

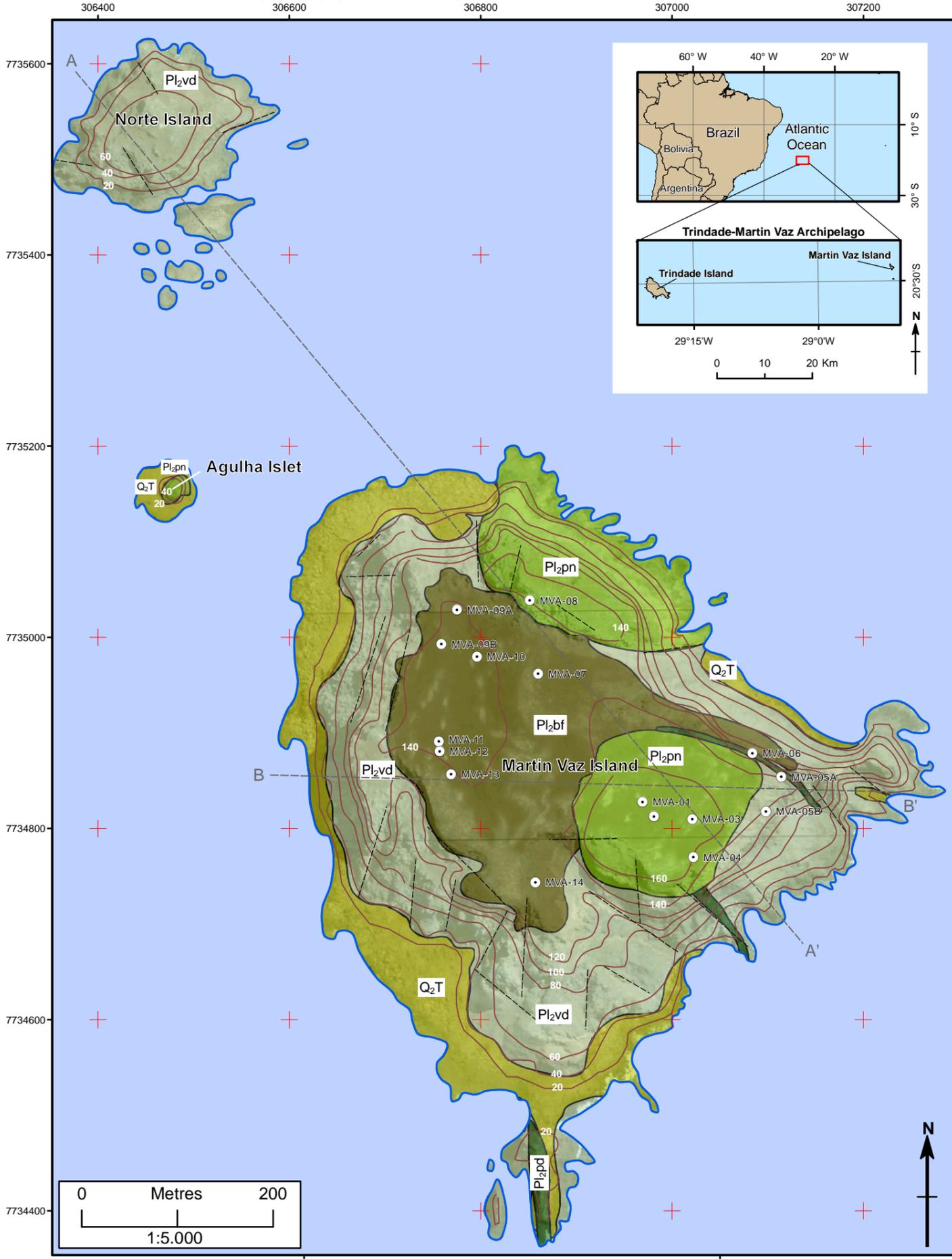
Geological Map of the Martin Vaz Island, South Atlantic, Brazil

Anderson Costa dos Santos^a, Sérgio Wilians de Oliveira Rodrigues^b, Mauro César Geraldés^b and Thais Vargas^c

^aPrograma de Pós-Graduação em Análise de Bacias e Faixas Móveis, Faculdade de Geologia, Universidade do Estado do Rio de Janeiro (UERJ), Rua São Francisco Xavier, 524 - 4º andar/bloco A - Maracanã - Rio de Janeiro - RJ - CEP 20550-900,

^bDepartamento de Geologia Regional e Geotectônica, Faculdade de Geologia, Universidade do Estado do Rio de Janeiro (UERJ), Rua São Francisco Xavier, 524 - 4º andar/bloco A - Maracanã - Rio de Janeiro - RJ - CEP 20550-900,

