

**VIII. IDENTIFICATION OF ANTHOCEROS IN THE  
OKLAHOMA CRYPTOGAMIC FLORA****M. M. Wickham, 1922**

From the Zoological Laboratory of the University of Oklahoma.  
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On April 23, 1921, an exploration party visited "Belle Starr" Cave, in Pittsburg County, Oklahoma, for the purpose of reconnoitering the region, and making authentic records and cave collections. Members of the party included Supt. C. E. Fair, of Hartshorne, Supt. G. T. Masters, of Haileyville, Wallace Weeks of Hartshorne, J. T. Ogle, Jr., of Enid, and the writer, who conducted the party.

Passing up the tortuous defiles of a boulder-strewn ravine which headed in a mountain some three or four miles northeast of Hartshorne, we came at length to its eminence, where the mouth of the cave overlooks the cascades into the gorge below.

Just as the members of the party were clambering up the water-carved shelves and precipitous gorge wall, the writer observed a little green thallus clinging to the shadowed and upright cliff, anchored at a seepage joint in the rocks, which proved to be *Anthoceros*, as indicated by its "grass-blade-like" sporophytes.

The thallus which covered no more space than the size of a silver dollar, was carefully removed and packed with wet moss in a carton, and transported to the biological laboratories of the Southeastern State Teachers' College at Durant, where it was vegetated under bell jars, and subjected to microscopical and pen studies.

**Description.** The thallus is of a deep rich green color, and displays a dichotomized, frilled ribbon structure, like that of *Marchantia*. Toward the distal bifurcations, and just back of the apical cells and growing centers, rise the erect and "grass-blade-like" sporophytes which are cleft and shed their maturing spores in succession as the stalk elongates, and the cleft descends along the shaft.

**Cave Records.** The cave turned out to be a hoax. We clambered up the walls and went in on hands and knees only to find that it was a cryptic bench in the recesses of the cliff originally carved by the stream when at that level, and subsequently enlarged by the artifices of outlaws, who had found in its solitude and obscurity, a stronghold in depredations of territorial days, and which, in this instance, centered around the famous female outlaw, "Belle Starr," who lived and operated in these regions with a band of male conspirators.

The only relics found in the cave were bones of birds and

rodents left by the predaceous hawks and owls of the region. The discovery of *Anthoceros* more than repaid the loss in cave finds, and became the chief object of search on the remainder of the trip. Every member of the party assisted in a diligent search of the walls and floors of the ravine as we returned down the defile, but no more specimens of the rare "horned liverwort," were taken.

Subsequent reference to the literature of Oklahoma Flora, and consultation with botanists in the state, indicate that this is the first report of the finding of this genus of liverwort in Oklahoma. A pen study by the author is submitted herewith. (Figure 1).

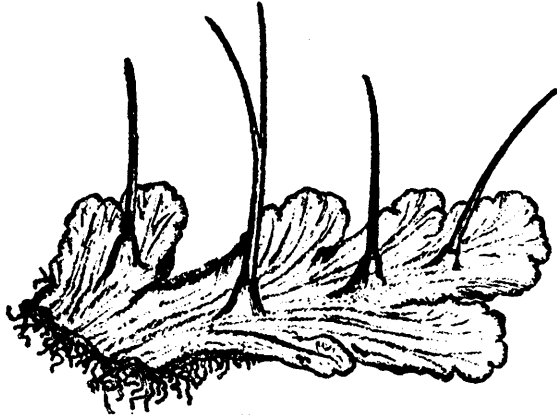


Figure 1.

ANTHOCEROS SP., or "horned liverwort" showing prostrate, dichotomizing thallus anchored by rhizoids with erect longitudinally cleaving sporophytes. The spores are shed in succession along the line of cleavage. (Original, from Belle Starr Cave specimen, Hartshorne, Oklahoma, April 23, 1921.)