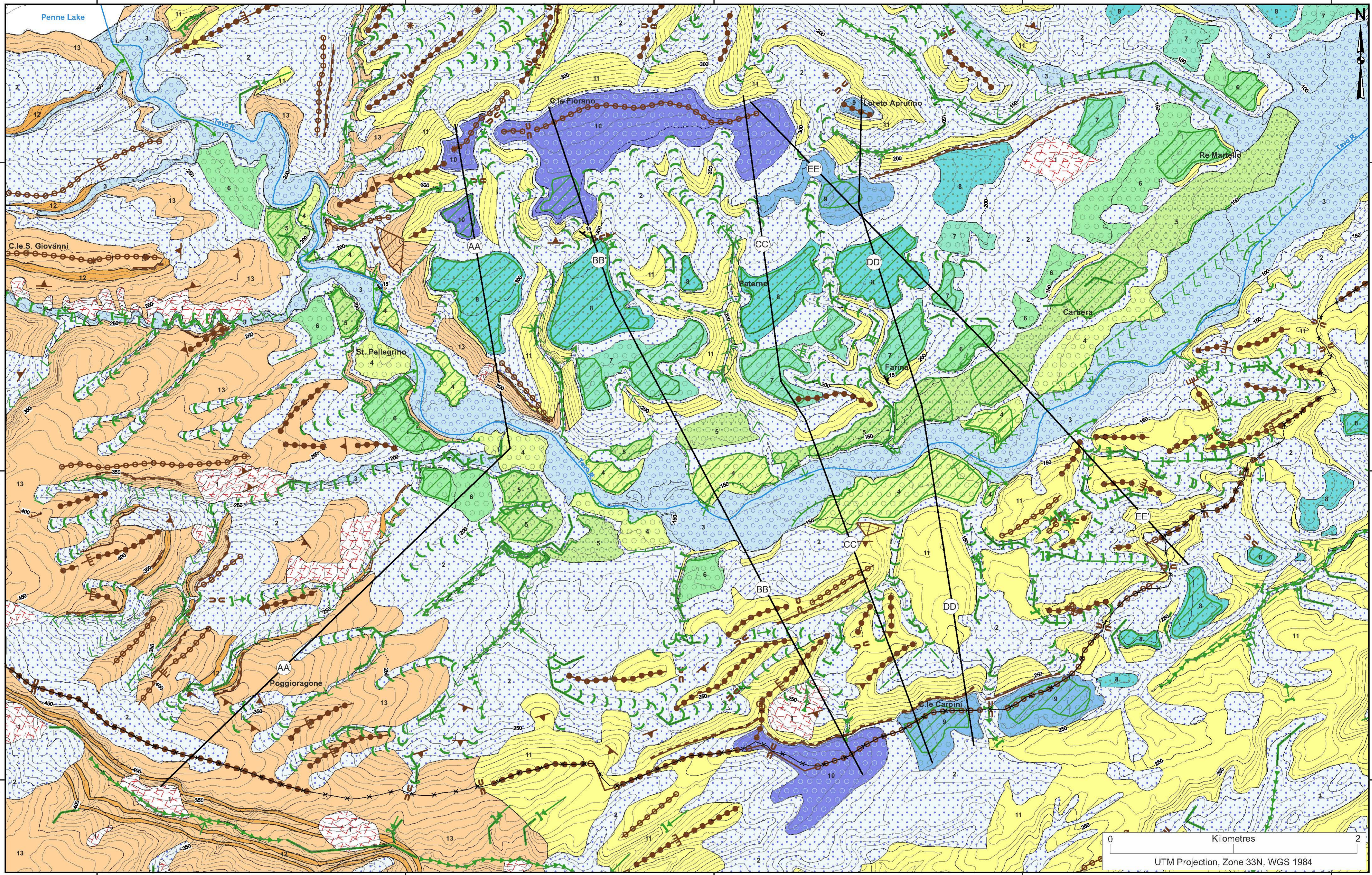
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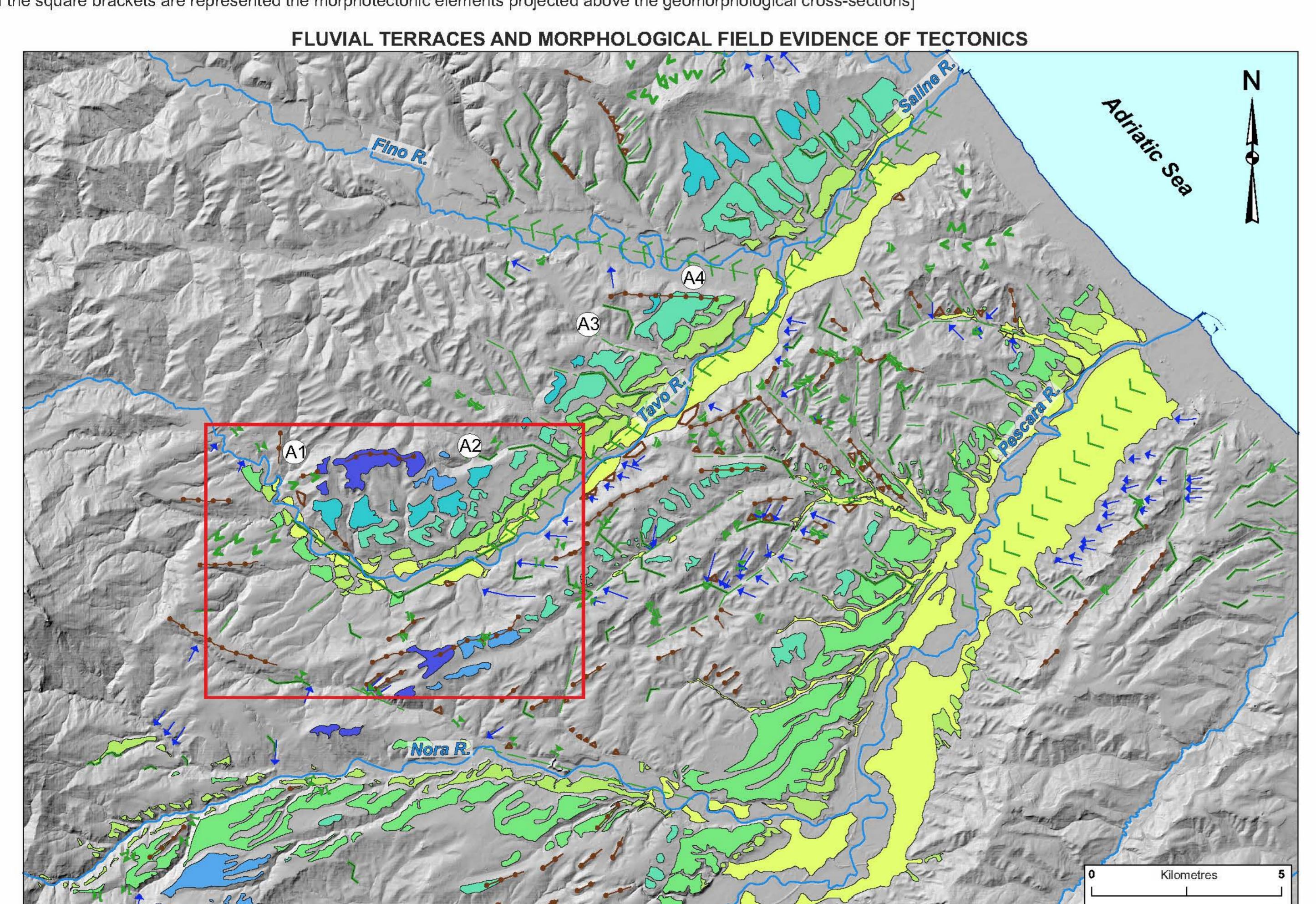
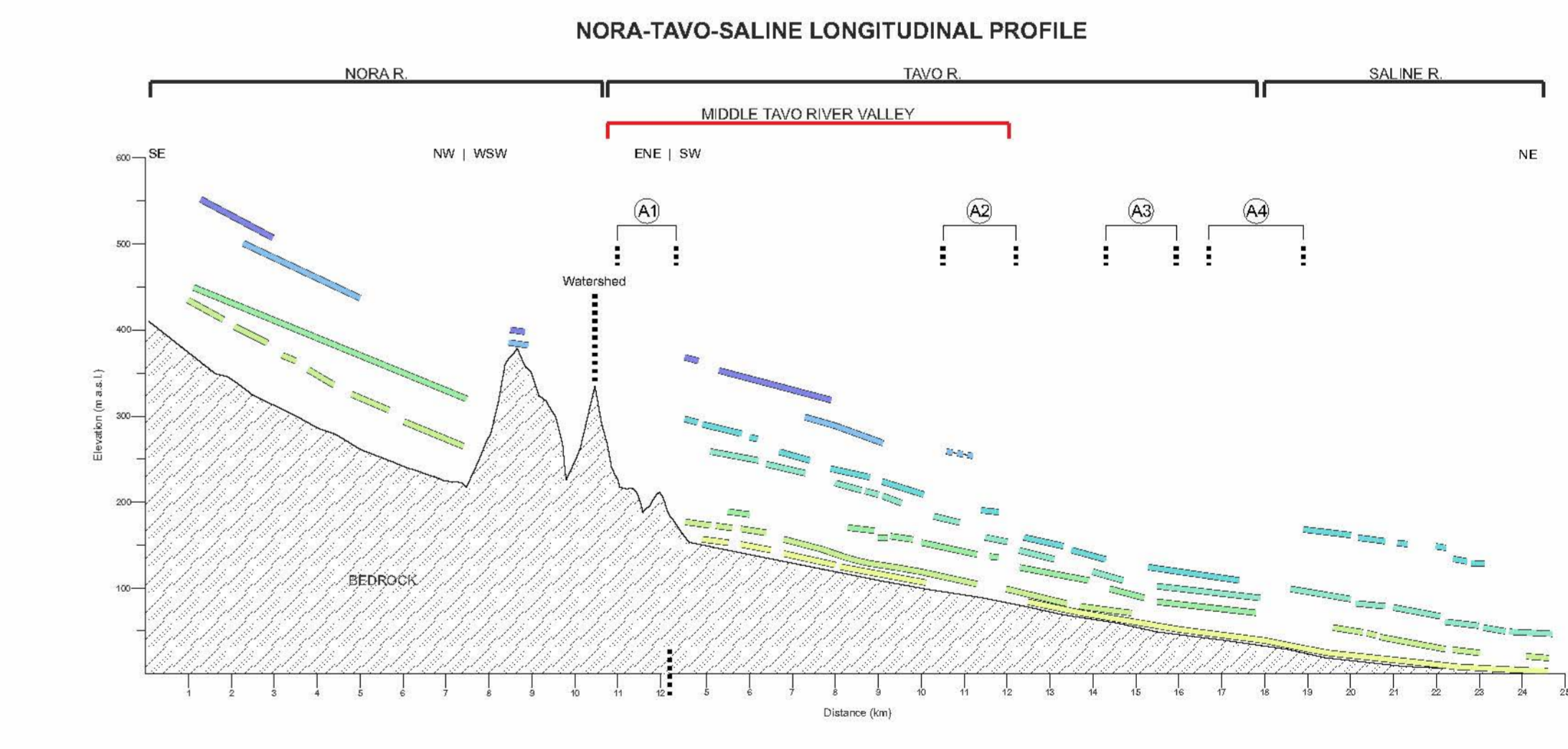
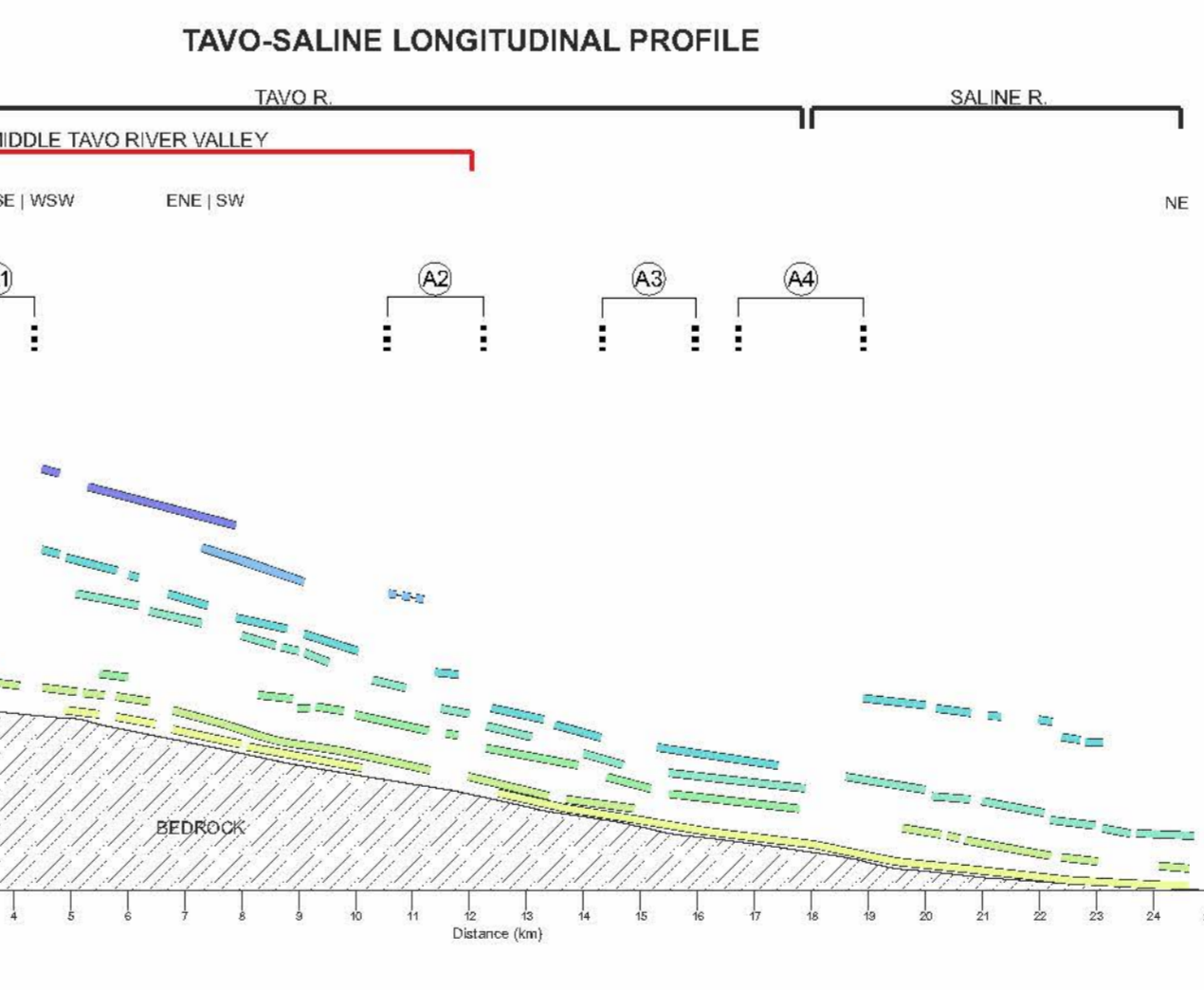


LEGEND

- CONTINENTAL DEPOSITS (near surface cover deposits)**
- Landslide deposits (1)
 - Eluvial-colluvial deposits (2)
 - Alluvial plain deposits (3)
 - St. Pellegrino sands and gravels (4)
 - Cartiera sands and gravels (5)
 - Re Martello gravels (6)
 - Farina gravels (7)
 - Paterno sands (8)
 - Loreto Aprutino gravels (9)
 - C. le Fiorano gravels (10)
- MARINE DEPOSITS (bedrock)**
- Pellic unit (11)
 - Arenaceous unit (12)
