

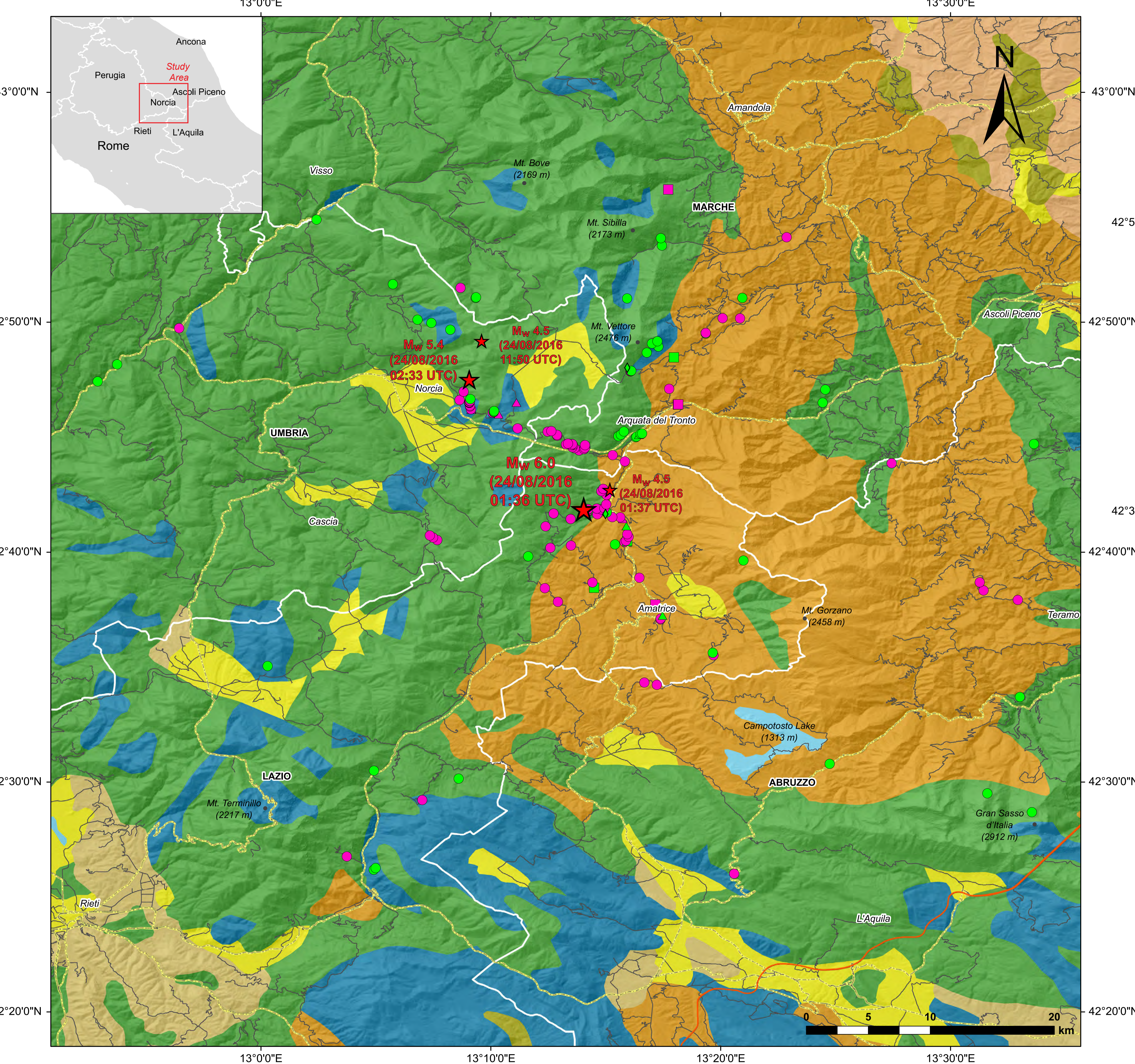
Ground effects triggered by the 24th August 2016, M_w 6.0 Amatrice (Italy) earthquake: surveys and inventorying to update the CEDIT catalogue

