graph. The classification of plants is a young field of human endeavor; if stability has not been achieved in the few years since 1753, that is no reason to legislate stability at the sacrifice of accuracy. That we have accepted 1753 as a beginning date (instead of Adam, as at least one of our number has proposed) is sufficient of a compromise. Would it not be well to let the present system have a fair trial, let us say another thousand years?

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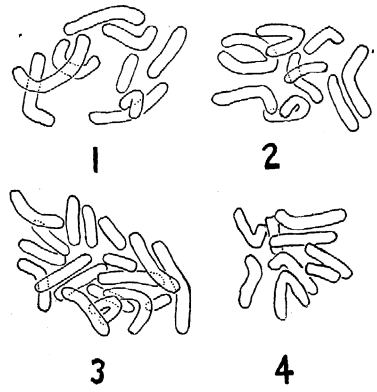
ANEUPLOIDY IN A HEPATIC SPECIES

INTRA-SPECIFIC aneuploidy in the Hepaticae has been reported by Haupt[1] in *Marchantia* species. The plants studied were hyperhaploids having one or more supernumerary chromosomes.

The chromosome number for the anacrogynous hepatic *Pallavicinia Lyellii* (Hook.) S. F. Gray has been established as n = 8, 2n = 16 by Moore,[2] Tatuno,[3] and Wolcott.[4] Male and female gametophytes of *P. Lyellii* collected near Milano, Texas, have recently been investigated. These plants have 9 chromosomes (Figs. 1, 2). Developing sporophytes from the same location



FIGS. 1–4. Metaphase chromosomes of *Pallavicinia Lyellii*. FIG. 1. From developing calyptra, female. FIG. 2. From growing tip of male thallus. FIG. 3. From developing sporophyte. FIG. 4. From growing tip of sexually undifferentiated thallus. FIGS. 1–3. Material from Milano, Texas. FIG. 4. Material from Wilmington, N. C. All material was fixed in Carnoy's fluid and smeared in aceto-carmine. All figures 1380 ×, made with the aid of a camera lucida.

possess 18 chromosomes (Fig. 3). A haploid count of 9 was also made in sexually undifferentiated thalli from Wilmington, North Carolina (Fig. 4). These two clones are then hyper-haploid. In the Texas material further investigations are being made to identify the extra chromosome.

An explanation of the origin of the aneuploid forms of *P. Lyellii* may be found in nuclear behavior during meiosis and spore formation. Since the aneuploid races were found during the past summer and meiosis takes place in *Pallavicinia* in March, no such investigation has been possible in aneuploids. However, in *P. Lyellii* (n = 8, 2n = 16) from Charlottesville, Virginia irregular meiosis is present as evidenced by occasional chromatin bridges during anaphase I and an uneven distribution of the chromosomes during telophase II. Following spore formation restitution nuclei and fragmented nuclei are seen. These observations (unpublished data) indicate the possibility of the formation of spores with aberrant chromosome numbers.

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EATING OF BONE BY THE PREGNANT AND LACTATING GRAY SQUIRREL

SINCE October, 1939, I have observed almost daily a group of five gray squirrels in my city back yard. A pair of them made a nest and wintered in one of the trees in the yard. I and neighbors feed them peanuts, various varieties of nuts and acorns. When the female became pregnant in the spring she began to eat, daily, old dried bone, some of the bones having been in the soil for from one to three years, and hence had lost all or nearly all animal flavor. At no time before the pregnancy did I observe this female eating bone. The males and the younger non-pregnant females have not been observed eating bones. This looks like a special "urge" or appetite for calcium and phosphorus during pregnancy and lactation in this species. But, of course, this is not established by this isolated observation. I should like to know whether others have noted this phenomena in the gray squirrel or related species, especially where these animals are kept in captivity.

There is evidence that some of the lower mammals and birds have some type of physiologic guide to an adequate diet, a guide or urge not clearly present in the human species, at least not in the adults. The pregnant or lactating mammal needs more calcium and phosphorus than the non-pregnant. But how is that need expressed in the animal's nervous system so that it leads to eating dried bones? There is abundant evidence of pregnancy inducing variations or fickleness of the appetite in the human species. But I know of no evidence of the appearance of a conscious urge (as distinct from knowledge) for the ingestion of more of the bone-forming salts during pregnancy and lactation.

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