Russulas get no respect. Consider the common epithet JAR (Just Another Russula), made famous in David Arora’s Mushrooms Demystified. Oh sure, genus identification was easy: if you found a brightly colored cap on a sturdy, mid-sized mushroom; no latex; the cuticle peeled easily; and the stalk broke like chalk, it was a Russula. End of most identification. A few species made it to full identification, the rest condemned to anonymity as Russula sp.

If you really wanted to know the species, you handed the specimen to long-time club member Jeanne Peterson. She would scrutinize the specimen and pore over her key, several pages softened by years of use and enriched with lightly penciled notes.

The Presentation
But on July 9, Jeanne introduced us to the key she uses, Gertrude Burlingham's Russula key*, and a disciplined approach to identifying this genus. Gertrude Simmons Burlingham, Ph.D. (1872–1952) was a mycologist best known for her work on American Russula and Lactarius. She pioneered the use of microscopic spore features and iodine staining for species identification.

The Harvard Herbaria Seminar Room was packed for Jeanne’s talk. You might have thought that only a talk entitled, “Ten Most Delectable Mushrooms Growing in Your Backyard,” would attract such a crowd on a pleasant summer night. But the turnout testified to the curiosity about this often dismissed genus.

Using 14 specimens that were brought to the Club in the fall of 2011, Jeanne guided us through the Burlingham key. Step-by-step, Jeanne pointed out the macro characteristics she observed and compared them with the key’s description. Are the gills forked? What color and texture is the pileus? What does the fungus smell and taste like? What color the spores and stipe? No, not all reddish stipes indicate R. mariae. These questions are appropriate for identifying any specimen, and Jeanne demonstrated that by asking the same questions of Russulas, amateurs can identify them to species.

Using the Key
Among Jeanne’s 14 specimens was the one pictured below. This Russula had gills that were equal, rather than long and short, or forking; the cap was velvety, rather than glabrous, and separable from the flesh underneath. The spore deposit was yellow and the gills did not change color when bruised. Thus, it belonged to Group IV, Subvelutinae.
The specimen had yellow spores.

On Burlingham's key, the arrows indicate the specimen's characteristics.
Since mushrooms can develop in the shade, away from the bleaching sun, or can probably grow on different soils and with different amounts of water, cap color of the same species can vary. In the photo below, although the cap color appeared more orange than yellow, Jeanne felt that *R. flavida* was the right identification for this mushroom.

The specimen’s cap, indicating *R. flavida*.

Published Photos May Mislead
Jeanne projected photos of her specimens alongside photos of the same species shown in several well known mycology books. In many cases, the pileus and stipe colors varied greatly among the books and from the specimen. So beware. Consider all the evidence.

Thanks to Jeanne for preparing such a useful, educational talk. Her presentation encouraged Club members to identify *Russulas* with the same rigor as any other genus. Maybe it’s time to reassign the acronym, too. JAR: Judiciously Appraised Russula?

* Gertrude Burlingham's *Russula* key and species descriptions are part of a volume on *Agricales*. The *Russula* excerpt can be accessed from the BMC’s website:
  •  bostonmycologicalclub.org/Resources/Basidiomycetes/Russula Key.

The entire *Agricales* volume can be accessed in two ways:
From the BMC’s website:
bostonmycologicalclub.org/Resources/Basidiomycetes/Agaricales key
The *Russula* key is on pages 201-205 of the document. Descriptions of the *Russula* species begin on p. 205.
http://www.biodiversitylibrary.org/item/15416#page/205/mode/1up