



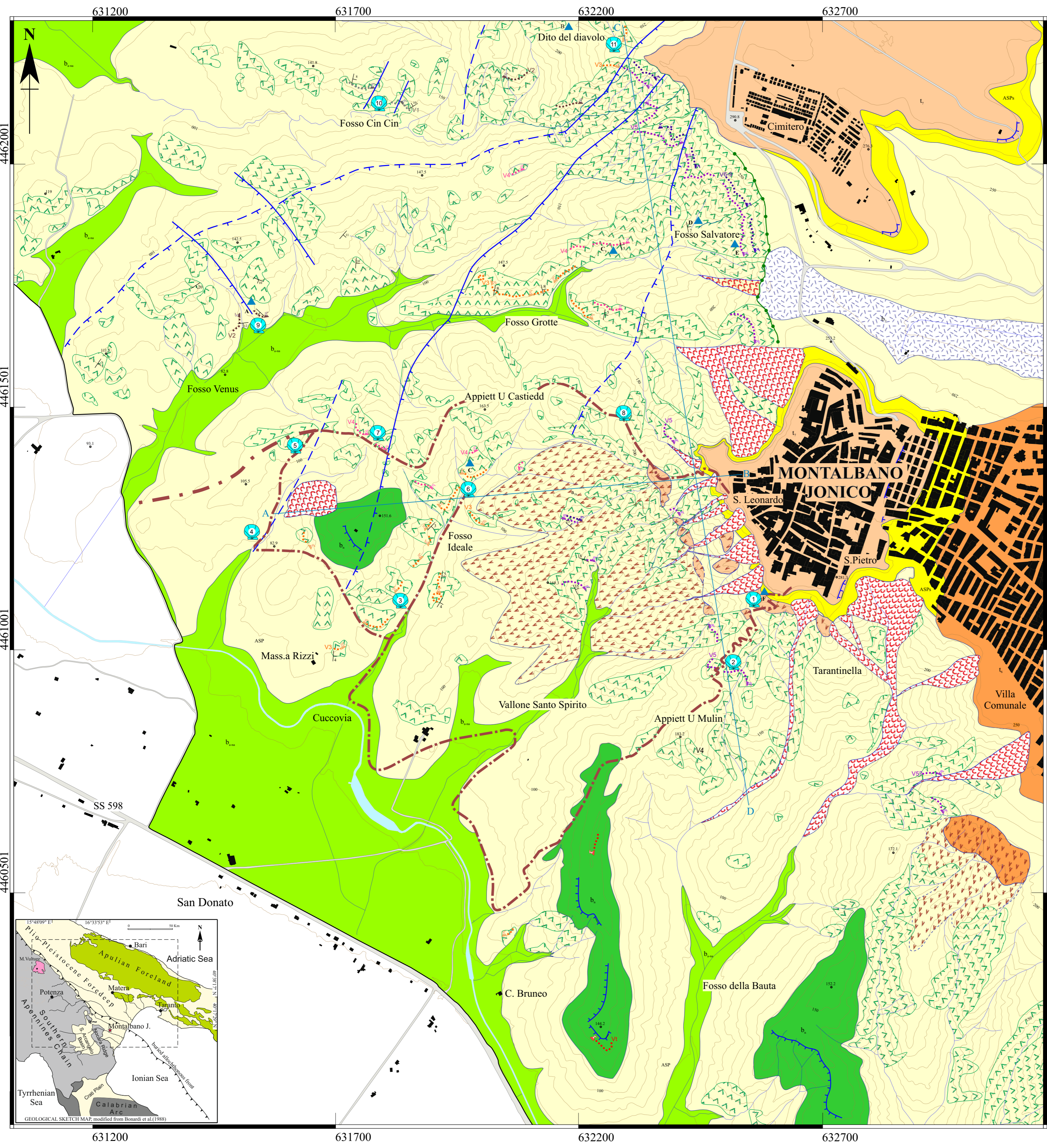
# Geological features of the Special Nature Reserve of Montalbano Jonico Badlands (Basilicata, Southern Italy)



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## LEGEND

- Present-day landslide deposits:** chaotic deposits made up of polymictic and heterometric sandy-gravelly blocks in clayey matrix, and anthropic materials.  
**Holocene**
- Colluvial deposits:** brownish silty and clayey loam with siliciclastic and calcareous pebbles.  
**Late Pleistocene ?-Holocene**
- Alluvial and Agri terrace deposits:** the present-day alluvial deposits and the younger Agri terrace (at about 60 m a.s.l.) are represented by silty sands, interbedded sands, silty clays and rare gravelly layers of grey-yellow colour (b<sub>ms</sub>); the Agri terrace at about 150-140 m a.s.l., of unknown order, consists of alluvial sediments constituted by gravel and sandy gravel, interbedded sands and silty sands of brown-yellow colour (b<sub>l</sub>).  
**Late Pleistocene-Holocene**
- Ancient deep-seated large landslide deposits:** rotated large blocks represented by argille subappennine, showing V5 and V6 tephra layers, (a<sub>1</sub>) and marine terrace deposits (a<sub>1b1</sub>-a<sub>1c2</sub>).  
**Late Pleistocene**
- Ionian marine terrace deposits:** stratified sands with interbedded conglomeratic and silty clayey layers of marine, transitional and alluvial environments (t<sub>1</sub>, at about 290-275 m a.s.l. and t<sub>2</sub>, at about 260 - 240 m a.s.l.).  
**Middle Pleistocene**
- Argille subappennine (ASP):** silty clayey and silt with locally interbedded discontinuous sandy beds. These deposits show several intervals containing invertebrate macrofossils consisting of molluscs and subordinately echinoids, decapods, bryozoan colonies, macroforaminifers and bony fishes (otholites). Six clearly identifiable marker beds represented by volcanic ash layers (V1-V6-9) have been distinguished. In the upper part of the succession a sandy lithofacies with a thickness of about 10 m aut crops (ASPs). Calcareous nanofossil biostratigraphy indicates that the outcropping succession belongs to the small *Gephyrocapsa* and *Pseudoemiliana lacunosa* biozones of Rio et al. (1990).  
**Early-Middle Pleistocene**

