FISHES.

Mr. Ronalds has been at great pains to obtain accurate knowledge of the habits of the Trout from ocular observation—and we read with interest this account of some of his experiments :—

"With a view to obviate this difficulty, a little fishing hut, or observatory, of heath, overhanging a part of the river Blythe, near Uttoxeter, in Staffordshire, seemed favourable for the purpose. Its form was octagonal, and it had three windows, which being situated only four feet and a half above the surface of the water, allowed a very close view of it. The middle one commanded a sconce, each of the two others a small whirlpool or eddy. The curtains of the windows were provided with peepholes, so that the fish could not see his observer, and a bank was thrown up, in order to prevent a person approaching the entrance of the hut from alarming the fish. The stream was regularly fished, and nothing else was done to interfere with the natural state of the animal.

"The stationary position in which he is enabled to maintain himself in the most rapid stream, poised as it were like a hawk in the air, was the first thing which seemed worth nothing at this fishing-hut. Even the tail, which is known to be the principal organ of propulsion, can scarcely be observed to move, and the fins, which are used to balance the fish, seem quite useless, except when he sees an insect ; then he will dart with the greatest velocity through the opposing current at his prey, and quickly return. The station which he occupies in this manner is invariably well chosen. Should a favourite haunt, where food is concentrated by the current, be rather crowded by his fellows, he will prefer contending with them for a share of it, to residing long in an unfruitful situation. A trout will chiefly frequent one place during all the summer months. It is well known that he quits the large waters, and ascends the smaller brooks for the purpose of spawning in October and November, when the male assists the female in making a hole in the gravel wherein to deposit the ova. By some it is supposed, that they both lie dormant in the mud during the greatest severity of the weather."

SENSE OF HEARING.

"In order that we might be enabled to ascertain the truth of a common assertion, viz. that fish can hear voices in conversation on the banks of a stream, my friend the Rev. Mr. Brown of Gratwhick, and myself, selected for close observation a trout poised about six inches deep in the water, whilst a third gentleman, who was situated behind the fishing house (*i. e.*) diametrically opposite to the side where the fish was, fired off one barrel of his gun. The possibility of the flash being seen by the fish was thus wholly prevented, and the report produced not the slightest apparent effect upon him.

"The second barrel was then fired ; still he remained immovable ; evincing not the slightest symptom of having heard the report. This experiment was afterwards often repeated ; and precisely similar results were invariably obtained ; neither could I, or other persons, ever awaken symptoms of alarm in the fishes near the hut by shouting to them in the loudest tones, although our distance from them did not sometimes exceed six feet. The experiments were not repeated so often as to habituate them to the sound. It is possible that fishes may be in some manner affected by vibrations communicated to their element either directly or by the intervention of aerial pulsations ; although it does not seem to be clearly proved that they possess any organs appropriated exclusively to the purpose of hearing. At all events, it appears, that neither the above-mentioned explosions, nor the loud voices had power to produce vibrations in the water, which could so affect them."

Mr. Ronalds says that he leaves the discussion of this intricate subject to more able and learned speculators, but that it is sufficient to know that the above mentioned Trout had no ears to hear either the voice or the gun ; and he expresses his firm belief, in which we agree with him, that the zest which friendly chat often imparts to the exercise of the captivating art need never be marred by an apprehension that sport will be impaired thereby. Don't stamp, quoth Kit, like a paving machine along the banks, for the Trout is timorous in earthquake, and don't blow your nose like a bagman, for he is afraid of thunder. We also hold with Mr. Ronalds, that in fish sight is perhaps the sense of most importance to them ; and that they can perhaps frequently distinguish (with greater or less distinctness) much more of objects which are out of their own element than it is often supposed they can. His experiments on their Taste and Smell are exceedingly curious.