 - Pellico-arenaceous unit (13)
- MORPHOLOGICAL FIELD EVIDENCE OF TECTONICS**
- Ridges
 - Saddles
 - Isolated relief
 - Straight symmetric ridge
 - Straight asymmetric ridge
 - Alimetric discontinuities of ridge
 - Planimetric discontinuities of ridge
 - Slopes
 - Structural scarp (< 5 m)
 - Structural scarp (> 5 m)
 - Counter slope
 - Structural surface
 - Triangular facet
 - Fluvial erosion scarp
 - Fluvial surface
 - Valleys
 - Asymmetric valley
 - V shaped valley
 - Concave valley
 - Flat bottom valley
 - Beheaded valley
 - Hanging valley
 - Hydrography
 - Rectilinear fluvial segment
 - Entrenched fluvial segment
 - River stop
 - River bend
 - Counterflow confluence
 - 90° confluence
- SYMBOLY**
- Bodding
 - Watershed
 - Cross-section trace
- ACKNOWLEDGEMENT**
- Topographic data are provided by *Stabro* Società di Servizi Informatici Regionale di Abruzzo Region (<http://www.regione.abruzzo.it/cartografia/>)



Continental deposits	Elevation (m a.s.l.) Left valley side	Height above valley bottom (m) Left valley side	Elevation (m a.s.l.) Right valley side	Height above valley bottom (m) Right valley side	Terrace order	Chronological constraints	Age
Alluvial plain deposits	200 - 90	-	-	-	AP	-	Holocene
St. Pellegrino sands and gravels	190 - 105	10 - 8	195 - 130	10	T5	8.5 ky - 7.7 ky (Garnis, 2009)	Upper Pleistocene/Holocene
