Moving from Wikipedia to peer-reviewed scholarship: a guide for A Level Students

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Google Scholar and Google Books are a good starting point for A Level geographers to begin searching for academic research

This guide is intended for A Level geography students

At university, you will become more familiar with using academic databases to search for academic literature

What is a journal?

A journal is a scholarly publication typically containing articles written by researchers, professors and other experts (*Routes* is also a journal but a bit of an exception as it is written by students!)

Journals focus on a specific discipline or field of study. Unlike newspapers and magazines, journals are intended for an academic or technical audience, not general readers.

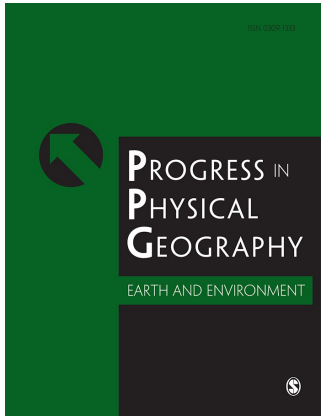
Journals are published on a regular basis (monthly, quarterly, etc.) and are sequentially numbered.

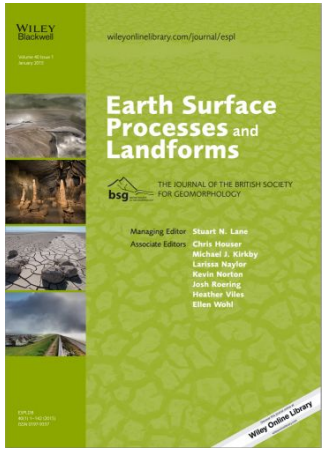
Each copy is an **issue**; a set of issues makes a **volume** (usually each year is a separate volume). Like newspapers and magazines, journals are also called periodicals or serials.

Source: https://www.uvic.ca/library/research/tips/journal/index.php

Some well-known human geography journals!

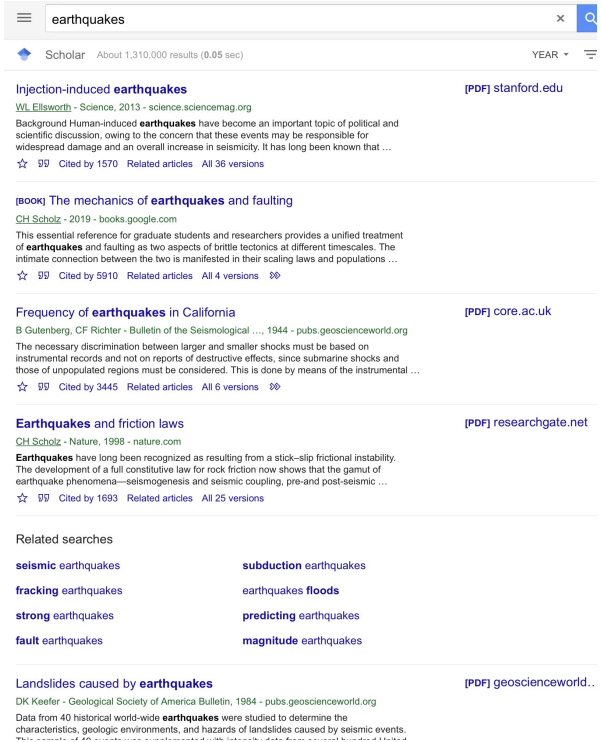
Image credit: https://eternalexploration.wordpress.com/2013/09/01/using-geography-journals-a-list-of-places-to-start/