"It seemed almost impossible to devise experiments relative to the sense of smell in fishes, which would offer the prospects of satisfactory results, without depriving the animal of sight ; the cruelty of which operation deterred me from prosecuting the enquiry. Observations on the taste of fishes are involved in still greater difficulties. I once threw upon the water, from my hut (by blowing them through a tin tube) successively, ten dead house-flies towards a trout known to me by a white mark upon the nose (occasioned by the wound of a hook), all of which he took. Thirty more, with cayenne pepper and mustard plastered on the least conspicuous parts of them, were then administered in the same manner. These he also seized ; twenty of them at the instant they touched the water, and allowing no time for the dressing to be dispersed ; but the other ten remained a second or two upon the surface before he swallowed them, and a small portion of the dressing parted and sunk. The next morning several exactly similar doses were taken by the same fish, who was apparently so well contented with the previous day's treatment that he seemed to enjoy them heartily. From these and similar experiments, such as trout taking flies dipped in honey, oil, vinegar, etc. I concluded that if the animal has taste his palate is not peculiarly sensitive. My experience goes to prove, contrary to the opinion of some who say that the trout will take every insect, that he does not feed upon the hive bee, or wasp, and that he very rarely takes the humble bee. It seemed to be a common practice with those who plied with food near the hut, to lay an embargo upon almost every little object which floated down the stream, taking it into the mouth, sometimes with avidity, sometimes more slowly, or cautiously, as if to ascertain its fitness, or unfitness for food, and frequently to reject it instantly. This seems to favour the notion that if the trout has not a taste similar to our own, he may be endowed with some equivalent species of sensation in the mouth. It may also account for his taking a nondescript artificial fly, but it furnishes no plea to quacks and bunglers, who inventing or espousing a new theory, whereby to hide their want of skill or spare their pains, would kill all the fish with one fly, as some doctors would cure all diseases by one pill. If a trout rejects the brown hive bee at the time that he greedily swallows the March brown fly, it is clear that the imitation should be as exact as possible of the last, and as dissimilar as possible to the first. I have very frequently watched fish in an apparently hesitating attitude when bees and wasps were within their ken. How far either smell or taste may be concerned in this seeming indecision the writer cannot determine.

"On one occasion I observed a humble bee, which floated down the stream, visited by a trout, who suffered himself to descend also with the current, just under the bee, his nose almost touching it for about three feet, but he struck away without taking it. At another time I saw a fish swim up to a humble bee which was thrown to him, and examine it very attentively, he then cautiously and leisurely took it in his mouth and descended with it, but immediately afterwards gave it up ; he then seemed to be closely occupied with another humble bee, swimming up to and away from it six times, each time almost touching it with his nose. Ultimately he took this also, but immediately rejected it. Sir H. Davy (Salmonia, page 28) says, 'The principal use of the nostrils in fishes, is to assist in the propulsion of water through the gills for performing the office of respiration : but I think there are some nerves in these organs which give fishes a sense of the qualities of water, or of substances dissolved in or diffused through it similar to our senses of smell, or perhaps rather our sense of taste, for there can be no doubt that fishes are attracted by scented worms, which are sometimes used by anglers that employ ground baits.' Also, page 184, he says, 'We cannot judge of the senses of animals that breathe water—that separate air from water by their gills ; but it seems probable that as the quality of the water is connected with their life and health, they must be exquisitely sensible to changes in water, and must have similar relations to it, that an animal with the most delicate nasal organs has to the air.' Surely no reasoning can be more sound than this. Should not our endeavours be directed, rather to the discovery of senses in fish, which we have not, than to attempt at comparisons between our own senses and theirs? Having examined the stomachs of many trouts taken in almost every week throughout the three last entire fishing seasons, with a view chiefly to assist my choice of flies for the catalogue below, I found that his food consisted, besides flies and caterpillars, of larvae squillae (or fresh water shrimps), small fish, young crawfish, spiders, millipedes, earwigs, and the water beetle. I never discovered frogs, snails, or mice, but have no doubt that other waters afford other fare, even 'sauces piquantes of fish hooks.' A convenient method of examining the contents of the stomach is to put the materials into the hair seive and pump clean water upon them ; when parted and sufficiently clean, the whole may be put into a large cup, full of clean water, for examination.—*The Fly-Fisher's Entomology, by Albert Ronalds.*

LONG BEARDS.—The longest beard recorded in history, was that of John Mayo, painter to the Emperor Charles V. Though he was a tall man, it is said his beard was so long that he could tread upon it. He was very vain of his beard, and usually fastened it with a ribbon to his button hole ; and sometimes he would untie it by command of the Emperor, who took great pleasure in seeing the wind blow it in the faces of the courtiers.

Majendie has given a scale of the pulse, which states that the difference in frequency between that of the infant and the aged is more than double. The scale is, at birth, 130 to 140 a minute ; one year, 120 to 130 ; at two years, 102 to 110 ; three years, 90 to 100 ; seven years, 85 to 90 ; fourteen years, 80 to 85 ; adult age, 75 to 80 ; first old age, 65 to 75 ; confirmed old age 60 to 65.

