to the animal, contracted in front, and its surface is smooth, or presents but few convolutions; the cerebellum is entirely exposed, and has a vermiform process large in proportion to the lateral lobes; the olfactory lobes are large. Two venæ cavæ enter the heart; "the right auricle has no trace of a fossa ovalis." In point of fact, the main characteristic of the Marsupials, as distinguished from the Placentals, is that much of the embryotic life in the former is carried on in what may be called a sort of external uterus.

On my return from Australia, the venerable Geoffroy St.-Hilaire put the following question to me, "Does the Ornithorhynchus lay eggs?" and when I answered in the negative, that fine old gentleman and eminent naturalist appeared somewhat disconcerted. Now, this oviparous notion was nearly in accordance with the true state of things—somewhat akin to what is actually the case; and I consider the most striking peculiarity of this singular animal, and indeed of all the *Mursupiata*, to be the imperfectly formed state in which their young are born. The Kangaroo at its birth is not larger than a baby's little finger, and not very unlike it in shape: in this extremely helpless state, the mother, by some means at present unknown, places this vermiform object to one of the nipples within her pouch or marsupium; by some equally unknown process, the little creature becomes attached by its imperfectly formed mouth to the nipple, and there remains dangling for days, and even weeks, during which it gradually assumes the likeness and structure of its parents; at length it drops from this lacteal attachment into the pouch, re-attaches itself when hunger prompts it so to do, and as often again tumbles off when its wants have been supplied. It is scarcely necessary to say that, after gaining sufficient strength, it leaves this natural pocket of the mother, leaps into the open air and sports about the plains or the forest, as the case may be, and returns again to its warm home, until at length the wearied mother denies it this indulgence and proceeds again to comply with the law which governs all creatures, that of reproduction. This is a very low form of animal life, indeed the lowest among the Mammalia, and exhibits the first stage beyond the development of the bird.

This description has reference not only to the Kangaroos, which mostly have but one young at a time, but is equally descriptive of the other members of this group, some of which have two, while others have three or four, and others, the *Phascogalæ* for instance, eight or nine at a birth; but in all cases, even with these large numbers, the young hang to the mammæ in the way I have described.

Independently of the low structure of the brain and the low form of reproduction of the Kangaroos, I ought to mention that two little bones have been expressly provided for the support of the marsupium; there is also a considerable difference in the dentition, as well as in the form of the lower jaw, by which this group of animals may at all times be distinguished. I have not failed to notice much disparity in size in the *Marsupiata*; they seem to be always growing; for the males get larger and still larger for years, even long after they have commenced the duty of reproduction, and hence individuals of all sizes occur, and occasionally one extraordinarily large may be met with. I have observed this to occur with all the Marsupials, but particularly among the Kangaroos. The great herds of the grey species, *Macropus major*, are frequently headed by an enormous male, or Boomer as he is called. Like the "rogue Elephants" of Ceylon, these patriarchs are often solitary, and are generally very savage.

Commencing with the most lowly organized of the Australian mammals, I may state that the *Ornithorhynchus* has a very limited range, as is shown by its not being found either in Western or Northern Aus-