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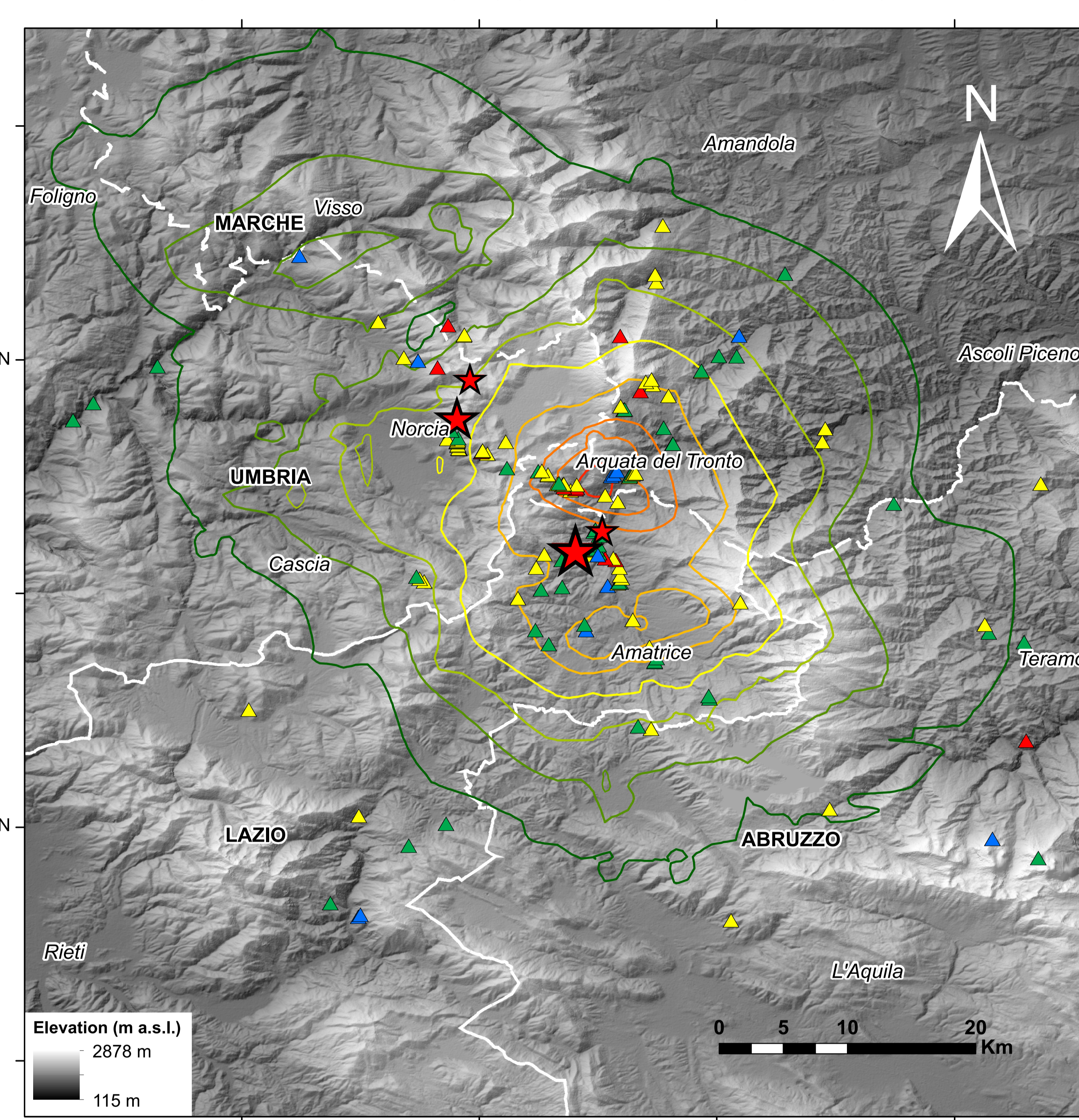
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1 - GEOLITHOLOGICAL MAP WITH INVENTORIED GROUND EFFECTS



2 - SHAKE MAP AND GROUND EFFECT DISTRIBUTION



Legend

Epicenter

- ★ 4.5 - 5.0
- ★ 5.0 - 5.5
- ★ 5.5 - 6.0

Lithology (source: ISPRA*)

- Alluvial and debris deposits (AD)
- Arenaceous and conglomeratic deposits (AC)
- Clays and marls (CM)
- Fluvial and fluvio-lacustrine deposits (FFL)
- Pelitic and arenaceous flysch (PAF)
- Limestones, dolomites (LD)
- Pelagic limestones, marls and travertines (PLMT)

Shake Map related to the mainshock (source: INGV)**

PGA (g)

