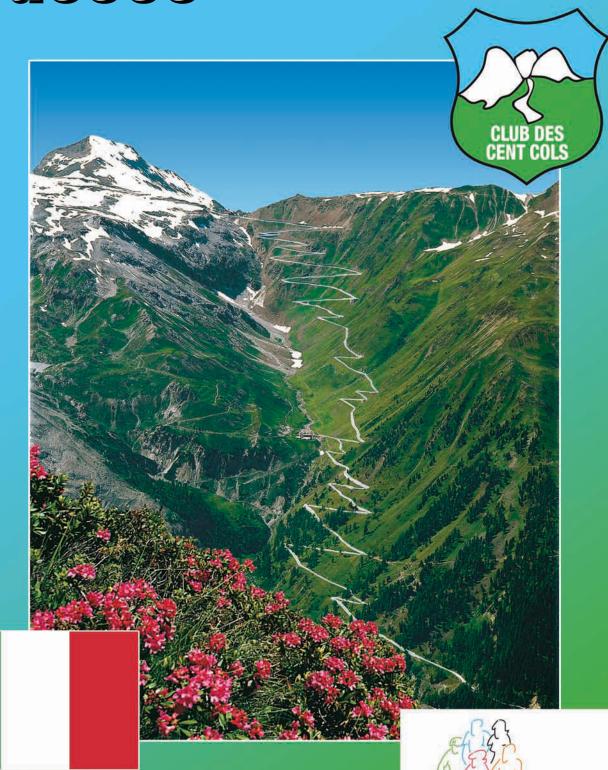
# Galalogue of Haly Passes



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### CLUB DES CENT COLS

Catalogue of the Passes in Italy

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Nota: this catalogue covers the whole of the Italian territory and as such cancels and replaces the previous catalogues:

- The Catalogues of the Passes of North-West Italy (Liguria, Piemonte, Valle d'Aosta, Lombardia)
- The Catalogue of the Passes of North-East Italy (Trentino-Alto Adige, Veneto)
- The Catalogue of the Passes of Friuli-Venezia-Giulia
  - The Catalogue of the Passes of Sardegna
    As well as different lists that have been used in the absence of catalogues of the other regions of Italy..

The authors of these catalogues were: Fabrizzio Laurenzini, Alberto Iaderosa, Monica Vicariotto, Paolo Falletti, Tullio Forelli, Carlo-Alberto Goria, Luigi Spina.

#### 1. INTRODUCTION

The present catalogue has required a long period of preparation because of limited resources and the many varied, heterogeneous, partial documentary sources linked to the specific nature of Italy; also the sheer size of the task to put together a complete set of analytical tools.

The initial work consisted of reviewing all of the previously published regional catalogues with a view to applying strictly the current Rules of the Game of the Club des Cent Cols and using official approved sources as well as maps from reliable map publishers.

This has led to the suppression of many passes which did not comply fully with the Rules of the Game – either because of their descriptor, or the topography or because the sources were not recognised by the Club des Cent Cols or simply not found. However many new passes were also added after extensive research. The work was completed by a first list of passes for the other regions in this country.

This first edition of the whole of Italy will be revised with up-dates following new discoveries or additional information to resolve the status of the many potential passes awaiting reliable information.

Happy hunting and have a good journey

#### 2. GEOLOGY AND GEOGRAPHY OF ITALY

Italy, one of the 3 peninsulas in Europe (Iberia, Italy, Balkans) consists of a variety of different types of countryside with a significant part being hilly: 42%; 35% mountainous and 23% plains (Figure 1).

The Apulian or Italo-Adriatic plate cuts the "boot" longitudinally, descends along the East coast of Sicily, crosses over to the tip of Crete, moves up along the Greek coast following then the North coast of the Adriatic before describing an arc that constitutes the Alps.

Sardinia with Corsica as well as Calabria split off from the Eurasian plate whilst Sicily and the Sub-Apenines originate from the Peloritani Mountains that can be found under the same name today in Sicily.

As a result of the drift of the Eurasian and African plates the Apulian plate continues its convergent movement towards Europe thereby bringing about a number of earthquakes with strong magnitudes; Frioul (1976), l'Aquila (2008) and recently Mantova-Modena-Reggio Emilia and Cosenza (2012)

The following table summarizes the main earthquakes that have occurred in the Italian peninsula. On the MSK or Mercalli scale (from I to XII) an intensity of I is applied to a quite weak quake that does not cause any damage whilst an intensity of XII corresponds to the almost complete destruction of all buildings in a given zone as well as changes to the countryside itself.

One can note that in Italy all of the quakes have had an intensity of at least VIII.

Data	Area	Intensità	Magnitudo M
08.09.1905	Calabria	X – XI	7.1
23.10.1907	Calabria	IX	5.9
28.12.1908	Stretto di Messina (Calabria, Sicilia)	XI	7.2
07.06.1910	Irpinia (Basilicata)	IX	5.9
27.10.1914	Garfagnana (Toscana)	VII	5.8
13.01.1915	Avezzano (Abruzzo)	XI	7.0
17.05.1916	Mar Adriatico settentrionale	VIII	5.9
16.08.1916	Mar Adriatico settentrionale	VIII	5.9
26.04.1917	Monterchi - Citerna (Toscana - Umbria)	IX – X	5.8
10.11.1918	Appennino forlivese (Emilia Romagna)	VIII	5.8
29.06.1919	Mugello (Toscana)	IX	6.2
07.09.1920	Garfagnana (Toscana)	X	6.5
07.03.1928	Capo Vaticano (Calabria)	VIII	5.9
23.07.1930	Irpinia (Campania)	X	6.7
30.10.1930	Senigallia (Marche)	VIII – IX	5.9
18.10.1936	Bosco Cansiglio (Veneto)	IX	5.9
03.10.1943	Ascolano (Marche)	IX	5.8
21.08.1962	Irpinia (Campania)	IX	6.2
15.01.1968	Valle del Belice (Sicilia)	X	6.1
06.05.1976	Friuli	IX – X	6.4
15.09.1976	Friuli	VIII – IX	5.9
15.04.1978	Golfo di Patti (Sicilia)	VIII	6.1
19.09.1979	Valnerina (Umbria)	VIII – IX	5.9
23.11.1980	Irpinia (Campania, Basilicata)	X	6.9
07.05.1984	Lazio – Abruzzo	VIII	5.9
05.05.1990	Potentino (Basilicata)	VII - VIII	5.8
26.09.1997	Umbria – Marche	IX	6.0
31.10.2002	Molise	VIII – IX	5.8
06.04.2009	Abruzzo	IX – X	6.1#
20.05.2012 29.05.2012	Pianura Padana Emiliana (Emilia Romagna)	VIII*	5.8# 5.6#

The main phenomenon here has been the rising up of the Alps and the Apennines during the Tertiary Period.