THE PEARL.

HALIFAX, FRIDAY EVENING, AUGUST 3, 1838.

THE FIRST OF AUGUST.

The most auspicious event it has ever fallen to our lot to record, occurred on Wednesday, the memorable first of August. The isles of the sea were made glad with the sounds of liberty ;—deliverance was proclaimed to nearly half a million human of beings. —their fetters were melted away by the fervency of justice and benevolence. To the christian and the philanthropist the liberation of so large a number of captives forms a subject of devout joy and gratitude. In the present case it deserves to be remembered also, that there is nothing to mar our rejoicing. Unanimity of sentiment, which was most desirable, appears to have prevailed amongst the great body of West India planters, and the boon of entire, complete, and unrestricted freedom was granted to the slaves without any collision of feeling. With one voice and one heart they agreed to do an act of justice towards their bondsmen. Thus in Jamaica, on the 8th of June, the House of Assembly passed the Bill for terminating the Apprenticeship on the 1st of August,—*without a dissentient voice.* Nor should it be forgotten, that freedom was bestowed without any compulsion from without—the grace and beauty of this splendid act belong to the planters themselves. This is as it should be, and in years to come will redound to their credit. We are glad that the persons interested are the *emancipators ;* indeed we regard it as presenting the brightest feature in this highly interesting scene. The words of the poet shall yet receive their accomplishment ; and the time will arrive when it shall be sung in jubilant strains—.

> "The hand that held a whip was lifted up
> To bless; slave was a word in ancient books
> Met, only ; every man was free; and all
> Feared God, and served him day and night in love."

At the present time we have thought it might be interesting to our readers to see at one view the population of the British West India Islands according to the most recent and authentic information within our reach.

POPULATION OF THE BRITISH (FORMERLY SLAVE) COLONIES.
(Compiled from recent authentic documents.)

Colonies.	White	Slave	Free Col'd.	Total.
Anguilla,	365	2,388	357	3,110
Antigua*	1,980	29,839	3,895	35,714
Bahamas*	4,240	9,268	2,991	16,499
Barbados*	15,000	82,000	5,100	102,100
Berbice †	550	21,300	1,150	23,000
Bermuda*	3,900	4,600	740	9240
Cape of Good Hope†	43,000	35,500	29,000	107,500
Demerara †	3,000	70,000	6,400	79,400
Dominica ‡	850	15,400	3,600	19,850
Grenada	800	24,000	2,800	27,600
Honduras †	250	2,100	2,300	4,650
Jamaica ‡	37,000	323,000	55,000	415,000
Mauritius ‡	8,000	76,000	15,000	99,000
Montserrat †	330	6,200	800	7,330
Nevis ‡	700	6,600	2,000	6,300
St. Christophers	1,600	19,200	3,000	23,800
St. Lucia †	980	13,600	3,700	18,280
St. Vincent ‡	1,300	23,500	2,800	27,600
Tobago	320	12,500	1,200	14,020
Tortola ‡	480	5,400	1,300	7,180
Trinidad †	4,200	24,000	16,000	44,200
Virgin Isles	800	5,400	600	6,800
Total	131,257	831,105	162,733	1,125,095

The number of slave apprentices emancipated on the first of the month is as follows :

Barbadoes	82,000
Dominica	15,400
Jamaica	323,000
Montserrat	6,200
Nevis	6,600
St. Vincent	28,500
Tortola	5,400
Total	462,100

* These islands adopted immediate emancipation, August 1. 1834
† These are crown colonies, and have no local legislature.
‡ In these islands, the apprenticeship has been abolished by the local legislatures, from the first of August 1838.

MONOMANIA.—"On our first page will be found a tale of thrilling interest, illustrating this subject. The disease known as Monomania, has not, until within a few years, had a practical existence. Dr. Rush has devoted much time and research in the investigation of this singular species of insanity, and in the course of his works upon the mind, many remarkable cases are cited, conclusively showing that it has an existence, and in minds which to all outward appearances are perfectly sane. When the term first came in use it was scouted at by the ignorant, and said to be one of the many successful loop-holes, out of which the rich felon escaped punishment, and on this account but little weight was attached to the arguments and evidence adduced in its support. But lately there has been so many incontrovertable cases, proving its existence, that the public mind begins to be open to a conviction of its truth. We have frequently heard the opponents of Phrenology bring up the subject of Monomania as a strong argument against the truth of that science, for Monomania being a diseased state of one or more of the faculties while the rest are