

Rio de Janeiro, 29 de abril de 2015.

Prezada Natalie,

Encaminhamos a versão revisada do manuscrito 986-6313-1, intitulado "Publication trends in species distribution modeling and the pioneer contribution of Dr. Rui Cerqueira to ecological biogeography and distribution modeling in Brazil". O revisor fez alguns comentários e sugestões que estão respondidos abaixo. Esperamos que esta nova versão do manuscrito esteja em condições de ser publicada no periódico *Oecologia Australis*.

Atenciosamente,

A handwritten signature in blue ink, appearing to read 'Lucia', with a decorative flourish at the end.

Maria Lucia Lorini

Response to Reviewers:

Reviewer B: The reviewer made very good suggestions/comments, which we hope we have satisfactorily addressed, as detailed below.

- **Reviewer B:** Key-words section, lines 34 - 35: "I don't think restinga has such importance to deserve to be a key-word. Instead I suggest a key-word that make a reference to mammalian biogeography."

Response: We agree that old key-words lack references to mammalogy and biogeography. We changed the key-words to include: Species Distribution Modelling, Ecological Niche Modelling, Scientometrics, Neotropical Biogeography, South American Mammalogy, Restinga.

- **Reviewer B:** Introduction section, lines 101 - 105: "I suggest that at least a paragraph should be written about the importance of Rui Cerqueira and his collaborators to Brazilian and South American biogeography. Maybe a brief history of his career focusing the geographical contributions without compromising the results and discussion of the MS. The authors should establish here a connection between Cerqueira's research and ENM/SDM.

Response: Excellent suggestion. We rewrote the final part of the Introduction and added a paragraph about the importance of Rui Cerqueira and his collaborators to Brazilian and South American biogeography, as follows:

"The purpose of this paper is two-fold. First, we provide an overview of the publication trends on Ecological Niche and Species Distribution Modeling, both globally and in Brazil, through a scientometric analysis. Second, we reviewed the most important contributions of Dr. Rui Cerqueira, Professor at the Ecology Department of the Federal University of Rio de Janeiro (UFRJ), in his pioneer scientific research program on biogeography and distribution modeling in Brazil.

Dr. Rui Cerqueira is one of the most influential mammalogists in South America. In 1982 he created the Vertebrate Laboratory (LabVert) at the UFRJ, which develops scientific research in ecology and evolution, using terrestrial vertebrates as a model, with emphasis on mammals and birds. Since then, Dr. Cerqueira and his students developed a research program on vertebrates, involving various fields of ecology and evolution. He has published more than 150 papers, book chapters and books on mammal and vertebrate ecology, ecology of animal adaptations, population ecology, community ecology, landscape ecology, ecological biogeography, and conservation biology. Dr. Cerqueira has mentored dozens of B.Sc., 37 M.Sc., 18 Ph.D. students, and 06 postdoctoral scholars. His mentorship has produced a body of independent Brazilian scientists, especially in the arena of mammalogy. In 2012, Dr. Cerqueira was elected as Honorary Member of the American Society of Mammalogists, the Society's highest honor, awarded to few nominees in recognition to their distinguished service to mammalogy, including research, teaching, student training, and outreach. Dr. Cerqueira's work on diet and water balance biology and on population ecology are discussed somewhere else (Gentile & Kajian this volume; Vieira *et al.* this volume). Here we discuss the work of Dr. Cerqueira and his collaborators on biogeography, including important contributions to Brazilian and South American biogeography and the understanding of biogeographical patterns in the Neotropics, and to the development of ecological niche and distribution modeling."

- **Reviewer B:** Results and Discussion section, line 204: "Are the quotation marks in "ENM/SDM in Brazil" really necessary?"

Response: The quotation marks in "ENM/SDM" and "ENM/SDM in Brazil" were removed from the entire manuscript.

- **Reviewer B:** Results and Discussion section, line 216 - 220: "I haven't understood these numbers. Who are the top ten? You cited nine authors: Peterson, Siqueira, Nabout, De Marco Jr, Diniz-Filho, Scacchetti-Pereira, Gurgel-Gonçalves, Terrible, and Cerqueira. And

eight of ten authors contributed with five to ten papers? Who are these eight authors and what represents 3,3%?"

