



LETTER TO THE EDITOR

Diogenes de Almeida Campos: An example to be followed for the preservation efforts of the fossils from the Araripe Basin

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Due to the release of this special issue in honor of the dear and proficient Diogenes de Almeida Campos, it is timely to point out his legacy of effort and dedication towards the preservation of the Brazilian fossil heritage, the development of National Paleontology, the valuable contributions to Museu de Paleontologia Plácido Cidade Nuvens (MPPCN-URCA) and the creation of the Araripe UNESCO Global Geopark must be remembered. In this sense, we, from the Museu de Paleontologia Plácido Cidade Nuvens of Universidade Regional do Cariri and the Araripe UNESCO Global Geopark, hereby stimulate a deep reflection about the importance of paleontology for Brazil, on what we consider favorable positions for the preservation of the fossiliferous heritage and on how we understand that paleontology can reduce inequalities, promote wealth, and contribute to the development of territories.

The cooperation signed between Prof. Dr. Diogenes de Almeida Campos (Departamento Nacional de Produção Mineral - DNPM - RJ) and the Paleontological Museum of Santana do Cariri, date from the beginning of the 1980s, in a close collaboration with Prof. Dr. Plácido Cidade Nuvens, the founder of the paleontological museum. In addition to the institutional guidelines of this cooperation, Diogenes made an invaluable contribution to highlight the Araripe Basin and the fossils from that region as one of the main *in situ* collections in the world (see Figueiredo & Kellner 2009, Bantim et al. 2020, Storari et al. 2021) capable of telling the history of Earth throughout the Cretaceous period with pterosaurs, dinosaurs (e.g. Kellner 1999), fossilized flowers, crustaceans (Pinheiro et al. 2014) and insects (Storari et al. 2021) in exemplary interaction processes and help to understand the biogeographic pattern that have influenced several groups (e.g. Parméra et al. 2019).

Diogenes de Almeida Campos, for his role in promoting the scientific and touristic destination of Cariri and the Araripe Plateau, has one of the favorite spaces among visitors at MPPCN-URCA named in his honor. For his outstanding contribution, Diogenes was honored several times, including new species from the Araripe Basin (Kellner 1987). The institutional and always ethical performance of

the DNPM researcher is a public and uncontested certificate of rectitude and care for the region's heritage, without ever using a ruse or subterfuge for the illegal removal of fossils. A very delicate theme for us nowadays, mostly because of the numerous processes of repatriation and search for fossils illegally removed from the beds of Santana Group.

We live in times of reckoning with the past, which imposes on us disappointments and regrettable episodes that we report below: the first deals with *Ubirajara jubatus* invalid name (Cretaceous Research 2021), which illustrates very clearly the importance and richness found in the Brazilian fossil heritage, as well as the imperialist, supremacist and unethical positions of some foreign institutions and researchers. This leads us to think about why the State Museum of Natural History Karlsruhe, Germany insists on denying the repatriation of the fossil to Brazil, even though it was taken in disagreement with Brazilian legislation in a clear act of disrespect for the civil and scientific society. Obviously, such a fossil is not just an object in a drawer, but an attraction to visitors of the exhibitions and a huge source of souvenirs seller, marketed using the fossil from Brazil as a brand of the museum. Thus, the fossil is, besides of being a unique scientific item, a force for the development and increment of the museological tourism and for the region.

Fortunately, in the specific case of this fossil (affectionately nicknamed "Bira"), the expressive manifestation of researchers of around the world and the Brazilian civil society to reject such an unethical behavior in disagreement with national laws have had a positive effect causing the reflection on the way researchers and institutions collect fossils outside their territories. The culmination of this discussion so far is the official withdrawal of the manuscript headed by Smith from the scientific journal in which it was published in 2020 and its repercussion in the scientific community (Ortega 2021). However, the "Bira" chapter is still open, being subject of a judicial process (1.15.002.000589/2020-08) that may still take many years to be solved, although the simplest solution is the return of the material to Brazil, up to now, a possibility denied by the German institution.

The second case that deserves reflection concerns the position defended by some researchers, such as Carvalho et al. (2021) that in a recent publication distort and manipulate concepts to defend that *ex situ* collections would be a desirable place to protect the paleontological heritage and to promote the territories from which those materials were extracted. Here is not the place to address themes of the judicial sphere that are not yet completely clarified; however, the propositions made by Carvalho et al. (2021), can be used as arguments to justify criminal attitudes like fossil trafficking, which still are dilapidating the Brazilian fossil heritage nowadays. This became worst when the authors use the UNESCO territory to supposedly support such an argument. UNESCO's Global Geoparks program is perhaps the most important strategy for territorial development on sustainable bases today, and its foundations are to educate, promote, empower, and make communities visible, especially those close to sites of geological, paleontological or cultural interest, with a typically bottom-up strategy. Thus, it has nothing to do with the ideas defended by Carvalho et al. (2021), in which the local cultural heritage can benefit from *ex situ* exhibitions, as in Europe for instance.

The Museu de Paleontologia Plácido Cidade Nuvens, the Araripe UNESCO Global Geopark and the Universidade Regional do Cariri reaffirm their commitment to defend the paleontological heritage, with the promotion of the Araripe Geopark territory, the respect for the traditional communities and with the UNESCO objectives for the sustainable development. In line with authors, managers, and institutions that defend the Brazilian cultural heritage, including the fossiliferous heritage, we strive

for a daily praxis of fighting for the fossils of Araripe, like our work, to remain in the Araripe region, fostering the development and contributing to the advancement of science.

To demonstrate our tireless efforts, we like to inform the AABC readers that among the various repatriation processes that we have participated and contributed with the Brazilian Public Ministry, we received in this October, 36 fossil spiders previously deposited in the Kansas University Museum of Natural History, among which the holotype of *Cretapalpus vittari* Downen and Selden, 2021. Special thanks should be done to the team at the Museum of Natural History at the University of Kansas who, upon verifying that the material had insufficient documentation and the technical expertise of the MPPCN to receive the material, promptly collaborated for the return of the fossils to Brazil in a respectful, ethical, and worthy attitude of an institution committed to the best practices in science. It is important to note that more and more authors choose deposit important specimens at the Museum in Santana do Cariri, as the dinosaur described by Sayão et al. (2020).

In this occasion, in which we celebrate the contributions of the professor Diogenes de Almeida Campos for an ethical and responsible national science, we should be inspired by his example, proliferating only good and ethical scientific practices, and forswearing bad examples. We must also understand our role as promoters of development and agents for the reduction of social inequalities, still so common in Brazil.

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