Some journals where physical geographers publish their work

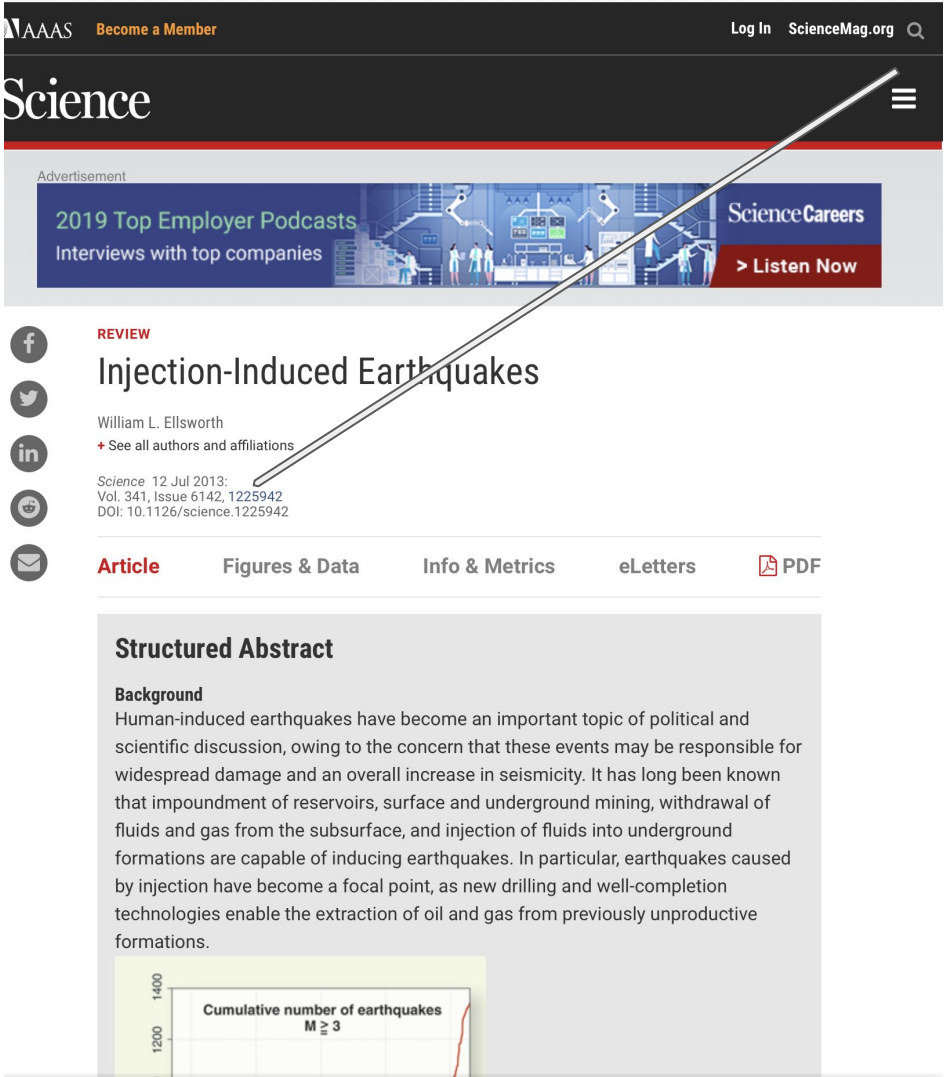
How to find journal articles? Go to https://scholar.google.com



I've put the term *earthquakes* into Google Scholar. It's brought up a list of research articles (1.3 million in total!)

I'm going to select the first article because I know it's from a reputable scientific journal called *Science. It's also quite new research.*

I could read the whole article by clicking on the pdf which is often quite useful.

