

245W: The role of citations and citation styleⁱ

Citations function within literature reviews and your term paper in two slightly different ways. First, authors use citations to position their insights and opinions within the larger body of pre-existing research. By citing relevant research, you are acknowledging the contributions of other researchers before you, and at the same time showing that your approach or point of view is fresh and has not been voiced already. Next, authors use citations to build arguments. Each conclusion that you reach must be backed by evidence, and the major evidence for review articles are the consistencies and inconsistencies among your references. In order to use citations successfully in both ways, you will first have to learn to be a good reader. Paying close attention to how the authors of articles you read use citations will prepare you for successful citation in your own writing. We have already discussed how primary research articles are persuasive [here](#).

For practice, let's take a look at a recent paper in **Evolution** on a reef fish possibly going through speciation (Barreto & McCartney 2008). To make this a little shorter, I've taken part of their abstract that corresponds to the Introduction section and inserted citations from their main text into it:

Recent theoretical models (Turner and Burrows 1995; Kondrashov and Shpak 1998; Dieckmann and Doebelli 1999) and empirical studies of fruit flies (Coyne and Orr 1989, 1997), birds (Grant and Grant 1997), and fish (Mendelson 2003) indicate that assortative mating may initiate speciation when physical barriers to gene flow are absent, and before postzygotic barriers evolve (Price and Bouvier 2002; Bolnick and Near 2005). These are important results for marine animals like coral reef fish, where ocean currents can carry planktonic larvae over broad ranges, interconnecting populations and slowing genetic divergence (Palumbi 1994; but see Taylor and Hellberg 2004). The Caribbean hamlets (genus *Hypoplectrus*) are a flock of reef fish morphospecies with highly distinct color pattern that mate like with like (Fischer 1980a; Domeier 1994), but show little mitochondrial or microsatellite DNA differentiation (McCartney et al. 2003).

You can see that the authors are aligning themselves with studies that have asked similar questions in different organisms or systems. They are also citing sources that support why their system is suitable to test their hypotheses. They are building up towards a thesis statement. You will have to use citations in a similar way in your term paper.

Now, let's take a look at part of their Discussion, where the authors compare their results to similar results of others, and support the reasoning behind their conclusions by citing other sources:

Ongoing hybridization provides an alternative hypothesis for the genomic similarity of hamlets. Although mixed matings between *H. gemma* and *H. unicolor* have never been documented, indirect gene exchange between them might still occur, as both are known to mate with *H. puella* (Fischer 1980a,

this study, and Puebla et al. 2007). Our genetic findings may be consistent with introgression in large populations, perhaps realized as indirect gene exchange in a “multispecies” complex, as Fisher (1980a) envisioned. Traditional island models suggest that one migrant per generation is sufficient to slow genetic differentiation between subpopulations (Slatkin 1987). If mixed matings, observed at a frequency of 1–3.5% in this study and others (Fischer 1980a, Puebla et al. 2007), produce hybrid progeny that are at least occasionally successful in backcrossing with one or both parental forms, gene flow between morphospecies may easily exceed this threshold.

You will be using citations to support your term paper’s conclusions, much like these authors. As you can see, citations have an important function in scientific writing in general, and it is necessary to learn how to use citations effectively for any career in science.

Most journals have a previously agreed upon citation style. This is to streamline all the information that citations contain within a limited number of pages, and also to keep the citations, particularly those in the text, unobtrusive for the readers. If you want to know what a particular journal’s preferred style is, the easiest way to find out is by accessing its author or submission guidelines page for potential contributors (authors). We are following the journal **Evolution**’s style in this course and the guidelines can be found [here](#) (Blackwell Publishing 2006). I’ve borrowed the relevant citation information below:

In-text citations: References to papers by one or two authors in the text should be in full, e.g. (Able and Charles 1986) (*notice that you use last name only and publication year, with no comma in between*). If the number of authors exceeds two, they should always be abbreviated: (Frank et al. 1986) (*notice that et al. is not italicized*).

Literature Cited: Should be double-spaced. References should be listed in alphabetical order at the end of your manuscript. Examples of reference style are given below:

(journal article – journal names should be abbreviated according to BIOSIS, more about this below)

Michaels, D. R., Jr., and V. Smirnov. 1999. Postglacial sea levels on the western Canadian continental shelf: revisiting Cope’s rule. *Marine Geol.* 125(Suppl.):1654-1669.

(book)

Carlson, L. D., and M. Schmidt, eds. 1999. *Global climatic change in the new millennium*. 2nd ed. Vol. 1. The coming deluge. Oxford Univ. Press, Oxford, U.K.

[BIOSIS Serial Sources](#) is a hard (not electronic) publication that Thomson Scientific (publisher of BIOSIS Previews) puts out each year. In their own words, BIOSIS Serial Sources “is an alphabetical listing by serial title of the 5,200 current life science titles

indexed” (The Thomson Corporation 2008). The abbreviations they use are actually standard abbreviation as determined by ISSN (International Standard Serial Number), an international network of centers that issue “standardized international code which allows the identification of any serial publication” (ISSN International Centre 2006). Several other database services use the same standardized abbreviations, including Cambridge Scientific Abstracts (ProQuest 2008) which lists their indexed journals [here](#), so you don’t have to find BIOSIS Serial Sources in the library. I also found [another webpage](#) that lists the same abbreviations.

References

Barreto, F. S., and M. A. McCartney. 2008. Extraordinary AFLP fingerprint similarity despite strong assortative mating between reef fish color morphospecies. *Evolution* 62(1):226–233.

Blackwell Publishing. 2006. Evolution author guidelines. Available at www.blackwellpublishing.com/submit.asp?ref=0014-3820&site=1. Accessed February 16, 2008.

ISSN International Centre. 2006. Available at www.issn.org. Accessed February 16, 2008.

ProQuest. 2008. Cambridge Scientific Abstracts serials source list for biological sciences. Available at md2.csa.com/ids70/serials_source_list.php?db=biolclust-set-c. Accessed February 16, 2008.

The Thomson Corporation. 2008. BIOSIS Serial Sources. Available at www.thomson.com/content/scientific/brand_overviews/bss. Accessed February 16, 2008.

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