Dear all,

I am already tired of this whole discussion, which verges on the ridiculous. And will try not answering it any more. I hope members of SACC understand the difference between facts and speculation (even when it is made by scientists).

Vitor believes that the change of Maurício's hypothesis, from advocating a plain dark gray specimen to their current belief in a light gray barred holotype is a sign of maturity. That would be definitely truth if they have also admitted the automatic implications of that change to the identification of the bird. After all, the tone of gray associated with rump/flanks pattern is exactly the diagnosis between *petrophilus* and *notorius*... (See Maurício 2005, Raposo et al. 2006 and Whitney et al 2010). Essentially, they continue denying that the barred light gray holotype is the barred light gray species...

His message doesn't bring novelties. Whitney's team will always find something to speculate on, confusing the readers and obliviating the facts. This is the case of the "great novelty", the junior synonym *S. undulatus*, properly addressed in my last message, which has absolutely no direct implication on the identification of the holotype. This is also the case of Sick's informal diary mention that seems to be now, in Vitor's opinion, much more important than Ménétriés' own diary... I will come back to this subject later.

This small message goes to the center of the issue. It explains that we have two options on the case. We can accept the facts (and admit Ménétriés labeled the bird or simply remembered it when he was describing it with his diary in hands) or stay lost on endless speculations. For that I'll, very respectfully, try to make Vitor understand, definitely, the difference between facts and speculations. It is not that difficult!

Guilherme, on his last message, tried to explain Vitor with some theoretical foundations. Below I present some very didactic (please, give spetial attention to fact number 8) examples linked to our case:

1 – FACT: The holotype is light gray (something between patterns 84 and 85 of Smithe, 1974), compatible with the topotypes, but not with *S. notorius*.

Speculation: Whitney's hypothesis depends on discrediting this fact. So, he and collaborators attribute the light color of the holotype to fading process. Upon such speculation we all could write more than 100 pages. Begining by the Itatiaia specimens (an already known contact area between *notorius* and *petrophilus*), which Vitor believes are faded, but they must simply be, in fact, lighter than typical *notorius* since always. How is it possible to know that they are faded? I think they were always this color. Let's discuss it? Another line of thought equally interesting (and also speculative) would be to imagine if a light gray (whitish) specimen would become darker with time. In this case, the holotype could be, originally, even lighter. Do you want to speculate more? Ok, flank feathers, being brown, could have faded faster than gray parts of the body, because they are colored with brown melanin, much more susceptible to fading than the black (gray) melanin. How many interesting points of endless discussion we can find here... Let's list articles that discuss the matter, send more several messages or simply admit that everything is mere speculation?

2 – FACT: feathers still intact on the holotype's rump and flanks, present the expected color patterns to São João del Rei, namely, brown and barred in black.

Speculation: The specimen is interpreted by Maurício et al. as being an aberrant adult from the dark gray species (*S. notorius*) that retained juvenile characters. We could study all *notorius*

populations and try to find specimens with such a pattern. Maurício et al (2010) found 25% of adult males coincident with this pattern among *notorius* from everyplace except Serra dos Órgãos the chosen alternative type locality... But those 25% were not light gray specimens. We and Maurício et al (2010) found 100% of compatibility among the topotypes... We can discuss endlessly if the holotype could be such a subadult, but I do not consider this productive anymore, as justified in my last e-mail.

3 – FACT: Based on his diary, labels and memory Ménétriés stated that he collected the specimen at São João del Rei. Ménétriés even said, in his diary and original description, that the specimen were an *Myothera* that hopped on the ground and performed short flights between bushes, an typical behavior of the genus.

Speculation: Based on his own interpretation of the words and description of Ménétriés, Vitor infers that the author had another bird in hand when writing the diaries. Vitor's certainty on this point, besides being mistaken, it's clearly rhetoric. He has tried to convince us that Ménétriés would never be able to describe a *Scytalopus* as a "long tailed" bird, for instance. That opinion contrasts with his own beliefs that Ménétriés erred in everything else, doesn't it? But, if you see the picture of the holotype appended to this message, it will be easy to understand that this *Scytalopus* could easily be described as a long tailed *Myiothera*. Along how many pages can we discuss this?? The description of Ménétriés diary (bill, habitat, behaviour, legs, forest etc.) is perfectly compatible with *S. petrophilus*. Why do not believe the facts? Why Vitor believes Ménétriés, a "bad zoologist, accordingly his own words, should describe the specimen of Scytalopus he collected in São João del Rei with the same words Vitor would describe it today, i.e. 180 years old later? It is definitely a very comfortable belief and a quite clear case of induction.

