

THE RUFFLE PLANT AGAIN IN LIMPIA CREEK

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For the first time in thirty-two years the ruffle plant, *Riella americana*, rare American liverwort, has been collected in Limpia Creek, in the Davis Mountains of western Texas.

In September of this year, the writer and Dr. E. P. Cheatum spent a week in Jeff Davis County, Texas, studying and collecting the biota of the Davis Mountain region. Considerable time was spent in Limpia and its smaller tributary canyons. A profuse growth of *Riella* was found along upper Limpia Creek, within a mile of the town of Fort Davis. Here, the stream is confined to a narrow irrigation ditch, from the edges of which the tiny plant was growing in a mat extending perhaps a foot into the water. The shallow bottom, also, was almost completely covered with the plant. For more than a hundred yards this liverwort dominated the flora of the stream, mingled with a smaller quantity of *Hydrodictyon* and other algæ. Scattered patches of the ruffle plant were found farther up the creek, but none was observed in the series of pools in the main canyon between the towns of Fort Davis and Toyahvale.

Maturing sporophytes, about one millimeter in diameter, were observed on a considerable proportion of the specimens seen.

Studhalter¹ states that this form has been collected in only four places, two practically contiguous, as follows: Limpia Creek, (1855, 1902); South Dakota, (1898); Madera Creek, also in the Davis Mountains, (1927); and near Lubbock, Texas, (1927). He reports the species to have

¹Studhalter, R. A., The Elusive Ruffle Plant, *Riella*. Scientific Monthly, XXXV, 303-311. 1932.

disappeared from all of these except Madera Creek, where it is becoming less abundant each year.

In a later paper Studhalter² reports two new stations for *Riella americana* in the Davis Mountains, Little Aguja Creek and Cherry Creek, but says that frequent search during a period of five years has not revealed a single plant in Limpia Creek.

²Studhalter, R. A., *Riella americana*: Disappearance Due to Floods; Two New Stations. *Bryologist*, XXXVI, 79-82. 1933.