group of Anophelines to be proved susceptible to experimental infection with malaria plasmodia.

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EROSION ON THE UPPER RIO GRANDE

IN view of the rapid developments in the field of watershed management, including the handling of lands to prevent destructive floods and accelerated erosion, it is desirable to briefly report outstanding results of a recent survey of the Upper Rio Grande watershed in New Mexico. The study was conducted by the U. S. Forest Service, which has been assigned primary responsibility for research relating to forest and range lands by the Secretary of Agriculture.

On 40 per cent. of the watershed in New Mexico above Elephant Butte Dam, deterioration of the natural vegetation has reached an extreme stage, and the lands are excessively eroded. On 35 per cent. of the area, the plant cover is in a medium stage of deterioration, and erosion is advanced. Evidences of accelerated erosion were found on parts of all the major vegetation-type areas, principally where utilization was uncontrolled.

The natural vegetation has deteriorated as the result of man's activities, principally overgrazing, timber cutting, fire and injudicious dry farming. As a result, accelerated erosion and silt-bearing floods are imperiling land resources and human welfare. Many settlers who formerly made a living by farming are being driven to depend more and more on the grazing of live stock. This has speeded up deterioration of the remaining forage resources and has unloosed a deluge of silt, which threatens to destroy irrigation agriculture in the Middle Rio Grande Valley and to displace the water storage capacity of Elephant Butte Reservoir within the century.

That surface run-off and soil erosion were controlled by natural vegetation for centuries is shown by the good condition of the ground surface of areas that still have protective cover. If land resources are to be preserved the lands must have a protective cover of vegetation. The vegetation on depleted lands must be restored by regulation of use and by artificial revegetation so as to rebuild watershed protective values.

A complete presentation of the results and their relation to land resources and human welfare will be published later this year.

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THE OCCURRENCE OF THE AMERICAN BISON IN ALABAMA AND FLORIDA

HORNADAY, in his monograph "The Extermination of the American Bison,"[1] calls attention to the lack of any records of the observation of the American Bison (*Bison Americanus*) in the state of Alabama, although it had been observed in Georgia and Mississippi. The discovery of authentic records of the occurrence of this animal in southern Alabama and adjacent Florida is of considerable interest.

I am indebted to Dr. C. E. Castañeda, of the Latin-American Library of the University of Texas, for transcripts of old Spanish documents relating to the expedition of Marcos Delgado from Apalachee to the Creek country in 1686. The expedition was sent out in an endeavor to discover the rumored colony of La Salle on the Gulf Coast and was perhaps the first penetration of this region since De Soto's time.

Delgado's description of the route of his outward journey is clear and permits quite close identification of his course. Writing of a portion of his path across the present Jackson County, Florida, in an area I identify as lying south of Russ Creek and northwest of Marianna, he says: "Y Caminando al norueste 2 leguas esta un barial que atolla que no lo podran pasar Cauallos en tiempo de aguas que alli Comencan a aber *Cibolas* q son un Genero de animales Como bacas."

And further writing of his passage across what I identify as the vicinity of the Little Choctawhatchee River, probably east of Beaver Creek in the westward extension of Houston County, Alabama, he says: "Caminando al norte Costeando Vn monte Grueso de Castanales Y aCevales Y laureles Y en medio tiene un Rio de 6 bracas de ancho Y dos bracas largas de hondo Y tiene el monte de travesia mas de un quarto de legua Y tiene muchas *Sibolas* Y osos."

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SCIENTIFIC BOOKS

EVOLUTION

Evolution. By A. FRANKLIN SHULL. McGraw-Hill Book Company, N. Y. 312 pp., 64 illustrations. 1936.

The Variation of Animals in Nature. By G. C. ROBSON and O. W. RICHARDS. Longmans, Green and Company, London, New York and Toronto. 425 pp. Two colored plates and 30 illustrations in the text. 1936.

THE topic of these books is fundamentally the same, although the first considers both plants and animals, the second only animals. The title of the second book

[1] Report, U. S. National Museum, 1887, p. 380.