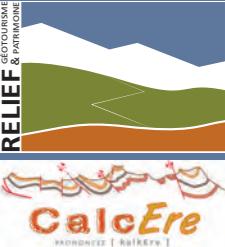


Application of geosites assessment method in geopark candidacy procedure



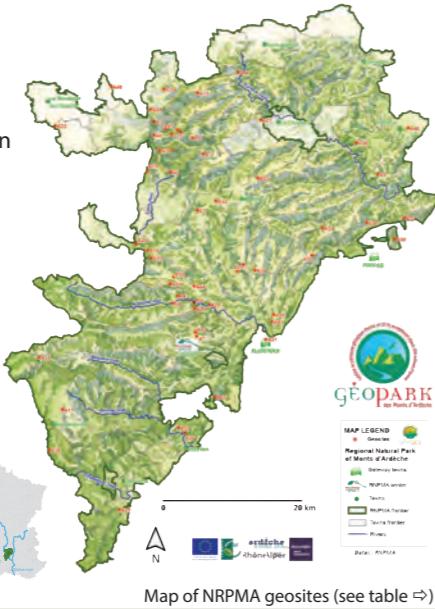
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Context

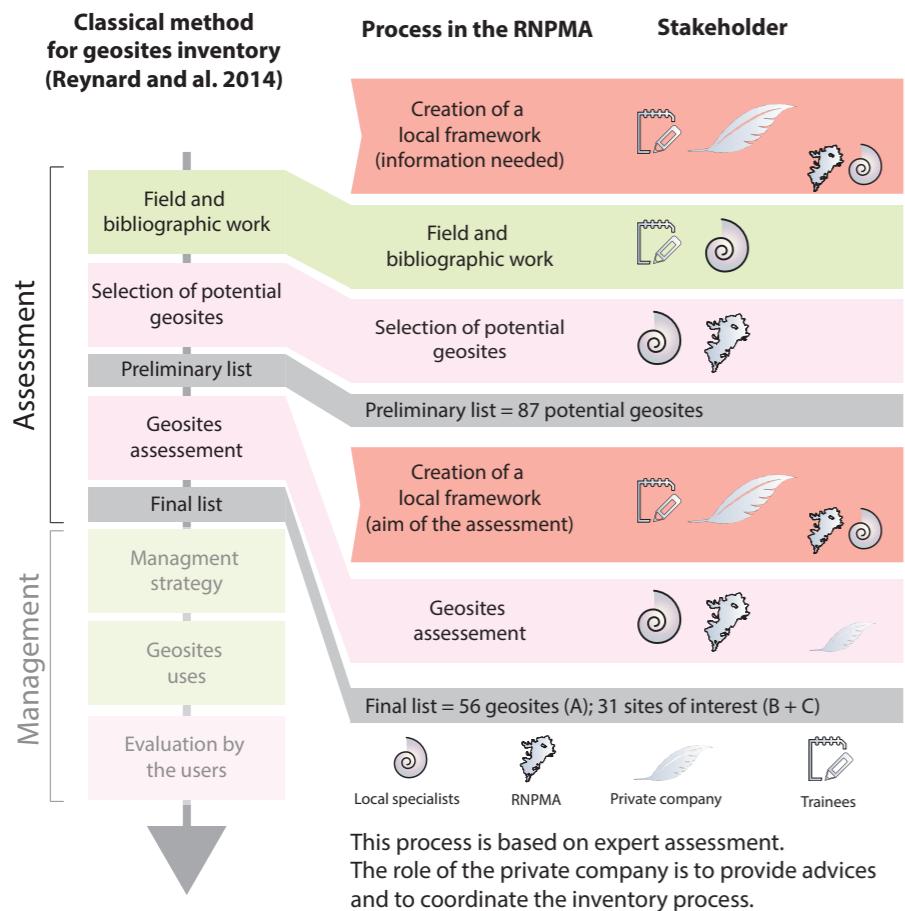
In 2014 the Natural Regional Parc of Monts d'Ardèche (NRPMA) is candidate to the European Geopark Network (EGN). In this context an inventory of geosites within the whole territory (2.280 km²) has been carried out.