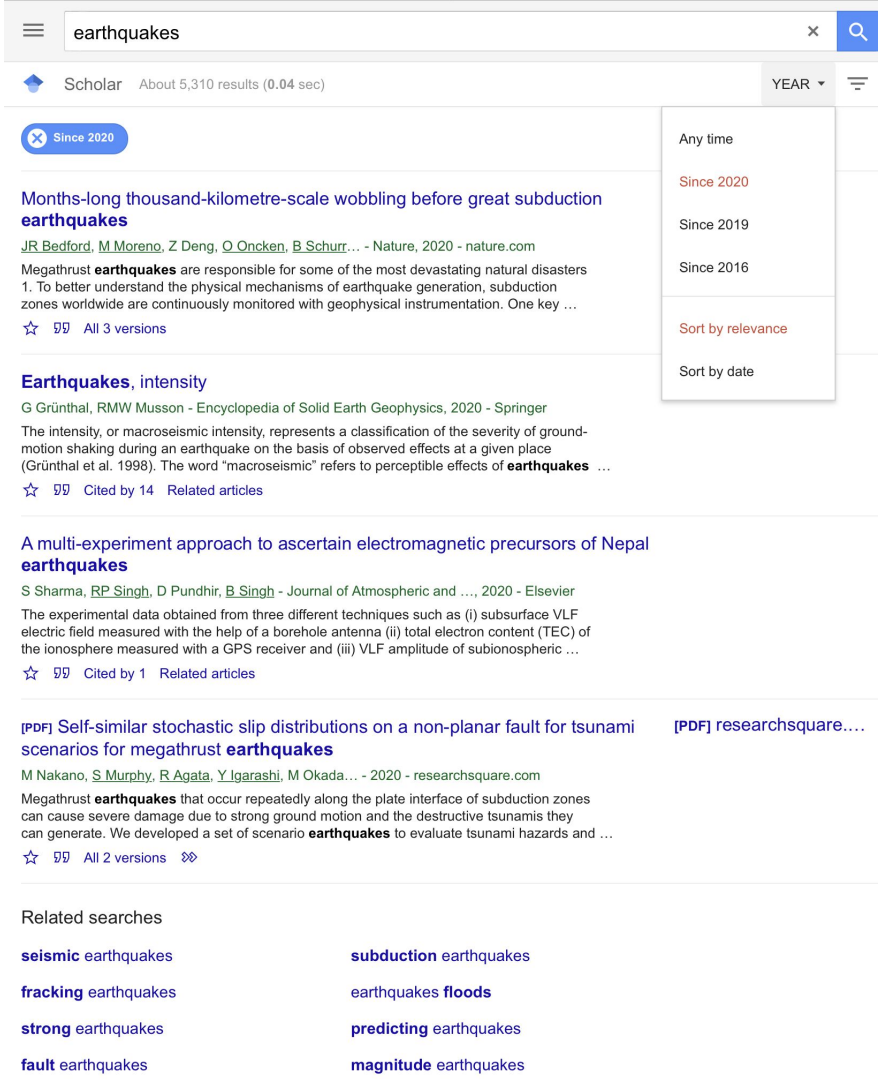


You can see this is fairly new research

Science is one of the most trusted sources of scientific information so I will read this article

Most articles are behind paywalls (when you get to university, they will be accessible as your university usually pays for these)

You can usually read the abstract of journal articles for free.



I can sort by year to get the latest research

The top entry is an article from *Nature*. *Nature* is one of the most well known and trusted sources of scientific knowledge.

before great subduction earthquakes

Jonathan R. Bedford ✉, Marcos Moreno, Zhiguo Deng, Onno Oncken, Bernd Schurr, Timm John, Juan Carlos Báez & Michael Bevis

Nature **580**, 628–635(2020) | Cite this article

3487 Accesses | **370** Altmetric | Metrics

Abstract

Megathrust earthquakes are responsible for some of the most devastating natural disasters[1]. To better understand the physical mechanisms of earthquake generation, subduction zones worldwide are continuously monitored with geophysical instrumentation. One key strategy is to install stations that record signals from Global Navigation Satellite Systems[2,3] (GNSS), enabling us to track the non-steady surface motion of the subducting and overriding plates before, during and after the largest events[4,5,6]. Here we use a recently developed trajectory modelling approach[7] that is designed to isolate secular tectonic motions from the daily GNSS time series to show that the 2010 Maule, Chile (moment magnitude 8.8) and 2011 Tohoku-oki, Japan (moment magnitude 9.0) earthquakes were preceded by reversals of 4–8 millimetres in surface displacement that lasted several months and spanned thousands of kilometres. Modelling of the surface displacement reversal that occurred before the Tohoku-oki earthquake suggests an initial slow slip followed by a sudden pulldown of the Philippine Sea slab so rapid that it caused a viscoelastic rebound across the whole of Japan. Therefore, to understand better when large earthquakes are imminent, we must consider not only the evolution of plate interface frictional processes but also the dynamic boundary conditions from deeper subduction processes, such as sudden densification of metastable slab.

