



SDI Review Form 1.6

Journal Name:	Annual Research & Review in Biology
Manuscript Number:	Ms_ARRB_38879
Title of the Manuscript:	Cytochrome b diversity and phylogeny of six Egyptian sheep breeds
Type of the Article	Original Research Article

General guideline for Peer Review process:

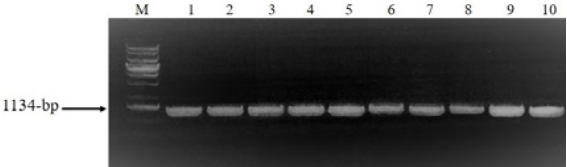
This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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)
Compulsory REVISION comments	<p>1- You must describe the geographic areas in which the animals are raised. The samples were taken in the same region or in different regions. Are the animals related? The choice of animals sampled must be explained. The characteristics of the selected regions must be described.</p> <p>2- A figure of the agarose gel showing the amplified band in some animals should be added to the manuscript.</p> <p>3- How was the alignment of the sequences done? Did you use a sequence in the databanks (like NCBI) as a reference? You have to give the reference sequence.</p>	<p>1- All the requested information is cited in the of Materials and Methods section under the subtitle</p> <p>2.2 Breeds and blood samples:</p> <p>The six Egyptian sheep breeds tested in this study are considered from the fat-tailed, coarse-wool group. Barki breed is the smallest one of all other Egyptian sheep breeds. It is reared by Bedouin in the North-West coastal area of Egypt, its animals are dark brown or black. Ossimi animals with a white coat and reddish brown head, probably originated in Giza. The breed inhabits in the Middle Egypt; Nile valley and South Delta area. The large brown Rahmani breed mainly kept in the North and Middle Delta region, shows particular adaptation to hot and humid climate. Fallahi breed habitat is the Middle of Nile Delta around the Nubaria and Edfina in Ismaelia governorate. Saidi breed is a long fat tailed breed, it founds mostly in its native area, around Beni-Adi in the Asyut province. Sohagi breed inhabits in the Southern part of Upper Egypt, with a distribution along the Nile Valley.</p> <p>The blood samples were collected by veterinarians during routine blood sampling on commercial farm animals. In order to maximize sample representativeness and minimize genetic relationship among individuals, different farms were visited for each breed, and individuals were chosen according to their genealogy. Blood samples were collected from 111 sheep animals belonging to six breeds reared in Egypt; 19 (Barki), 19 (Rahmani), 20 (Ossimi), 14 (Saidi), 22 (Sohagi) and 17 (Fallahi).</p> <p>2- The following figure as Fig. 1 is cited</p>  <p>Fig. 1: The amplified fragment of sheep <i>Cyt-b</i> gene M: 1-kb Molecular marker 1-10: 1134-bp amplified fragment of <i>Cy-b</i> gene in different Egyptian sheep breeds</p> <p>3- The accession numbers of the reference sequences were added in text and in the legend of Fig. 4 as follows:</p> <p>The sequences of 111 analyzed samples were aligned with references sequences of different haplogroups and the Neighbor-Joining tree was constructed using Mega 5.0 software (Fig. 4). Reference sequences for different haplogroups were published in GenBank with the accession numbers: A1 (KF977847), A2 (KF938325), B1 (EF490452), B2 (KF938335), C1 (KF938320), C2 (HM236178), D1 (HM236180), D2 (HM236181), E1 (HM236182) and E2 (HM236183).</p>



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Minor REVISION comments	<p>4- The acronyms used in Table 1 must be defined before.</p> <p>5- You can't find a part dedicated to conclusions in your manuscript. A paragraph should be added showing the contribution of this work to scientific research in your area of interest and possible prospects.</p>	<p>4- The acronyms are defined already under the table 1 as follows: Bar: Barki, Rah: Rahmani, Oss: Ossimi, Sai: Saidi, Soh: Sohagi, Fal: Fallahi</p> <p>5- The following paragraph is added as a conclusion after the Results and Discussion section:</p> <p>Conclusion: This study declared the important role of mtDNA <i>Cyt-b</i> region in the genetic diversity and phylogenetic studies in sheep. These genetic studies help in the genetic resources conservation of sheep breeds to avoid the disappearance of the local breeds where the threatening of biodiversity are increasing due to progressively substitution of less productive, locally adapted, native breeds with highly productive cosmopolitan breeds. In these conditions it is more strategically important than ever to preserve as much the farm animal diversity as possible, to ensure a prompt and proper response to the needs of future generations.</p>
Optional/General comments	Overall, the scientific approach is acceptable.	