- 0.12
- 0.20
- 0.28
- 0.36
- 0.44
- 0.52
- 0.58

Ground Effects

Natural Slope

- ◆ Ground Cracks
- Rock Fall
- Rock Slide
- Debris Slide

Road Cuts

- Rock Fall
- ▲ Rock Slide
- Debris Slide

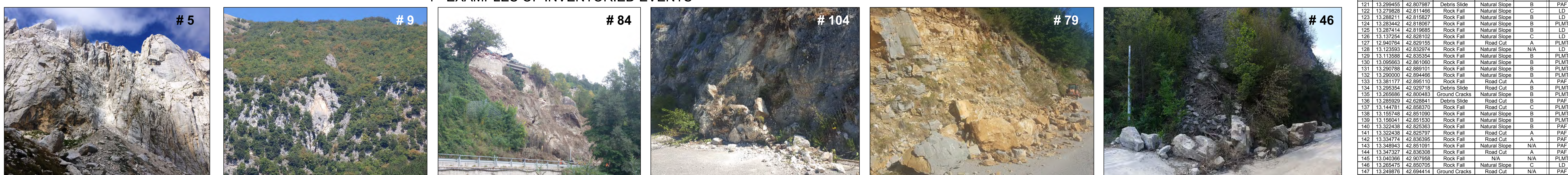
Volume Class

- ▲ A
- ▲ B
- ▲ C
- ▲ N/A

Administrative borders and infrastructures

- Region Borders
- Secondary Road
- Statal Road
- Highway
- Lakes

4 - EXAMPLES OF INVENTORIED EVENTS



3 - DATASET OF GROUND EFFECTS

#	Long	Lat	Landslide Type	Slope Type	Volume Class	Lithology
1	13.343158	42.433660	Rock Fall	Road Cut	N/A	PLMT
2	13.081820	42.438470	Natural Slope	N/A	N/A	LD
3	13.083141	42.437763	Rock Fall	Natural Slope	N/A	LD
4	13.062253	42.446083	Rock Fall	Road Cut	A	PLMT
5	13.558889	42.478333	Rock Fall	Natural Slope	A	PLMT
6	13.116988	42.487114	Rock Fall	Road Cut	A	LD
7	13.526649	42.481913	Rock Fall	Natural Slope	N/A	PLMT
8	13.143302	42.502625	Rock Fall	Natural Slope	A	PLMT
9	13.081839	42.503711	Rock Fall	Natural Slope	B	PLMT
10	13.412395	42.513306	Rock Fall	Natural Slope	B	PAF
11	13.550312	42.561811	Rock Fall	Natural Slope	C	PLMT
12	13.287063	42.570587	Rock Fall	Road Cut	B	PAF
13	13.277890	42.572260	Rock Fall	Road Cut	A	PAF
14	13.004813	42.584270	Rock Fall	Natural Slope	B	LD
15	13.328106	42.592026	Rock Fall	Road Cut	A	PAF
16	13.327655	42.593007	Rock Fall	Natural Slope	A	PAF
17	13.289559	42.618010	Rock Fall	Road Cut	A	PAF
18	13.289733	42.618570	Rock Fall	Road Cut	A	PAF
19	13.291135	42.620808	Rock Slide	Natural Slope	A	PAF
20	13.215312	42.630948	Rock Fall	Road Cut	A	PAF
21	13.548702	42.632170	Rock Fall	Road Cut	A	PAF
22	13.523861	42.639070	Rock Fall	Road Cut	A	PAF
23	13.205847	42.640698	Rock Fall	Road Cut	A	PAF
24	13.241542	42.649530	Debris Slide	Natural Slope	N/A	PAF
25	13.240329	42.648860	Rock Fall	Road Cut	A	PAF
26	13.521121	42.644920	Rock Fall	Road Cut	B	PAF
27	13.274407	42.645216	Rock Fall	Road Cut	B	PAF
28	13.348859	42.660719	Rock Fall	Natural Slope	B	PAF
29	13.193738	42.663737	Rock Fall	Natural Slope	B	PLMT
30	13.209862	42.670002	Rock Fall	Road Cut	A	PLMT
31	13.248950	42.671547	Rock Fall	Road Cut	A	PAF
32	13.256736	42.672368	Rock Fall	Natural Slope	N/A	PAF
33	13.263701	42.674230	Rock Fall	Road Cut	B	PAF
34	13.265632	42.674841	Debris Slide	Natural Slope	A	PAF
35	13.264890	42.676263	Rock Fall	Road Cut	A	PAF
36	13.127804	42.675519	Rock Fall	Road Cut	B	PLMT
37	13.124849	42.677424	Rock Fall	Road Cut	B	PLMT
38	13.266603	42.679848	Rock Fall	Road Cut	B	PAF
39	13.127396	42.678925	Rock Fall	Road Cut	A	PLMT
40	13.265551	42.679874	Rock Fall	Road Cut	B	PAF
41	13.206413	42.685400	Rock Fall	Road Cut	B	PLMT
42	13.264942	42.685585	Rock Slide	Natural Slope	B	PAF
43	13.224957	42.690820	Rock Fall	Road Cut	A	PLMT