The shaping of the geographical relief continues and determines a number of different areas:

- The Alps, in the NW and N, where towering landforms rise up. In the NW the "Piedmontese Alps" rise above the PO Plain with Monte Viso (3841m) and Monte Rosa (4633m). The ice-bound ridges are above 3500m in altitude overlooking long verdant shale slopes dissected by wide valleys upstream but rather hemmed in downstream. From the Ticino to the Adige regions there are also high crystalline mountain ranges (Bernina, Ortles, Ötzal, Adamello) with some beautiful glaciers; but the altitudes are somewhat lower. Crossing-points are more numerous with an area of Pre-Alpine limestone mountains surrounding the wonderful Sub-Alpine lakes: Maggiore, Como, Iseo, Garda just to name a few. These Pre-Alps extend to the E of Lake Maggiore and the Adige to become denser in the Dolomites region where the cliffs, cut out of the Triassic rocks, shoot up from the verdant countryside. The intensive work of the glaciers has shaped passes, widened from mere gaps.
- The Po Plain where piedmonts encumbered with deposits from the moraines give way to high permeable terraces and lowlands, often covered in fertile soil; between the two resurgent groundwater emerges. These lowlands are wider downstream. The silt carted by the Po and its tributaries form a vast delta extending into the Adriatic sea.; they raise the level of the river-bed hence frequent flooding which has requiring building dykes. The

width of this plain, unique in Italy, at the foot of the main Trans-Alpine crossing-points is the good fortune offered by Nature to Italy.

■ The Apennines, with the highest point being the Gran Sasso (2912m); the Apennines are made up of very different elements. The Ligurian Apennines do not exceed 1500m altitude. Mainly limestone, they form an effective barrier between the Mediterranean and the Po Valley. It can only be crossed by a few passes. The Toscan Apennines, somewhat higher (2200m) have a smoother topography because of the prevalence of clayey-sandstone material. Hidden below its rounded summits and gullied slopes is a large structural disorder (with thrust sheets and overlapping layers of clayey and sandstone rocks perforated by limestone kryokonite holes). The Calabrian Apennines are completely different with crystalline mountain ranges from 1500m to 2000m altitude. Cut up by a series of faults the land here is made up of horsts worn down by erosion and troughs filling with Tertiary and Quaternary sediment – where towns have settled.

#### The highest ranges are:

- The Gran Sasso (2912m at the Corno Grande) Protected by the Gran Sasso e Monti della Laga National Park
- The Majella (2975m at Monte Amaro) Protected by the Majella National Park
- The Velino Sirente (2486m at the Velino) Protected by the Velino-Sirente Regional Park
- The Sibylline Mts (2476m at Monte Vettore) Protected by the Sibylline Mts National Park
- The Laga Mts (2458m at Monte Gorzano) — Protected by the Gran Sasso e Monti della Laga National Park
- The Marsicani Mts (2285m at Monte Greco) Protected by the Abruzzi National Park
- The Pollino range (2267m at Serra Dolcedorme) Protected by the Pollino National Park
- The Reatini Mts (2216m at Monte Terminillo) Unprotected
- The Tosco-Emilian Apennines (2165m at Monte Cimone) Protected by the Tosco-Emilian Apennine National Park
- The Simbruin Mts (2015m at Monte Cotento) Protected by the Simbruin Mts Regional Park
- The Matese Mts (2050m at Monte Miletto) Protected by the Matese Interregional Park
- The Anti-Apennines designate the regions straddling the spinal column of the Apennines
- Sicily is cut up into several areas: the Madonie Mountains around Palermo in the W and the Peloratani Mountains in the E towards the Messina straits. The mountains here are flanked to the SE by the volcanic range of Etna. The rest of the island is made up of clayey hills, with a varied relief but overall somewhat monotonous.
- Sardinia: a piece of the hycynian plinth, with ,in the Western part, a significant build-up of Tertiary lava. In some places, a sedimentary covering layer remains on the plinth. The most common form of relief is bulky plateaux, interrupted by more precipitous highlands.

(Source Encyclopédie .Larousse)



Figure 1

#### 3. HISTORY

Italy possesses one of the richest histories in the world which is difficult to summarise correctly. Its history is tightly linked to Western culture and to the main political events in Europe and the Mediterranean Basin.

During Prehistory a patchwork of peoples occupied the peninsula: Villanovians around Bologna and the Italiotes in the South. Migrations coming from the mountains led different people towards the coast such as the Venetians in the North and the East. These complex settlements were completed by the Greeks and the Etruschans during Antiquity.

The weakening of the Etruscans made way for the Romans to extend their influence during 5 centuries over all of the Mediterranean Basin. In 476 the Empire was divided in two: the Western Roman Empire and the Byzantine Empire. Little by little the Western Empire faded away under the battering of the Germanic kingdoms: Ostrogoths, Byzantines, Lombards and Franks in the North and Saracens then Normans in Sicily. The Byzantine Empire carried on until 1453 and the fall of Constantinople.

In the centre the Papacy tried to establish a state and opposed the Holy German Empire from the  $10^{th}$  Century onwards (The Kingdom of Italy). The rest of Italy was made up of the Kingdom of Sicily.

From the 13th Century onwards the communes and the towns consolidated their independence and became centres of European culture and economic development reaching their pinnacle at the Renaissance: Genoa, Milan, Pisa, Florence, Venice.

Coveted by the European powers Italy is divided up in the 15th Century: Duchy of Savoy, Duchy of Milan, Papal states, Kingdom of Sardinia, Kingdom of Sicily, Kingdom of Naples, Republic of Venice. It passed under the yoke of Spain in the 16<sup>th</sup> Century and of Austria in the 18<sup>th</sup> Century.

The French Revolution was exported into Italy which became the theatre of conflicts between French and Austrian troops.

This period saw Bonaparte provide the impetus for the birth of the Cisalpine, Ligurian, Cispadane, Roman and Parthenopean Republics.

The fall of Napoleon the 1st brought about the collapse of the French regime in Italy which passed under the thumb of Austria – either directly or via its princes.

This stewardship was shaken by various nationalist movements (Carbonari, Young Italy) which were severely repressed.

The 1848 Revolution in France stirred up popular and liberal undercurrents: the Risorgimento was the movement for the emancipation and unification of Italy with the impetus provided by the Kingdom of Piedmont Sardinia "Italia fara da sé" and with the "Expedition of the Thousand", a body of volunteers led by Giuseppe Garibaldi which landed in Sicily in May 1860 in order to conquer the Kingdom of the Two-Sicilies, governed by the Bourbons. The country was unified on the 17<sup>th</sup> March 1861. However a state still remained to be built from a society fragmented up until the start of the First World War.

As a member initially of the Triple Alliance, at the end of the war not all of italy's territorial claims were satisfied. The war ended with a very serious socio-economic crisis and the birth of a fascist movement and dictatorship that lasted until the surrender on 29<sup>th</sup> April 1945.

The Italian Republic was set-up in 1946.

Italy is composed today of 20 regions, of which 5 have extended powers of autonomy (Valle d'Aosta, Trentino-Alto Adige, Friuli-Venezia-Giulia, Sardegna, Sicilia) (cf. Figure 2) and 110 provinces listed in the following table.



