

Otter in pl. vi. of his Atlas. But I find that in the brain of an Otter (*Lutra vulgaris*), of the Badger (*Meles taxus*), and Ratel (*Mellivora indica*) in the University Museum a similar sunken condition of this limb of the Sylvian convolution exists.

From the examination of these brains of *Trichechus*, *Phoca*, and *Macrorhinus*, I am disposed to regard these animals as more or less approximating in the arrangement of the convolutions of the outer face of the hemisphere to those Carnivora which possess four tiers of convolutions in relation to the fissure of Sylvius. This arrangement is found in the Dog, Jackal, Fox, and Wolf.¹ From Dr. Murie's figures of the brain of *Otaria jubata* it would appear that in that animal, whilst the Sylvian and supra-sylvian convolutions are quite definite, yet that the subdivision of the marginal convolution of the longitudinal fissure into mediosagittal and mediolateral convolutions is so partial that the arrangement seems to be intermediate to that which one finds in *Trichechus* and the Canidæ on the one hand, and the Cats on the other. In regarding this affinity in the general arrangement of the convolutions of the cranial surface of the hemisphere in the Seals with those of the Canidæ, it must be kept in mind that in the Dogs the convolutions are less tortuous, and with fewer secondary fissures and gyri than in the Pinnipedia.

The hemisphere of the cerebrum of *Phoca vitulina* possessed on the mesial and tentorial surfaces a distinct gyrus fornicatus, or great limbic lobe, which was divided into uncinata, hippocampal, and callosal convolutions, and was differentiated on its peripheral side by the splenial fissure or the limbic fissure of Broca. This fissure was bridged in its posterior part by a short retrolimbic gyrus, the *pli de passage retrolimbique* of Broca. The splenial fissure had not always the same termination at its upper and anterior end, for in the same brain I have seen it prolonged forwards into the crucial fissure in one hemisphere, but in the other separated from it by a bridging convolution. Both the suprasplenial convolution and fissure existed in the region above the corpus callosum, though in one hemisphere the fissure was bridged by a short gyrus. Neither the postsplenial fissure nor the splenial convolution was distinctly differentiated, and the tentorial surface was subdivided into narrow convolutions. At its inferior end the splenial fissure was continuous with the postrhinal fissure, and through it with the transverse part of the fissure of Sylvius, across which it was prolonged into the rhinal fissure, which defined the tuber olfactorium externally. The tuber was distinctly prolonged into the uncinata gyrus across the bottom of the fissure of Sylvius. Immediately to the outside of the connecting band between the tuber and uncinata gyrus was the concealed portion of the anterior limb of the Sylvian convolution, which apparently represented the Island of Reil. The supraorbital area possessed a gyrus rectus, olfactory fissure, intraorbital fissure, internal and external supraorbital convolutions. The olfactory peduncle was very slender, more so indeed than would be imagined

¹ See pl. iv. in Leuret and Gratiolet's Atlas.