on the upper lobe of the tail, as we thus have evidence of the descent of the family from fully scaled fishes.

Toothless Sturgeons. From the preceding family the typical sturgeons (*Acipenseridæ*) may be distinguished by the absence of teeth in the adult, and the presence of five longitudinal rows of bony plates on the naked body, which is elongate and subcylindrical in form, as well as by the presence of four barbels in a transverse line on the under surface of the muzzle. The muzzle is somewhat produced, and either subspatulate or conical in form, with the small, transverse mouth on its lower surface. All the vertical fins are armed with a single series of fulcra on their front edges; the dorsal and anal are situated at a moderate distance from the caudal; and the large air-bladder is simple. Confined to the temperate regions of the Northern Hemisphere, sturgeons are either exclusively or partially fresh-water fish, some of them only ascending rivers for the purpose of spawning, after which they return to the sea. With the slender-beaked sturgeon, they include the largest fresh-water fishes of this region, several of the species commonly growing to 10 feet, while some are much larger. The females deposit enormous numbers of extremely minute eggs, the product of a single individual having been estimated at upwards of three millions during a season. This wonderful fecundity easily accounts for the enormous numbers in which sturgeon, in spite of constant persecution, still crowd the northern rivers during the spawning-season. In addition to the excellence of their flesh, sturgeon are valued for their roe, from which is manufactured caviare, and for their air-bladder, the inner coat of which forms the basis of isinglass. In a fossil state sturgeons are unknown before the upper part of the Eocene period. All the members of the genus are exceedingly voracious fishes, and the majority are mainly carnivorous. During the winter many or all of them crowd together, either in inlets of the sea, estuaries, or the deep pools of rivers, where they undergo a kind of hibernation; and it is stated that in some localities they bury their noses in the mud, with their bodies and tails standing vertically upwards like a series of posts. They increase very rapidly in size; and the eggs are hatched in five days. Although still abundant in the northern rivers, in those of Central Europe sturgeon have greatly decreased in numbers, and few really big fish are now taken. In the beginning of the year, when they are still torpid, sturgeon are captured by breaking the ice, and stirring up the mud at the bottom of their haunts with very long poles armed with barbed prongs. As the fish seek to escape, some are stabbed with the spears; and it is said that half a score of large fish may be thus taken by a single fisherman. In summer regular fishing-stations are established on the Russian rivers, where the approach of a shoal is heralded by a watchman. Upwards of fifteen thousand sturgeon have been taken in a day at one of these stations; and when the fishing is suspended for a short time, a river of nearly four hundred feet in width, and five-and-twenty in depth has been known to be completely blocked by a solid mass of fish.

True Sturgeons. The common sturgeon (*Acipenser sturio*), of which a small example is shown in the illustration facing p. 510, is the typical representative of the first genus, in which the rows of bony plates remain distinct from one another on the tail, spiracles are present on the head, the upper lobe of