The inventory and assessment is based on the method from Reynard et al. (2007) but it has been deeply modified in order to fit with the aims and the specificities of the context:

1. The EGN requirements;
2. Absence of any existing inventory;
3. Short time;
4. Presence of local specialists;
5. Coordination by a private company.

Inventory and assessment process



Code	Name of the geosite	Commune	Geosite	EGN Inventory	Level of interest	Science	Education	Tourism	Protection	Ecology	Resources	Period	Age
Sedimentological Sites													
A41	Prades-Jeunesse-Sauvage Carboniferous Basalt	Prades, Jeunesse, Sauvage	Outcrop	✓	✓	✓	✓	✓	✓	✓	✓	1	Carboniferous 100 m
A42	Les Fossiliols	Largentière	Outcrop	✓	✓	✓	✓	✓	✓	✓	✓	1	Permian 250-200 ma
A43	Reptile prints in Triassic sandstone	St-Julien-de-Serre	Outcrop; reptile prints	✓	✓	✓	✓	✓	✓	✓	✓	2	Triassic
A44	Le Chalencou - Caves of the Erosion	Couiza	Outcrop; sandstone slab	✓	✓	✓	✓	✓	✓	✓	✓	2	Jurassic 190 ma
A51	La Jaudinière Caves	Couiza	Outcrop; slump	✓	✓	✓	✓	✓	✓	✓	✓	2	Jurassic
A52	Submarine landslides	St-Julien-de-Serre	Outcrop; slump	✓	✓	✓	✓	✓	✓	✓	✓	2	Jurassic
A21	Nesque Cleuse	Les Vans	Example of granite erosion	✓	✓	✓	✓	✓	✓	✓	✓	1/2	Triassic
A17	Boulders field of Montbeliages	Montbeliages	Example of granite erosion	✓	✓	✓	✓	✓	✓	✓	✓	1/2	Triassic
A53	Granite Boulders of la Borne	St-Marguerite-Lafolie	Example of granite erosion	✓	✓	✓	✓	✓	✓	✓	✓	1	Carboniferous
A54	Metamorphic formation of the Eureys Valley	Chalencou	Outcrop; metamorphic	✓	✓	✓	✓	✓	✓	✓	✓	2	Neogene 7-5 ma
A37	Crête de Gras	St-Vincent-de-Durfort	Viewpoint; outcrop	✓	✓	✓	✓	✓	✓	✓	✓	2	Triassic
A55	Baumaux Waterfall	Vernon	Example of sandstone erosion	✓	✓	✓	✓	✓	✓	✓	✓	2	Triassic
A46	Aubepin Valley near Mouleyres	Mouleyres	Outcrop; slump	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene
Petrographical Sites													
A26	Metamorphism of the Isabeaux Valley	Ribes, St-André-Lachamp, Beaumont	Outcrop	✓	✓	✓	✓	✓	✓	✓	✓	1	Carboniferous 300 ma
A38	Chalencou - Pont de Cheval Quarry	Chalencou	Outcrop	✓	✓	✓	✓	✓	✓	✓	✓	1	Carboniferous 300 ma
A47	Dents du Mame	Montbeliages	Outcrop	✓	✓	✓	✓	✓	✓	✓	✓	1	Neogene 8.8 ma
Hydrogeological Sites													
A40	Doris and Mofette Maar	Meyras	Hydrothermal vent; maar	✓	✓	✓	✓	✓	✓	✓	✓	1	Pleistocene 47 ka
A12	Hot water fountain	St-Laurent-des-Bains	Hot spring	✓	✓	✓	✓	✓	✓	✓	✓	1	Pleistocene 17 ka
Volcanic Sites													
A6	Boulettes Cézanne	Bonnieux	Poliphase volcano	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 10-8 ma
A20	Chalencou - River	St-Vincent-de-Durfort	Flows	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 10-7 ma
A19	Les 5 succs	Jausiers, Accoux	Dyke	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 6.5 ma
A18	Thermes plus of Chalencou	St-Vincent-de-Durfort	Thermal springs	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 6.5 ma
A11	Montagne des Sources	Roche-en-Escrebieux	Roche-en-Escrebieux, Chaudanne	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 8 ma
A22	Grotte du Jorat and Loue Source	St-Léonard, St-Marcellin	Phreatomagmatic intrusion	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7 ma
A14	Bing structure of Pradoux et Saxe	Bonne	Ring dyke	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7.6 ma
A23	Volcanic of Chalencou	Marcols-les-Eaux	Flow neck	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7 ma
