



It's not enough to find a cool fossil—we want to share it with the world! This process is multifaceted; designing an exhibit and sending out a press release are certainly the most visible to the general public. But, publication in an academic venue is essential in order to receive long-term recognition and credibility in the eyes of the scientific community. Few outside the scientific community know what this entails, so come along for the (sometimes bumpy) ride to publication!

Scientific journals constitute a permanent record of new discoveries and interpretations, accessible to the world through libraries and the internet. Scientists—including Alf Museum paleontologists in collaboration with Webb students—submit their work for consideration by the journals in a process called “peer review.” The first step is to research the topic, write the manuscript and prepare all of the illustrations showing the new find. This can take weeks, months, or even years, depending on the complexity of the project. We delve into the previous literature to place finds into broader historical and scientific context—for instance, our recent paper on a 75 million year old alligator from Utah (now in the final stages prior to publication) references papers published between 1789 and 2013! We then have to choose which journal to send the paper to, out of numerous options. Depending on the topic, this may be a journal of international scope, a regional publication, or perhaps a chapter in a book.

The next step is to send in the paper for peer review. An editor for the publication chooses recognized independent experts who can evaluate the research in question, and provide feedback. Based on the feedback, the editor makes a recommendation. Occasionally, if the paper isn't deemed of sufficient interest for the journal or if the reviewers felt there were deep flaws in the research, the paper is rejected. More often, the paper is returned with suggested revisions. This is sometimes a painful process—it's easy to get attached to a particular idea or turn of phrase—but the constructive feedback inevitably improves the paper. Sometimes the reviewers want additional comparisons with other fossils, or suggest alternative interpretations. These are all incorporated into a revised manuscript that is then sent back to the editor. If they're satisfied, it's on to the next step!

Production staff at the journal turn the word processing files and raw images into a pretty,

formatted document. They may do some slight edits, so “page proofs” are sent to us for one final check. Once that's clear, it's finally time for publication! Where hard copies of journals were once the norm, electronic-only formats are on the ascent. When these publications are “open access”, it means that they are freely accessible anywhere by anyone with an internet connection; in order to improve dissemination of our research, Alf Museum publications are increasingly using this option.

Once a paper is officially published, we'll help to promote it by emailing copies to colleagues and posting it on [Twitter](#) or [Facebook](#) . In turn, the papers are cited by other researchers in their own work, and sometimes even lead to collaborations or visits to our collections. A [recent paper on a flying reptile bone in our collection](#) resulted in a collections visit request within days after publication! For a museum like the Alf, there are few things better than having other scientists read and build upon the work that we do.