Figure2

#### **List of Regions and Provinces**

Regione/Regions Abbr		Code ISO	Provincie/Provinces	Abbr.	Road	Off-road
			Aquila	AQ	23	124
	400	65	Chieti	СН	5	15
Abruzzo	ABR	05	Pescara	PE	0	2
			Teramo	TE	1	15
Dacilianta	BAS	77	Matera	MT	3	0
Basilicata	DAS	77	Potenza	PZ	11	7
			Catanzaro	CZ	3	1
			Cosenza	CS	6	11
Calabria	CAL	78	Crotone	KR	0	1
			Reggio di Calabria	RC	13	13
			Vibo Valentia	VV	0	0
			Avellino	AV	6	4
			Benevento	BN	8	2
Campania	CAM	72	Caserte	CE	2	3
Campania			Napoli	NA	0	0
			Salerno	SA	8	24
			Bologna	во	7	21
			Ferrara	FE	0	0
			Forli Cesane	FC	17	9
		45	Modena	МО	4	12
	EMR		Parma	PR	14	19
Emilia Romagna			Piacenza	PC	23	8
			Ravenna	RA	0	1
			Reggio nell'Emilia	RE	4	9
			Rimini	RN	0	4
			Gorizia	GO	0	0
			Pordenone	PN	9	117
Friuli Venezia Giulia	FVG	36	Trieste	TS	4	4
			Udine	UD	26	243
			Frosinone	FR	5	38
			Latina	LT	3	16
Lazio	LAZ	62	Rieti	RI	4	22
			Roma	RM	2	13
			Viterbo	VT	0	0
			La Spezia	SP	36	66
			Genova	GE	55	155
Liguria	LIG	42	Imperia	IM	34	127
O			Savona	sv	28	48
			Bergamo	BG	17	137
			Brescia	BS	38	254
			Como	СО	4	84
			Cremona	CR	0	0
			Lecco	LC	7	56
			Lodi	LO	0	0
Lombardia	LOM	25		MN	0	0
			Mantova	MI	0	0
			Milano Monza Prianza		0	0
			Monza Brianza	MB	3	1
			Pavia	PV		288
			Sondrio	SO	7	
	Ì		Varese	VA	7	11

Regione/Regions	Abbr.	Code ISO	Provincie/Provinces	Abbr.	Road	Off-road
			Ancona	AN	1	4
			Ascoli Piceno	AP	5	9
Marche	MAR	57	Fermo	FM	2	0
ivial cite			Macerata	MC	5	17
			Pesaro Urbino	PU	5	2
Molise	MOL	67	Campobasso	СВ	3	7
Molise	IVIOL	67	Isernia	IS	6	18
	UMB	55	Perugia	PG	20	46
Umbria	UIVIB	55	Terni	TR	1	8
			Verbano Cusio Ossola	VB	3	213
			Alessandria	AL	8	13
			Asti	AT	2	2
Piemonte	PMN	21	Biella	ВІ	10	29
	PIVIN	21	Cuneo	CN	30	511
			Novara	NO	0	1
			Torino	то	27	418
			Vercelli	VC	1	53
			Bari	BA	0	0
			Barletta Andria Trani	ВТ	0	0
Duralia	Buc	75	Brindisi	BR	0	0
Puglia	PUG	75	Foggia	FG	1	1
			Lecce	LE	0	0
			Tarento	TA	0	0
			Cagliari	CA	24	345
Canalague			Nuoro	NU	64	269
Sardegna	SAR	88	Oristano	OR	0	6
			Sassari	SS	4	24
			Agrigento	AG	19	23
			Caltanissetta	CL	14	7
			Catania	СТ	1	2
			Enna	EN	14	11
Sicilia	SIC	82	Messsina	ME	39	92
			Palermo	PA	67	68
			Ragusa	RG	1	0
			Siracusa	SR	1	0
			Trapani	TP	3	13
			Arezzo	AR	14	22
			Firenze	FI	17	22
			Grosseto	GR	0	4
			Livorno	LI	3	6
Toscana		F.2	Lucca	LU	19	98
	TOS	52	Massa Carrara	MS	21	58
			Pisa	PI	1	8
			Pistoia	PT	4	13
			Prato	РО	1	5
			Siena	SI	2	2
			Bolzano/Bozen	BZ	26	516
Trentino Alto Adige Trentino Sûdtirol	ТАА	32	Trento	TN	43	501

Regione/Regions	Abbr.	Code ISO	Provincie/Provinces	Abbr.	Road	Off-road
Vale d'Aosta	VAO	23	Vale d'Aosta	АО	10	525
			Belluno	BL	32	523
	VEN	34	Padova	PD	2	0
			Rovigo	RO	0	0
Veneto			Treviso	TV	3	9
			Venezia	VE	0	0
			Verona	VR	9	12
			Vicenza	VI	25	55
Total Number of Passes			7636 Passes		1060	6576

#### 4. LANGUAGES

**Italian** was only generalised in the peninsula several decades ago. Previously different dialects, specific to certain geographical zones, were often the only spoken or written language.

Nonetheless, these dialects are still very much alive, and in some places used more than Italian in daily life.

Thus in 2005, 44% of Italians spoke exclusively or mainly Italian, 51% alternated its use with that of a dialect, whilst only 5% spoke only in dialect or another language.

It should be noted that in the 5 regions with a special status of autonomy the Italian language is the official language but used less than the local dialect.

The map in **Figure 3** provides a sketch of the linguistic patchwork of the peninsula which can be further sub-divided by vernacular language at the provincial level.

This diversity explains some of the difficulties encountered when establishing this catalogue to identify the descriptors that are synonyms of pass/col.

The list of acceptable descriptors is shown in Paragraph 10.

#### 5. REFERENCE DOCUMENTS

The documents that have served as references or sources for identifying and validating passes are as follows – in descending order of scope :

- The IGM maps (Istituto Geografico Militare) at 1:25000
- The regional CTR maps (Carta Tecnica Regionale) at 1:25000; 1:10000,1:5000 that can be consulted on the following web-sites. *The addresses are provided as an indication only since they are subject to change.* 
  - Geoportale Nazionale
  - http://www.pcn.minambiente.it
  - Abruzzo
  - http://cartanet.regione.abruzzo.it
  - Calabria
  - http://151.12.47.220/ptcpwebgis
  - Emilia Romagna
  - https://servizimoka.regione.emilia-romagna.it

- <u>Lazio</u>
- http://www.urbanisticaecasa.regione.lazio.it
- Lombardia
- http://www.cartografia.regione.lombardia.it
- Marche
- http://cartografia.regione.marche.itl
- Molise
- http://151.99.174.16//ctr
- Piemonte
- http://www.regione.piemonte.it
- Umbria
- http://geo.umbriaterritorio.it
- Sicilia
- http://www.sitr.regione.sicilia.it
- Sardegna
- http://www.sardegnageoportale.it
- FVG
- http://irdat.regione.fvg.it
- Toscana
- http://web.rete.toscana.it
- Basilicata
- http://www.adb.basilicata.it
- <u>Campania</u>
- http://www.sito.regione.campania.it
- <u>Liguria</u>
- http://www.cartografia.regione.liguria.it
- Puglia
- http://www.cartografico.puglia.it
- Trento
- http://www.territorio.provincia.tn.it
- Bolzano
- http://www.provincia.bz.it/informatica/temi/maps-webgis.asp
- Val d'Aoste
- http://www.regione.vda.it
- Veneto
- http://www.regione.veneto.it
- Atlante Stradale d'Italia from the Touring Club Italiano at 1:200000 Edition in 3 Volumes : Nord, Centro, Sud,
- The GDMI (Guida Dei Monti d'Italia) from the Club Alpino Italiano,
- The TCI Guides,
- Maps from private cartographic publishers listed in Chapter 6,
- Signs (road signs often visible in Google Streetview).



Figure 3

#### 6. MAPS

The IGM maps are the only ones that cover the complete territory at the scale of 1:25000; unfortunately they are to a great extent old, not updated and of very uneven quality in different zones.

The CTR maps are also of somewhat uneven quality and primarily accessible at the web-sites shown above – which sometimes work and sometimes don't – but do offer a very detailed cartography at scales of 1:5000 and 1:10000.

