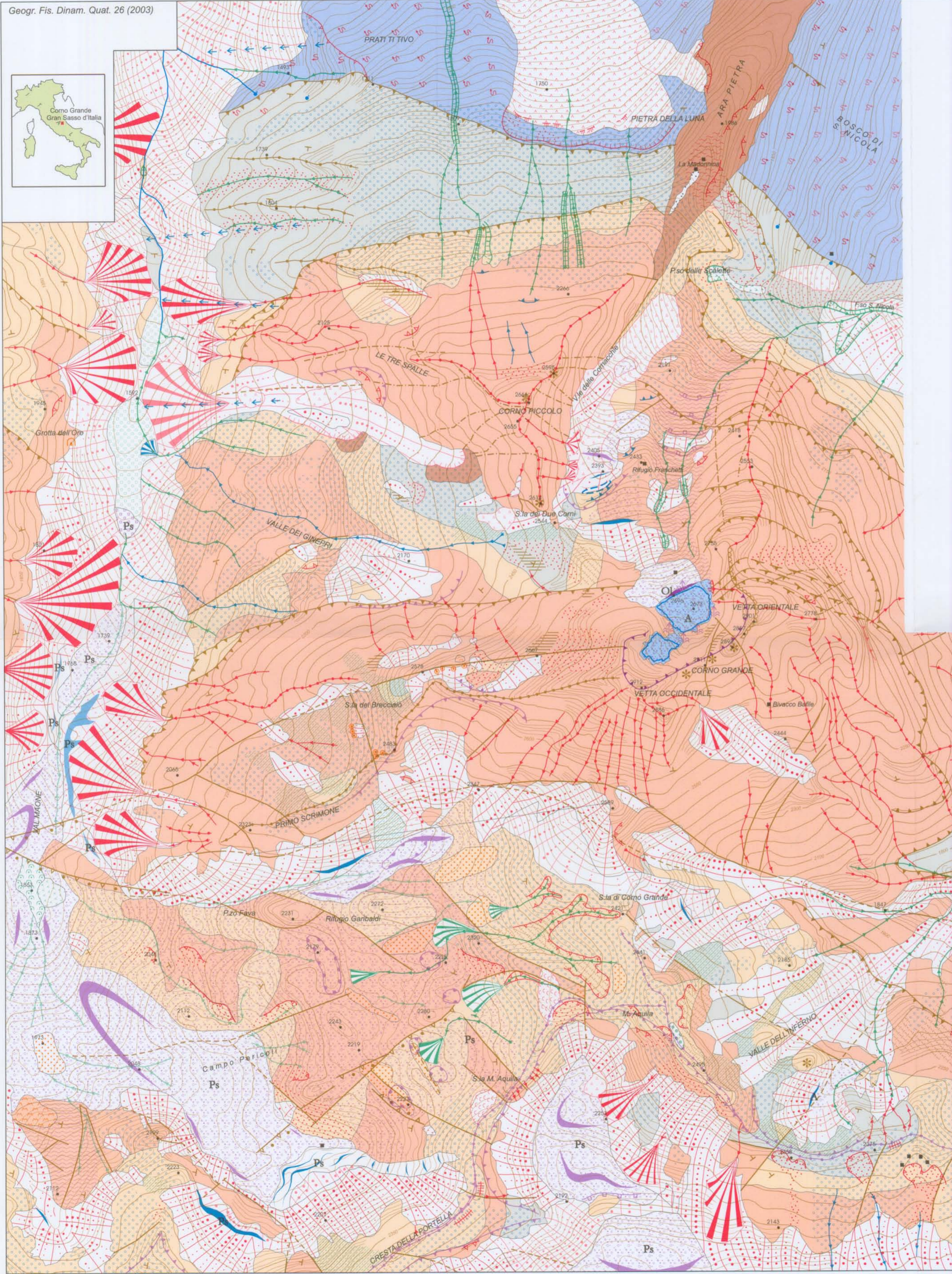


GEOMORPHOLOGIC MAP OF THE SUMMIT AREA OF THE GRAN SASSO D'ITALIA (Abruzzo region, ITALY)



