

HUMAN PHYSIOLOGY.

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"*Vastissimi studii primas quasi lineas circumscripsi.*"—HALLER.

WITH

FIVE HUNDRED AND THIRTY-TWO ILLUSTRATIONS

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there stated, that inorganic bodies speedily attain the same temperature, either by radiation or conduction; so that the different objects in an apartment exhibit the same degree of heat by the thermometer; but the temperature of animals being the result of a vital operation, they retain the degree of heat peculiar to them with but little modification from external temperature. There is a difference, however, in this respect, sufficient to cause the partition of animals into two great divisions—the *warm-blooded* and *cold-blooded*; the former comprising those whose temperature is high, and but little influenced by that of external objects;—the latter those whose temperature is greatly modified by external influences. The range of the temperature of the warm-blooded—amongst which are all the higher animals—is limited; but of the cold-blooded extensive. The following table exhibits the temperature of various animals in round numbers;—that of man being estimated at 98° or 100° , when taken under the tongue. Dr. John Davy¹ makes the mean of numerous observations, thus taken, 100° . The temperature in the axilla is something less. M. Gavarret,² however, estimates it from about 98° to 100° . MM. Prevost and Dumas,³ and Dr. Brown-Séquard⁴ would place the normal temperature of man higher than this,—at not less than 102° . In the axilla, M. Edwards⁵ found it vary, in twenty adults, from 96° to 99° Fahrenheit, the mean being 97.5° . It would appear, however, to differ at different periods of the day. Hallmann, from his own observations and those of Gierse,⁶ found that the temperature of healthy individuals under the tongue was on the average 37° Cent., or 98.66° Fahr.; late in the morning and evening from 36.7° to 36.8° Cent.,—from 98.06° to 98.24° Fahr.; in the forenoon, at 37.3° Cent.— 99.14° Fahr.; and in the afternoon, at 37.5° Cent.— 99.5° Fahr.

ANIMALS.	OBSERVERS.	TEMPERATURE.
Active young horse, four years old,	Metcalle. ⁷	104°
Arctic fox,	Capt. Lyon. ⁸	107
Arctic wolf,	Do. }	105
Squirrel,	Pallas. ⁹	
Hare,	Do. }	104
Whale,	Scoresby. ¹⁰	
<i>Arctomys citillus</i> , zizil,—in summer,	Pallas.	103
Do. when torpid,	Pallas.	80 to 84
Goat,	Prevost and Dumas. ¹¹	103
She goat, three months old,	Metcalle.	107
Mother of the same, old, and in poor condition,	Do.	104
Bat, in summer,	Prevost and Dumas.	
Musk,	Do. }	102

¹ Researches, Physiological and Anatomical, Amer. edit., p. 290, Philad., 1840.

² De la Chaleur Produite par les Etres Vivants, p. 100, Paris, 1855.

³ Annales de Chimie et de Physique, 2e Série, xxiii. 64.

⁴ Med. Examiner, Sept., 1852, p. 554.

⁵ De l'Influence des Agens Physiques, &c., Paris, 1824; or Hodgkin's and Fisher's translation, Lond., 1832.

⁶ Henle, Handbuch der rationellen Pathologie, 1 Band. S. 301, Braunschweig, 1846.

⁷ Caloric, its Mechanical, Chemical, and Vital Agencies in the Phenomena of Nature, ii. 567, Lond., 1843.

⁸ Parry's Second Voyage to the Arctic Regions.

⁹ Nov. Species Quadruped. de Glirium Ordine, Erlang., 1774.

¹⁰ An Account of the Arctic Regions, Edinb., 1820.

¹¹ Bibliothèque Univers., xvii. 294.

ANIMALS.	OBSERVERS.	TEMPERATURE.
<i>Marmota bobac</i> ,—Bobac,	Prévost and Dumas.	101 or 102°
House mouse,	Do.	101
<i>Arctomys marmota</i> , marmot—in summer,	Do.	101 or 102
Do. when torpid,	Do.	43
Rabbit,	Delaroche.	100 to 104
Tame young rabbit, two months old,	Metcalf.	108
Polar bear,	Capt. Lyon.	100
Dog,	Martine. ¹	100, to 103
Cat,	Do.	
Swine,	Do.	
Sheep,	Do.	
Ox,	Do.	
A fine active kitten, two months old,	Metcalf.	105.5
A vigorous cat, nearly full grown,	Do.	104
Mother of the kitten, three years old,	Do.	103.5
A very old cat, said to be in its 19th year,	Do.	102
An active cur dog, three months old,	Do.	106
Guinea-pig,	Delaroche.	100 to 102
<i>Arctomys glis</i> ,	Pallas.	99
Shrew,	Do.	98
Young wolf,	Do.	96
<i>Fringilla arctica</i> , Arctic finch,	Braun. ²	111
<i>Rubecola</i> , redbreast,	Pallas.	
<i>Fringilla linaria</i> , lesser red poll,	Do.	110 or 111
<i>Falco palumbarius</i> , goshawk,	Do.	110
<i>Caprimulgus Europæus</i> , European goat-sucker,	Do.	
<i>Emberiza nivalis</i> , snow-bunting,	Do.	109 to 110
<i>Falco lanarius</i> , lanner,	Do.	109
<i>Fringilla carduelis</i> , goldfinch,	Do.	
<i>Corvus corax</i> , raven,	Despretz. ³	
<i>Turdus</i> , thrush, (of Ceylon,)	J. Davy. ⁴	
<i>Tetrao perdrix</i> , partridge,	Pallas.	
<i>Anas clypeata</i> , shoveler,	Do.	108
<i>Tringa pugnax</i> , ruffe,	Do.	
<i>Scolopax limosa</i> , lesser godwit,	Do.	
<i>Tetrao tetrax</i> , grouse,	Do.	
<i>Fringilla brumalis</i> , winterfinch,	Do.	
<i>Loxia pyrrhula</i> ,	Do.	107
<i>Falco nisus</i> , sparrowhawk,	Do.	
<i>Vultur barbatus</i> ,	Do.	
<i>Anser pulchricollis</i> ,	Do.	
<i>Colymbus auritus</i> , dusky grebe,	Do.	
<i>Tringa vanellus</i> , lapwing, (wounded,)	Do.	107 to 111
<i>Tetrao lagopus</i> , ptarmigan,	Do.	
<i>Fringilla domestica</i> , house-sparrow,	Do.	
<i>Strix passerina</i> , little owl,	Do.	
<i>Hæmatopus ostralgus</i> , sea-pie,	Do.	
<i>Anas penelope</i> , widgeon,	Do.	106
<i>Anas strepera</i> , gadwall,	Do.	
<i>Pelecanus carbo</i> ,	Do.	
<i>Falco ossifragus</i> , sea-eagle,	Do.	
<i>Fulica atra</i> , coot,	Do.	
<i>Anas acuta</i> , pintail-duck,	Do.	105
<i>Falco milvus</i> , kite, (wounded,)	Do.	
<i>Merops apiaster</i> , bee-eater,	Do.	
Goose,	Martine.	
Hen,	Do.	103 to 107
Dove,	Do.	
Duck,	Do.	

¹ Med. and Philos. Essays, Lond., 1740; and De Similibus Animalibus et Animal. Calore, &c., Lond., 1740.

² Nov. Comment. Acad. Petropol., xiii. 419.

³ Annales de Chimie, xxvi. 337, Amst., 1824.

⁴ Edinb. Philos. Journal, Jan., 1826.