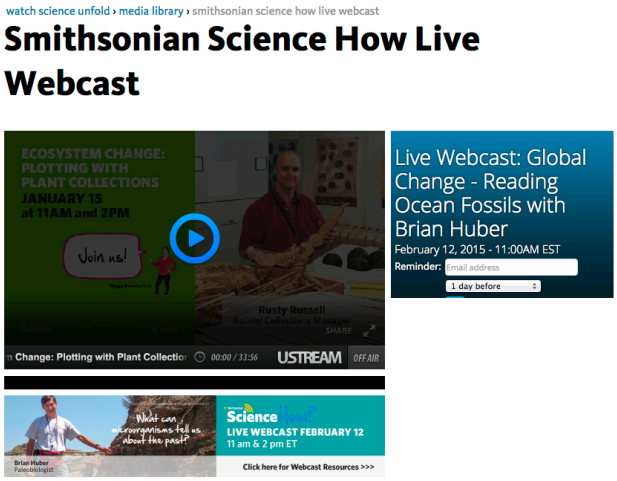
Smithsonian Science How Webcasts: Technical Requirements and Troubleshooting Guide

Suggested technical requirements for participating in a live webcast:

- Suggested bandwidth of 5.0Mbps downstream (webcast will run with just 500KB downstream at a lower quality; check your speed at http://www.speedtest.net)
- Display screen large enough for audience size (Smartboards, Prometheans, monitors, computers should all be compatible)
- External speakers for entire audience to hear
- Computer for submitting questions to the expert, answering live polls during broadcast. If you are using one computer to show the video full-screen, you may want to have a second computer available so you can participate in the live online polls and chat.
- Teacher or group leader to facilitate group responses, questions

Preparing for the live webcast:

- You can submit student questions via online chat prior to the live broadcast
- Review teaching resources on the Q?rius website for each broadcast (for pre and post)
- Use listed standards and our assessment page to help integrate webcast into lessons
- Test your Internet connection in advance
- Test the UStream video connection 1 week or more in advance, if possible. (We use a service called Ustream to broadcast live video online.)
    - Go to http://qrius.si.edu/live and make sure you can see and hear our test video (see below). Ustream recommends using Firefox or Chrome browsers:

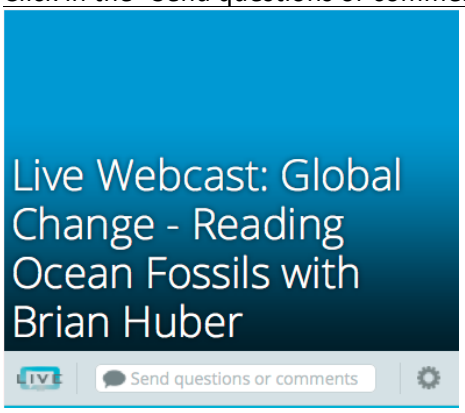


    - If you can't see it or hear the audio, try reloading the page. If you still can't see or hear it, you might not have the latest version of Adobe Flash Player on your computer and/or enabled for your browser. You can check your version and download Flash here, http://helpx.adobe.com/flash-player.html
    - Or UStream might be blocked by the Internet firewall at your school. Contact your IT specialist to make an exception for the broadcast and unblock Ustream (the Web domain is Ustream.tv)

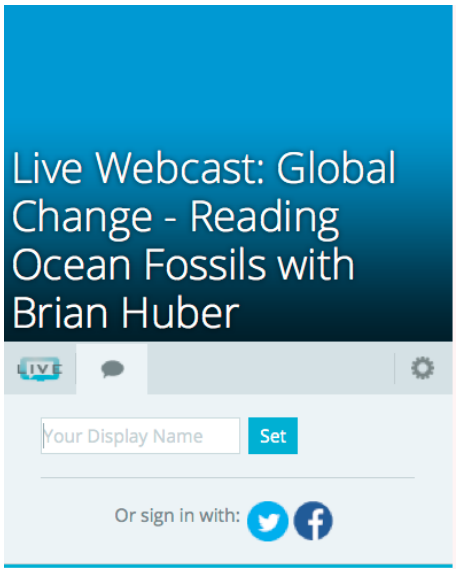
  - Still having trouble seeing the video? Review Ustream's troubleshooting steps here, https://ustream.zendesk.com/entries/22546906-Viewing-troubleshooting-steps
  - Known Issue With Mac Laptops and iPads: Sound will be low if you are not using headphones.
- You should also see the chat window next to the video on the right. If you don't, you may have to ask your IT specialist to unblock the Web domain Coveritlive.com.

