

females grow darker, particularly upon the back fins and gill covers, and are now called "Black fish." The females seek out their mates and pairing off, they choose a spawning place, from which if possible they drive away all other fish. "Ephemera," describing the way in which they deposit their eggs, says "a salmon spawning bed is constructed thus: The fish, having paired, chosen their spot for bed-making, and being ready to lie in, drop down the stream a little, and then rushing back with velocity towards the spot selected, dart their heads into the gravel, burrowing with their snouts into it. This burrowing action, assisted with the powers of the fins, is performed with great force, and the water's current aiding, the upper part or roof of the excavation is removed. The burrowing process is continued until a first nest is dug sufficiently capacious for a first deposition of ova. Then the female enters this first hollowed link of the bed and deposits therein a portion of her ova. That done she retires down the stream, and the male instantly takes her place, and pouring by emission a quantity of milk (better known under the name of soft roe) over the deposited ova, impregnates them. After this the fish commences a second excavation immediately above the first, and in a straight line with it. In making the excavations they relieve one another. When one fish grows tired of its work, it drops down the stream until it is refreshed, and then with renovated powers resumes its labours, relieving at the same time its partner. The partner acts in the same spirit, and so their labour progresses by alternate exertion. The second bed completed, the female enters it as she did the first, again depositing a portion of ova, and drops a little down stream. The male forthwith enters the excavation and the same operation is repeated day by day till the female has no more ova to deposit. For it must be borne in mind that no two excavations are made on the same day. The ova in the first nest are covered with the gravel and sand from the second, being carried chiefly by the action of the current. The last deposition of the ova is covered in by the action of the fish and water breaking down some of the gravel crust above and over the nest. Thus is formed a complete spawning bed, not at once, not by a single effort, but piecemeal, and at several intervals of greater or less duration, according to the age and size of the fish and quantity of ova to be deposited. They are usually occupied from five to ten days." When this task is accomplished they descend the stream to the nearest pool, and there remain a while to recruit. After they