Response: Good point. To improve clarity we rephrased the sentence, which now reads: "On the other hand, there were a total of 241 authors contributing 85 articles related to ENM/SDM in Brazil. Most authors (79.2%, n=191) contributed with one paper and 17% (n=41) with two to four papers. The authors that contributed with five to ten papers (3.3%, n=8) are among the top nine authors (A. T. Peterson, M. F. Siqueira, J. C. Nabout, P. De Marco Jr, J. A. Diniz-Filho, R. Scachetti-Pereira, R. Gurgel-Gonçalves, C. L. Terrible, and R. Cerqueira). Only one author contributed with more than ten articles (A. T. Peterson), and only one published on ENM/SDM in Brazil before 2002 (R. Cerqueira) (Figure 1)."

- **Reviewer B:** Results and Discussion section, line 226: The reviewer suggested that "CONTRIBUTIONS TO BIOGEOGRAPHICAL STUDIES" should be replaced by "RUI CERQUEIRA'S CONTRIBUTIONS TO BIOGEOGRAPHICAL STUDIES"

Response: Ok, done.

- **Reviewer B:** Results and Discussion section, lines 244 - 246: The reviewer suggested that "In what is arguably one of his best scientific contributions, Cerqueira uses the Amazon Lagoon Hypothesis, restricted until then to geology, to explain diversification in the Neotropics (Marroig & Cerqueira 1997)." should be replaced by "In what is arguably one of his team best scientific contributions, Gabriel Marroig and Cerqueira use the Amazon Lagoon Hypothesis, restricted until then to geology, to explain diversification in the Neotropics (Marroig & Cerqueira 1997)."

Response: Ok, done.

- **Reviewer B:** Results and Discussion section, lines 250 - 255: The reviewer suggested rephrasing that part of the text.

Response: We agree. We rewrote the sentence, which now reads: "The hypothesis helps to explain several biogeographical patterns in South America, particularly in mammals, birds and fishes. The Amazon Lagoon Hypothesis is illustrated using the example of Spider Monkeys (*Ateles spp.*), which display a cline of differentiated populations bordering the Amazon River, forming a ring species. According to the authors, several bird and some primate groups show biogeographical patterns similar to *Ateles*."

- **Reviewer B:** Results and Discussion section, lines 256 - 259: "I suggest that you introduce this paragraph with a sentence like that - [Another important contribution of Dr. Cerqueira to the biogeography of neotropical fauna concerns to the origins and biogeographical affinities of *restinga* mammalian fauna]."

Response: Good suggestion. We changed this paragraph, adding the suggested sentence, as follows: "Another important contribution of Dr. Cerqueira to the biogeography of neotropical fauna concerns the origins and biogeographical affinities of *restinga* mammals. As discussed in this volume by Vieira and collaborators, water deprivation experiments with rodents typical of *restinga* revealed a relation between habitat occupancy and diet choice on a local scale."

- **Reviewer B:** Results and Discussion section, line 270: Replace hundreds for thousands of years ago.

Response: Sure, thanks. Done.

- **Reviewer B:** Results and Discussion section, lines 272 - 274: " Which transgression event? Last? Penultimate?..."

Response: Right. We rephrased the sentence, which now reads: "With marine transgression, sea level increased up to 8 m above current level (Late Pleistocene transgression, ca. 123,000 years BP, Suguio 2001), flooding many portions of *restingas*, which would be reduced and fragmented into islets."

- **Reviewer B:** Results and Discussion section, lines 276 - 278: The reviewer suggested to eliminate Mattos et al. 2009 reference. "I think this reference is out of context here as you are referring, in fact, to Cerqueira 2000."

Response: Ok. We eliminated this reference.

- **Reviewer B:** Results and Discussion section, line 286: The reviewer suggested that "CONTRIBUTION TO SPECIES DISTRIBUTION MODELLING STUDIES" should be replaced by "RUI CERQUEIRA'S CONTRIBUTIONS TO SPECIES DISTRIBUTION MODELLING STUDIES"

Response: Ok, done.

- **Reviewer B:** Legend of the Figure 1, lines 636 - 638: "According to the text the legend should be "publications on Ecologic Niche Modeling/Species Distribution Modeling from 1985 to 2012."

Response: Sure, thanks. We corrected the legend.