A30	Volcanic of Chirouze	Planhes	Maar; lava lake	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7 ma
A31	Volcanic of Chirouze	La Roche-en-Régnier-Rapail	Maar; phreatomagmatic dome	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7 ma
A32	Bocher d'Aigue	Ajoux	Dyke	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7 ma
A33	Volcanic Neck of Cras	Gemmelie	Neck	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 7 ma
A34	Volcanic of Montmouchet	Crans	Welded flow	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 80 ka
A46	Boucle D'Orage of St-Julien-Boulzais	St-Julien-Boulzais	Fract dyke	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 47 ka
A19	Chaudannes-Maer and Mount Signan	Chaudannes	Phreatomagmatic dome; maar	✓	✓	✓	✓	✓	✓	✓	✓	3	Neogene 375 ka
A21	Le Chambon	Montbeliages	Maar; flow; lava	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 130 ka
A22	Montbeliages Plateau	Montbeliages, le Monastier-sur-Gazeille	Maar	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 120 ka
A5	Borre Maar and Echelles	Bonne, Saint-Marcellin	Maar; lava flows	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 80 ka
A24	Phreatic plus of Beaufort	St-Cézaire-en-Montagne, Cros de Géodons	Strombolian volcano; basalt flow	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 80 ka
A44	Amanier	Meyras	Overlapping of flows	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 80 ka
A31	Coopérative de Montmouchet	Aizac	Strombolian volcano	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 80 ka
A32	Coopérative de Montmouchet	Antreagues	Basalt flow	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 80 ka
A29	Château de la Roche-en-Escrebieux	Fay sur Lignon	Outcrop; topographic flows	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 80-40 ka
A28	Pont-de-l'Eau	Fay sur Lignon	Outcrop; topographic flows	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 40-20 ka
A7	Coupe du Jaujac volcano and flows	Jausiers, Félines	Strombolian volcanic; basalt flow	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 40 ka
A8	Pont du Diable	Thuyets	Basalt flow	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 47 ka
A29	Cratère des Champs	Meyras	Strombolian volcanic; quarry	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 47 ka
A20	Volcan de Soufflot	Meyras	Strombolian volcano	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 49 ka
A16	Vestige du Pal	Montpezat, Burzet	Maar	✓	✓	✓	✓	✓	✓	✓	✓	4	Pleistocene 49 ka

Results Inventory (summary) and assessment of the NRPMA geosites (above) and cultural sites related to geology (below)

Code	Name of the site	Commune	Description	Interest	Tourist site	Equipment
Religious Heritage						
SNG 1	Church of St-Julien-du-Serre	St-Julien-du-Serre	Roman church built of standstones	Architectural	✓	✓
SNG 2	Church of St-Clement	St-Clement	Church made of different local volcanic materials: trachyte, basalt (flow, scoria) and phonolite	Materials	✓	
SNG 3	Church Notre Dame de La Perrière	Montpeyroux-sous-Bauzon	Church designated "Monument Historique".	Architectural	✓	
SNG 4	Church of Meyras	Meyras	The fourteenth portal of this roman church is made of vauclusite	Materials	✓	
SNG 5	Church of Niegles	Pointe-de-Labeaume	Roman church in the hamlet of Niegles	Architectural	✓	
SNG 6	Church of Thines	Malaucére	Roman church with outstanding polychrome facade (trachyte, red and black scoria, granite)	Architect		