SciPodders: Podcasts for Geochemists

Podcasting is the newest form of mass media, and in less than a year has grown from an obscure avocation for techies to a major cultural phenomenon. Most of this growth has been fertilized by the amazing success of Apple's iPod personal mp3 player technology (those white wires dangling from your students' ears), which itself took off because of the popularity of mp3 music downloads. Podcasting arose in 2004 from the synergy of ubiquitous iPods (and clones) and new RSS syndication technology that made it easy to encapsulate high-quality audio content and post it on the internet. What distinguishes podcasting from earlier streaming technologies such as RealAudio is the ability to subscribe to a podcast feed, new scribe, using a variety of different podcatching software client ents such as iTunes or iPodderX, to a web feed of audio content linked to a website. Once you subscribe to a podcast feed, new broadcasts can be automatically downloaded to your computer as soon as they are published. Unlike streaming feeds, you don't have be connected to the internet in real time to listen to a podcast show. Individual podcast episodes are stored as mp3 files on your local machine, and can be moved about like any other music file. It's radio to go. Video podcasting has recently appeared, aided by the release of Apple's new video iPod, and this development is sure to foster rapid mutation of the natal medium. Nonetheless, all of the particular podcasts I discuss below are strictly audio feeds.

An obvious advantage of podcasting is that it massively democratizes the capability of broadcasting audio content. With podcasting anyone with a computer, an internet connection, a microphone and access to a server can host her own radio show – or if you prefer, mp3 magazine – without the need for an FCC license (or your local equivalent). As a result, since the inception of podcasting in early 2005 the number of individual podcast feeds has skyrocketed into the thousands. iTunes now hosts a convenient podcatching client with search functionality, so it's easy to find a podcast that appeals to your interests. Program quality can vary, as you might expect. But among the cacophony of tinny voices there are some very well produced, informative and entertaining feeds that focus on the natural sciences. The best of these are invaluable sources of science news that I now listen to regularly. Some focus on particular science disciplines while others offer a news potpourri of science discoveries, controversies, and current events that are worthy as 'assigned listening' for students. And all the ones I've listened to and recommend below are free to download.

Science news feeds are offered by a wide variety of creators, including traditional outlets such as the major television networks, but the best podcasts have no connection to the dusty archons of mass media. Some of the most entertaining are aimed at the general public, such as the **Naked Scientists Science Radio Show** podcast (**www.thenakedscientists.com**), a BBC production from the UK. This is an hour-length podcast feed of the popular British radio program, and features science news headlines, eclectic interviews with notable scientists, questions from callers, and on-air science quizzes for kids of all ages. A recent broadcast featured Harry Elderfield, who discussed global climate change. Another notable British production is the **New Scientist Podcast** (**www.newscientist.com/podcast.ns**), which provides a weekly science news brief followed by an in-depth discussion of selected science topics, again including interviews with major figures in the respective disciplines. National Public Radio listeners in the US will be familiar with **Science Friday** (**www.sciencefriday.com**), the weekly segment of NPR's Talk of the Nation radio program spotlighting science current events. Science Friday offers a full hour of discussion on usually one or two major science stories. Its coverage tends toward the simplistic, and host Ira Flatow

will often interrupt guest scientists to make them explain to listeners, say, what is an atom. Aimed at a US audience, this program will also sometimes resort to the fatuous 'both sides' dynamic where one guest will be invited to discuss the global scientific consensus of some issue, and the producers will dig up a second guest to represent 'the other side' viewpoint held by some peculiar faction of ideologues or paid shills whose terse membership list stretches to absurdity the concept of 'minority opinion'. Still, it's an interesting show and it uses small words.

On the more humorous end of the scale is **This Week in Science** (www.twis.org), a radio show and podcast produced by the University of California at Davis and hosted by a neuroscience Ph.D. student and a layman kibitzer. Also an hour-long show, TWIS provides science news headlines, interviews with notable investigators, and other sci-miscellany from an irreverent perspective. It's actually a very funny show, and one of my favorites for casual listening. Hosted by student-types (if I may be forgiven a prejudicial inference) this show is very accessible and doesn't talk down to its listeners.

In addition to the many general science-news podcasts, a wide spectrum of specialty programs has sprung up in the last few months. I can't keep up with all of them, and an exhaustive discussion is beyond me, but I've found a few notable examples that touch on the earth sciences and geochemistry. **MicrobeWorld Radio** (**www.microbeworld.org**) is sponsored by the American Society for Microbiology, and offers 90 second news briefs that each focus on a current item in microbial current events. **NASA's Jet Propulsion Laboratory Podcast** (**www.jpl.nasa.gov**) publishes brief headline articles on the latest events in space exploration. The podcast of **Planetquest – The Search for Another Earth** (**planetquest.jpl.nasa.gov/index.cfm**) provides news from the world of astronomers who hunt for extrasolar planets, although episodes for this feed are sparse. **Universe Today** (**www.universetoday.com**) follows the science news format of many other podcasts, but focuses on current events and new discoveries from astronomy, astrobiology, and planetary science. Another source of astronomy and planetary science news can be found at the **W. M. Keck Observatory** podcast (**www.keckobservatory.org/news/education/mp3.php**). A new podcast feed from the **University of Bath – Public Lectures** (**feed://www.bath.ac.uk/podcast/public-lectures-podcast.xml**) promises both first rate science lectures from giants in their fields, and also one of the world's longest podcast URL addresses. Only one episode of the Bath podcast is yet available, but more are sure to come.

One of my favorite science-related podcasts is **Skepticality** (**www.skepticality.com**). Hosts Derek and Swoopy discuss pseudoscience, the paranormal, and other manifestations of nonsense that could use a strong dose of skeptical scientific thinking. The relevance to earth science topics is obvious, and many of their shows discuss the apparently deathless debate over evolution in the US, global climate change, astronomy, and other areas where science is under fire from the epsilons. If you're a fan of well-known pseudoscience debunker The Amazing Randi, you'll love this program. Host Derek Colanduno is currently recovering from a near-fatal brain aneurysm he suffered last fall, and so the show has been on quasi-hiatus for the last several months. Nonetheless, you can download all of last year's episodes through the subscription feed. Right now Derek is on the mend, and new episodes are sure to be coming soon. My hopes are for his speedy recovery.

Most science podcasts are journalistic, but already a few professors around the world (mostly in the US and Britain) have begun to publish their class lectures as podcasts. This is an intriguing new format for delivery of knowledge to students and to the public, but it remains to be seen if many academics will adopt the strategy. No doubt many of us would fear that if our lectures were online our classrooms would be empty. And perhaps so. I'll let you know, if I ever try it.

In summary, podcasts are an easy, convenient and very enjoyable way to access exciting science news and viewpoints from around the world. Right now the majority of science podcasts are not discipline-specific, but rather discuss any and all developments in the 'sciences', usually dominated by medical or technological topics. Among the natural sciences astronomy has a clear lead in coverage, but only time will tell if that will remain the case. Right now there is a clear paucity of dedicated earth science podcasts, and to my knowledge no podcasts focus on non-fossil geology or geochemistry. That's unfortunate, and perhaps one of us will one day step forward to fill that gap. I'll be listening.

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