We have also retained the maps of the following publishers, considered to be reliable, but which only cover Italy partially

- Istituto Geografico Centrale (Torino)
- Studio Cartografico Italiano (Genova)
- ASF (Alpes Sans Frontière from the IGN : Institut Geographique National at Paris)
- Fraternali Editore(Torino)
- Edizione Multigrafic (Firenze)
- KOMPASS (Innsbruck)
- TABACCO (Udine)
- Edizione il LUPO (Roma)
- Carta Escursionistica del Club Alpino Italiano
- Edizioni S.E.L.C.A (Firenze)
- L'Escursionista Editore (Rimini)
- Ediciclo Editore (Portogruaro)
- Cartografia di Novara
- Studio FMB Bologna
- EDM Edizione Dei Magistero (Genova)
- Istituto Geografico De Agostino (Roma)
- Cartografia Ingenia (Bergamo)
- LAC (Litografia Artistica Cartografica) (Firenze)
- GLOBAL MAP (Firenze)
- Michelin

This list is subject to change as new maps are published.

#### 7. IDENTIFICATION OF PASSES

Passes are identified by the country (ISO code), the province and their altitude. These 3 pieces of information form what we call the "code" of the pass: IT-AA-NNNN.

Example: IT-BZ-2758 Passo dello Stelvio or Stilfser Joch

IT-: Italy

**BZ**: Province of Bolzano

**2758:** Pass number which corresponds to its original altitude assessed when first studied before the final validation.

If several passes in the same province have the same altitude a suffix is added to the altitude and they are then listed in the alphabetical order of their codes.

IT-GE-0710: Passo di Lasagna

IT-GE-0710a: Sella Ovest del Brec del Terma

If other passes with the same altitude should appear subsequently they will take the following suffixes in the order in which they appear

**Nota** (1): If the pass' altitude is modified subsequently the pass' code will not change. The code is attributed definitively at the moment of its creation.

**Nota(2)**: By virtue of the merging of the previous catalogues or the correction of wrongly attributed provinces there are nonetheless many changes to the codes.

#### Passes that can be crossed by a tunnel or a geographical passage

In the previously published catalogues there are a number of passes that can be crossed by 2 different passages, one being geographical and the other being a tunnel. In accordance with the decision of the Management Committee of the Club these are considered to be the same pass but each passage bears a different code. Members should only declare one of the two, either the geographical passage or the tunnel, but not both. In such cases the column *Exclusions* of the tunnel passage indicates the code of the geographical passage, and vice-versa

In this new edition of the passes of Italy we have taken particular care to not create unduly new tunnel-passes.

#### Passes neighbouring between 2 provinces

Passes neighbouring between 2 provinces are only listed once – in the province appearing first in alphabetical order.

#### Passes neighbouring between 2 countries

Passes neighbouring between 2 countries show both countries' codes. The numerical part of the code – corresponding to the altitude – may be different in the 2 catalogues since the reference maps of each country (and even of each map publisher) can show different altitudes.

#### 8. USER'S MANUAL FOR THE CATALOGUE – EXPLANATIONS OF THE COLUMNS

In the catalogue the passes are listed by code in ascending order. The explanations of the Column titles hereafter cover both the "paper" **(P)** and computerized **(C)** versions of the catalogue. Because of limited space only a sub-set of the data – the most important – is printed in the paper version **(P)**.

We should remind you that anyone buying the paper version will obtain a "Proof of Purchase" enabling the free download of the computerized version from the Cent Cols web-site.

The paper version is only updated once a year with the publication of an addendum in the same format as the original version whilst the computerised version will be updated regularly.

#### Column Code/Codice/Code (P) and (C)

The pass' reference code made up of the ISO country code (IT), followed by the ISO 3166-2 2-character code of the province (e.g. AG for Agrigento) and the initial altitude of the pass followed, if necessary, by an alphabetical suffix in the case of several passes having the same altitude (see Paragraph 7)

#### Column Intitulé/Titolo/Descriptor (C)

Synonym of "pass/col". This column may only contain a tilde (~) if the descriptor is not separated from the name or only consists of the name(e.g.: ~Forchetta).

Multiple descriptors for the same pass are separated by a hard carriage return.

Acceptable descriptors are listed in Paragraph 10.

#### Column Nom/Nome/Name (C)

Name of the pass. Multiple names or aliases are separated by a hard carriage return.

#### Column Nom complet/Nome complete/Complete name (P) et (C)

Full name of the pass made up of the descriptor and the name as it appears on the reference map or sign. In the case of multiple descriptors or names the different complete names are separated by a hard carriage return.

#### Column Province/Province (C)

In this current catalogue the provinces are identified by a 2-character code in accordance with ISO 3166-2 as listed in Paragraph 3.

#### Column Région/Regione/Region (C)

The region to which the province belongs – spelt out in full.

#### Column Île/Isla/Island (C)

If not on the mainland, Sardegna or Sicilia, the minor island on which the pass is located.

#### Column Alt. : Altitude/Altitudine/Altitude (P) and (C)

Altitude of the pass in metres .

#### Column Documents/ Documenti/ Documents (C)

Link to the Cent Cols visualiser which displays the pass on various interactive maps.

IT-BZ-2749	Passo delle ~ Pas da le ~ ~pass	Coronelle Coronele Tschager	Passo delle Coronelle Pas da le Coronele Tschagerpass	BZ	Trentino-Alto Adige	2635	<u>П-ВZ-2749</u>		S4	15	40	IT-TN
IT-BZ-2750	Forcella ~ ~scharte	Latemar Grande Große Latemar	Forcella Latemar Grande Große Latemarscharte	BZ	Trentino-Alto Adige	2650	<u>П-ВZ-2750</u>		S4	15	40	IT-TN
IT-BZ-2751	~schartl	Arunda	Arundaschartl	BZ	Trentino-Alto Adige	2751	IT-BZ-2751		HS/N	20	99	
IT-BZ-2758	Passo dello ~ ~ Joch	Stelvio Stilfser	Passo dello Stelvio Stilfser Joch	BZ	Trentino-Alto Adige	2758	<u>П-ВZ-2758</u>	N04 E3 08-32	SS	0	0	IT-SO
IT-BZ-2759	Giogo del ~ ~joch	Cantone Winkel	Giogo del Cantone Winkeljoch	BZ	Trentino-Alto Adige	2759	<u>П-ВZ-2759</u>		HS/N	20	99	
IT-BZ-2761	~joch Giogo di ~	Frankbach Riofranco	Frankbachjoch Giogo di Riofranco	BZ	Trentino-Alto Adige	2761	<u>П-ВZ-2761</u>		HS/N	20	99	AT-7-2760

These links enable each pass to be localised on 3 freely-available maps:

- OSM™ (Open Street Map),
- Google Maps™
- Google StreetView™

E.g.: IT-BZ-2758 Passo dello Stelvio



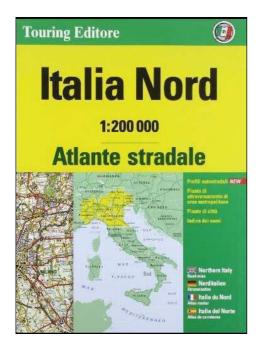
#### Column Coordonnées TCI 1:200000/Coordinate TCI/Coordinate TCI (P) and (C)

The TCI(Touring Club Italiano) coordinates are established from the TCI Atlas in <a href="mailto:three-volumes">three volumes</a>

N: Nord, C: Centro, S: Sud

Example: IT-AL-0461 Passo dei Groppi N22 F8 50-22

Indication of the position of the pass in the TCI Atlas  $\bf N$ : Nord,  $\bf 22$ : Page 22,  $\bf F8$  Quadrant: F8 of a page 22 and coordinates in mm xx-yy staring from the bottom left corner **50mm** horizontally and **22mm** vertically..