I can read the abstract of this *Nature* paper

Article | Published: 16 March 2020

Larger tsunamis from megathrust earthquakes where slab dip is reduced

Bar Oryan & W. Roger Buck

Nature Geoscience **13**, 319–324(2020) | Cite this article

1374 Accesses | **99** Altmetric | Metrics

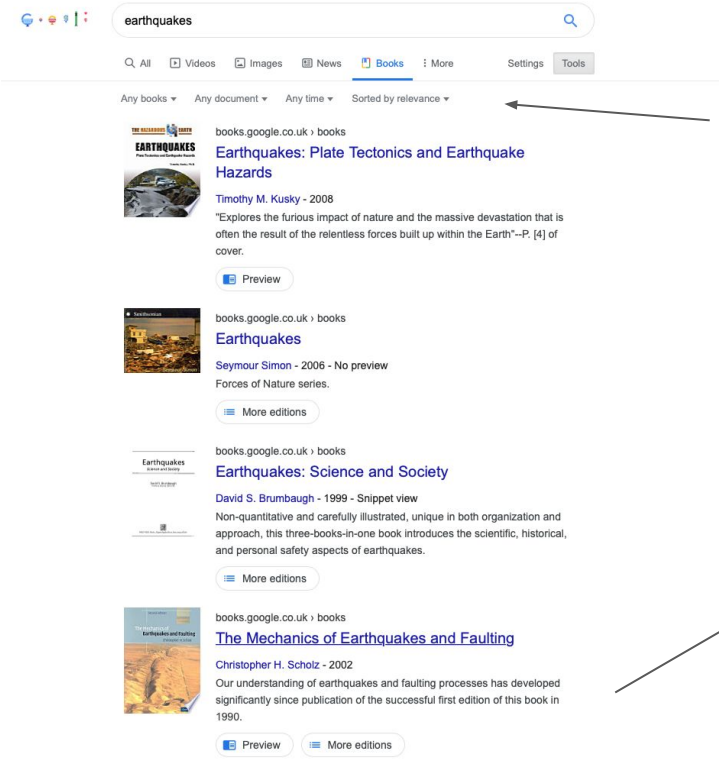
Abstract

A subset of megathrust earthquakes produce anomalously large tsunamis for their magnitude. All of these recorded 'tsunami earthquakes' in the past 50 years had extensional aftershocks in the upper plate. These include the two largest and most destructive earthquakes of that period, the 2004 Sumatra–Andaman and the 2011 Tohoku events. Evidence from the region of Tohoku indicates that normal fault slip in the upper plate during the earthquake may have contributed to the tsunami size. Here we present a numerical model that shows how a reduction of the dip of a subducting slab, on a timescale of millions of years, can result in an extensional fault failure above a megathrust earthquake on timescales of seconds to months. Slab dip reduction bends the upper plate so that the shallow part fails in extension when a megathrust rupture relieves compressional stress. This results in a distribution of extensional aftershocks comparable to that seen above the Tohoku megathrust. Volcanic arc migration and uplift data for Tohoku and several other tsunami earthquakes is consistent with slab dip reduction. The collection of more such data might identify other areas of tsunami hazard related to slab dip reduction.