GEOLOGICAL-STRUCTURAL ELEMENTS		CONSTRUCTIONAL LANDFORMS AND DEPOSITS	
Bedrock	<ul style="list-style-type: none"> Bedded carbonatic rocks Massive carbonatic rocks Marls and marly limestones Alternating clay and sandstones Well cemented carbonatic breccias 	<ul style="list-style-type: none"> Alluvial fan Colluvial deposit Torrential fluvio-glacial deposit Flow prevalently by mass transport 	
Tectonics	<ul style="list-style-type: none"> Strike and dip Confirmed fault Buried or inferred fault Confirmed overthrust Inferred overthrust Joint or other tectonic lineaments of uncertain origin 	KARST LANDFORMS <ul style="list-style-type: none"> Doline Field of small dolines Karren Entrance of horizontal cave 	
IDROGRAPHY	<ul style="list-style-type: none"> Stream Perennial spring Glacier Permanent snow field boundary 	GLACIAL LANDFORMS <ul style="list-style-type: none"> Erosional landforms <ul style="list-style-type: none"> ACTIVE: Edge of cirque INACTIVE: Edge of overdeepened hollow Crest line Step in glacial valley Smoothed glacial surface Roches moutonnées Constructional landforms and deposits <ul style="list-style-type: none"> Moraine ridge Glacial deposit Erratic boulders area 	
STRUCTURAL LANDFORMS	<ul style="list-style-type: none"> Edge of fault scarp with indication of quaternary tectonic reactivation Structural surface Strongly fractured rocks Edge of major cliff Crest line Peak Saddle 	CRYOGENIC LANDFORMS <ul style="list-style-type: none"> Erosional landforms <ul style="list-style-type: none"> ACTIVE: Edge of nivation hollow INACTIVE: Avalanche track Constructional landforms and deposits <ul style="list-style-type: none"> Surface with turf-banked terrace Rock glacier Protalus rampart Avalanche cone Area affected by crossing of seasonal avalanches 	
SLOPE LANDFORMS DUE TO GRAVITY	<ul style="list-style-type: none"> Erosional landforms <ul style="list-style-type: none"> ACTIVE: Edge of rock fall scarp INACTIVE: Edge of rock slide scarp Reversed slope Surface affected by solifluction Edge of degradational scarp Rock channel with debris discharge Degradational crest line Constructional landforms and deposits <ul style="list-style-type: none"> Rock fall deposit Rock slide deposit Slope debris Talus cone Scree slope Solifluction flow Deep-seated gravitational slope deformation Slope affected by inferred deep-seated gravitational slope deformation Trench 	MAN MADE LANDFORMS <ul style="list-style-type: none"> Debris produced by trampling Generic artifacts 	
FLUVIAL, FLUVIO-GLACIAL AND SLOPE LANDFORMS DUE TO RUNNING WATERS	<ul style="list-style-type: none"> Erosional landforms <ul style="list-style-type: none"> ACTIVE: Waterfall INACTIVE: Gully Edge of erosional fluvial scarp with height <5 m Edge of debris flow Surface with erosional landforms due to rill erosion (landforms similar to turf hummocks) Surface with erosional landforms due to rill erosion by snow melting (landforms similar to striated soils) 	MORPHOCHRONOLOGY <ul style="list-style-type: none"> A Present Ol Holocene Ps Upper Pleistocene 	

Survey period June 1997 - august 1998
Glacial boundary updated to 2002 year

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Geological interpretation by Ghisetti et alii (1990)

Topographical map: Ortho photo map Abruzzo Region 1982 (aerial view 1981) (1:10.000 scale, surveyed, digitized and elaborated at 1:5.000 scale)

Scale 1 : 10 000

0 100 500 m

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