

fish was injurious to the eggs, rendering the shell so soft that they could not be transported safely.

With the exception of the disasters enumerated above, there has been but one that I can recall, and that was caused by the bursting of our barriers at Dead Brook under the pressure of a flood.

BUCKSPORT, ME., *April 7, 1884.*

**86.—FURTHER REPORT OF R. D. HUME'S SALMON HATCHERY, OREGON.\***

**By CHARLES I. FINELY.**

[From a letter to Prof. S. F. Baird.]

I have carefully liberated about 12,000 salmon fry in a little stream called Indian Creek, a tributary of Rogue River, Oregon.

Nearly all the eggs that I lost were from non-impregnation. I had to spawn the salmon too early, but I did it then for fear of losing them altogether, on account of a freshet. We had them in two boxes afloat in the water. These boxes are made of slats 24 by 10 by 6 feet. Between the 25th and 28th of August last I put into these boxes 100 salmon (50 in each box). Those that lived I left there until the 22d of November. In towing the boxes down the river one of them ran aground and a slat tore off, so that we lost 50 fish thereby. Of the other lot about half died. I think this was due chiefly to their being confined in too small a space. They got a good deal bruised before the middle of September. Mr. Hume intends to do away with the boxes and to build a large reservoir at the outlet of the hatching-house.

I spawned in all only nine females; lost two from their getting away, and let one go for want of a male. I estimated only about 30,000 eggs, and from actual count the loss of eggs was 7,000. The loss of minnows and fry was about 1,000.

The first eggs were put in the trays on the 22d of November; the first embryo was discovered on the 26th of December; and the first fish was free the 27th of January, or in sixty-six days. The last salmon hatched February 17th, or eighty-seven days from spawning. On the 10th of March we commenced fishing, and on the 7th of April let them go, all large and healthy fry. As far as I could find, I had only ten cripples, and some of these lived to become fry. I waited for Mr. Hume to come from San Francisco before turning them out. Under the circumstances, I feel much encouraged with my success.

Mr. Hume intends to make the hatchery a permanent fixture here, and to have the river stocked to its full capacity during the coming winter. We have a capacity for about 1,000,000 eggs.

ELLENSBURG, OREG., *April 27, 1884.*

\* See previous report on page 88 of this volume.—C. W. S.