Extract Atlante Stradale Nord Touring Club Italiano

#### Column Accès/Acceso/Access (P) and (C)

The column indicates the road, the track or the footpath crossing the pass. We should remind you that the state of the access is only an indication at a precise moment and depends on the upkeep and the meteorological conditions.

The following coding applies to the access column:

- SS: Strada Statale
- **SR**: Strada Regionale
- SP: Strada Provinciale (not always paved)
- SC: Strada Comunale
- **SF**: Strada Forestale
- **SV**: Strada Vicinale

The higher classes of roads are followed by a reference number: SS 25 ou SP 76.

Tracks, forest roads and footpaths – both unpaved and unclassified are divided into 2 groups

- S: Sentiere
- R/Str: Sterrato ( a track unpaved at least partially)

The grading of tracks and footpaths is completed by a numbering system that indicates the degree of difficulty:

- R1: a track that is rideable without difficulty but partially or completely unpaved
- R2: an unpaved track that is rideable with difficulty or requiring some pushing
- **\$1**: rideable footpath
- **S2**: footpath requiring some easy pushing
- S3: narrow, rocky or steep footpath requiring some difficult pushing
- **S4**: bike needing to be carried
- **S5**: acrobatic or even impossible to cross, maybe dangerous
- **HS**: path unknown or inexistant

When the path is accessible by a waymarked Long Distance footpath the number of the Footpath is mentioned, example: **S3 20a.** 

Symbols in brackets supply additional information about the access from different directions (E,SO,etc).

When access to the pass is forbidden for administrative reasons or because it is situated in a National or Regional Park, a protected zone or on private property there is an annotation  $\mathbf{X}$  (forbidden) or  $\mathbf{P}$  (Private).

#### Column Type/Tipo/Type (P) and (C)

Type of road/path 0= Road, 10= Track, 15=Path, 20= path unknown or inexistant

#### Column Diff. Difficulté/Difficoltà/ Difficulty (P) and (C)

Grading of the difficulty of access:

- 0= tarmac on at least one side
- 1= rideable
- 2= easy pushing of the bike
- 3= difficult pushing of the bike
- 35= track without grading
- 40= bike needing to be carried
- 50= acrobatic
- 99= not graded but not necessarily impossible to cross.

#### Column Lim/Lim/Ngh (P) and (C)

Neighbouring province or country (for foreign countries the pass' code is supplied).

#### Column Exclusions/ Esclusioni/ Exclusions (P) and (C)

Some passes can be crossed by two different passages, one being the geographical pass and the other a tunnel. These are in fact the same pass which can be crossed by two different passages. Each passage has its own unique code, but you should only declare one of the two, either the geographical passage or the tunnel. In such cases the column Exclusions of the tunnel passage indicates the code of the geographical passage, and vice-versa

#### Column ED50 Zone (C)

ED 50 is a Geodetic Datum developed after the Second World War in 1950 with the aim of unifying the different geodetic systems of the countries in Northern Europe. The format of the zones is a numeric code **ZZ** (either 32 or 33).

#### Column ED50 UTM x (C)

Abscissa UTM (Easting) of the pass. Most recent topographic maps of Italy have a UTM (Universal Transverse Mercator) grid. The format is as follows **mmm mmm**. This numerical value equals the pass' abscissa within the zone, in metres. The publisher of the map may only indicate the first 3 numbers.

#### Column ED50 UTM y (C)

Ordinate UTM (Northing) of the pass. The format is as follows **mmmm mmm**. This numerical value equals the pass' ordinate within the zone, in metres. The publisher of the map may only indicate the first 4 numbers.

#### Column WGS84 Zone (P) and (C)

WGS84 (World Geodesic System 1984) is the most common world geodetic system because it is used by GPS devices.

The format of the zones is **ZZ** (either 32, 33 or 34).

#### Column WGS 84 UTM x (P) and (C)

Abscissa UTM (Easting) of the pass. Most recent topographic maps of Italy have a UTM (Universal Transverse Mercator) grid — either with the ED50 datum or that of WGS84 or both. The format is as follows **mmm mmm**. This numerical value equals the pass' abscissa within the zone, in metres. The publisher of the map may only indicate the first 3 numbers.



#### Column WGS 84 UTM y (P) and (C)

Ordinate UTM (Northing) of the pass. Most recent topographic maps of Italy have a UTM (Universal Transverse Mercator) grid – either with the ED50 datum or that of WGS84 or both. The format is as follows **mmmm mmm**. This numerical value equals the pass' ordinate within the zone, in metres. The publisher of the map may only indicate the first 4 numbers.

#### Column Gauss-Boaga Roma 40 Zone (C)

This is the geodetic system established in 1940 and which has been used for many of the older maps in Italy such as those of the Istituto Geografico Militare, the cadaster and some of the regional CTR maps. It is based upon a slightly modified UTM projection called Gauss-Boaga (Prof. Boaga was the Director of the IGM in 1940) and a datum based at Monte Mario (near Rome).

It is made up of 2 overlapping zones, also called Zones 1 and 2:

East: 6° (Greenwich) < longitude < 12°27'8".4 (Greenwich)

West: 11°57'8".4 (Greenwich) < longitude < 18°30' (Greenwich)

The cut-off point for the calculation of coordinates in the 2 zones has been taken as 12° in accordance with EPSG 3003/3004.

The coordinate system is also known as "Italy Grid".

#### Column Gauss-Boaga Roma 40 X (C)

A double false-origin – one for each zone.

X = x + 1500000 for the zone West (1)(6° < longitude < 12° 27' 8".4 Greenwich)

X = x + 2 520 000 for the zone East (11° 57′ 8″.4 < longitude < 18° 30′ Greenwich

Abscissa UTM of the pass in metres.

#### Column Gauss-Boaga Roma 40 y (C)

Ordinate UTM of the pass in metres for the two zones **mmmm mmm**.

The coordinates WGS84 Longitude and Latitude in Decimal Degrees constitute the source data for the passes in Italy from which all other coordinates have been calculated.

#### Column WGS84 Longitude Decimal (P) and (C)

Longitude of the pass in Decimal Degrees format in the WGS84 system. dd.dddddd°N.

#### Column WGS 84 Latitude Decimal (P) and (C)

Latitude of the pass in Decimal Degrees format in the WGS84 system. dd.dddddd°E.

#### Column WGS 84 Longitude Sexagesimal (C)

Longitude of the pass in Degrees, Minutes and Seconds of the pass in the WGS84 system.

#### Column WGS 84 Latitude Sexagesimal (C)

Latitude of the pass in Degrees, Minutes and Seconds of the pass in the WGS84 system.

#### Column Source/Fonte/Source (C)

Reference document(s) which have enabled the pass to be validated – such as IGM, CTR or other reliable source/publisher. Normally the primary source at least is listed but the pass may appear on many other sources as well.

#### Column Remarques/Note/Remarks (C)

For example information allowing the pass to be rapidly localised in an area such as a commune, a village, a district....

