

- Hallmann and Spix, in works cited p. 62.  
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 Rathke, über den ineren Bau der Prickle. Danzig, 1825, and Mayer, op. cit. p. 181.

*Muscular System.*

Consult, in addition to the larger works of Meckel and Cuvier, Cuvier et Valenciennes, Hist. Nat. des Poissons, tom. 1; Carus' Plates; and Müller's work on the Myxinoidæ, for the muscles of these and the Cyclostomous Fishes.

*Nervous System.*

For the Brains of the different orders of Fish, Serres' Anat. du Cerveau, and Desmoulin's Anat. des Systèmes Nerveux, Paris, 1825, with Carus' Darstellung des Nervensystems, may be referred to,

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*Electric Organs.*

Consult the article ANIMAL ELECTRICITY in Todd's Cyclop. of Anat. and Physiol., and that by Valentin in R. Wagner's Handwörterbuch der

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*Organs of the Senses.*

- Rosenthal, in Reil's Archiv, Band 10. Dissection of Fish's Eye.  
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 Werneck, in Ammon's Zeitschrift f. Ophthalmologie, Band 5, upon the Lens.  
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 Erdl, Disquisit. de Piscium Glandula Choroideali. Monachii, 1839, and Wharton Jones, in Medical Gazette, 1838.  
 Treviranus, Beiträge zur Anat. und Physiol. der Sinneswerkzeuge. Bremen, 1828.  
 Weber, de Aude et Auditu Hominis et Animalium, pars 1. Lips. 1820.  
 Breschet, Recherches Anat. et Physiol. sur l'Organe de l'Ouïe des Poissons. Paris, 1838, with 17 plates.  
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*Digestive System.*

- Consult Owen's Odontography, part 1, for the Teeth. Rathke, in his Geschichte der Thierwelt, upon the Intestinal Canal of Fishes, and Müller's Archiv f. 1837.  
 Blainville, Mém. sur le Squale pélerin in Mém. du Mus. d'Hist. Nat. tom. 18.  
 Alessandrini, in Meckel's Archiv, Band 6, upon second Pancreas of Sturgeon.  
 Cuvier's Anat. Comp., tom. 1, part 2, Paris, 1836, is rich in details of the digestive organs.

*Organs of Circulation.*

- Cuvier, in his Hist. Nat. des Poissons, tom. 1, figures the vascular system of the Perch.  
 Consult also Carus and Otto's Erläuterungs-tafeln, Heft 6.

- Tiedmann, Anat. des Fischherzens. Landshut, 1809.  
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 Duvernoy, in Ann. des Sci. Nat., 1837, tom. 8, on Accessory Heart.  
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*Organs of Respiration.*

- Rathke, op. cit. p. 181, and Müller on *Myxinoidæ*.  
 Alessandri, de Piscium Apparatu Respirationis. Bonon. 1838.

*Swimming-Bladder.*

- De la Roche, in Ann. du Mus. d'Hist. Nat. vol. 16.  
 Müller's Archiv f. 1842; Rathke, Cuvier and Valenciennes, op. cit. and Jacobi, de Vesica Aërea Piscium. Berol. 1840.

*Urinary Organs.*

- Steenstra-Toussaint, Comment. de systemate uropoetico Piscium. Lugd. Bat. 1835.  
 Retzius, Obs. in Anat. Chondropterygiorum. Lundæ, 1819.  
 Stannius, in Müller's Archiv f. 1839.

*Sexual Organs.*

- Rathke, op. cit. Müller's Archiv f. 1836. R. Wagner's Prodromus Hist. Generationis.  
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 Lallemant, Ann. des Sci. Nat., tom. 15. 1841.  
 Mayer, in Froriep's Notizen f. 1834, on claspers of Shark.  
 R. Wagner, in Münchner Denkschriften, Band 2, 1837.

## APPENDIX.

A LIST is subjoined of the most useful works that treat upon the Development of the Vertebrata, this being a subject of the highest interest and importance when a general comparison is instituted between the several classes.

Baer, Rathke, and others, in Burdach's Physiol. 2d ed. 1837, have given a most complete and general survey of the development of the Vertebrata. Upon that of the *Mammalia*, consult Von Baer's Entwicklungsgeschichte der Thiere, Königsb. 1837. Bischoff, Entwicklungsgeschichte des Kanincheneies, Braunschweig, 1842, and Rudolph Wagner's Elements of Physiology by Dr. Willis, part 1, on Generation, where copious bibliographical references are also given. *Birds*, Von Baer, über Entwicklungsgeschichte der Thiere, 1 ter Theil, 1828. Pander, Beiträge zur Entwicklungsg. des Hünchens im Ei, Wurzburg, 1817. Reichert Entwicklungsleben im Wirbelthierreich, Berlin, 1840. *Reptiles*, Baer, op. cit. Band 2, on Batrachia. Rathke, Entwicklung der Natter, Königsb. 1839. Reichert, op. cit. Vogt, Untersuch. über Entwicklungsg. der Geburtshelferkröte, Solothurn, 1842. *Fishes*, Baer, Untersuch. über Entwicklungsg. der Fische, Königsb. 1835, and Vogt. Entwicklungsg. der Forelle in Agassiz Hist. Nat. des Poissons d'eau douce de l'Europe, Neufchatel, 1841.

The following Addenda comprise some new and valuable contributions to the literature and anatomy of the Vertebrata :—

- Otto Köstlin, der Bau des Knochernen Kopfes in den vier Klassen der Wirbelthiere, mit 4 Tafeln, Stuttg. 1844.  
 Reichert, Vergleichende Entwicklungsg. des Kopfes der nackten Amphibien, Königsb. 1838.  
 Rapp, Anat. Untersuch. über die Edentaten, Tubingen, 1843.  
 Natalis Guillot., l'Organiz. du Centre Nerveux d'Anim. Vertébrés in Mém. de l'Acad. de Bruxelles, tom. 13. 1843.

## NOTE to pages 49 and 61.

The *thymus gland*, according to Owen, trans. Zool. Soc., vol. 1, is absent even in the foetus of the Marsupialia, but not in the Ornithorynchus. The *Cloaca* appears only to occur in the female Marsupials.

## NOTE to page 100.

Dr. Rudolph Wagner found that the bulk of the creamy fluid contained in, and even the reticular membrane lining, the *Inglurial gland* of an old pigeon that had died two days after hatching her young, consisted of soft whitish granules, about  $\frac{1}{50}$ th to  $\frac{1}{150}$ th of a line in size, presenting in their interior small highly refractive nuclei; they consisted of protein combined with fat, but contained neither milk-sugar nor fluid casein, although the secretion of this gland has been constantly compared to the milk of a Mammiferous animal.