

MAINTAINING HYDRA CULTURES IN THE LABORATORY*

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A collection of Chara, varous algae, dead leaves and water was made from a pool near Shawnee, Oklahoma in February 1934. *Chlorohydra viridissima* (Pallas) was present in large numbers and a few brown hydra (species not identified) were present. The material was put into a three gallon rectangular aquarium and placed in a west window. The brown hydra died within a few weeks. *Chlorohydra viridissima* (Pallas) continued in abundance and about April first a sexual period began. Shortly it appeared that every individual was sexual, some having several testes and an ovary at the same time. The sexual condition continued until the latter part of May. No further sexual stages were observed until the following spring when they again became numerous, but not to as great an extent as during the previous spring. The third spring no sexual stages were observed, but Hydra were very abundant. During August, 1936, all traces of Hydra vanished form the aquarium, probably due to the water falling too low in the aquarium. (The care of the aquarium was left to janitors as I was away at that time.)

During the spring of the first year (1934) the top of a metal can was placed over the southwest corner of the aquarium to serve as a saucer for a fern pot. Under this shaded area numerous Hydra were present at all times. Sometimes they could not be found elsewhere in the aquarium. Occasionally the water level was allowed to fall nearly two inches from the top of the aquarium and the number of Hydra present was strikingly decreased. The raising of the water level with ordinary tap water was always followed by a rapid increase in number of Hydra.