#### 9. LOCALISATION

The passes have been positionned with as much accuracy as possible — which is a real breakthrough for this catalogue of all of Italy. Nonetheless we have kept the traditional TCI coordinates in mm on the TCI Atlas just for the road passes. There is no point in positionning offroad passes in this way on maps at a scale of 1:200000 — there is not enough detail on the maps and 1 mm error is equal to 200m.

For the latter (off-road passes) you are advised to use maps at 1:25000 – 1:50000 from the publishers listed in Paragraph 6.

The second new feature in this catalogue is to provide links to digital maps like Géoportail for each pass. However since the equivalent of Géoportail in France and in Spain – Geoportale – is not so accessible and the maps are not always up-to-date these links indicate mainly freely available Internet sites.

In any case these maps have enough contour data to show the topography and to be able to position the passes but will not have all of the useful information regarding toponyms, roads, paths etc.

To have a more detailed view of all of this information you should use high-quality, up-to-date maps at a scale of 1:25000.

#### 10. TOPONYMS

#### Article 2 de la Règle du Jeu

#### **Comments:**

In French the expression "col" includes implicitly a topographic character. Taking into account the many possible types of terrain that can be encountered the minimum definition of a pass's topographic character that the Club has adopted is the following: a favoured passage, dictated by the relief, situated on a watershed and excluding summits.

We have classified the toponyms/descriptors in 3 categories :

- [1] Words that can be translated directly by "pass/col" or are synonyms of "pass/col"
- [2] Words that describe passes in a more metaphorical way for example through their form or their function
- [3] Ambiguous descriptors which could just as well describe a pass as another characteristic of the terrain

The following table of descriptors lists all the descriptors in these three categories that comply with the Rules of the Game but which are not sufficient on their own to validate a pass. It should be remembered that a pass must also comply with the topographic characteristics and be found on a reliable source.

Nota: all the following descriptors are not necessarily used in all of the regions of Italy. Some, coming from a local dialect are only used in one region or one province. When the use is restricted in this way the region or the province is shown in brackets; E.g.: Arcu (SAR), Cuca (LOM), Sapel (PMN).

Les definitions are "in Italian" in order not to misrepresent the etymological sense and come from the **IGM** (Istituto Geografico Militare) database, from the **UNGEGN** (United Nations Group of Experts on Geographical Names) and from Italian or regional language dictionaries (e.g. Sard, Piedmontese, Ligurian).

The descriptors in italics are potentially acceptable but we there aren't any concrete examples in the catalogue for the moment.

Titoli	Derivati	Definizione
Accesso		Bocche, passi di montagna, sui monti
Aidu (SAR)		Passaggio, valico, ingresso
Arcu(SAR)	[S'Arcu, Arco, Accu sa, Arcus] (SAR)	Toponimo che in Sardegna individua un Valico arcu arco; a. 'e chelu, arcobaleno; arcuadauareuau, arcata-are-ato, valico, dosso (v.badu).
Badu(SAR)		Guado, vado, valico, passo
Bassa	Baisse (PMN, LIG, VAO), Bassetta (TAA)	Bassa: parte bassa di una regione. Bassetta derivato di Basso. Basso: in geografia che è situato ad una quota minore, inferiore ad un certo livello
Восса	Boccaia, Bocche, Bocchetta, Boca(TAA),Bocara,B'Ucc'(SAR), Buca(SAR),(VEN),Bocarello(UMB), Bocchin (LIG,PMN), Buche(TAA) Bocchino (PMN),Bochet(TAA,PMN)	Apertura di entrata o di uscita, apertura di un luogo o di un oggetto. In geografia fisica sinonimo di passo e valico- Passo o valico in denominazioni frequenti soprattutto nelle Alpi Liguri e negli Appennini Umbro marchigiani.
Breccia	Brèche (PMN, VAO)	Passaggio, apertura, varco,
Colle	Colle, Collo, Colli, Col , Haut Col, Gran Col (PMN,VAO) Collarin (PMN)	da Collo, parte depressa di un rilievo, di una cresta montuosa, che spesso costituisce via di passaggio da un versante all'altro (sinonimi:Boca, Forcella, Passo, valico)
Colet	Collet, Colletto, Colletta, Colette, Coletti	derivazione di Colle
Cola (LOM)	Coletto, Colet	Forma regionale di « Colle » in Lombardia
Coldi (IM)		Forma provinciale di « Colla di » in Imperia
Cocca (LOM)	Cuca, Coca, Cuc, Cuchet, Cuchetto  Cuik, Cuk	il toponimo più diffuso tra le montagne bresciane, deriva dal termine medioevale Coca o Cuca che significa angolo o pezzo di terra alle pendici o sulla cima di un monte; può anche significare il punto più alto della strada o del sentiero. Con lo stesso significatosi trovano i toponimi di Cuca, Cuc, Cuchèt.
Colma(LOM)	Colmo, Culmetta, Culmine, Colmine, La Colma	Dal latino Culmen, il punto più alto, la cima o della valle
Cuel(FVG)		Forma regionale (Friulan) di Collo
Finestra	Fenêtre (PMN, VAO), Finestre Finestrolo (PMN)	colle passo taglio di monte. Qualsiasi spazio vuoto che interrompe una superficie.
Foce	Focetta, Fuxe	nell'Appennino centro-meridionale, termine usato anche in toponimi per indicare un valico o una gola che incide un massiccio montuoso
Foppa	Foppella, Foppello	Avvallamento, conca nel terreno. Non solo leventinese, si usa(va) anche in Lombardia. Dal lat. fovea = fossa, buca. In romancio foppa

Titoli	Derivati	Definizione
Forca	Forcel, Forcela, Forcella, Forceletta,	Passo, Valico
	Forcellin, <i>Forcellina</i> , ,	
	Forcellino,Fuorcla (LOM)	
	Forzela, Forzola ,Sforcella (VEN)	
	Forzellon, Furcela , Forko (TAA)	
	Forchiatta, Forchia, <i>Forchiazza</i> ,	
	Forchie,Forcja, Forcje, <i>Forzelluta</i> ,	
	Forcia, Forcie(FVG)	
Furkel (TAA)	Furca,Furcie,Furcia	Variante tedesca di Forca
Genna (SAR)	Gen', Genne, Genn'e, Ghenna,	Cola, passo, sella in Sardegna
	Gianna, Giuanna, Enna, Ianna, Janna,	
	s'Enna, Zanna (SAR)	
Giogo	Gioghetto, Giovo, Giovetto,	Valico montano nella toponomastica alpina e
	Zovo,Zovu(VEN)	appenninica: il g. dello Stelvio, il G. di Scarperia
Cala	Calatta Calatta La Cala	Lat. jugum]
Gola	Goletto, Goletta, La Gola	Profonda incisione del suolo con pareti molto ripide
C (11C)	Foro (FVG),Forra	·
Gua (LIG)	(400,4401)	Forma regionale in Liguria di "Gola"
Guado	(ABR, MOL)	passaggio, accesso [Lat. vadum, trattato come parola longobarda, col passaggio di va- in gua-]
Incisa	Inciza	derivati di incisione: solco, per lo più stretto e
		profondo, scavato dagli agenti esogeni sulla
		superificie terrestre.
Joch (TAA)	Jöchl	Variante tedesca di Giogo
Ju (TAA)	Jue, Juel, Joux	Variante di Giogo
Lenke (TAA)	Lüke (PMN)	Breccia, vuoto, vano, apertura
Malpasso	Malopasso, Belpasso	Qualificativi di passo
Nieder (TAA)	Niederl	Variante Tedesco di Bassa con diminutivi
Pas		Parola francese per Passo
Passage	Passagio	Passagio in francese
Passata	Passate, Passetto, La Passata, Le	Passagio della selvaggina
	Passate	
Passo	Passi, Passu	parte depressa di un rilievo, incavatura di una
	<u>'</u>	cresta montuosa per la quale il passaggio risulta
Pass		facile (sinonimi: Bocca, Colle, Valico)  Passo
Pertuis		Pertuso, Bocca
Portella	Portellina, Portule, Portelle	colle, passo, valico (pl. portelle; p.elle)
Portone	Portenila, Portule, Portene Porton (FVG)	Portella
	Porte	sinonimo di Bocca: Valico, passaggio più o meno
Porta		ampio di una zona montuosa tra due catene
	Porteda (SAR)	montuose distinte
Sapel (PMN)		Passagio,,varco in piemontese
Sattel		in tedesco: geogr. valico montano, Sella (vedi)
Scharte	Schartl	in tedesco: breccia (con diminutivo)

