Reviewer's report

Title: Large serological survey showing cocirculation of Ebola and Marburg viruses in Gabonese bat populations, and a high seroprevalence of both viruses in Rousettus aegyptiacus

Version: 3 Date: 27 May 2009

Reviewer: A. Townsend Peterson

Reviewer's report:

I appreciate the revisions that the authors made, although they have not made extensive changes. Nonetheless, the paper is improved. Some comments:

1. Still a lot of editing to do. For example, BEBOV is not italicized in the first paragraph of the Background, problem with periods at the bottom of P4, "Odzlala" national park on P5, etc.

2. Need to define the %s that are presented at the bottom of P8 ... what are they? Ideally, abundances in terms of individuals per net hour would be presented, so that we can have ideas of relative abundances of each species at each site.

3. Is a correction for multiple comparisons necessary for the 3rd paragraph of the Results? Perhaps so.

OK, now the two important points ...

1. I insist that the sequence data MUST BE PRESENTED. The authors say that they added these data to the Discussion (not sure why there!), but I cannot find any substantial mention there. The sequence data are IMPORTANT, and should be an integral part of this manuscript. They need to be presented in the RESULTS, along with sequence-level comparisons with reference sequences (i.e., percent sequence divergences, etc.), and they MUST be deposited in GenBank!

2. I think that the authors need to be clear about what happened regarding identification of the microchiroptera. My interpretation of what information they have provided is that they did not preserve voucher specimens (although it is EASY to inject them with formol and dump into a bucket!), and that they did not have sufficient expertise with them in the field to identify the species involved. This situation is not acceptable ... it is simply not true that the only way to ID them is via genetic analyses ... most of the species involved can be ID'd EASILY by a specialist. If vouchers are preserved, this is a non-issue, and the material then results in a permanent contribution to African mammalogy, as well as attesting to the actual IDs of the hosts examined.

Think about it ... for a while, everyone was sure that civets were the hosts of
SARS. Had all mammal specimens in subsequent studies been ID’d just to suborder (as in this ms), WHAT WOULD HAVE HAPPENED when they realized that civets were just a red herring, and that the real host was Rhinolophus bats?????? Lack of vouchering, and consequent lack of proper IDs, is simply unconscionable in a study of this importance.

OK, so I am recommending publication of this paper anyway, because I think that the information that is presented is useful and important. I do think that the authors should be more forthright about what they did and did not do in this regard: "Microchiroptera were not identified to species for lack of expertise with their identification in the field and for lack of preservation of voucher specimens."

If the authors are interested in vouchering their future material post-acceptance of this paper, I am perfectly comfortable with my identity being revealed to them, to provide counsel and support (if desired) on this issue. It is an important issue.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.