Cartiera sands and gravels	175 - 105	25 - 15	215 - 175	25 - 20	T4	20 ky (APAT, 2006)	Upper Pleistocene
Re Martello gravels	170 - 140	50	230 - 190	30 - 45	T3	-	Upper Pleistocene
Farina gravels	255 - 155	105 - 75	-	-	T2	~ 150 ky (Agostini et al., 2007)	Lower Middle Pleistocene
Paterno sands	300 - 190	150 - 110	-	-	T1	-	Middle Pleistocene
Loreto Aprutino gravels	300 - 270	175 - 160	290 - 260	160 - 135	T0-B	480 ± 40 ky (Mazzanti et al., 2003) ~ 630 ky (Mazzanti et al., 2017)	Middle Pleistocene
C. le Fiorano gravels	370 - 320	220 - 200	340 - 310	190 - 175	T0-A	-	Middle Pleistocene



- LEGEND**
- Fluvial terraces**
- T0-A
 - T0-B
 - T1
 - T2
 - T3
 - T4
 - T5
- Main morphological field evidence of tectonics**
- Straight ridge
 - Triangular facet
 - Asymmetric valley
 - Beheaded valley
 - Hanging valley
 - Rectilinear fluvial segment
 - River bend
 - Counterflow confluence
- Morphotectonic elements**
- Principal
 - Secondary
- Symbology**
- F: Main morphotectonic element
 - A1: Terraces anomalies and associated morphotectonic structures
 - Red box: Main map area
- Data in the red box are provided by this study; data of Saline R., Nora R. and Pescara R. are modified from APAT (2006), ISPR (2010a) & Urbano et al. (2017)