Titoli	Derivati	Definizione
Sbocco	Sboccata	Apertura, iscita, foce, bocca
Scala	Iscala	Valico
Sedda (SAR)	Seddas	Sella. S'arcu, Vàlico (vedi)
Sella	Sela (TAA) Selle, Sellette	depressione a forma concava lungo una cresta montuosa, che può costituire un valico (usato anche il diminutivo selletta)
Serra (EMR, MAR)	Serre (EMR, MAR)	Serra (sierra sp., serre franc., säge ted., dal latino serra =sega) nome comunissimo nella configurazione verticale del terreno, contiene quasi sempre l'idea di alto, spesso anche quando va congiunto con la voce valle. Dalla somiglianza della dentellatura della sega con la ineguaglianza della cresta dei monti, serra è giunto a significare anche catena della cresta dentellata e quindi monti in generale. Dall'immagine di monti quasi segati lungo il displuvio o trasveralmente da una via, è passato a significare valico o passo.
Sforcatura		deriva da forca e significa valico
Sforcela (TAA)	Sforcele, Sfozela, Sforzelin(TAA)	Variante tedesco di Forcella
Sbrikina	(FVG)	in sloveno: breccia, forca
Stretta (LIG)	Streita (LIG)	Varco angusto specialmente fra montagne sin: chiusa, gola, canalone
Suel (SAR)		
Tacca (FVG)		Incisione, incavatura (sin : Incisa)
Tor (TAA)	Törl,Türl	in tedesco: porta (con diminutivi)
Ucca (SAR)	Ucc' o vucca	Veni del Latina buccam o bucam
Vado	(ABR,MOL),Vo (LOM)	passaggio, accesso [Lat. vadum]
Valico	Valicone	Depressione tra due rilievi montani che consente il passaggio da una valle all'altra. Luogo per cui si può passare, varco. Parte depressa di una cresta montuosa per lo più ampia e bassa che permette il passaggio di grandi vie di comunicazione.
Varco	(BAS,CAL,CAM,TOS)	Valico, luogo in cui il passaggio, rispetto ai punti circostanti, è agevole

PLEASE ADDRESS ANY REMARKS, SUGGESTIONS, CORRECTIONS, PROPOSALS FOR NEW PASSES OR SUPPLEMENTARY INFORMATION TO :

cols@centcols.org

## REGIONS AND PROVINCES







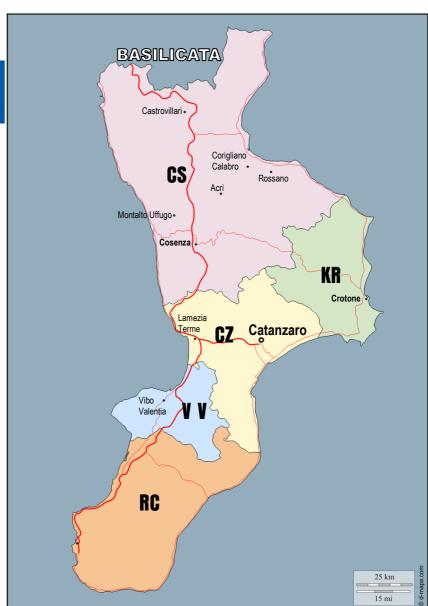
### **BASILICATA**





### **CALABRIA**





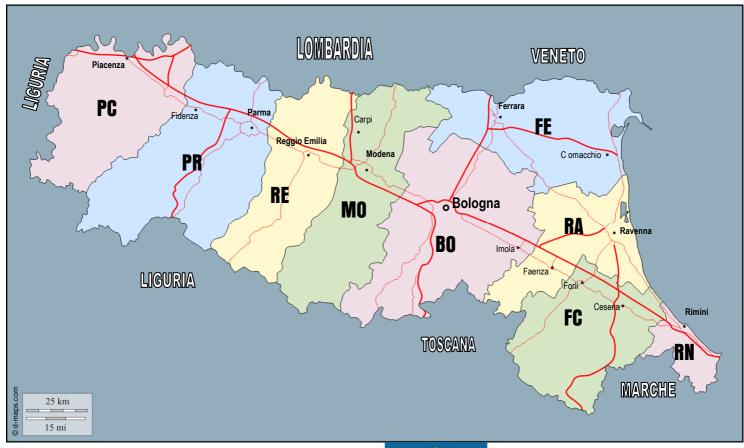
### **CAMPANIA**





### **EMILIA ROMAGNA**





### FRIULI VENEZIA GIULIA





### **LAZIO**





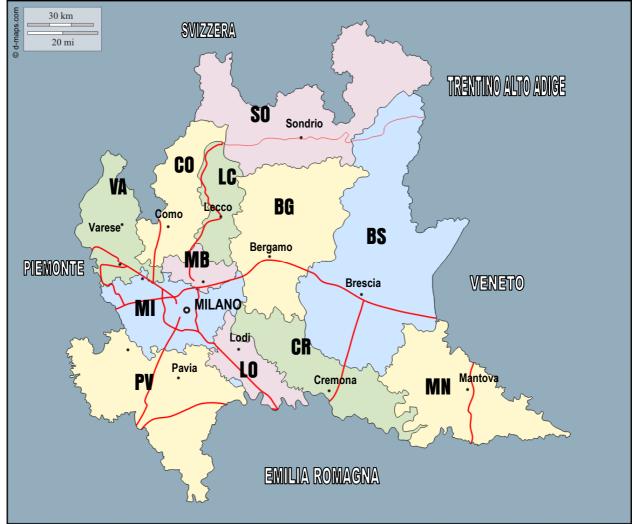
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### **LOMBARDIA**