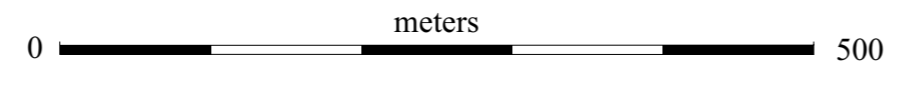
## SYMBOLS

- Morphologic**
- Badlands (calanchi and biancane)
- Terrace edge
- Evolving hydrographic basin limit due to erosion
- Stratigraphic**
- Stratigraphic contact
- Volcaniclastic marker bed (V1-V2, V3-V4, V5-V6-9, V)
- Section of stratigraphic interest (A - Venus Bassa, B - Dito del Diavolo, C - Sezione Ideale, D - Ciaranfi, E - Salvatore, F - Vecchietto, F - Molino)
- Structural**
- Fault (presumed if dotted)
- Normal fault (presumed if dotted)
- Bed attitude
- Trace of geologic cross-section (A-B)
- Presumed sliding surface (in geological cross-section)
- Topographic**
- Boundary of the Special Nature Reserve
- Drainage channel
- Road
- Building

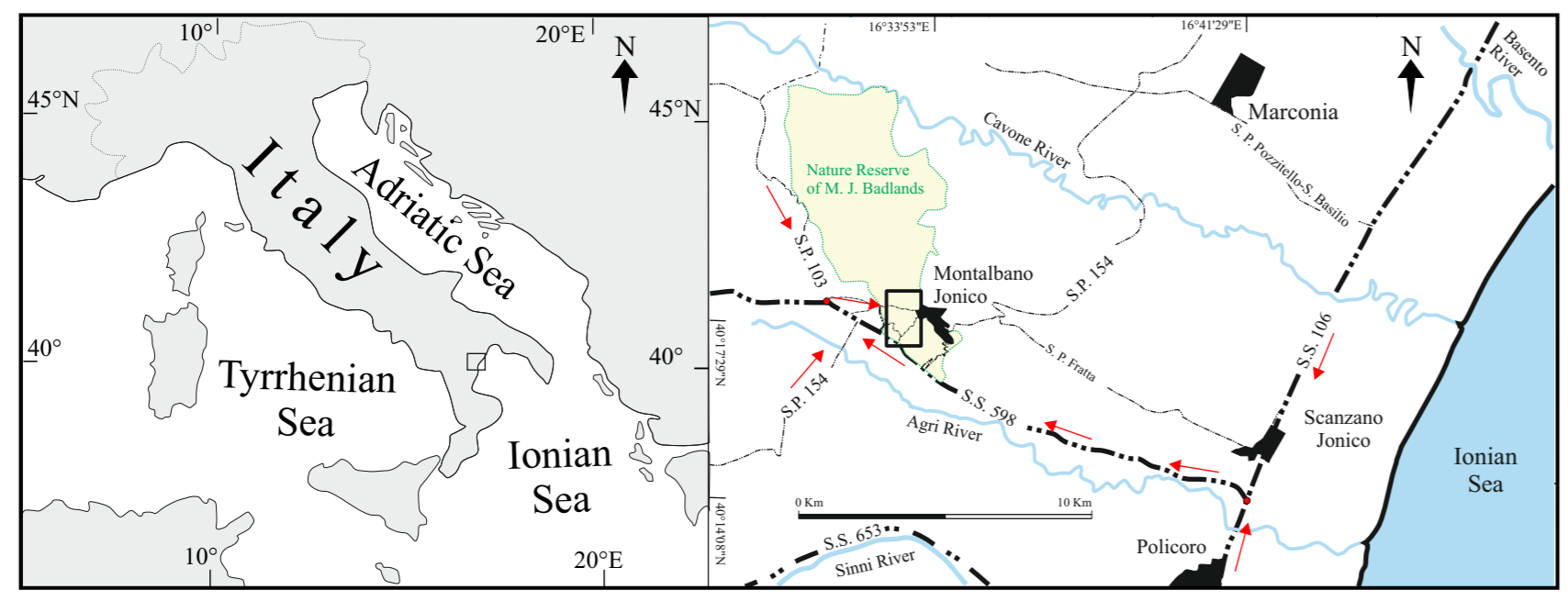
Geodetic Datum: WGS84  
Projection: UTM33N

Scale 1: 5000

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## MAP LOCATION



## GEO-TOURISTIC SYMBOLS

- Itinerary
- Observation points (Area of stratigraphic, paleontological and/or panoramic interest).

## GEOLOGIC CROSS-SECTIONS

