



SDI Review Form 1.5

PART A:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	MS: 2012/IJBcRR/1562
Title of the Manuscript:	<i>Phytochemical screening and biological activities of Hypotrigena squamuligera raw honey.</i>
Manuscript received on (Date)	
Review comment submitted (Date)	



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PART B: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part and write here 'Corrected'/ if not agreed, give suitable justifications)
General comment:	The antibacterial and antioxidant activity of honey predominantly from <i>Apis mellifera</i> has been well described, however little is known regarding this activity in other honey types such as that from African bee species such as <i>Hypotrigona squamuligera</i> . This manuscript addresses this lack of knowledge.	
Specific comments:	Specific comments are related to the number of experiments undertaken, quantification and lack of statistical analysis.	
Title and abstract	No comment	
Introduction	As the uniqueness of this study is based on <i>Hypotrigona squamuligera</i> more information about this bee is required. Furthermore how does this bee differ from <i>Apis mellifera</i> regarding distribution, hives, production of honey etc.	
Review of literature (Heading may differ in the case of review paper)	-	
Materials & methods (Heading may differ in the case of review paper)	<u>Collection of honey:</u> It is not stated how many samples were collected. <u>Phytochemical screening:</u> The measurement of concentrations of each compound using a standard curve developed with a compound with known concentration would be of greater value. E.g. determining the flavonoid concentration using quercetin as a control. The advantage of this is that the flavonoid content of <i>Hypotrigona squamuligera</i> can be compared to honey from other sources. This also applies to alkaloid, tannin, saponin, terpenoid, cardiac glycosides and anthraquinone content. It is not indicated if haemolysis assay was done using human erythrocytes. If human erythrocytes are used ethical clearance is required.	



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	<u>Anti-oxidant activity:</u> One assay to determine antioxidant activity is not sufficient. Standard recommendations are that to confirm antioxidant activity more than one assay must be used. See Schlesier K <i>et al.</i> (2002) Assessment of antioxidant activity by using different <i>in vitro</i> methods published in Free Radical Research 36(2): 177-187. Not indicated how many independent experiments were undertaken. <u>Antimicrobial activity:</u> Not indicated how many independent experiments were undertaken. <u>Statistical analysis:</u> Data has not been subjected to statistical analysis	
Results & discussion (Heading may differ in the case of review paper)	<u>Phytochemical screening:</u> See comments related to quantification <u>Determination of antioxidant activity</u> See comments on the number of independent experiments undertaken. Data expressed as μM or IC_{50} makes it possible to compare findings with other studies. <u>Antibacterial activity of methanolic extracts</u> Fig 2: Not necessary It is not possible to compare the results of 100% extract of <i>Hypotrigna squamuligera</i> to that of <i>Apis mellifera</i> if the data has not been subjected to statistical analysis.	
Conclusion	Indications are that this honey type does have antibacterial and antioxidant activity. A major limitation is that not enough experimental repeats have been undertaken/reported and data has not been subjected to statistical analysis.	
References	Several grammatical errors, spelling (ref 7), italics for journal title (Refs 7, 9 10, 11, 14-22).	

Note: Anonymous Reviewer