

The Talking Avian Tongue

Discover another surprising task of the avian tongue

By Susan Chamberlain

Parrots' propensity for speech captivated – and continues to do so – humans throughout the ages. In the Middle Ages, some people believed that talking parrots held a special relationship with God. This afforded them an elevated status by the Church. Chaucer remarked about parrots', also known as popinjays at the time, imitative abilities in "The Canterbury Tales."

Unlike humans, whose larynx is used for speech, the avian larynx is an airway. The sounds birds make emanate from the syrinx, which is located in the throat at the base of the trachea just before it divides into the right and left bronchi.

Until a few years ago, it was thought that the syrinx was responsible for all the intricate vocalizations produced by the birds. It's true that many of the parrot sounds we hear come from the syrinx, but this is not the case with all of them. Scientists Roderick Southers, Gabriel Beckers and Brian Nelson have shown that parrots use their tongues to alter and refine their vocalizations. The results of their experiments with quaker parakeets show that even tiny variations in tongue position can make big differences in sound. According to Beckers, this might explain why parrots are such great mimics. The scientists' experiments showed that movement as small as a fraction of a millimeter could influence the resulting sound.