Tips for participating in a live webcast:

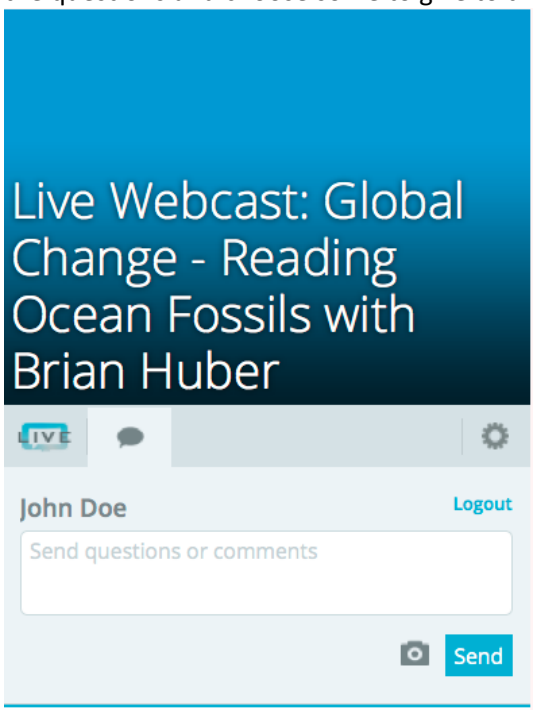
- Use the best network connection possible – wired is better than wireless
- Close all applications except those necessary for the webcast. This frees up the computer for better performance.
- If your computer has a Power Plan (Energy-Saving settings), choose high performance
- If you're using a laptop, avoid running on battery - it can reduce performance
- If you use a USB hub, it should be externally powered for the device to perform well.
- Use the Firefox or Chrome web browsers for best results.
- To Ask a Question or Answer a Poll: Use the chat window to the right of the video.
  - Click in the "Send questions or comments" field.



  - A new entry field will appear. Enter the name you want to display in the chat, and then click "Set."

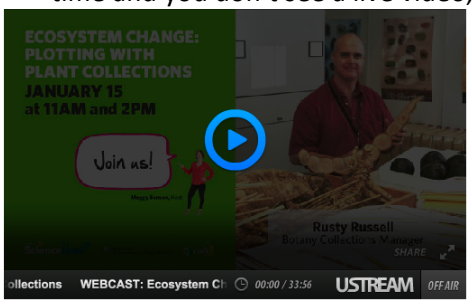


- Another field will appear prompting you to "Send questions or comments." Type in your question or comment and click "Send." The chat moderator will publish the questions and choose some to give to the host during the live show.



<u>Troubleshooting Tips</u> for facilitating live webcasts in the classroom:

- **Adobe Flash Player –** Can't see the video? Try reloading the page. Then make sure you have the latest Adobe Flash Player installed on your computer and enabled for your browser, by visiting http://helpx.adobe.com/flash-player.html
- **Firewall –** If your school's firewall is blocking the webcast, contact your school's IT office for an exception and unblock the Web domain Ustream.tv
- **Bandwidth –** select lower broadcast quality on the video feed if there is disruption
- **Quality –** select higher quality video stream if the quality is poor and you have the bandwidth to support a larger feed
- **Can't See the Video?** Click the blue "play" arrow (see below). If it is past the show's start time and you don't see a live video, reload the page.



- **Black Screen, Video Stops and Starts or Gets Pixelated –** Close other open programs and browsers on your computer. Reload the page, http://qrius.si.edu/live. If nothing else works, reboot the computer.

- **No Sound –** Make sure speakers are plugged in and turned on. If using a Mac laptop or iPad, sound will be low without headphones.

Need More Help? Contact us at qrius@si.edu.

Website Address:
Smithsonian Science How will be broadcast live to http://qrius.si.edu/live. For more information about the webcast series, visit the series homepage, http://qrius.si.edu/webcast.