4 – FACT: the type locality pointed by Ménétriés, São João del Rei, particularly, the forests around the mentioned cave, presents one *Scytalopus* (*Scytalopus petrophilus*) population, compatible with the holotype.

Speculation: This would be, probably, another fantastic coincidence, because accordingly Whitney's hypothesis Ménétriés didn't collect the holotype there... Lucky Ménétriés, he predicted the locality and the correct plumage color (whitish gray) of the bird people would find there 180 years later.

5 – FACT: The original description of the chest and throat: whitish gray in the midle!

Speculation: Whitney's hypothesis depends on discredit such a simple description. Accordingly their speculative reasoning, Ménétriés has analyzed the specimen laterally and ended deluded by the mysterious silvery reflex (Maurício et al. 2010, Whitney and Vitor in their messages).

6 – FACT: High flank feathers are totally destroyed, thus making difficult the recovery of the original pattern.

Speculation: This is now the central point in all of Vitor's rhetoric. The flank feathers, that do not exist, supposedly would strengthen his hypothesis. One more time (Whitney had already tried this) feathers that do not exist are said to be more important then feathers that exist. He speculates, based on a series of pinpointed facts on the literature, that the specimen would've been destroyed only after 1982 and that the feathers would be dark gray, even taking into consideration that NONE author (Ménétriés, Sick or anyone) has described specifically these feathers or informed that they were intact. About the motives that took Sick to say that the preparation were perfect (and not the "perfect specimen" as in Vitor's last e-mail), or about which would be the perfect translation from gothic German (if Frank or Vitor's specialists on Sick's handwritings), we could discuss all life long.

But why should we lose time with this? Someone really desires that? Let's try... which was Sick's concept of a perfect prepared skin? The appended photo (where the holotype has its back to the light source) shows a specimen very well prepared, in my opinion. Don't you think so? We can also discuss what Sick had in mind on the moment. Was he thinking that the specimen was good, considering the fact that the specimen were 150 y.o. on the occasion? Why didn't he pointed out that the specimen were faded? Didn't he noticed that? Did the specimen get faded after Sick's visit? Would he saw the unmounted specimen? How could the unmounted specimen being in such a good condition? Did he pay attention to flank feathers or keep focused on the upper chest and throat? All pure speculation, required only for those who want substantiate their hypothesis with speculative assumptions. The fact Sick rendered the specimen preparation as perfect does not imply the flank was originaly dark gray. Vitor's certainty in this point is difficult to understand as something different from a rhetorical stratagem. The only way to know the original color of the high flanks of holotype is through topotypes morphology. The alternative is this endless discussion. Let's avoid it.

7 – FACT: there's no indication, on his diaries, of another *Scytalopus* specimen collected by Ménétriés on Serra dos Órgãos.

Speculation: Whitney's hypothesis also depends on their belief that Ménétriés could have collected one specimen in Rio de Janeiro, that also missed the label and, by mere chance, was chosen by Ménetriés to substitute the specimen that he remembered been collected in São João del Rei (and wrote in his diary!), but wasn't a *Scytalopus*! How many messages more we must write to show how speculative it is?

8 – FACT: The ICZN (1999) states as referential (**THE FACTS ABOVE!**) to solve such a case: "[articles] 76A.1.1. **data accompanying the original material**; 76A.1.2. **collector's notes, itineraries, or personal communications**; 76A.1.3. **the original description of the taxon**; 76A.1.4. as a last resort, and without prejudice to other clarification, localities within the known range of the taxon or from which specimens referred to the taxon had been taken".

Speculation: It is not possible to speculate on the CODE, but apparently it is very easy to forget it when it suits you!!

All the best,

Marcos

FIGURE: Three specimens from the same species, *Scytalopus speluncae* and the holotype of *S. notorius*, the dark gray species. 1 - Holotype *S. speluncae*, 2 - topotype (São João del Rei, in the midle); 3 - another specimen from the species group speluncae (*S. diamantinensis*); 4 – holotype of *S. notorious*. In the picture it is possible to notice that: A – the holotype of *S. speluncae* is well prepared, although damaged in the belly, and that it holds a proportionally long tail, perfectly compatible with Ménétriés' diary; B – it is "foxed" but not necessarily faded, given the fact that the gray tone is the same of the topotypes (following Smithe, 1974 catalogue color guide) and the description by Ménétriés (whitish gray); C – all four specimens are with exactly the same backgrounds.

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