23 November, 2020

Dear Dr. [**Shunyao Zhuang**](https://ojs.bilpublishing.com/index.php/re/about/editorialTeam)

Editor Research in Ecology

Herewith we would like to submit the manuscript entitled “**Influences of environmental variables on the natural regeneration in a forest under restoration after bauxite mining and a reference ecosystem in Southeastern Brazil**” as a Research article to Research in Ecology. This manuscript has not been submitted to any of other journals, and the manuscript has not been published previously (partly or in full).

**Title:**

Influences of environmental variables on the natural regeneration in a forest under restoration after bauxite mining and a reference ecosystem in Southeastern Brazil

**Names and affiliation of author(s):**

Yours sincerely, also on behalf of the co-authors

Prof. Dr. Sebastião Venâncio Martins

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**A brief description of the novelty and importance:**

Faced with the expansion of works aimed at forest restoration of degraded ecosystems, there is a need for a better understanding of the behavior and ecology of the natural regeneration layer in areas under restoration and the influence of environmental variables on the natural regeneration these areas.

Although bauxite mining removes the soil layer with the presence of bauxite, the topsoil (part of the soil that contains organic matter, microorganisms and seeds) is returned to the site after the bauxite has been extracted. The process of forest restoration with the return of topsoil and planting of seedlings in a total area implanted by Companhia Brasileira de Alumínio (CBA) after the end of mining has shown that it is possible, not only the formation of a new forest, but also the return ecological processes (dispersion of fruits and seeds, nutrient cycling, containment of erosive processes, carbon sequestration, natural regeneration). Among these ecological processes, emphasis is given to the formation of the natural regeneration stratum, the focus of the present work and important in the perpetuation of the recent forest, since its presence is a thermometer that shows that the ecosystem in formation is managing to advance the stages of succession. The return of ecological processes and mainly of natural regeneration highlights the sustainability of bauxite mining.

**Declaration:**

We trust you agree that this is a topic of wide international importance, and we hope this merits publication in Research in Ecology with the help of the editorial process, to bring this to the highest level of world attention.

**Conflict of Interest:**

All coauthors agree with its publication and made significant contributions; that there is no conflict of interest; that we followed all pertinent ethical and legal requirements; that the study is scientifically valid; that it has not been published before and was not sent simultaneously to another journal; that we share non-exclusive printed and electronic publication rights with the Journal and that we accept to comply with all journal norms regarding procedure, format, decision, and other pertinent aspects.

**Contributorship:**

**Sebastião Venâncio Martins**: Conceptualization, methodology, data processing and manuscript writing. **Kelly de Almeida Silva**and **Aurino Miranda Neto**: field data collection, data processing and manuscript writing.