

**SELECTED STUDY SITES (modified from Bollati et al., 2016)**

	0.00
<i>RGmP-Representativeness of (paleo)Geomorphological Process</i>	0.33
	0.67
	1.00
	0.00
<i>RG-Representativeness of Geological process</i>	0.33
	0.67
	1.00
	0.00
<i>EE-Educational Exemplarity</i>	0.33
	0.67
	1.00
	0.00
<i>G-Site Intrinsic Geodiversity</i>	0.50
	1.00
	0.00
<i>GI-Geohistorical Importance</i>	0.33
	0.67
	1.00
	0.00
<i>ESR-Ecologic support role</i>	0.33
	0.67
	1.00
	0.00
<i>In-Integrity</i>	0.50
	1.00
	0.00
<i>Ra-Rareness</i>	0.50
	1.00
	0.00
	0.00
<i>Cu-Cultural value s.s.</i>	0.50
	1.00
	0.00
<i>Ae-Aesthetic value</i>	0.50
	1.00
	0.00
<i>Sec-Socio-Economic value</i>	0.33
	0.67
	1.00
	0.00
<i>TA-Temporal Accessibility</i>	0.50
	1.00
	0.20
	0.40

<b>VALUES OF THE SE</b>	<i>Sac-Spatial Accessibility</i>	0.60
		0.80
		1.00
	<i>Vi-Visibility</i>	0.00
		0.20
		0.40
		0.60
		0.80
		1.00
	<i>Se-Services</i>	0.00
0.33		
0.67		
1.00		
<i>TF-Touristic Flow</i>	0.00	
	0.50	
	1.00	
<i>SA-Sport Activities at the geosite(e.g., climbing, trekking....)</i>	0.00	
	0.50	
	1.00	
<i>LC-Legal Constraints</i>	0.00	
	0.33	
	0.67	
	1.00	
<i>UGI-Use as Geoh heritage site</i>	0.00	
	0.50	
	1.00	
<i>UAI-Use of the other interests(cultural, ecologic...)</i>	0.00	
	0.50	
	1.00	
<i>SGs-Geo(morpho)sites in the Surroundings</i>	0.00	
	0.50	
	1.00	
<b>REFERENC</b>		

## CRITERIA OF SELECTION

### Scientific Value

Poor/None representativeness of a morphogenetic system

Discrete representativeness of a morphogenetic system

Good representativeness of a morphogenetic system

Exemplar representativeness of a morphogenetic system

Poor/None representativeness of a geological process

Discrete representativeness of a geological process

Good representativeness of a geological process

Exemplar representativeness of a geological process

Representativeness without any educational value

Representativeness with poor educational value

Representativeness for high education level

Representativeness with excellent educational value

1 lithology, 1 main landform

1 lithology, n-landforms

n- lithologies, n-landforms

Without any publication

Rarely object of scientific research

Relevant topic for scientific research

Deeply investigated since fundamental for the development of Earth Sciences

Without any connection with the biologic element

Ecological value for presence of interesting flora and fauna

The geo(morpho)logical features condition the ecosystems

The geo(morpho)logical features determine the ecosystems

Essential geo(morphological) elements are not preserved

Essential geo(morpho)logical elements are just preserved

Essential geo(morpho)logical elements are intact

Frequent also at level of the study area

Rare at level of the study area, abundant at national level

Rare at national level

### Additional Values

Any cultural feature in the surroundings

Presence of cultural features not correlated with geo(morpho)logical features

Presence of cultural features correlated with geo(morpho)logical features

Not relevant

Strong contrasts in landforms, lithologies and colours but spatially limited site

Strong contrasts in landforms, lithologies and colours

Element without exploitation or insertion in an economic area (Not touristic)

Element with exploitation or insertion in an economic area (Not touristic)

Element inserted in an economic-touristic area

Element inserted in an economic-touristic circuit

### Potential for use

Except in unfavourable conditions (e.g., winter, rainy days...)

