

Review Form 1.6

Journal Name:	Annual Research & Review in Biology
Manuscript Number:	Ms_ARRB_86204
Title of the Manuscript:	Atmospheric Pressure Change Measurement: An Observational Case Study
Type of the Article	Short Research Article

General guideline for Peer Review process:

This journal’s peer review policy states that **NO** manuscript should be rejected only on the basis of ‘**lack of Novelty**’, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	<p>Analyzing the document, although it is clear that it is an observational case study, there seem to be no connections between the introduction, the objective and the results obtained and with a lag in the discussion. In the introduction he talks about climate change and its effects on the elements of the climate system, however he never relates it to the objective of the research which is to determine the increase in atmospheric pressure.</p> <p>In the part of material and methods it is not perfectly defined as the quantification of the volumes of liquids and air was done if the bottles were hermetic from their origin. He mentions that they used Archimedes' principle but do not specify how they determined the volume of liquid and air in each bottle before and after the study period. In the results they manifest an average volume of variation for both liquids and air, it is not clear how they made these determinations and conclude that the air changes are double those of liquids. However, it is not quantified how much atmospheric pressure increased, which was the objective of the study. It seems to me that the interesting thing was to be able to determine the change in atmospheric pressure but not the volumes. If these volume changes are the basis for estimating atmospheric pressure changes, they should work with a mathematical model that allows atmospheric pressure variation to be calculated. The discussion addresses a different topic where it is about relating the atmospheric pressure change (which is not quantified) with the metabolic activity of living beings and the biochemical reactions of the body, however the mechanisms are not explained nor are the proposals proposed what would be the changes in metabolism and chemical reactions. That is, everything is left to I believe, I think but nothing concrete is demonstrated.</p> <p>I personally believe that the document should be rewritten, giving it coherence between the introduction, the results, the discussion and the conclusion. Also be very specific in the methodology used and how the dependent and independent variables would be quantified. To be able to determine first how much the atmospheric pressure changes, how much and in what modifies the chemical reactions and metabolism of the body and that these modifications would imply. Finally as a suggestion why use bottles sealed with different liquids if currently in the meteorological databases the atmospheric pressures are recorded and can be compared from one year to another or from times of many years ago, which is the justification for using the methodology of hermetic bottles if there are much more accurate devices to measure changes in atmospheric pressure)</p>	<p>Dear reviewer Thank you for your busy time to review our paper. We are totally agreeing with your queries to our research. We corrected and added in Methods, Results and Discussion sections of our paper. Thank you again for your important questions. Thank you for your consideration of our paper.</p>
<u>Minor</u> REVISION comments	<p>There are some spelling and grammar mistakes.</p>	
<u>Optional/General</u> comments		

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<u>(If yes, Kindly please write down the ethical issues here in details)</u>	