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## 28th Annual Meeting, 1943. Abstracts of Papers

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3. **Notes on the Behavior of a Coral Snake in Captivity.** Cyril E. Abbott, Independence, Iowa. 5 minutes.
4. **Inherited Poliomyelitis.** Dr. Erwin, Henderson State Teachers College, Arkadelphia.
5. **Some Aspects of Arkansas Science in Service for the War Emergency.** D. M. Moore, University of Arkansas, Fayetteville. 10 minutes. Arkansas Science and scientists are contributing much and have potentialities for far greater contributions. Some of these in various fields--especially botanical--are pointed out.
6. **Suggestions for the Placement of Conservation in the Curriculum of Secondary Schools in Arkansas.** Irvin A. Wills, John Brown University, Siloam Springs. 10 minutes.

28th Annual Meeting May 6, 1944.

University of Arkansas School of Medicine, Little Rock, Arkansas

1. **Notes on the Nesting and Incubation of the Eastern Red-wing (A. P. Phoeniceus).** H. N. Marvin and Margaret Banta Marvin. U. of Arkansas, School of Medicine. The topography of a small marsh on Long Island, N. Y. made possible a rather detailed study of ten Red-wing nests. The resident male Red-wings arrived March 8, and nesting began May 10, 1942. The first eggs were laid one to five days after the nests were completed, followed by one egg each day for the next three days. Incubation began with the laying of the third egg and usually resulted in three eggs hatching on the fourteenth and one egg on the fifteenth day after the first egg was laid. Removal of eggs from one nest failed to increase the number of eggs laid, and the addition of eggs to one nest did not stop laying. All forty eggs hatched and all young lived to leave the nest. It was suggested that the later in the season the eggs hatched the less time the young remained in the nest. The male Red-wing is polygamous and very sharp territorial limits are observed among them. The males were not disturbed by nesting mallards and warblers but they were greatly excited when their territories were invaded by crows.
2. **Blood Cells of Reptiles and Birds Compared to Those of Mammals.** D. L. Ryerson, U. of Arkansas School of Medicine (Anatomy Department). While the red blood corpuscles of mammals lack nuclei, those of other vertebrates are true nucleated cells. These true cells possess mitochondria, Golgi material during development, and bodies staining with neutral red dye.

White blood cells of birds may be classified in the same groups that are found in mammals except that the place of the mammalian blood platelet is taken by true cells (thrombocytes). The leucocytes of turtles are similar to those of birds. Snakes and lizards, with only one recorded exception, do not possess cells which are counterparts of true eosinophiles of turtles, birds, and mammals.

Laboratory methods of studying blood cells, such as total cell counts, smears, and supravitality stained living cells, will be considered briefly.

3. **A Pedigree of Sex-linked Recessive Peroneal Atrophy.** W. G. Ervin. State Teachers College. Sex-linked peroneal atrophy is characterized by the inability to support weight on the heels, a gradual atrophy of the calf of the leg, severe pain

after prolonged use of the feet, and a marked reduction of efficiency in the use of the hands and fingers. The trait first becomes evident at about the fifteenth year and gradually grows worse. Complete disability seems to vary with individuals, but occurs in this family history quite late in life. This pedigree includes 7 generations and 78 individuals. A total of 7 affected males occur in generation II, IV and VI. The observed ratio of affected and normal males fits the expected ratio for a sex-linked recessive trait.

4. **Vitamin C in Home Processed Tomatoes.** (Progress Report). I. A. Wills. John Brown University.
5. **Some Exceptional Forms of Quartz.** H. E. Wheeler, Arkansas Geological Survey. Silicon dioxide, the most abundant compound in Nature constitutes 60% of the lithosphere, and free quartz forms not less than 12% of the earth's crust. The various forms of quartz number more than 200.

Taking the temperature and optical properties of quartz into consideration, six distinct types are recognized, - the alpha and beta modifications of Quartz, tridymite, and cristobalite.

Quartz has its origin by sublimation, fusion, or solution, a clear understanding of which enables us to interpret, many of the forms in which the mineral is found in nature.

Crystal habit, which sets us forth on delightful journeys through an infinitely varied territory, is specifically illustrated by two rare forms in Arkansas, cubic and exfoliated quartz. Certain other types are presented.

Inclusions in quartz list many minerals, some gases, and liquids, a few of which are not yet identified. Pseudomorphic forms have an intriguing interest as well as the several types of twinning.

Pertinent economic interest in quartz crystals center on their piezoelectrical nature and predicts for Arkansas an important development of her resources in the manufacture of radio oscillators and other scientific materials.

**29th Annual Meeting April 28, 1945.**

**University of Arkansas School of Medicine, Little Rock, Arkansas**

1. **Specific Gravity and Fluidity Factors of Glaze Slips.** E. S. Amos, Niloak Company, Little Rock.
2. **Some Ceramic Properties of Certain Pulaski and Saline County Clays.** W. E. Crockett, Niloak Company, Little Rock. Three typical clay types, outlined by Tracy in a 1944 United States Geological Survey publication were analyzed for ceramic properties. The desired data were correlated with possible industrial applications.
3. **Private Industrial Research Programs.** W. L. Belvin, Bureau of Research, University of Arkansas. The paper presented covered Private Industrial Research Programs. It dealt with the nature of industrial research, industrial research as a resource, costs of industrial research, industrial research for the small enterprise, how private industry uses public research agencies, economic and commercial research and something of which the future holds for continued research programs. It