How to write a literature review

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What is a literature review?
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A literature review *discusses* published information in a particular subject area, sometimes even restricted to a certain time period.

It can be just a simple summary of the sources, but it usually has an organizational pattern and combines both summary and synthesis.
The number of cheetahs (*Acinonyx jubatus*) in the wild are diminishing rapidly which is mainly a consequence of habitat loss and a declining prey base [17]. Thus, captive breeding of cheetahs might become increasingly important as an insurance measure, facilitating re-introductions in the wild once conditions for cheetahs have improved. However, whereas reproductive performance of free-ranging cheetahs is high [16,29], cheetahs in captivity reproduce rather poorly [18,32]. ...

*Ludwig et al. 2013 Gen Comp Endo 180: 15–23*
Steroid hormones play a vital role in female reproductive physiology and behaviour, most notably in regulating and maintaining cyclicity, secondary sexual development, behavioural oestrus, pregnancy, foetal development and parturition (Bazer et al. 1998). In this regard, both oestrogen and progestagen changes have been used to successfully monitor key reproductive events (Carroll et al. 1990) and often allow to explain the mechanisms underlying female reproductive strategies (Brockman et al. 1995). . .

Scheun et al. 2015 J Comp Physiol B 186: 255–264
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Scheun et al. 2015 J Comp Physiol B 186: 255–264
Literature review vs Research paper

The main focus of an academic research paper is to develop a new argument, and a research paper will contain a literature review as one of its parts.

The focus of a literature review, however, is to summarize and synthesize the arguments and ideas of others without adding new contributions.
What’s it good for?

- Literature reviews provide you with a handy guide to a particular topic.
- For professionals, they are useful reports that keep them up to date with what is current in the field.
- For scholars, the depth and breadth of the literature review emphasizes the credibility of the writer in his or her field.
Who writes these things, anyway?

- Literature reviews are written occasionally in the humanities, but mostly in the sciences and social sciences; were they constitute a section of the paper.

- Sometimes a literature review is written as a paper in itself.
Find a focus
Find a focus

Beware! Stressed or not she will snap at you!
Find a focus

Assessment of adrenocortical function
Assessment of adrenocortical function in Nile crocodiles
Assessment of adrenocortical function in captive Nile crocodiles
Non-invasive assessment of adrenocortical function in captive Nile crocodiles
Non-invasive assessment of adrenocortical function in captive Nile crocodiles and its relation to housing conditions and stress related behaviours
Find a focus

Non-invasive assessment of adrenocortical function in captive Nile crocodiles and its relation to housing conditions and stress related behaviours

1.1 LITERATURE REVIEW
1.1.1 Crocodiles
1.1.2 The Nile crocodile
1.1.3 Crocodile farming
1.1.4 Stress in crocodilians
1.1.5 Stress measurement in crocodilians
1.1.6 Non-invasive approach
Consider organization

*Introduction:* Gives a quick idea of the topic of the literature review, such as the central theme or organizational pattern.

*Body:* Contains your discussion of sources

*Conclusions/Recommendations:* Discuss what you have drawn from reviewing literature so far.
Sources
Sources

Migration of mud banks and changing coastline in French Guiana
JM Froidefond, M Pujos, X Andre - Marine Geology, 1988 - Elsevier
... d’Hydraulique de France LCHF, 1976; Laboratoire Central d’Hydraulique de France (LCHF)

Serpentinization, fluids and life: comparing carbon and sulfur cycles in modern and ancient environments
E Schwarzenbach - 2011 - e-collection.library.ethz.ch
... The Lost City Hydrothermal Field (LCHF), located along the Mid-Atlantic Ridge,

Abiogenic hydrocarbon production at Lost City hydrothermal field
G Proskurowski, MD Lilley, JS Seewald... - Science, 2008 - sciencemag.org
... Here, we show that low-molecular-weight hydrocarbons in high-pH vent fluids from the ultramafic-hosted Lost City Hydrothermal Field (LCHF). ...

Food Fight! The Swedish Low-Carb/High Fat (LCHF) movement and the turning of science popularisation against the scientists
A Gunnarsson, M Elam - Science as Culture, 2012 - Taylor & Francis
Science popularisation is widely recognised as ...
Sources

Google about 1.3 million hits (2015)
   8.3 million hits (2017)

Google Scholar ~1.480 hits (2015)
   ~2.100 hits (2017)

Thomas Reuters Web of Science 41 hits (2015)
   43 hits (2017)
Keep in mind

Use quotes sparingly and precisely

Always summarize and synthesize

within each paragraph as well as
throughout the review
Keep in mind

Use quotes sparingly and precisely
Always summarize and synthesize
Keep your own voice

While the literature review presents others’ ideas, the writers voice should remain front and center.
Keep in mind

Use quotes sparingly and precisely

Always summarize and synthesize

Keep your own voice

Be cautious when paraphrasing

When paraphrasing a source that is not your own, be sure to represent the author’s information or opinions accurately and in your own words.
Keep in mind

Use quotes sparingly and precisely
Always summarize and synthesize
Keep your own voice
Be cautious when paraphrasing
Revise, revise, revise
Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.

Sir Winston Churchill, Speech in November 1942

Thank you