

## FRESH WATER MEDUSAE IN OKLAHOMA

THE finding of *Craspedacusta ryderi*<sup>1</sup> in an Oklahoma stream seems to be of sufficient general interest to warrant this note. All other records of this interesting form are from localities east of the Mississippi River.<sup>2,3,4,5</sup>

On September 6, 1930, Phillips first noticed the medusae in Lukfata Creek, a tributary of Little River, about one quarter mile north of Broken Bow, Oklahoma (Sect. 27 or 34, T6S-R 24E). Individuals were also seen in Yanubee Creek in Sect. 17, T6S-R 25E. Individuals were at first very numerous and were seen and collected at intervals during the three weeks following their discovery. The number was so great that "the water was almost blue with them."

We are indebted to Mr. Glen R. Durrell, district forester, and Mr. W. H. Mitchell, assistant district forester, for properly shipping us the specimens.

The part of Lukfata Creek where these medusae were taken was a relatively clear pool approximately 200 feet by 25 feet. The depth averaged 4 to 5 feet. The stream is known to have been "scoured out" this spring by floods; since that time the water has remained low. The specimens were found in water at least three feet deep near the center of the pool. The temperature of the water at that time was between 70° and 75° F.

The activity of the medusae consisted of slow movements in a vertical direction. The upward excursion resulted from repeated contractions of the umbrella. The return to the bottom of the pool was brought about by one of two methods; first, by "side slipping," and second, by turning over completely and propelling themselves downward. This cycle was completed about twice in a minute. They did not become active until the sun was fairly well up.<sup>6</sup>

No hydroid has been found as yet, but it is hoped that additional work next year may reveal this stage.

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## THE "FIRE STOPPER"

RECENT papers in SCIENCE<sup>1</sup> discussing the use of the divining rod recall to my mind a conversation which took place in my presence, a few years ago,

<sup>1</sup> The authors wish to thank Dr. F. Payne for checking their tentative identification of these specimens.

<sup>2</sup> C. W. Hargitt, SCIENCE, 26: 638, 1907.

<sup>3</sup> H. Garman, SCIENCE, 44: 858, 1916.

<sup>4</sup> F. Payne, *Jour. Morph.*, 38: 387, 1924; *Biol. Bull.*, 50: 433, 1926.

<sup>5</sup> W. E. White, *Biol. Bull.*, 59: 222, 1930.

<sup>6</sup> H. Garman, SCIENCE, 60: 477, 1924.

on a topic which was new to me. Nor have I since seen or heard any reference to this subject. The speakers were descendants of the German racial group frequently spoken of as "Pennsylvania Dutch," whose ancestors had migrated to the southwest.

Night had come to the road camp astraddle the Virginia-West Virginia boundary. The bee tree had been cut, the honey secured and the men were drifting back to camp. Among the first was old Paul Straus. He did not like these expeditions. He complained that a bee would fly a hundred yards to attack him no matter how many men there were closer to the bee tree. But at this safe distance in the darkness he became reminiscent.

"Old Jo Kirschbaum," he said, "could go right up to any tree. They never bothered him. I've seen the bees just buzzing all around his head—yellow jackets, too. He used to say you'd be all right as long as you didn't do anything to make them cross."

"Who was that, Mattie's father?" asked Homer Heatwole.

"No, Sam's uncle, old Oscar's brother."

"Oh, yes, I remember now. He could stop fire, too, couldn't he?"

"Yes, he'd just walk through the woods where there was fire coming, and when the fire got up to where he'd been walking it would just stop burning. I wish I knew how he did it. I gave him five dollars once to teach me how and he said he would some time, but he never got around to it. Always busy with something else he couldn't leave. He's gone now. He told me once if he taught it to anybody else he'd lose the power himself."

"Were you down at that fire on the Hunter land that he stopped?" asked Homer.

"No, but I saw the place afterwards."

"So did I. There was one place there where there were dry pine tops piled up and he walked across them and the fire stopped right there in the middle of the pile."

"Yes, I remember seeing that, too. Old Jo certainly had the power. There are not many that have."

The rest of the crew were coming in now with the lanterns and honey and the conversation turned to the subject of past and future bee tree hunts and present drinking water. The discussion was not resumed either then or later.

I wonder whether other readers of SCIENCE have ever come in contact with persons holding this belief. There is of course the possibility that we are dealing with an imaginative story of the type of the "Paul

<sup>1</sup> C. A. Browne, "Observations upon the Use of the Divining Rod in Germany," SCIENCE, 73: 84-86, 1931.

I. P. Tolmachoff, "The Use of the Divining Rod in Alaska," SCIENCE, 73: 365-366, 1931.