All over the year

On foot, Expert Excursionist

On foot, Touristic/Excursionist

On foot for numerous group, because difficult access for bus
Allowed to means of transportation
Allowed to means of transportation, access also to disables
Not observable or great difficulties in observing it
Just visible or with special tools (artificial lights, ropes..)
Reasonable visibility but limited by vegetation
Good visibility but with need of moving to improve it
Good visibility for all geo(morpho)logical elements
Excellent visibility for all geo(morpho)logical elements
Hotels and services far from 25 Km
Hotels and services far from 10 - 25 Km
Hotels and services far from 5 - 10 Km
Hotels and services less than 5 Km far from
Few
Medium
Abundant
None
Yes, not correlated with geo(morpho)logical features
Yes, correlated with geo(morpho)logical features
Total protection, prevented use
Protection, limited use
Under protection but with few or any prevention for use
No protection or limitation in use
No divulgation or use
Use in academic ambit
With divulgation and use as geo(morpho)site
Any divulgation or use
Use of other interests, but not structured in thematic paths
Use of other interests structured in thematic paths
Any sites in the study area
Sites in the neighbourhood but not genetically correlated
Sites in the neighbourhood and genetically correlated
<b>TOTAL SCORE</b>
<b>ES ABOUT ASSESSMENT OF THE STUDY SITE</b>

GC-1	GC-2	GC-3
Premia Balmafregia	Zornasco	Ornavasso (Im Schlasti)
5.67	6.51	5.68
		0.67
1	1	
1	1	1
	0.67	0.67
1		
1	1	1
0.67	0.67	0.67
0		
	0.67	0.67
		0.5
1	1	
0		
	0.5	0.5
2	2	2
0	0	
		1
		0
1	1	
1	1	1
8.3	8.67	7.2
0.5		0.5
	1	
		0.4

0.8	1	
		0.8
1	1	
1	1	1
	0.5	0.5
1		
1	1	1
	0.67	
1		1
		0
1	1	
0		
	0.5	
		1
1	1	1
<b>15.97</b>	<b>17.18</b>	<b>14.88</b>
Modified from Bollati et al. (2016)	Modified from Bollati et al. (2024)	Modified from Bollati et al. (2016)

GC-4	GC-5	GC-6	GC-7	GC-8
Mottarone climbing area	Fun d'Scotte	Ronco	Torre delle Giavine	Ara
5.84	3	2.33	5.5	6
		0.33		
	0.67			
1			1	1
	0.67	0.67		
1			1	1
	0.33	0.33		
			0.67	
1				1
		0		
0.5	0.5		0.5	0.5
		0		
	0.33		0.33	0.33
0.67				
	0	0	0	
0.67				0.67
	0.5	0.5		
1			1	1
0	0			
		0.5		0.5
			1	
2	1.67	1.67	2.67	2.67
0		0		
	0.5			
			1	1
	0.5			
1		1	1	1
	0.67	0.67	0.67	0.67
1				
5.9	7	6	7.9	8.5
0.5	0.5	0.5	0.5	0.5
0.4	0.4	0.4	0.4	0.4

	0.6	0.6		0.6
1			1	
1	1	1	1	1
		0.5	0.5	
1	1			1
1	1	1	1	1
1	1	1	1	1
0	0	0		
			1	1
0		0		
	0.5		0.5	
				1
0				
	1	1	1	1
<b>13.74</b>	<b>11.67</b>	<b>10</b>	<b>16.07</b>	<b>17.17</b>
Modified from Bollati et al. (2016)	Viani et al. (2018)	Original data	Perotti et al. (2020)	Perotti et al. (2020)



