

TESTING THE ELANDSPAD ABOVE THE BARRIER FALLS

SIR.—Brother Bill and I visited the upper Elandspad over the long weekend and managed to catch one rainbow cock of $11\frac{1}{2}$ inches long, with ripe milt, weighing 9 oz. (C.F. 40). This is 2 inches longer and 3 oz. heavier than the fish I caught there in April 1961. Three others of similar size followed our flies but would not take, and from these sightings we concluded that all the fish up there had reached this stage of growth.

We also brought back water samples taken at the points indicated on the accompanying map (based on air survey, page 103, PISCATOR No. 38) and had them tested for pH. By studying the map it will be seen that the streams entering the main river on the right bank have pH of about 6.1, while the main river, starting with pH 5.1 above the top falls (PISCATOR No. 44, page 91) slowly gets less and less acid as the influence of the side streams is felt, until down at the road bridge it is only pH 6.25 (pH 7.2 is neutral).

KEN HERRINGER.

7, Titania Way, Meadowridge, Cape Town, September 6, 1961.

(We take the heading from Mr. Alan Yates' remarks in the report on page 85 of PISCATOR No. 44, on the December stocking expedition, "I look forward very keenly indeed to a test expedition in two or three years' time". As recorded in PISCATOR No. 51, in "Notes from the Club Room Board", an Exploration Group party were "washed out" by rain in the middle of April 1961 and prevented from going up to the upper Elandspad, but the brothers Herringer reached the point "Holsloot Route" on the map in No. 38 on April 30, 1961, and took a 9-inch rainbow from the 1958 planting. In the "Kraalstroom" article in No. 51 it was mentioned that in the autumn of 1959 two members noted that "The Elandspad was stained a dark brown, while the Kraalstroom was crystal clear, having a deep greenish look in the pools. These two streams coming together and mixing served to accentuate the peat-stain of the Elandspad . . ."

The scales from the $11\frac{1}{2}$ -inch rainbow male caught by Mr. Herringer in September 1961 show that it was also one of those transported to the upper Elandspad by the Exploration Group in December 1958. It had grown slowly in 1959 and 1960 and had been about 8 inches long at the 1960 winter with erosion denoting ripening at two years old. Its growth in the 1960/61 summer period had been more rapid and there was strong erosion at the final margin of the scales due to its state of sexual ripeness.

The pH figures given by Mr. Herringer are quite enlightening. They show an acid pH 5.1 at the point where the "Holsloot Route" leaves the Elandspad river bed (air-survey map, page 103, No. 38), with readings of pH 5.25 in a left-bank tributary entering below this point and pH 5.7 in the main stream above the next left-bank tributary (which showed pH 5.9). The first right-bank tributary, on the way downstream, had pH 6.1, and a little lower the main stream had pH 6.2. The Kraalstroom had pH 6.1, and, as stated, at the road bridge the pH was 6.25.

When the arrangements for the stocking of the Elandspad above the Barrier Falls were made in 1958, it was not known that the water from the top plateau was brown and acid. As the growth of the rainbows which have been sampled (above the previous barrier to upstream movement) is slow, and it is not unlikely that others from the 1958 stocking have gone downstream to water more to their liking, stocking with brown trout seems to be advisable.—A.C.H.)