

seventh pair had distinct processes. In many breeds there are only seven ribs, as in seven out of eight skeletons of various Tumblers, and in several skeletons of Fantails, Turbits and Nuns.

In all these breeds the seventh pair was very small, and was destitute of processes, in which respect it differed from the same rib in the rock-pigeon. In one Tumbler, and in the Bussorah Carrier, even the sixth pair had no process. The hypapophysis of the second dorsal vertebra varies much in development; being sometimes (as in several, but not all Tumblers) nearly as prominent as that of the third dorsal vertebra; and the two hypapophyses together tend to form an ossified arch. The development of the arch, formed by the hypapophyses of the third and fourth dorsal vertebrae, also varies considerably, as does the size of the hypapophysis of the fifth vertebra.

The rock-pigeon has twelve *sacral vertebrae*; but these vary in number, relative size, and distinctness, in the different breeds. In Pouters, with their elongated bodies, there are thirteen or even fourteen, and, as we shall immediately see, an additional number of caudal vertebrae. In Runts and Carriers there is generally the proper number, namely twelve; but in one Runt, and in the Bussorah Carrier, there were only eleven. In Tumblers there are either eleven, or twelve, or thirteen sacral vertebrae.

The *caudal vertebrae* are seven in number in the rock-pigeon. In Fantails, which have their tails so largely developed, there are eight or nine, and apparently in one case ten, and they are a little longer than in the rock-pigeon, and their shape varies considerably. Pouters, also, have eight or nine caudal vertebrae. I have seen eight in a Nun and Jacobin. Tumblers, though such small birds, always have the normal number seven; as have Carriers, with one exception, in which there were only six.

The following table will serve as a summary, and will show the most remarkable deviations in the number of the vertebrae and ribs which I have observed:—

	Rock Pigeon.	Pouter, from Mr. Bult.	Tumbler, Dutch Roller.	Bussorah Carrier.
Cervical Vertebrae	12	12	12	12 The 12th bore a small rib.
Dorsal Vertebrae	8	8	8	8
„ Ribs ..	8 The 6th Pair with processes, the 7th pair without a process.	8 The 6th and 7th pair with processes.	7 The 6th and 7th pair without processes.	7 The 6th and 7th pair without processes.
Sacral Vertebrae	12	14	11	11
Caudal Vertebrae	7	8 or 9	7	7
Total Vertebrae	39	42 or 43	38	38