GEOCLIMBING SITES			
GC-9	GC-10	GC-11	GC-12
Pietra Romanasca	Montestrutto	Sasso del Drago	Voulismeno Aloni
3.84	6.17	4.5	5.67
0.67		0.67	
	1		1
			0.33
0.67		0.67	
	1		
		0.33	
	0.67		
1			1
0			0
	0.5		
		1	
0			
		0.33	
			0.67
	1		
0	0	0	
			0.67
1	1	1	1
0.5		0.5	
	1		1
2.17	3	1.17	2.67
		0	
0.5			
	1		1
		0.5	
1	1		1
0.67		0.67	0.67
	1		
5.5	9.1	6.6	8.27
0.5			
	1	1	1
0.4			

			0.8
	1	1	
0.6	0.6	0.6	
			0.8
1	1	1	1
0.5		0.5	0.5
	1		
1	1	1	1
			0.67
1	1	1	
0		0	
	0.5		
			1
0			
			0.5
	1		
0.5		0.5	
	1		1
<b>11.51</b>	<b>18.27</b>	<b>12.27</b>	<b>16.61</b>
Original data	Modified from Bollati et al. (2014)	Original data	Original data

GC-13	GC-14	GC-15	GC-16
Patsos gorge	La Pedriza de Manzanares	Peñalara	Kramnica Rock
3.83	6.34	6.51	4.01
0.67	1	0.67	0.67
0.33			0.33
		0.67	
	1		
0.33			
			0.67
	1	1	
			0
0.5	0.5		
		1	
0			
	0.67	0.67	0.67
	0.67		0.67
1		1	
			0.5
1	1	1	
0			
	0.5	0.5	0.5
2.5	2	2.17	2.17
0.5	0.5		0.5
		1	
	0.5	0.5	
1			1
		0.67	0.67
1	1		
7.93	8.23	7.56	7.2
1	1	1	1
	0.4	0.4	0.4

0.8			
0.8			0.8
	1	1	
0.33		0.33	
	1		0.67
			0.5
1	1	1	
1	1	1	1
	0.33	0.33	0.33
1			
			0.5
1	1	1	
1	1	1	1
0			
	0.5	0.5	
			1
<b>14.26</b>	<b>16.57</b>	<b>16.24</b>	<b>13.38</b>
Original data	de Pedraza et al. (2014)	de Pedraza et al. (2019)	Original data

GC-17	GC-18	GC-19	GC-20
Dreveník travertine hill	Mnich	Między Ściany rock formation	Sab Bani Khamis
6.84	5.34	4.17	6.84
		0.67	
1	1		1
		0.33	
	0.67		
1			1
0.67	0.67	0.67	
			1
	0.5	0.5	
1			1
		0.33	
0.67			0.67
	1		
	0		
		0.67	0.67
1			
	0.5	0.5	
1			1
0.5		0.5	0.5
	1		
2.17	2.67	1.67	3
0.5		0.5	
	1		1
		0.5	
1	1		1
0.67	0.67	0.67	
			1
7.9	4.86	6.53	7.4
	0.5		
1		1	1
	0.2		
0.4			0.4

		0.6	
		0.6	
1	1		1
	0.33		
0.67			
		1	1
	0		
0.5		0.5	0.5
1	1	1	1
0.33	0.33	0.33	
			1
	0.5	0.5	
1			
	0.5	0.5	0.5
1			
	0.5	0.5	
1			1
<b>16.91</b>	<b>12.87</b>	<b>12.37</b>	<b>17.24</b>
Original data	Original data	Original data	Modified from Al Kindi et al. (2022)

GC-21	GC-22	N° GC sites	% GC sites
Tail Bails	The Organ Pipes		
6.17	6.01		
		0	0.00
		1	4.55
		8	36.36
1	1	13	59.09
		0	0.00
		4	18.18
		6	27.27
1	1	12	54.55
		0	0.00
		4	18.18
0.67	0.67	10	45.45
		8	36.36
		4	18.18
0.5	0.5	11	50.00
		7	31.82
		3	13.64
0.33		6	27.27
	0.67	11	50.00
		2	9.09
		8	36.36
		0	0.00
0.67	0.67	11	50.00
		3	13.64
		0	0.00
		6	27.27
1	1	16	72.73
		4	18.18
	0.5	13	59.09
1		5	22.73
1.17	3		
		5	22.73
0.5		8	36.36
	1	9	40.91
0		2	9.09
		5	22.73
	1	15	68.18
		0	0.00
		0	0.00
0.67		13	59.09
	1	9	40.91
7.57	6.6		
0.5	0.5	11	50.00
		11	50.00
		1	4.55
0.4		13	59.09

