Three New Zygnemataceae from Arkansas

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THREE NEW ZYGNETEMATAE 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 24–28μ x 39–71μ, conjugation scalariform, receptive gametangia inflated on the conjugation side; zygospores globose to ovoid 32–35μ x 32–35μ, outer wall of two colorless layers of which the outermost is smooth, the inner scrobiculate with pits 4–5μ in diameter and about 7μ apart; median wall punctate, yellow.

*Zygnema transeauianum* sp. nov.
Vegetative cells 30–32μ x 20–60μ; conjugation scalariform, receptive gametangia enlarged or slightly inflated on the conjugating side; zygospores globose to ovoid 25–35μ x 33–40μ, somewhat compressed; median spore wall yellow-brown reticulate with large irregular pits 7–12μ across.

*Spirogyra castanacea* sp. nov.
Vegetative cells 34–37μ x 100–173μ, 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, 48–52μ x 69–73μ, 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.