A reply to Martill - The Bearable Heaviness of Liability


Many people in Brazil are amazed by Martill’s feature1, a reply to our earlier letter2, an astonishment felt also in other South American countries3.

First of all, it is vital to correct two of Martill’s misquotes:

1. we are not proud of Brazilian laws regarding fossil collection, and
2. we do not think of the fossil trade as a “bad thing”. How can we be proud of our single “tree-lines” regulation from 19424, and the draft documents protecting Brazilian fossil heritage that have been sitting idle for more than fifteen years in the politicians’ offices in Brasilia5-6? No one stated that the Brazilian laws are ideal, and the lack of more comprehensive rules is affecting Brazilian palaeontologists more than anyone else.

On the second misquote: the opinions of people forming the directory of a non-profit private organization such as “Sociedade Brasileira de Paleontologia” is irrelevant in face of the current legislation, as is that of any other private party. In fact, no matter what the views of others are, Brazilian law considers (both to native Brazilians and to foreigners) the unauthorized collection of fossils to be illegal, as well as the trade of fossils coming from any unauthorized excavations and the unauthorized export of any fossils.

In the end of his text, Martill calls enlightened palaeontologists to lobby against draconian Brazilian laws regarding fossil collection. It is well that Martill realizes that the proper way to change legislation is to democratically lobby against them; however, the strange thing is that throughout the rest of his post he promotes a more unsophisticated solution: simple disrespect for the law. Well, this is something that cannot be endorsed! Scientists are free to choose where and how they will conduct their field research, but if you are going to work in a foreign place, you may be charged for something that cannot be endorsed! Scientists are free to choose where and how they will conduct their field research, but if you are going to work in a foreign place, you may be charged for something that cannot be endorsed!

Although Martill seems to praise corruption (in the end of his second paragraph), this is perhaps (besides poor education) the worst problem in Brazilian society. But we should not be alarmed! Martill has the answer to Brazilian corruption and its drawbacks in his fourth paragraph. Because Brazil will never be able to abolish criminal acts (which country will?) such as corruption, just don’t worry about them. It’s a very simple psychological solution: if you can accept it, there is no problem!

Talking about corruption, according to the 2011 index of Transparency International7 Brazil is similar to various other important fossil-bearing/exporting countries such as Morocco, Mongolia, China, and Argentina. Argentina provides a very good comparison, sharing cultural bonds, economics and IDH indices with Brazil. Yet, they have almost no fossil trade, perhaps because their laws8 are more detailed (and draconian) than those in Brazil. One of the most important drawbacks of the Brazilian legislation is that it does not set penalties for illegal fossil trade, or do this in an indirect manner9-10. Hence, Martill may have “his” fossils confiscated, but will probably never be fined or imprisoned (but see11). We hope he does not see that as an invitation to continue his fossil “digging” in Brazil.

Martill also suggests that fossil trade is good for Brazil and for Brazilian palaeontology. Instead, the Brazilian perspective is that taking fossils out of the country is depleting its scientific resources. Brazil has a growing, but still minor scientific community. For palaeontology, keeping the fossils in the country is a way of promoting scientific opportunities. International partnerships are most welcome, but simply allowing fossils to leave Brazil to be studied by foreign scientists mostly helps science in the other countries. It is fine for scientists to have a more international view of scientific development, but Brazilian authorities have to first think about the development of the country (also in scientific and cultural terms), and their laws will reflect that. States are historically above science exactly because they take other aspects into consideration, the cultural background of their people among them. A
Martill indeed raises some important questions, such as those involving very common Brazilian fossils such as the fish *Dastilbe* (Cretaceous of the Araripe Basin) or *Psaronius* petrified wood (Permian of the Pamaiba Basin), the scientific importance of which are minimalized because of their astounding abundance. Yet, his solution seems simply to aggrandize the "current" situation, in which the local people that actually collect fossils are paid pennies, the middlemen take much of the profit, most of the fossils end up on private hands, and the country makes nothing on taxes because the material goes out illegally. Indeed, that process was well explained by Martill, and he surely knows the scheme much better than many of us. Yet, there should be better ways to tackle that problem, in which both the country and the local fossil collectors can profit from the trade on a legal basis. This would require both decently regulated and qualified personnel to identify and handle the fossil material properly. This represents a huge enterprise in any large country, not to mention in the locally corrupt areas of Brazil! In this sense, at present it is appropriate that existing Brazilian laws are mainly designed to protect all kinds of fossils, not only the very rare.

Martill identifies another problem: the loss of fossils due to erosion/weathering or human activities. Again, his solution is to ignore the slow moving authorities, who are not able to save their own treasures, and let illegal rampage take over. It would be enlightening to know his opinion on the recent rescue of a UK fossil left to rot by the authorities on the shores of the Isle of Skye12-13, and its treasures, and let illegal rampage take over. It would be enlightening to know his opinion on the recent rescue of a UK fossil left to rot by the authorities on the shores of the Isle of Skye12-13, and its treasures, and let illegal rampage take over. It would be enlightening to know his opinion on the recent rescue of a UK fossil left to rot by the authorities on the shores of the Isle of Skye12-13, and its treasures, and let illegal rampage take over. 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