

which, like those of the *Dipterus*, were placed fronting each other, and in pairs. But the head, in proportion to the body was in greater size than in either the *Dipterus* or *Osteolepis* and the mouth, as indicated by the creature's length of jaw must have been of much greater width. In their more striking characteristics, however, the three genera seem to have nearly agreed. In all alike, scales of bone glisten with enamel; their jaws, enamel without and bone within, bristle thick with sharp-pointed teeth; closely-jointed plates, burnished like ancient helmets, cover their heads, and seem to have formed a kind of outer table to skulls externally of bone and internally of cartilage; their gill-covers consist each of a single piece, like the gill-cover of the sturgeon; their tails were formed chiefly on the lower side of their bodies; and the rays of their fins, enamelled like their plates and their scales, stand up over the connecting membrane, like the steel or brass in that peculiar armor of the middle ages, whose multitudinous pieces of metal were fastened together on a groundwork of cloth or of leather. All their scales, plates and rays present a similar style of ornament. The shining and polished enamel is mottled with thickly-set punctures, or, rather, punctulated markings; so that a scale or plate, when viewed through a microscope, reminds one of the cover of a saddle. Some of the ganoid scales of Burdie House present surfaces similarly punctulated.*

* There exists, according to Agassiz, only a single species of *Dipterus* — *D. macrolepidotus*; whereas four species of *Diplopterus* have been enumerated — *D. affinis*, *D. borealis*, *D. macrocephalus*, and *D. Agassizii*. The existence of the last named, however, as a distinct species, is regarded as problematical by the distinguished naturalist whose name has been affixed to it.