	0.6	2	9.09	
		3	13.64	
		3	13.64	
		0		
		0	0.00	
		0	0.00	
		7	31.82	
		4	18.18	
1	1	11	50.00	
		0	0.00	
	0.33	4	18.18	
0.67		3	13.64	
		15	68.18	
		1	4.55	
0.5	0.5	13	59.09	
		8	36.36	
		0	0.00	
		0	0.00	
1	1	22	100.00	
		0	0.00	
		6	27.27	
	0.67	3	13.64	
1		13	59.09	
		6	27.27	
	0.5	5	22.73	
1		11	50.00	
		4	18.18	
0.5	0.5	9	40.91	
		9	40.91	
		2	9.09	
		6	27.27	
1	1	14	63.64	
<b>14.91</b>	<b>15.61</b>			
Original data	Modified from Williams and McHenry (2021)			



<b>SITE</b>	<b>GC-1</b>	<b>GC-2</b>	<b>GC-3</b>	<b>GC-4</b>	<b>GC-5</b>	<b>GC-6</b>	<b>GC-7</b>	<b>GC-8</b>
<b>Scientific Value</b>	5.67	6.51	5.68	5.84	3	2.33	5.5	6
<b>Additional Values</b>	2	2	2	2	1.67	1.67	2.67	2.67
<b>Potential for use</b>	8.3	8.67	7.2	5.9	7	6	7.9	8.5
<b>TOTAL SCORE</b>	<b>15.97</b>	<b>17.18</b>	<b>14.88</b>	<b>13.74</b>	<b>11.67</b>	<b>10</b>	<b>16.07</b>	<b>17.17</b>
<b>SITE</b>	<b>GC-12</b>	<b>GC-13</b>	<b>GC-14</b>	<b>GC-15</b>	<b>GC-16</b>	<b>GC-17</b>	<b>GC-18</b>	<b>GC-19</b>
<b>Scientific Value</b>	5.67	3.83	6.34	6.51	4.01	6.84	5.34	4.17
<b>Additional Values</b>	2.67	2.5	2	2.17	2.17	2.17	2.67	1.67
<b>Potential for use</b>	8.27	7.93	8.23	7.56	7.2	7.9	4.86	6.53
<b>TOTAL SCORE</b>	<b>16.61</b>	<b>14.26</b>	<b>16.57</b>	<b>16.24</b>	<b>13.38</b>	<b>16.91</b>	<b>12.87</b>	<b>12.37</b>

<b>GC-9</b>	<b>GC-10</b>	<b>GC-11</b>	<b>VALUE</b>	<b>Potential maximum value</b>	<b>Average (GC-1-GC-22)</b>	<b>Average (modified Bollati et al., 2016)</b>
3.84	6.17	4.5	<b>Scientific Value</b>	<b>8</b>	<b>5.31</b>	<b>4.61</b>
2.17	3	1.17				
5.5	9.1	6.6	<b>Additional Values</b>	<b>3</b>	<b>2.19</b>	<b>1.23</b>
<b>11.51</b>	<b>18.27</b>	<b>12.27</b>				
<b>GC-20</b>	<b>GC-21</b>	<b>GC-22</b>	<b>Potential for use</b>	<b>10</b>	<b>7.31</b>	<b>6.55</b>
6.84	6.17	6.01				
3	1.17	3	<b>TOTAL SCORE</b>	<b>21</b>	<b>14.80</b>	<b>12.39</b>
7.4	7.57	6.6				
<b>17.24</b>	<b>14.91</b>	<b>15.61</b>				