44	13.262323	42.690876	Rock Slide	Road Cut	C	PAF
45	13.265907	42.692127	Rock Fall	Road Cut	B	PAF
46	13.254786	42.692150	Rock Fall	Road Cut	C	PAF
47	13.243867	42.694263	Rock Fall	Road Cut	B	PAF
48	13.212111	42.694843	Rock Fall	Road Cut	B	PLMT
49	13.250786	42.695683	Rock Fall	Natural Slope	A	PAF
50	13.236328	42.696370	Rock Slide	Road Cut	B	PLMT
51	13.236328	42.696430	Rock Slide	Road Cut	B	PAF
52	13.248835	42.697870	Rock Fall	Road Cut	B	PAF
53	13.237188	42.697860	Rock Fall	Road Cut	B	PLMT
54	13.243479	42.698326	Rock Fall	Road Cut	A	PLMT
55	13.248959	42.698710	Rock Fall	Road Cut	A	PAF
56	13.250393	42.701420	Rock Fall	Road Cut	A	PAF
57	13.250664	42.701420	Rock Fall	Road Cut	A	PAF
58	13.248936	42.711030	Rock Fall	Road Cut	A	PLMT
59	13.248151	42.712627	Rock Fall	Road Cut	A	PAF
60	13.457320	42.731148	Rock Fall	Road Cut	A	PLMT
61	13.263890	42.732563	Rock Fall	Road Cut	B	PAF
62	13.255032	42.737170	Rock Fall	Road Cut	B	PAF
63	13.230760	42.740500	Rock Fall	Road Cut	B	PLMT
64	13.242494	42.741465	Rock Fall	Road Cut	B	PLMT
65	13.227910	42.742520	Rock Fall	Road Cut	B	PLMT
66	13.234870	42.742313	Rock Fall	Road Cut	C	PLMT
67	13.228811	42.742893	Rock Fall	Road Cut	C	PLMT
68	13.226424	42.744410	Rock Fall	Road Cut	A	PLMT
69	13.226196	42.744420	Rock Fall	Road Cut	B	PLMT
70	13.234841	42.744460	Rock Fall	Road Cut	B	PLMT
71	13.225108	42.744465	Rock Fall	Road Cut	B	PLMT
72	13.221245	42.744946	Rock Fall	Road Cut	A	PAF
73	13.225800	42.745037	Rock Fall	Road Cut	B	PLMT
74	13.560440	42.745203	Rock Fall	Natural Slope	B	PLMT
75	13.225283	42.745550	Rock Fall	Road Cut	A	PAF
76	13.271835	42.750147	Rock Fall	Natural Slope	B	PLMT
77	13.272309	42.750625	Rock Fall	Natural Slope	A	PLMT
78	13.259149	42.750864	Rock Fall	Natural Slope	N/A	PAF
79	13.214781	42.751230	Rock Fall	Road Cut	A	PLMT
80	13.214707	42.751774	Rock Fall	Road Cut	B	PLMT
81	13.274014	42.751826	Rock Slide	Natural Slope	B	PAF
82	13.269958	42.751969	Rock Fall	Natural Slope	N/A	PLMT
83	13.270984	42.752030	Rock Fall	Road Cut	B	PAF
84	13.275195	42.752700	Rock Fall	Natural Slope	B	PAF
85	13.276373	42.752780	Rock Fall	Natural Slope	B	PAF
86	13.207907	42.754100	Rock Fall	Road Cut	A	PLMT
87	13.263201	42.754329	Rock Fall	Natural Slope	N/A	PLMT
88	13.210484	42.754520	Rock Fall	Road Cut	B	PLMT
89	13.186008	42.756435	Rock Fall	Road Cut	A	PLMT
90	13.172320	42.756720	Rock Slide	Natural Slope	B	LD
91	13.167997	42.757888	Rock Fall	Road Cut	C	LD
92	13.168760	42.758326	Rock Fall	Natural Slope	B	LD
93	13.168922	42.758540	Rock Fall	Natural Slope	B	LD
94	13.169241	42.758610	Rock Fall	Natural Slope	B	LD
95	13.152725	42.770123	Rock Slide	Road Cut	B	LD
96	13.152382	42.770145	Rock Slide	Road Cut	B	LD
