

It's all in the tail

Tails are probably not the first things that spring to mind when thinking about animal sounds. Beautiful songs or spine-chilling cries, sure, but tails? It's unlikely.

Several animal groups use their tails to generate sound. One of the most famous of these are rattlesnakes, a group of venomous reptiles found across North and South America. As their name suggests, rattlesnakes possess a rattle at the end of their tail. Its function is to warn potential predators to keep their distance or face the prospect of a deadly bite. The rattle is made up of small pieces of keratin that bang together when the tail is rapidly vibrated. Rattlesnakes aren't the only reptiles to use a bit of tail-shaking when confronted by danger. Many other types of snake use the same, albeit much quieter, method to send a warning to other animals on the lookout for a quick dinner. Why evolution graced rattlesnakes with a sound-producing tail has been the subject of scientific positing for decades but, whatever the reason, the rapid shake of a rattlesnake's rattle has proven to be a highly effective messenger.

[Rattlesnake tail sounds recorded at London Zoo by Richard Ranft \(BL ref 21461\)](#)



Birds can usually make themselves understood with their voices alone, however some species also bring their tails into the mix. The Indian Peafowl is one such species. For a long time the majesty of the male's tail display was thought to be a purely visual cue to woo nearby females and deter potential rivals. As well as producing a feast for the eyes, a peacock's tail display also creates a distinctive rustling sound which was initially thought to be an inert byproduct of the main spectacle. When researchers at the [University of Manitoba](#) investigated this further however, they discovered that the sound also had infrasonic properties which, though inaudible to humans, can be detected by other birds. But what message does this sound actually convey? It's thought that the infrasonic rustling acts as a sonic reinforcement to the tail display, helping other individuals assess the quality and strength of the performer. Indian Peafowls naturally occur in dense forests across the Indian Subcontinent, so being able to utilise low frequencies, which travel further than high frequency sounds, is particularly useful when individuals can't always be seen. Nobody wants to wade through loads of scrub only to be disappointed, so listening out for these infrasonic clues can save both males and females a whole lot of hassle.

[Peacock tail feather display recorded in England by John Paterson \(BL ref 62061\)](#)



Another bird that uses its tail feathers to communicate is the Common Snipe. Males possess modified outer tail feathers which, when held at right angles

to the body, produce a drumming sound during their dramatic aerial display flights. As snipe are crepuscular, these flamboyant performances normally take place at twilight and sit in stark contrast with the bird's usually shy and retiring demeanour.

In May 1943, RAF Flying Officer R.A. Carr-Lewty published a paper in [British Birds](#) which included this eloquent description of the drumming display:

"When drumming, the Snipe descends with the two outer tail-feathers widely extended, and in this position they are free to vibrate without interference from the other rectrices. Once the requisite speed has been attained, these feathers, by reason of this extension and their peculiar shape and structure, commence to vibrate and continue to do so as long as the speed is maintained; the Snipe attains this speed by diving. In normal flight, the outer tail-feathers, being supported by contact with the other rectrices, have no tendency to vibrate."

[Common Snipe drumming display recorded in Scotland by Richard Margoschis \(BL ref 22497\)](#)

 Common Snipe (courtesy of the Biodiversity Heritage Library)

Moving across to mammals, the North American Beaver uses its flat, paddle-like tail to alert nearby individuals to the presence of danger. When things just don't seem right, beavers will slap their scaly tails on the surface of the water as an alarm signal to other beavers. As these animals are timid and nocturnal, a meaty tail slap may be your only clue that a beaver is nearby.

[North American Beaver tail slap recorded in Ontario by Tom Cosburn \(BL ref 69781\)](#)

 Illustration of a beaver's tail (courtesy of the Biodiversity Heritage Library)

Though songs and calls often dominate our perception of what the natural world sounds like, animals across the world have evolved many other ways to communicate with each other. So the next time you think about wildlife sounds, spare a thought for the tails out there.