E9 - BRAZILIAN HIGHLANDS SOILS AND OXISOLS FROM DEEP-WEATHERED SAPROLITES AND BANDED IRON FORMATION

Summary: This field trip will offer an unique and wide view of soils and landscapes from the tectonic Depression of Rio de Janeiro to the Itatiaia mountainous massif (2700 meters), passing through the Latosols developed from saprolites of shales, gneisses, limestones and itabirite in the dissected highlands of the Brazilian Plateau, in MG. The trip ends with a visit to one of the most beautiful calcareous (limestone) caves in Brazil - Rei do Mato, in Sete Lagoas; Areas of mining and intensive agriculture (Coffee, Maize) or family (polyculture) will be visited, with different levels of management.

Period:
Post event, 18-21 August

Guides:
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Contact:
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Attention:
All participants are responsible for their own arrival at the meeting point where the tour will begin on time (7:00 am). The use of clothes suitable for trekking activities is necessary (hat, adequate shoes, light-weight clothing, sunscreen and sunglasses), as well as water to remain hydrated.

Itinerary:

<table>
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<th>Day/ month</th>
<th>Description</th>
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<td>18/08 Saturday</td>
<td><strong>Morning</strong>: leaves Rio (Convention Center, at 7 AM) to Resende/RJ &lt;br&gt; <strong>Lunch</strong> at Resende City (on route we will see three soils on Gneiss and Cenozoic Sediments)  &lt;br&gt; <strong>Afternoon</strong>: Highlands of Itatiaia with two soils, from 1500-2400 m. altitude, on Araucaria Forest and High altitude Paramos  &lt;br&gt; <strong>Night</strong>: Hotel Thomaz, Itamonte/MG, with stay overnight.</td>
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<td>19/08 Sunday</td>
<td><strong>Morning</strong>: leaves Itamonte at 7 AM to Tiradentes/MG, see three Oxisols under intensive Coffee production and Native Atlantic Forest. &lt;br&gt; <strong>Lunch</strong> at Minduri (MG)</td>
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Afternoon: Soils under Rupestrian Grassland (Campos Rupestres)
Night: Hotel Tiradentes, Pousada Oleos de Guinard, with stay overnight.

| 20/08 Monday | Morning: leaves Tiradentes at 7 AM to Belo Horizonte  
              | Lunch at Congonhas/MG  
              | Afternoon: Highlands of Iron mining areas of Iron Quadrangle with four soils on ironstone and quartzite; visit to Capitão do Mato Iron Mine  
              | Night: Hotel in Belo Horizonte or Nova Lima, with stay overnight. |

| 21/08 Tuesday | Morning: leaves Belo Horizonte to Sete Lagoas  
                 | Lunch at Sete Lagoas/MG after visiting Soils at the EMBRAPA Maize center  
                 | Afternoon: Visit to the Rei do Mato Limestone Cave, one of the most beautiful. End at 6 pm and departs for Confins Airport or road back to Rio de Janeiro. |

**Cost per person:** US$ 500

**Tour includes:** Bus transportation, accommodations and meals, staff for assistance and technical guide.

**Group:** 20-35 people. If we don’t reach the minimum number of participants, the excursion will not take place and payment will be refunded.

**Accommodation:**

<table>
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<tr>
<td>18</td>
<td>Hotel Thomaz, Itamonte/MG, with stay overnight.</td>
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<tr>
<td>19</td>
<td>Hotel Tiradentes, Pousada Oleos de Guinard, with stay overnight.</td>
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**Travel map:**

Ending at Confins International Airport (CNF)  
Ending at Rio de Janeiro
Places to be visited
Highlands of Itatiaia, one of the highest mountains in Brazil, on alcaline rocks of Late Cretaceous age.

Black needle pick - The highest elevation point
Coffee plantation on deep weathered Oxisol from Southern MG State

Historical Town of Tiradentes, of the Gold Rush colonial times, with late 18th century houses.
Serra do Curral highlands, with Ironstone covered by Shallow Canga (Ferricrete) soils

EMBRAPA Maize and Sorghum Center: maize cultivation under irrigation and aerial view of experimental station
Interior of the Rei do Mato Limestone Cave, Sete Lagoas