97	13.152221	42.770326	Rock Fall	Road Cut	B	LD
98	13.151845	42.772892	Rock Fall	Road Cut	B	LD
99	13.151533	42.773014	Rock Fall	Road Cut	B	LD
100	13.302301	42.773760	Debris Slide	Road Cut	A	PAF
101	13.300909	42.773933	Debris Slide	Road Cut	A	PAF
102	13.151020	42.774978	Rock Fall	Road Cut	A	LD
103	13.185278	42.775124	Rock Slide	Natural Slope	B	LD
104	13.151043	42.775158	Rock Fall	Road Cut	B	LD
105	13.150992	42.775246	Rock Fall	Natural Slope	B	PLMT
106	13.407201	42.775246	Rock Fall	Natural Slope	B	PLMT
107	13.151058	42.775342	Rock Fall	Road Cut	A	LD
108	13.151160	42.775452	Rock Fall	Road Cut	B	LD
109	13.151481	42.775480	Rock Fall	Road Cut	B	LD
110	13.151602	42.776370	Rock Fall	Road Cut	B	LD
111	13.144087	42.777126	Rock Fall	Road Cut	B	PLMT
112	13.151689	42.777411	Rock Fall	Natural Slope	A	PLMT
113	13.148888	42.783300	Rock Fall	Natural Slope	B	PLMT
114	13.409237	42.784683	Rock Fall	Natural Slope	B	PLMT
115	13.290433	42.785263	Rock Fall	Road Cut	A	PAF
116	13.281835	42.785559	Rock Fall	Natural Slope	A	PAF
117	13.287919	42.787890	Rock Fall	Road Cut	B	LD
118	13.288033	42.788107	Rock Fall	Natural Slope	A	LD
119	13.288495	42.788256	Rock Fall	Natural Slope	A	PLMT
120	13.289822	42.802963	Rock Fall	Natural Slope	A	PLMT
121	13.299455	42.807987	Debris Slide	Natural Slope	B	PAF
122	13.278828	42.811466	Rock Fall	Natural Slope	C	LD
123	13.288211	42.815827	Rock Fall	Natural Slope	B	PLMT
124	13.283445	42.818967	Rock Fall	Natural Slope	B	LD
125	13.287414	42.819685	Rock Fall	Natural Slope	B	LD
126	13.137254	42.828102	Rock Fall	Natural Slope	C	LD
127	13.240764	42.829155	Rock Fall	Road Cut	A	PLMT
128	13.123593	42.832974	Rock Fall	Natural Slope	N/A	LD
129	13.113588	42.833534	Rock Fall	Natural Slope	B	PLMT
130	13.096653	42.836100	Rock Fall	Natural Slope	B	PLMT
131	13.290789	42.839101	Rock Fall	Natural Slope	B	PLMT
132	13.290000	42.844466	Rock Fall	Natural Slope	B	PLMT
133	13.381177	42.895110	Rock Fall	Road Cut	A	PAF
134	13.295354	42.829718	Debris Slide	Road Cut	B	PLMT
135	13.295696	42.804463	Ground Cracks	Natural Slope	B	PLMT
136	13.285929	42.828841	Debris Slide	Road Cut	B	PAF
137	13.144781	42.868370	Rock Fall	Road Cut	C	PLMT
138	13.156789	42.861090	Rock Fall	Natural Slope	B	PLMT
139	13.156041	42.851530	Rock Fall	Natural Slope	B	PLMT
140	13.322438	42.825363	Rock Fall	Natural Slope	B	PAF
141	13.322438	42.825797	Rock Fall	Road Cut	A	PAF
142	13.334714	42.836305	Rock Fall	Road Cut	A	PAF
143	13.348943	42.851091	Rock Fall	Natural Slope	N/A	PAF
144	13.347327	42.836308	Rock Fall	Road Cut	A	PAF
145	13.040366	42.807958	Rock Fall	N/A	N/A	PLMT
146	13.265475	42.850705	Rock Fall	Natural Slope	C	LD
147	13.249876	42.684414	Ground Cracks	Road Cut	N/A	PAF