

Sing Your Heart Out!

By Adam Trujillo

When you walk outside here in Texas, there is a very good chance that you will see at least one bird flying around. And even more than likely, you will hear them singing or calling too. The bird calls or songs that we hear every day are often taken for granted, but each of these chirps has its own natural history.

To start, the sounds a bird makes comes from a tiny organ located at the top of the windpipe called the syrinx. Some birds can use this organ to make two sounds at once, which is why some bird songs can sound two-note. Who knew that birds could duet themselves?

It is important to know the difference between a bird song and a bird call. A bird song is, generally, longer and more complex than a call is. Singing can be used to attract a mate, while calling can be used to alert others to the presence of danger, for instance. And because the song is more complex, sometimes these birds need to learn how to do it.

Some species of passerines (songbirds), like the flycatchers for example, acquire their songs innately. They are born with the ability to sing their songs and don't have to hear them to learn. Other passerines need to hear their parents or neighbors sing their song to learn it. When one of these songbirds is born, there is a period of time shortly after hatching called the "sensitive period" during which it must listen to its parents and absorb the sounds that they make.

After that comes a period of practicing. It will take what it has learned and try to sing, this singing being incomplete and sounding more like babbling. After a little while of practicing, it crystalizes its final song which it will use for the rest of its life. The important stage of this process is actually the critical learning period. If a bird doesn't hear the song that it's supposed to learn, then its song will always sound wrong.

Birds like the white-crowned sparrow are close-ended learners, meaning that they follow this process as a juvenile and their song is cemented as an adult. But there are also open-ended learners, who can adjust their songs over their adult lifetime. An open-ended learner can expand its repertoire throughout its life. A good example of this is the Northern Mocking bird, which will continuously hear songs of other species, learn them, and mimic them. Another cool example of an open-ended learner is the Mynah birds. These birds can not only mimic other species, but have the ability to mimic sounds like a car alarm or a horn.

This field of research is still emerging and we are learning more and more about birdsong. Bird songs are more intricate than you might think, so when you hear that European Starling (open-ended learner) or White-crowned Sparrow (close-ended learner) sing, think about what it had to go through to sing those beautiful songs.