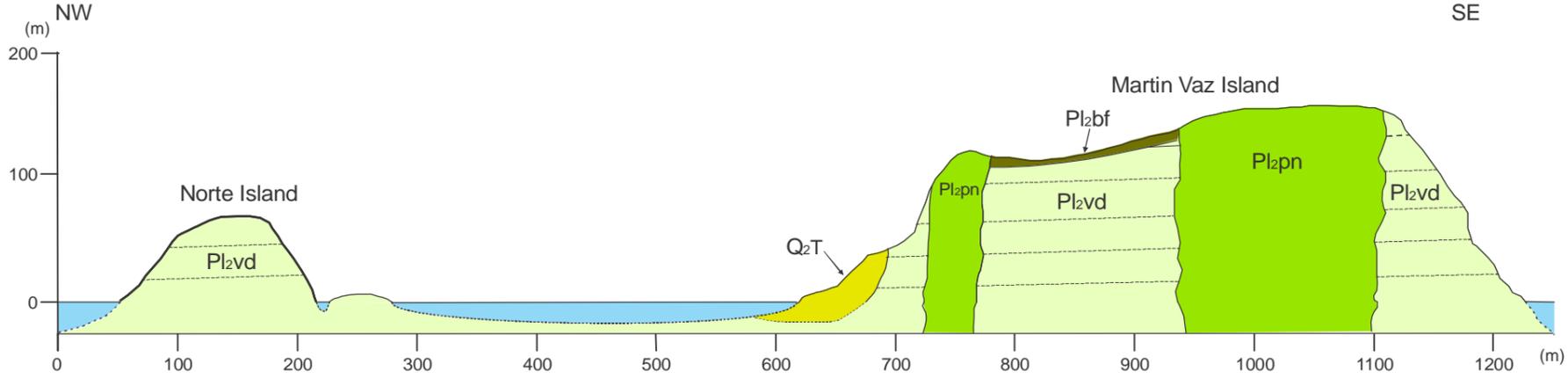
^cDepartamento de Mineralogia e Petrologia ígnea, Faculdade de Geologia, Universidade do Estado do Rio de Janeiro (UERJ), Rua São Francisco Xavier, 524 - 4º andar/bloco A - Maracanã - Rio de Janeiro - RJ - CEP 20550-900



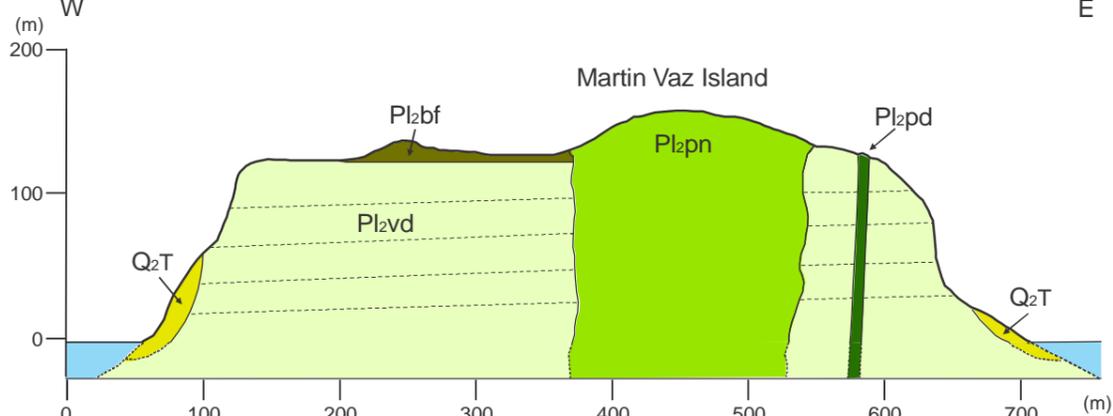
EXPLANATION			
Period	Epoch	Stage/Age	MAP UNITS
QUATERNARY	Holocene	0.0117 Ma	Q ₂ T
		0.126 Ma - Upper	
	Pleistocene	0.781 Ma - Middle	Pl ₂ pn, Pl ₂ bf, Pl ₂ vd
		1.806 Ma - Calabrian	
		2.588 Ma - Gelasian	

- DESCRIPTION OF MAP UNITS**
- Holocene**
- Q₂T** **Rockfall deposits (Talus).** Unconsolidated and unsorted detritus, in part coarse blocky monomictic material that moved downslope from nearby sites. Generally a few meters thick.
- Pleistocene**
- Pl₂pn** **Phonolitic dikes.** Fine grained, porphyritic and medium grey a dark grey. Content of small phenocrysts of feldspar and feldspathoids (nepheline and nosean).
 - Pl₂pn** **Phonolitic necks.** Fine grained, porphyritic, with metric collunar joints and dark grey. Phenocrysts of feldspar (k-felspar) and feldspathoids (nepeheline and nosean).
 - Pl₂bf** **Basanitic lava flow.** Fine grained, aphanitic, vesicular and dark grey. About 5-10 m thick. **0.62 ± 0.12 Ma and 0.49 ± 0.87 Ma (Ar-Ar)**
 - Pl₂vd** **Pyroclastic Deposits.** Sub-horizontal layers, predominantly composed of tuffs, lapilli-tuff and lapillite.
- Coastline:** rock, bare or awash.
- Contact:** Dashed where transitional or approximatley located; dotted where concealed.
- Topographic contour:** Contour interval of 20 meters.
- Fractures:** Dashed where approximatley located.
- Petrographic samples**

CROSS SECTION A-A'



CROSS SECTION B-B'



Planimetric base obtained from the Island Martim Vaz Nautical Chart (Brazilian Navy), adjusted to satellite image obtained from Google Earth, orthorectificated and georeferenced according to the WGS84 datum (Zone 26).