

is far more acute than the sense of smell, as is proved by the delicate structure of the ears in the hind part of the skull. But the most sensitive structure in fishes is the lateral line, a series of openings in the scales along each side of the body. Temperature, water pollutions and other external conditions, affect the lateral line, the microscopic structure of which shows that its importance has apparently been over-looked by naturalists. The brain is of the simplest kind, merely six rounded lumps or lobes, the first pair being the olfactory lobes, the second the optic, and the third the cerebral hemispheres, which are very small. The optic lobes, whence spring the nerves of sight, are by far the largest. Behind all is the cerebellum, which continues into the spinal cord. The eggs, larval condition, and other interesting features, were detailed in the concluding part of the lecture.

II. "A BIRD."—In contrast with the fish, Professor Prince drew attention in his second lecture to the skull of the bird, which in the adult is very compact and soldered together, whereas in the early stages the bones (or cartilages) are separate, like the separate elements in the fish's skull. A single knob or joint, called the occipital condyle, projects from the back of the skull and unites it to the atlas or first joint of the neck. The fore-limb is not a fin, but a wing consisting of two fingers and a thumb. In the penguins the wings are used as fins for swimming and bear scale-like feathers. The heart is four-chambered and one great artery (the right aortic arch) carries the blood all over the body. Two pulmonary arteries carry blood from the right ventricle to the lungs. The lungs open by air-tubes into large sacs, which often penetrate the bones and increase the buoyancy of the body. The ribs of birds bear projections called uncinatæ processes, which are also found in reptiles. Birds and reptiles have many points in common. The concluding part of the lecture dealt with the egg and the embryonic development of a bird. The growth of the skeleton, of the feathers, &c., was described in full detail.

III. "A FOUR-FOOTED ANIMAL" formed the subject of the last lecture, and it was shown that the complex structure of mammals, or highest animals, admitted of a description of only