

is the *wind-pipe*, or tracheal artery, as it is often called, and its parts, which by its bronchial ramifications is so intimately connected with the lungs as to form part of their substance.

*Birds*, of all animals, are best organized with regard to their voice. Besides the upper larynx, or throat, which they have in common with Mammalians, at the base of their wind-pipe, where it divides into two branches, rendering to each lobe of the lungs, it has also another larynx, forming a second vocal apparatus. This is produced by a contraction of the organ furnished with muscular fibres, or vocal strings, which by their various tensions and relaxations, modify greatly the tones of the voice; ascending also in the tube of the wind-pipe to undergo another modification at the upper larynx, which, as it were, adds the tone of the *horn* to that of the *reed*. Thus, if the head of a duck is cut off, it can produce sounds by means of its lower throat, if I may so call it, which no quadruped could do. Besides this, birds can, more or less, shorten or lengthen the tube of their wind-pipe, so as to modify the sounds they emit.

Though the upper larynx in birds, has no vibratory vocal strings, as in the Mammalians, to modify the sounds, these modifications taking place at the lower larynx, still they can enlarge or contract it, which may affect the air in its exit, and so produce some diversity.

Besides all this, whoever casts an eye over Dr. Latham's and Mr. Yarrel's figures of the wind-pipes of various birds,\* especially wild-fowl, will see that they vary greatly in their relative length and volume; that some are partially dilated and others contracted, with other peculiarities that distinguish individual species, especially in male birds. All these, no doubt, modify the voice, and, by the will of Him who formed them, cause them to utter such sounds and speak such a language, as are required by the cir-

\* Linn. Trans. iv. t. ix. — xv.; xv. t. ix. — xv.; and xvi. t. xvii. — xxi.