## Natural uranium in biological material from high natural radioactivity areas in Brazil.

Wagner S. Pereira<sup>1,2 and 3</sup>, Alphonse Kelecom<sup>3</sup>, Cleber B. Espindola<sup>4</sup>, Ademir X. da Silva and Rogério A. Filgueiras<sup>5</sup>

1 - LAMEL - MPCA-Universidade Veiga de Almeida.

2 - LARARA-PLS-Universidade Federal Fluminense.

3 - Industrias Nucleares do Brasil

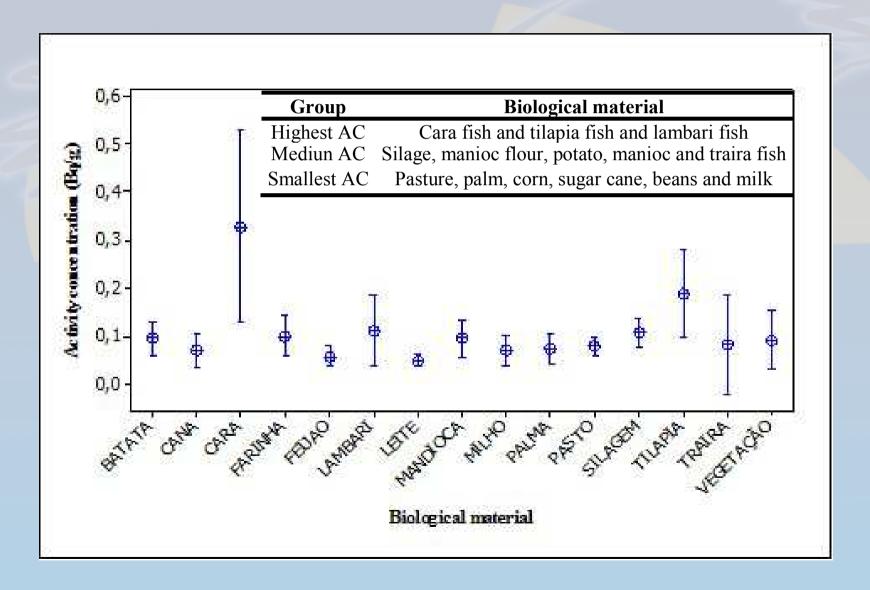
4 - Instituto Federal do Rio de Janeiro.

5 - LNTR - COPPE - Universidade Federal do Rio de Janeiro.



CHALLENGES AND SOLUTIONS

## Results



## Conclusions

- In terms of Radioecology it can be observed that:
  - 1) Data can be grouped in high, medium and low AC;
  - 2) Different biological compartments (BM) have different accumulation patterns;
  - 3) The biological compartment "fish" do accumulate more efficiently uranium than other biological compartments studied (tendency); and
  - 4) Manioc flour production steps (grinding and dewatering) have no effect on the AC in these two kinds of biological materials BM.

## **Perspectives: Radioprotection**

The frame can be more complicated than the mere existence of three classes of AC.

It must be taken into account the differences in appropriation of the environment (CR) and risk of radionuclides (DRF)

These differences of AC and associated consumption rate, may result in an extension of the differences of importance for each BM,

The inclusion of other radionuclides in the assessment can change the framework defined here which is based only on the assessment of Unat in studied materials.