

THREE NEW ZYGNEMATACEAE FROM ARKANSAS

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During a study of the algae collected in the Boston Mountain region of Arkansas, two new species of *Zygnema* and one of *Spirogyra* were found. Following are the descriptions of these species.

Zygnema insignisporum sp. nov.

Vegetative cells $24-28\mu \times 39-71\mu$, conjugation scalariform, receptive gametangia inflated on the conjugation side; zygospores globose to ovoid $32-35\mu \times 32-35\mu$, outer wall of two colorless layers of which the outermost is smooth, the inner scrobiculate with pits $4-5\mu$ in diameter and about 7μ apart; median wall punctate, yellow.

Zygnema transeauianum sp. nov.

Vegetative cells $30-32\mu \times 20-60\mu$; conjugation scalariform, receptive gametangia enlarged or slightly inflated on the conjugating side; zygospores globose to ovoid $25-35\mu \times 33-40\mu$, somewhat compressed; median spore wall yellow-brown reticulate with large irregular pits $7-12\mu$ across.

Spirogyra castanacea sp. nov.

Vegetative cells $34-37\mu \times 100-173\mu$, with plane and walls; 2 to 3 chromatophores making 2 to 3 turns in the cell; conjugation scalariform, tubes formed by both gametangia; receptive cell inflated on both sides; zygospores mostly broadly ellipsoid, rarely ovoid, $48-52\mu \times 69-73\mu$, median spore wall chestnut brown, strongly reticulate.

A general summary of the algae of the Boston Mountain region was published in Abstracts of Doctoral Dissertations (No. 38) by the Ohio State University Press, 1942.