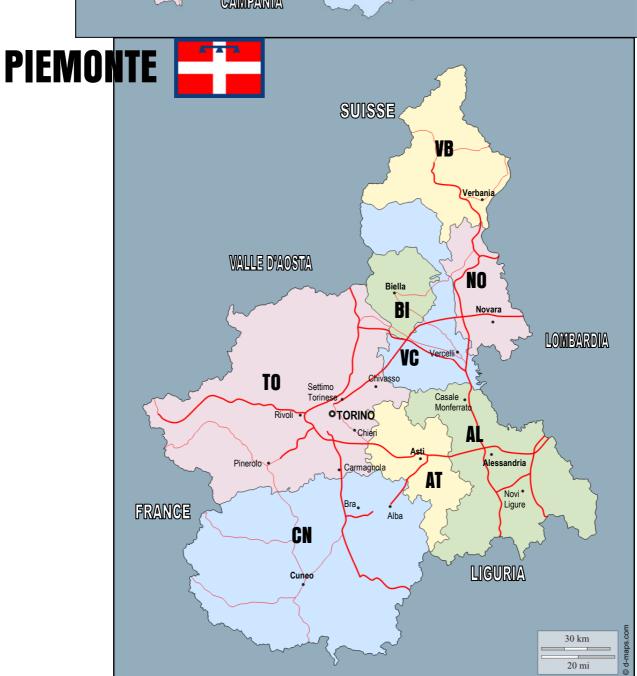
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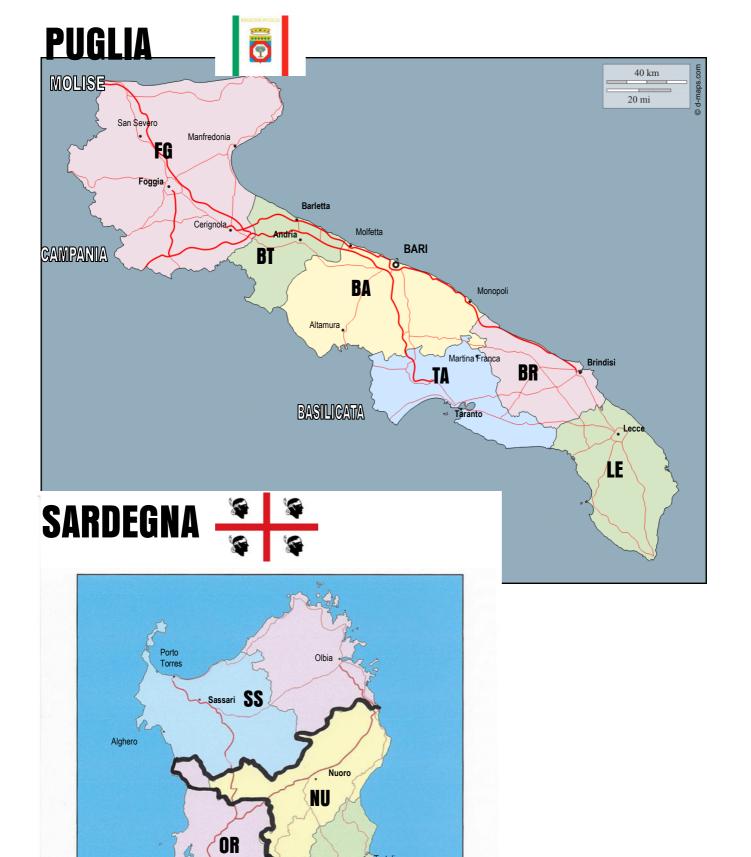


### **MOLISE**









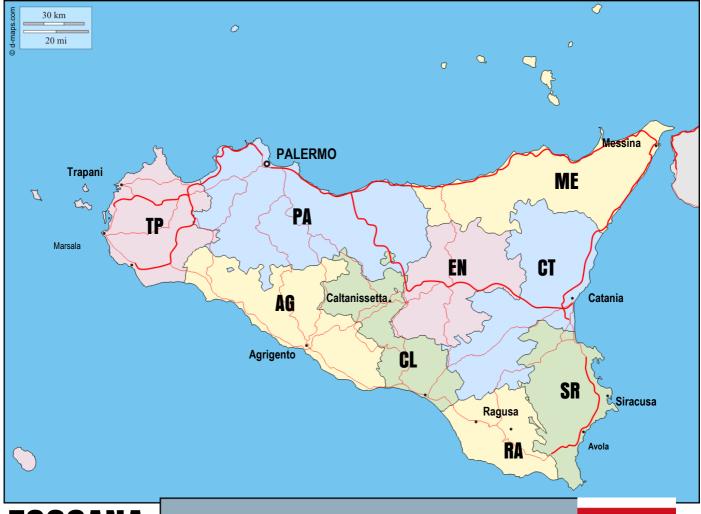
Tortoli

CA

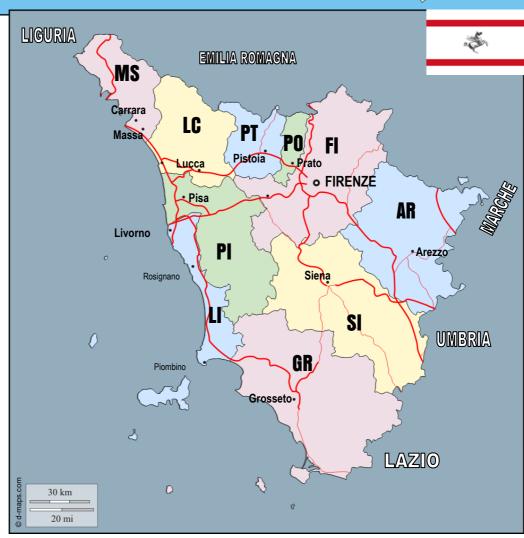
CAGLIARI

### **SICILIA**



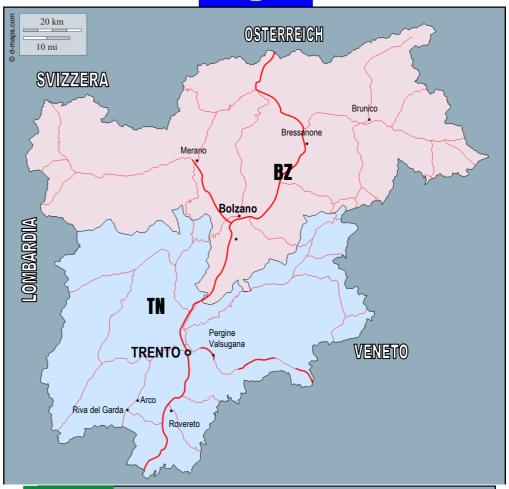


### **TOSCANA**



### TRENTINO ALTO ADIGE

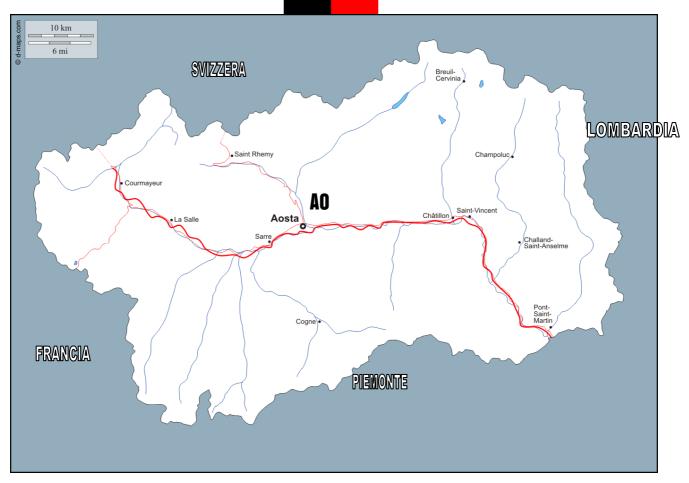




### **UMBRIA**



### **VALLE D'AOSTA**



### **VENETO**