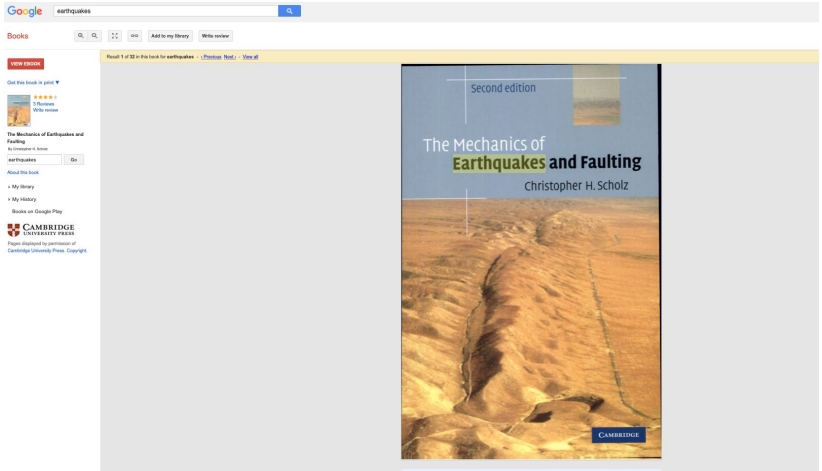
Here's another journal article written in the journal *Nature Geoscience*

When reading an article, you might not understand every word and you might need to do further research to understand specific terms. This is normal (sometimes for experts too!)

Google Books https://books.google.com



Use the filters to refine your search e.g. by date published



You can usually preview a chapter of a book

How to summarise the key points to reference in your work?

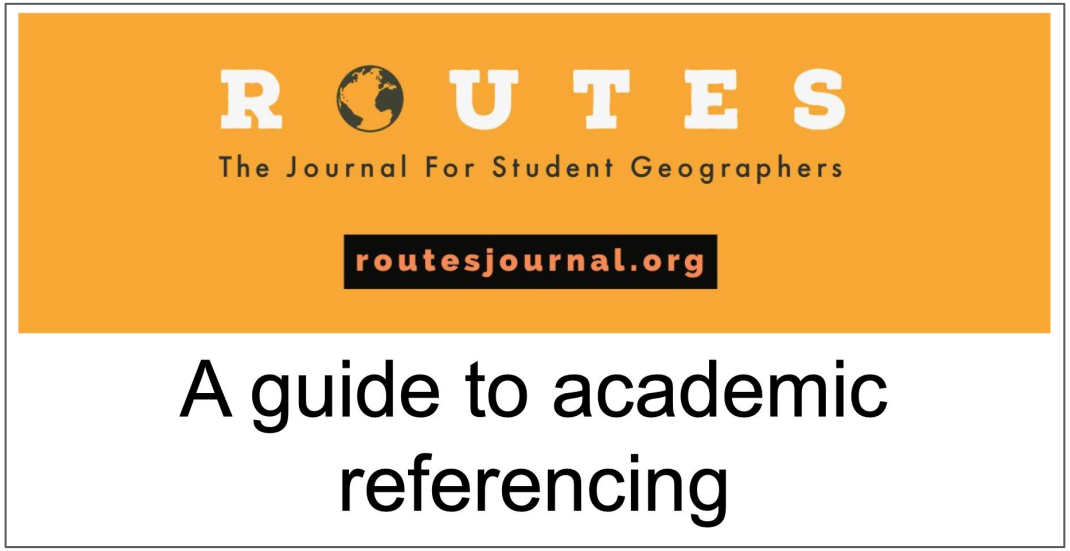
Citation (author, date, title) Book? Journal article?	Key summary of points- key quotes (including page number)
1.	
2.	
3.	

Draw up a table to help you keep track of your sources e.g. in Word or Excel. You can then plan out when to refer to each source in your writing

How to format sources in your work?

Use the following to help you write references for your work

https://georoutesuk.files.wordpress.com/2020/07/how-to-reference-for-routes.pdf



More on why using journal article is an important next step for A Level students and how to identify academic work

https://eternalexploration.wordpress.com/2013/09/01/using-geography-journals-a-list-of-places-to-start/

https://bowvalleycollege.libguides.com/c.php?g=10229&p=52137